

Last updated: 2 July 2010

## OXYBELUS

*Oxybelus* Latreille, 1796:129, no included species. Type species: *Crabro uniglumis* of Fabricius, 1775 [= *Vespa uniglumis* Linnaeus, 1758], designated by Latreille, 1802b:343 (first included species).

*Notoglossa* Dahlbom, 1845:514. Type species: *Notoglossa sagittata* Dahlbom, 1845 [= *Oxybelus lamellatus* Olivier, 1811], by monotypy.

*Alepidaspis* A. Costa, 1882b:35. Type species: *Alepidaspis diphyllus* A. Costa, 1882, by monotypy.

*Anoxybelus* Kohl, 1924:274. Type species: *Oxybelus maidli* Kohl, 1924, by monotypy.

*Gonioxybelus* Minkiewicz, 1934:251. Not available: type species not designated (Article 13.3).

*Orthoxybelus* Minkiewicz, 1934:251. Not available: type species not designated (Article 13.3).

*Gonioxybelus* Pate, 1937c:28. Validation of *Gonioxybelus* Minkiewicz, 1934. Type species: *Oxybelus nigripes* Olivier, 1811 [= *Apis trispinosa* Fabricius, 1787], by original designation.

*Orthoxybelus* Pate, 1937c:28. Validation of *Orthoxybelus* Minkiewicz, 1934. Type species: *Vespa uniglumis* Linnaeus, 1758, by original designation.

*Euoxybelus* Noskiewicz and Chudoba, 1950:300. Not available: type species not designated (Article 13.3).

*Latroxybelus* Noskiewicz and Chudoba, 1950:300. Type species: *Oxybelus latro* Olivier, 1811, by monotypy.

Keys: de Beaumont, 1942b:419 (Switzerland); Noskiewicz and Chudoba, 1950:315 (Silesia Region, Poland); Guiglia, 1953a (Italy); Blüthgen, 1954:143 (Central Europe); Guiglia, 1955 (Great Britain); Móczár, 1958c (Hungary); Bohar and Schlinger, 1957 (California); Tsuneki, 1982d:13 (Taiwan); Guichard, 1990b (Arabia); R. Bohart, 1992 (Chile), 1993c (*emarginatus* species group in South America), 1993d (*uniglumis* and *scutellatus* groups in South America), 1993e (Central America and Caribbean); Guichard, 1993b (Europe); Manikandan, Dey, and Farooqi, 1999 (India).

Nest guarding by male: Hook and Matthews, 1980.

Nest: Barth, 1910:120.

D. Peckham, 1991 (vivipositing by female sarcophagid used as prey, subsequent destruction of the wasp's progeny by the sarcophagid larvae).

Review of biology: Kazenas, 2001b:179.

### 1. *abdominalis* C. Baker

*Oxybelus abdominalis* C. Baker, 1896b:158, ♂. Holotype or syntypes: ♂, USA: Colorado: Fort Collins (USNM). – Strickland, 1947:127 (Canada: Alberta: Medicine Hat, Vermilion); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:158 (in checklist of North American *Oxybelus*, as *abdominale*), 1957:123 (in revision of Californian *Oxybelus*, as *abdominale*); Krombein, 1961a:81 (visiting flowers of mat euphorbia, *Euphorbia albomarginata*, as *abdominale*); R. Bohart and Menke, 1976:366 (listed); Krombein, 1979b:1653 (in catalog of North American Hymenoptera); Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Frommer, 1988:94 (California: Riverside County: Deep Canyon); R. Bohart, 1993e:160 (listed, geographic distribution), 161 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:43 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:151 (number of ovarioles). – As *Notoglossa abdominalis*: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae); H. Smith, 1908b:405 (in revision of Nebraskan Sphecidae); Mickel, 1918b:363 (in catalog of Nebraskan Sphecidae).

*Notoglossa calligaster* Viereck, 1906a:214, ♀. Holotype: ♀, USA: Kansas: Morton County: no specific locality (KU). Synonymized with *Oxybelus abdominalis* by R. Bohart and Schlinger, 1956c:158. – **As *Oxybelus calligaster***: Burks in Muesebeck et al., 1951:1031 (new combination, in catalog of North American Hymenoptera).

## 2. *acutissimus* Bischoff

*Oxybelus acutissimus* Bischoff, 1912:226, ♀. Holotype: ♀, Zaire: Awakubi on Aruwimi River W Lake Albert (ZMHU). – Arnold, 1927:82 (original description translated into English), 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:366 (listed).

## ssp. *propinquus* Arnold

*Oxybelus acutissimus* var. *propinquus* Arnold, 1927:83, ♀, ♂. Syntypes: Zimbabwe: Bulawayo, Khami, Sawmills; South Africa: Transvaal: Pietersburg, now Limpopo Province: Polokwane (SAM, TMP). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae), 1951:166 (Ethiopia: Haramaya). – **As *Oxybelus acutissimus propinquus***: R. Bohart and Menke, 1976:366 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Dollfuss, 2008:464 (locality records from Benin, Kenya, Malawi, Mozambique, South Africa, Tanzania, Zambia, and Zimbabwe).

## 3. *adductus* Kazenas

*Oxybelus adductus* Kazenas, 1994f:906, ♀, ♂. Holotype: ♀, Kazakhstan: Ili River 17 km NW village Bakanas (ZIN). – Kazenas, 2001b:36 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:89 (geographic distribution, collecting localities in Kazakhstan); Dollfuss, 2008:464 (locality records from Kazakhstan).

## 4. *admissus* Kazenas

*Oxybelus admissus* Kazenas, 1990:61, ♀. Holotype: ♀, Kazakhstan: Bakanas area (ZIN). – Kazenas, 2001b:36 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:89 (geographic distribution, collecting localities in Kazakhstan), 2008a:103 (Southeastern Kazakhstan: near Bakanas in Ili River valley).

## 5. *aestuosus* Bingham

*Oxybelus aestuosus* Bingham, 1897:318, ♂. Holotype: ♂, Burma: Tenasserim (BMNH). – Pate, 1938b:387 (in list of Oriental Oxybelini, as *aestuosum*); R. Bohart and Menke, 1976:366 (listed); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*).

## 6. *aethiopicus* Cameron

*Oxybelus aethiopicus* Cameron, 1906:328, sex not indicated. Holotype or syntypes: South Africa: Eastern Cape Province: Pearston (BMNH?). – Arnold, 1927:107, 108 (in revision of southern African *Oxybelus*), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:366 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Dollfuss, 2008:465 (locality records from South Africa).

## 7. *aganis* R. Bohart

*Oxybelus aganis* R. Bohart, 1993d:68, ♀, ♂. Holotype: ♀, Paraguay: San Pedro: Cororo-Upane (UCD). – R. Bohart, 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:43 (in catalog of Neotropical Crabronidae).

## 8. *agilis* F. Smith

*Oxybelus agilis* F. Smith, 1856:387, ♂. Holotype or syntypes: ♂, India: no specific locality (BMNH). – F. Smith, 1859a:18 (bibliographic reference to original publication), 1863:136 (in checklist of aculeate Hymenoptera of Eastern Archipelago); Cameron, 1890b:276 (in list of Oriental Sphecidae); Kohl, 1884b:110 (in list of known *Oxybelus*); Bingham, 1897:316 (in Wasp Fauna of British India); Dalla Torre, 1897:639 (in catalog of world Sphecidae); R. Turner, 1917e:190 (synonymy); nec Sonan, 1940b:21 (= *Oxybelus nipponicus formosus*); Pate, 1938b:387 (in list of Oriental Oxybelini, as *agile*); Iwata and Yoshikawa, 1961:399 (Thailand); R. Bohart and Menke, 1976:366

(listed); Tsuneki, 1977c:21 (Taiwan), 1977j:292 (Taiwan); Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:465 (Pakistan: Baluchistan: Awaran in Khudsar District).

*Oxybelus sabulosus* F. Smith, 1856:388, ♀. Holotype or syntypes: ♀, India: no specific locality (BMNH). Synonymized with *Oxybelus agilis* by R. Turner, 1917e:190. – Kohl, 1884b:115 (in list of known *Oxybelus*); Cameron, 1890b:276 (in list of Oriental Sphecidae); Bingham, 1897:316 (in Wasp Fauna of British India); Dalla Torre, 1897:647 (in catalog of world Sphecidae); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*).

### **ssp. taiwanus Tsuneki**

*Oxybelus agilis taiwanus* Tsuneki, 1982d:11, ♀, ♂. Holotype: Taiwan: Takao (BMNH). – Tsuneki, 1982d:13 (in key to *Oxybelus* of Taiwan); Hua, 2006:281 (in list of Chinese insects, geographic distribution).

### **9. albofasciatus Kazenas**

*Oxybelus albimaculatus* Kazenas, 1972b:178, ♂, junior primary homonym of *Oxybelus albimaculatus* Mickel, 1918. Holotype: ♂, Kazakhstan: Taldy-Kurgan Oblast': Panfilov, now Zharkent (ZIN). – R. Bohart and Menke, 1976:366 (listed).

*Oxybelus albofasciatus* Kazenas, 2001b:36. Substitute name for *Oxybelus albimaculatus* Kazenas. – Kazenas, 2002a:89 (geographic distribution, collecting localities in Kazakhstan, as nomen novum)

### **10. albipes F. Morawitz**

*Oxybelus albipes* F. Morawitz, 1894:345, ♀. Syntypes: ♀, Turkmenistan: Serax (ZIN). – Dalla Torre, 1897:638 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:366 (listed); Kazenas, 2001b:36 (in checklist of Sphecidae of Kazakhstan and Central Asia).

### **11. albopictus Radoszkowski**

*Oxybelus albopictus* Radoszkowski, 1877:73, ♀, ♂ (as *albo-pictus*, incorrect original hyphenation). Syntypes: Tajikistan: Varzaminor 70 km E Samarkand and Hodzha-Chiburgan (ZMMU). – Kohl, 1884b:110 (in list of known *Oxybelus*); F. Morawitz, 1893b:417 (Turkmenistan or Uzbekistan: Zaravshan River valley: Darkh); Dalla Torre, 1897:638 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:366 (listed); Kazenas, 2001b:36 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:89 (geographic distribution, collecting localities in Kazakhstan), 2004b:106 (Kazakhstan: western Tien Shan).

### **12. alexanderi Kazenas**

*Oxybelus alexanderi*, Kazenas, 2004a:209, ♀. Holotype: ♀, Kazakhstan: Almaty Oblast': 5-8 km E village Bakanas in Ili River valley (ZMMU).

### **13. alhumdalilleri Guichard**

*Oxybelus alhumdalilleri* Guichard, 1990b:280, ♂. Holotype: ♂, United Arab Emirates: El Futasi Island at 24°27'N, 54°23'E (BMNH).

### **14. americanus Spinola**

*Oxybelus americanus* Spinola, 1841:114, ♂. Lectotype: ♂, French Guiana: Cayenne (Torino), designated by R. Bohart, 1993a:189. – Kohl, 1884b:110 (in list of known *Oxybelus*); Dalla Torre, 1897:638 (in catalog of world Sphecidae); W. Fox, 1897b:386 (Brazil: Mato Grosso: Chapada do Guimaraes; also: Marurú); Burks in Muesebeck et al., 1995:1031 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:366 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); R. Bohart, 1993a:189 (diagnostic characters), 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:43 (in catalog of Neotropical Crabronidae), 2005a:11 (correction to his 2002 catalog). – **As *Notoglossa americana***: Brimley, 1938:450 (new combination, North Carolina: Aberdeen, Bogue, Bryson City, Fairmont, Raleigh).

**15. amoenus Kazenas**

*Oxybelus amoenus* Kazenas, 1994f:909, ♀. Holotype: ♀, Kazakhstan: Ili village on Ili River (ZIN). – Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:89 (geographic distribution, collecting localities in Kazakhstan).

**16. analis Cresson**

*Oxybelus analis* Cresson, 1865a:149, ♀, ♂. Lectotype: ♀, Cuba: no specific locality (ANSP), designated by Cresson, 1916:102. – Packard, 1867:435 (listed); Kohl, 1884b:110 (in list of known *Oxybelus*); Dalla Torre, 1897:638 (in catalog of world Sphecidae); Ashmead, 1900:305 (in checklist of Caribbean Hymenoptera); R. Bohart and Schlinger, 1956c:158 (in checklist of North American *Oxybelus*, as *anale*); Alayo Dalmau, 1968b:19 (in revision of Cuban Sphecidae), 1973:194 (in catalog of Cuban Hymenoptera), 1976:33 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:366 (listed); Simon Thomas, 1984:97 (Caribbean Islands: St. Martin Island); Sánchez and Genaro, 1992b:150 (Cuba: La Habana: Güines); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Genaro, 1993:769 (nesting habits); Cambra and Santos, 2000:53 (Panama: Parque Nacional Coiba in Isla de Coiba, Pacific Ocean); Amarante, 2002:43 (in catalog of Neotropical Crabronidae); Fernández, Sariol, Vega, Ricardo, González, and Portuondo, 2002:46 (Cuba: Provincia Granma); Portuondo and Fernández, 2004:135 (Cuba: Sierra Maestra and Nipe-Sagua-Baracoa mountains); Genaro, 2006:54 (in checklist of Cuban Sphecidae and Crabronidae; also: Isla de Juventud, Bahamas, first record from Eleuthera Island, first record from Hispaniola, St. Martin, Bermuda, Nicaragua).

**ssp. bimini Krombein**

*Oxybelus analis bimini* Krombein, 1953c:18, ♀, ♂. Holotype: ♂, Bahama Islands: North Bimini Island (AMNH). – R. Bohart and Menke, 1976:366 (listed); R. Bohart, 1993e:160 (listed, geographic distribution); Amarante, 2002:43 (in catalog of Neotropical Crabronidae).

**17. andinus Brèthes**

*Oxybelus andinus* Brèthes, 1913:143, ♀. Holotype or syntypes: ♀, Argentina: Salta: no specific locality (MNCN). – R. Bohart and Menke, 1976:366 (listed); Genise, 1990:26 (type material in MACN); R. Bohart, 1993a:189 (study of type, diagnostic characters), 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America), 1993e:160 (listed), 161 (in key to Central American and Caribbean *Oxybelus*); Hanson and Menke, 1995:640 (known from Costa Rica); Amarante, 2002:43 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

**18. angustus de Saussure**

*Oxybelus angustus* de Saussure, 1892:563, ♂. Holotype or syntypes: ♂, South Africa: no specific locality (MHNG). – Dalla Torre, 1897:638 (in catalog of world Sphecidae); Arnold, 1927:102 (in revision of southern African *Oxybelus*, description of ♀, South Africa), 1930:15 (in checklist of Afrotropical Sphecidae), 1935a:502 (South Africa: Kalahari); de Beaumont, 1967b:512 (South Africa: Cape Province); R. Bohart and Menke, 1976:366 (listed); Dollfuss, 2008:465 (locality records from Namibia and South Africa).

**19. antropovi Kazenas**

*Oxybelus antropovi* Kazenas, 2004a:207, ♀, ♂. Holotype: ♂, Kazakhstan: South Kazakhstan: 8 km SW Chardara (ZMMU). Paratypes: Turkmenistan. – Dollfuss, 2008:465 (locality records from Mongolia, Turkmenistan, and Uzbekistan).

**20. arabicus Guichard**

*Oxybelus arabicus* Guichard, 1990b:283, ♀, ♂. Holotype: ♀, Saudi Arabia: El Riyadh (BMNH). Paratypes: Oman, United Arab Emirates, Yemen, Jordan, Israel. – Guichard, 1991a:340 (Jordan); Gadallah and Assery, 2004a:225 (in catalog of Sphecidae of Saudi Arabia); Dollfuss, 2008:465 (locality records from Jordan).

## 21. *argentatus* Curtis

*Oxybelus argentatus* Curtis, 1833:pl. 480, sex not indicated. Holotype or synnyptes: Great Britain: no specific locality (BMNH). – Shuckard, 1837a:111 (in revision of British Aculeata); F. Smith, 1856:383 (as synonym of *Oxybelus mucronatus*); Kohl, 1884b:110 (in list of known *Oxybelus*); nec Aurivillius, 1904:299 (= *Oxybelus argentatus aculeatus*); R. Perkins, 1924a:227 (Great Britain: Devon); Stelfox, 1927:304 (records from Ireland are erroneous); Hamm and Richards, 1930:117 (summary of nesting habits), 126 (list of prey); Bouwman, 1932:390 (in revision of Sphecidae of Netherlands); Stelfox, 1934b:278 (Great Britain: Devon: Braunton Burrows); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Hallett, 1939:16 (Great Britain: Glamorgan: common on sandhills); J. Perkins, 1942:199 (Sweden: southern Skåne); Spooner, 1943:75 (Great Britain: King's Lynn); Verhoeff, 1948:173 (in revision of Western European *Oxybelus*); Chambers, 1949:227 (Great Britain: Bedfordshire); Fæster, 1949:17, 32, 35 (in revision of Western European *Oxybelus*); Guiglia, 1953a:79 (in revision of Italian *Oxybelus*); Blüthgen, 1954:145, 150 (in key to Central European *Oxybelus*), 154 (summary of locality records from Germany); Grandi, 1954:188 (nesting habits), 193 (description of mature larva); Tjeder, 1954:69 (Sweden: eastern Skåne: Löderup); Guiglia, 1955:103 (in revision of Great Britain *Oxybelus*); Hellén, 1955a:129 (Finland: Hirvas, Lappvik, Penisaari); Boreham, 1956b:248 (nesting habits); Evans, 1957b:113 (discussion of larva's description by Grandi, 1954); de Beaumont, 1958c:213 (Swiss National Park); Móczár, 1958c:292 (in revision of *Oxybelus* of Hungary, Hungary: Paks); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:162,165 (in key to Polish Sphecidae); Grandi, 1961:255 (nesting habits), 533 (description of larva); Valkeila, 1962b:68 (southwestern Finland, as *argentatus argentatus*); Erlandsson, 1963:66 (Denmark: Bornholm Island); de Beaumont, 1964c:160 (in Sphecid Fauna of Switzerland); Fæster, 1965:193 (Denmark: Hansted Nature Reserve); Stritt, 1968:111 (Germany: Baden-Württemberg); Schmidt, 1971b:52 (Germany: Mainz area; as *argentatus argentatus*); Balthasar, 1972:151 (in Sphecid Fauna of Czechoslovakia); Kofler, 1972:116 (Austria: eastern Tirol); Lomholdt, 1972:123 (Denmark: Læsø Island); Simon Thomas, 1972:187 (France: Gironde, Lot-et-Garonne); Haeseler, 1973:55 (Germany: Schleswig-Holstein: Segrahner Berg 12 km SE Mölln); Lomholdt, 1975b:32 (Denmark: Anholt Island, as *argentatus argentatus*); R. Bohart and Menke, 1976:366 (listed); Haeseler, 1976b:73 (Germany: Friesian Islands: Amrum Island); Lomholdt, 1976:277, 279 (in Sphecid Fauna of Fennoscandia and Denmark); Simon Thomas, 1976:6 (France: Lot-et-Garonne); Guichard, 1977:253 (Great Britain: Surrey); Hoop, 1977:73 (Germany: Schleswig-Holstein: St.Peter-Ording); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Schmidt, 1977/78:59 (Germany; as *argentatus argentatus*); Haeseler, 1978c:195 (Germany: Friesian Islands: Borkum Island); Marion, 1978:91 (France: Nièvre Department); Pulawski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Leclercq, Gaspar, and Verstraeten, 1979:map 1422 (Belgium); Richards, 1979:399 (British Channel Islands), 1980:60 (in key to Sphecidae of British Isles); Haeseler, 1981:51 (Germany: Friesian Island: Amrum Island); Petit, 1981:12 (locality records from Belgium and Netherlands); Donath, 1982:215 (Germany: Cottbus Bezirk); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983b:12 (in catalog of Sphecidae of Austria); Józán, 1983:102 (Hungary; as *argentatus argentatus*); Lefeber, 1983a:85 (Netherlands: Waddendistrict: northern coast sand dunes, Western Friesian Islands); Haack, Tschardtke, and Vidal, 1984:130 (Germany: Hamburg area); Janzon and Svensson, 1984:183 (Sweden: Öland Island); Haeseler, 1985c:571 (Germany: Friesian Islands; as *argentatus argentatus*); Józán, 1985b:58 (Hungary: Darány: Barcsi borókás; as *argentatus argentatus*), 79 (floral records), 84 (ecological and zoogeographic characteristics); Nemkov, 1986:100 (Russia: Siberia: Irkutsk Oblast'); Riemann, 1987b:42 (Germany: Niedersachsen: Nature Reserve Dünengebiet near Neumühlen); Schmidt and Westrich, 1987:375 (Germany: Mainz area; as *argentatus argentatus*); Chevin, 1988:15 (France: La Manche Department); Dollfuss, 1988:25 (Austria: Niederösterreich: Oberweiden); Kowalczyk, 1988b:66 (Poland: environs of Łódź); Wolf, 1988b:141 (Germany: Rheinland-Westfalen); Archer, 1989b:232 (Great Britain: Suffolk); Jacobs, 1989:15 (Germany: Mecklenburg-Vorpommern); Pádr in Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:174 (new records from Democratic Germany); Pagliano, 1990:78 (in catalog of Italian Sphecidae); Schwammerberger and Priesner, 1990:541 (Austria: Kärnten); Chinin, 1991:111 (Russia: Samara

Oblast'); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Kowalczyk, 1991a:91, 94 (Poland: Łódź); Kuhlmann et al., 1991:91 (Germany: Senne Region); Pagliano, 1991b:329, 331 (in key to Italian Crabroninae); H.-J. Schulz, 1991:31 (Germany: Oberlausitz: 5 km SW Wittichenau); Archer, 1992c:218 (Great Britain: Wales); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Józán, 1992b:174 (Hungary: Boronka-melléki Protected Area); Archer, 1993:46 (Great Britain: Channel Islands); Bitsch and Leclercq, 1993:246 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Kuhlmann, 1993:77 (Germany: known from Westfalen); Leclercq, 1993c:45 (references to recent publications); Felton and Schneider, 1994:290 (Luxemburg); Kowalczyk, 1994:76 (Poland: Łagiewniki forest in Łódź); Theunert, 1994c:45 (summary of records from Niedersachsen and Bremen, Germany); Gusenleitner, 1995:161 (Austria: Steiermark); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:422 (in key to Sphecidae of Russian Far East); Scharrer, 1995:27 (Germany: Bayern: Aschaffenburg, Kahl); Schmid-Egger, Risch, and Niehuis, 1995:199 (summary of records from Germany: Rheinland-Pfalz Province); Arens, 1996:441 (Germany: Bayern: Bayreuth area); Pawlikowski and Kruszyński, 1996:87 (Poland: Toruń Basin); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg); Celary, 1997:58 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:21 (in checklist of German Sphecidae); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Haeseler and Ritzau, 1998:51 (Germany: Bremen: Steller Heide); van der Smissen, 1998:64 (Germany: Schleswig-Holstein: Bröthen, Segrahner Berg); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Archer, 1999a:9 (Great Britain: Lancashire), 1999c:106 (prey: *Thereva nobilitata* Fabricius); Herrmann, 1999:7 (Germany: Niedersachsen: Oldenburg area; habitats size); Kuhlmann, Wolf, and Woydak, 1999:569 (threatened with extinction in Nordrhein-Westfalen State of Germany); Mandery, 1999:105 (Germany: Bayern: Coburg area); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:109 (in catalog of Belgian aculeates); M. Schwarz, 1999:86 (Austria: Oberösterreich: city of Linz area); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Blösch, 2000:259 (in Sphecid Fauna of Germany); Dressler, 2000:33 (Germany: Hessen: Darmstadt area); Jacobs, 2000:8, 17 (Germany: Land Mecklenburg-Vorpommern: vulnerable); Zettel, 2000:29 (Austria: Drösing); Ohl et al., 2001:140 (distribution in Germany by provinces); Skibińska, 2001:220 (Poland: Białowieża Primeval Forest); Kowalczyk, Szczepko, and Świątek, 2002:154 (Poland: Kampinos National Park near Warszawa); Shlyakhtenok and Skibinska, 2002:33 (Belarus': no specific locality); Drewes, 2003:140 (Germany: miscellaneous locality records); Kowalczyk and Kurzac, 2003:209 (Poland: Łódź: Botanical Garden); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Tischendorf and Treiber, 2003:121, 125 (Germany: Hessen: 15 km SW Frankfurt am Main: nesting under high power lines); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:194, 197 (probably endangered); Archer, 2004:47 (Great Britain: Worcestershire: Devils Spittleful Nature Reserve); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); Szczepko and Kowalczyk, 2004:126 (Poland: Kampinos National Park near Warszawa); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Haeseler, 2005:629 (Germany: Niedersachsen: Steller Heide near Bremen); Kofler, 2005:174 (Austria: Tirol: Lienz District: Ainet, Thal Aue in Assling Common, Lavant, Burgfrieden in Leisach Common, Huben Kienburg in Matri Common); Kraatz, 2005:103 (Germany: Niedersachsen: Bümmerstede near Oldenburg); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Pagliano and Negrisoló, 2005:206 (in Sphecid Fauna of Italy); Reder, 2005:951 (Germany: Rheinland-Pfalz: Eisenberg, Worms); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Archer, 2007a:151

- (Great Britain: Norfolk: Thetford Warren Lodge), 2008a:144 (Great Britain: Cumbria: North Walney Nature Reserve and Sandscale Haws); Baños-Picón, Gayubo, Asís, and González, 2007:256, 259 (Spain: Zamora: Cabañas de Aliste); Jacobs, 2007:114, 118 (in key to Crabronidae of Germany); Kowalczyk and Nadolski, 2007:284 (Poland: Łódź: railway areas); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Venne, Bleidorn, and Lauterbach, 2007:302 (Germany: Nordrhein-Westfalen: Bielefeld); Danilov, 2008:349 (Russia: Altayskiy Krai: Barnaul area); Dollfuss, 2008:465 (Bulgaria: Bachkovo in Rhodopi Mts.); Haeseler, 2008:308 (Germany: Friesian Islands); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); U. Frommer, 2009a:28 (Germany: in checklist of Sphecidae of Hessen); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Nemkov, 2009b:90 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: rare).
- As *Oxybelus mucronatus*: F. Smith, 1857a:35 (England); Schenck, 1857:111 (in revision of fossorial wasps of Nassau Region, Germany), 1860:146 (Germany: Nassau Region), present correction based on synonymy with *argentatus* [as *argenteus*] given by author; E. Saunders, 1902b:143 (Great Britain: Channel Islands: Jersey Island; France: Bretagne: St. Briac) and 1907b:67 (Great Britain: West Suffolk and Eastbourne), corrected to *Oxybelus argentatus* by R. Perkins, 1919a:9; Dittrich, 1911b:20 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region), present correction; Hallett, 1916:221 (Great Britain: South Wales: Porthcawl); Dubois, 1921c:19191, 192, 193 (in key to Belgian Sphecidae), present correction based on author's synonymy; A. Wagner, 1938a:118 (northwestern Germany), present correction based on the author's synonymy; Balthasar, 1972:149 (in Sphecidae Fauna of Czechoslovakia).
- ? *Vespa decimmaculata* Donovan, 1806:43, sex not indicated (as *decim-maculata*, incorrect original hyphenation). Holotype: England: Kent: no specific locality (depository?). – R. Bohart and Menke, 1976:367 (listed as questionable synonym of *Oxybelus argentatus*).
- Oxybelus ferox* Shuckard, 1837a:108, ♂. Holotype or syntypes: ♂, Britain: London area (depository unknown). Synonymized with *Oxybelus argentatus* (as *Oxybelus mucronatus*) by F. Smith, 1856:383. – D. Baker, 1998:172 (type origin and depository).
- Oxybelus nigricornis* Shuckard, 1837a:112, ♀, ♂. Syntypes: Britain: no specific locality (BMNH). Synonymized with *Oxybelus argentatus* by ... – von Siebold, 1839:49 (Germany: Danzig, now Poland: Gdańsk); Dahlbom, 1844:267 (original description copied) and 1845:512 (in key to *Oxybelus*), determination corrected to *Oxybelus fasciatus* by Thomson, 1870:179; Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Leipzig and Oberlausitz area); F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); Brischke, 1862:104 (Germany: Preussen Province, now Poland: Pomorze Region), 1864:209 (*Oxybelus nigricornis* is a synonym of *bellicosus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Kohl, 1884b:114 (in list of known *Oxybelus*); Dalla Torre, 1897:645 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera); D. Baker (type origin and depository).
- ssp. *aculeatus* Thomson**
- As *Oxybelus mucronatus*: Dahlbom, 1842a:13 (in review of Scandinavian aculeates), 1844:177 (in revision of Sphecidae and Pompilidae), and 1845:512 (in key to *Oxybelus*), corrected to *Oxybelus aculeatus* by Thomson, 1870:177.
- Oxybelus aculeatus* Thomson, 1870:177, ♀, ♂. Syntypes: Sweden: Skåne: no specific locality (LUND). – Thomson, 1874:289 (in revision of Hymenoptera of Scandinavia); F. Morawitz, 1893a:115 (Russia: Karelian Isthmus); Borries, 1897:76 (nesting habits unknown). – As *Oxybelus argentatus* var. *aculeatus*: Dalla Torre, 1897:645 (new status, in catalog of world Sphecidae). – As *Oxybelus argentatus aculeatus*: P. Verhoeff, 1948:177 (new status, in revision of Western European *Oxybelus*); Fahlander, 1957:63 (Sweden); R. Bohart and Menke, 1976:367 (listed); Lomholdt, 1976:279 (in Sphecidae Fauna of Fennoscandia and Denmark); Pulawski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Lomholdt, 1987:93 (Denmark: western Jutland: Skallingen Peninsula); Kuznetzova, 1990:25 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve).

*Oxybelus quatuordecimnotatus* Dahlbom, 1845:513, ♂ (as *14-notatus*, incorrect original spelling), junior primary homonym of *Oxybelus quatuordecimnotatus* Jurine, 1807 (Dahlbom misspelled the latter name as *quatuordecim-guttatus*). Syntypes: France: no specific locality (LUND). Synonymized with *Oxybelus argentatus aculeatus* by ... *Oxybelus dahlbomi* Schulz, 1906:211 (as *Dahlbomi*, incorrect original capitalization). Substitute name for *Oxybelus quatuordecimnotatus* of Dahlbom, 1845.

As *Oxybelus argentatus*: Aurivillius, 1904:299 (in revision of Swedish Sphecidae), present correction.

As *Oxybelus mucronatus*: Westerlund, 1893:28 (Russia: Karelian Republic: northern shore of Lake Ladoga, *Oxybelus aculeatus* given as a synonym).

### **ssp. *bouwmani* P. Verhoeff**

*Oxybelus argentatus bouwmani* P. Verhoeff, 1948:175, ♀, ♂. Holotype: ♀, Netherlands: Hilversum (RMNH). – Blüthgen, 1954:145, 150 (in key to Central European *Oxybelus*); Benno, 1958b:18 (in review of Dutch Sphecidae); Wolf, 1958:16 (Germany: Hessen: Darmstadt), 1959b:36 (Germany: Nassau); Valkeila, 1962b:68 (southwestern Finland); Hoop, 1963b:7 (Germany: Schleswig-Holstein: Lehmrade); Benno, 1967:38 (in checklist of Sphecidae of Netherlands); R. Bohart and Menke, 1976:367 (listed); Lomholdt, 1976:279 (in Sphecid Fauna of Fennoscandia and Denmark); Simon Thomas and Wiering, 1976:109 (Netherlands); Lefeber, 1976:152 (Belgium: Zonhoven, prey: *Thereva nobilis*); Petit, 1980:43 (Belgium: Aayen), 1981:12 (locality records from Belgium and Netherlands, variation); Lefeber, 1983a:85 (Netherlands: Waddendistrict: northern coast sand dunes); Vikberg, 1986:76 (Finland); Pauly, 1999:109 (in catalog of Belgian aculeates, as *bowmanni*); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands).

### **ssp. *debeaumonti* P. Verhoeff**

*Oxybelus argentatus debeaumonti* P. Verhoeff, 1948:178, ♀, ♂. Holotype: ♀, Switzerland: Valais: Martigny (Lausanne). – Grandi, 1954:244 (Italy); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Leistadt); Kofler, 1972:116 (Austria: eastern Tirol); R. Bohart and Menke, 1976:367 (listed); Pulawski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Petit, 1981:13 (first record from Belgium: Vance, comparison with *argentatus bouwmani*); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Pagliano, 1990:78 (in catalog of Italian Sphecidae); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Pauly, 1999:109 (in catalog of Belgian aculeates); Vepřek, 2006:510 (Czech Republic: Kokořínsko area); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Bohemia and Moravia), 226 (all specimens recorded from Bohemia by Zavadil, Šusterka, and Bat'a, 1937:170, belong to this subspecies; ional locality records from Bohemia and Moravia) .

*Oxybelus argentatus gerstaeckeri* P. Verhoeff, 1948:179, ♀, ♂. Holotype: ♀, s. France: no specific locality (MNHN, coll. Pérez). Synonymized with *Oxybelus argentatus debeaumonti* by Bitsch and Leclercq, 1993:248. – Leininger, 1951:116 (Germany: Baden-Württemberg: Karlsruhe, Sandhausen, Schwetzingen); de Beaumont, 1952b:90 (Marquet's 1896 specimens), 1954e:98 (Italy); Bischoff and Stadler, 1954:127 (Germany: Bayern: Romberg); Blüthgen, 1954:150 (in key to Central European *Oxybelus*); Zirngiebl, 1957:177 (Germany: Rheinland-Pfalz: Pfalz region); de Beaumont, 1958c:213 (Swiss National Park); Wolf, 1959b:36 (Germany: Nassau), 1960:98 (Sweden); Hoop, 1961:64 (Germany: Schleswig-Holstein: Wahlstedt); Mingo Pérez, 1966:80 (in revision of *Oxybelus* of Iberian Peninsula); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Benedek, 1968:78 (Hungary, visiting flowers of Umbelliferae); Oehlke, 1970:792 (Democratic Germany); R. Bohart and Menke, 1976:367 (listed); Lomholdt, 1976:279 (in Sphecid Fauna of Fennoscandia and Denmark); Gayubo, 1982b:8 (N Spain: Sierra de Béjar), 1984b:96 (Spain: previously recorded from Salamanca Province); Brechtel, 1986:73 (Germany: Südpfalz); Gayubo and Heras, 1986:48 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:57 (Spain: Burgos); Józán, 1986:371 (Hungary: Kiskunság National Park); Karsai, 1988:100 (Hungary: Kiskunság National Park); Gayubo, Asís, and Tormos, 1990b:74 (Spain: Salamanca Province); Wickl and Wickl, 1994:194 (Germany: Bayern: Oberpfalz); Blösch, 1996:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Woy-



dak, 1996:46 (Germany: Westfalen: summary of distribution and nesting habits); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Blösch, 2005:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Bitsch and Leclercq, 2009:228 (in supplement to vol. I of Faune de France, 1993: recent records from Bavaria, Italy, and Spain recorded).

As *Oxybelus mucronatus*: Marquet, 1896:16 (France), corrected to *Oxybelus argentatus gerstaeckeri* by de Beaumont, 1952b:90; Schirmer, 1912:165 (Germany: Berlin area) and Balthasar, 1941b:112 (Czech Republic: eastern Moravia), present correction based on geographic distribution.

### **ssp. mongolicus Tsuneki**

*Oxybelus argentatus mongolicus* Tsuneki, 1972a:159, ♀, ♂. Holotype: ♀, Mongolia: Tsoybalsan Aymag: Hamar-daava (TMB). – R. Bohart and Menke, 1976:367 (listed); Dollfuss, 2008:465 (locality records from Mongolia).

### **ssp. treforti Sajó**

*Oxybelus treforti* Sajó, 1884:87, ♀ (as *Treforti*, incorrect original capitalization). Lectotype: ♀, Hungary: Örszentmiklós (TMB), designated by Móczár, 1958c:296. – Kohl, 1884b:104 (description of ♂), 115 (in list of known *Oxybelus*); Dalla Torre, 1897:649 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Hungary: Kis-Szentmiklós near Budapest); Šnoflak in Zavadil and Šnoflak, 1948:32, 38 (in key to Czechoslovakian Sphecidae). – As *Oxybelus mucronatus* var. *treforti*: Maidl in Schmiedeknecht, 1930:661, 664 (new status, in keys to Hymenoptera of North and Central Europe); Zavadil, 1932:95 (Czechoslovakia), 1939:121 (Czech Republic: Morava: Mutěnice); Balthasar, 1941a:105 (Czech Republic: Bzenecko area); Cavno, 1950:41 (France: Département du Nord). – As *Oxybelus argentatus treforti*: P. Verhoeff, 1948:179 (new status, in revision of Western European *Oxybelus*); Móczár, 1958c:292 (in revision of *Oxybelus* of Hungary); R. Bohart and Menke, 1976:367 (listed); Pulawski, 1978:275, 275 (in key to Sphecidae of European part of former USSR); Józán, 1983:102 (Hungary), 1985a:181 (Hungary), 1985b:58 (Hungary: Barcsi borókás), 84 (ecological and zoogeographic characteristics), 1986:371 (Hungary: Kiskunság National Park); Dollfuss, 1989:11 (type material in NHMW); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Moravia and Slovakia); 227 (locality records from Moravia and Slovakia).

## **22. argenteopilosus Cameron**

*Oxybelus argenteopilosus* Cameron, 1891a:158, ♀. Holotype or syntypes: ♀, Mexico: Guerrero: Venta de Zopilote (BMNH). – Dalla Torre, 1897:638 (in catalog of world Sphecidae); R. Bohart and Schlinger, 1956c:158 (in checklist of North American *Oxybelus*, as *argenteopilosum*), 1957:123 (in revision of Californian *Oxybelus*, as *argenteopilosum*); Horning and Barr, 1970:106 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1653 (in catalog of North American Hymenoptera); Frommer, 1988:94 (California: Riverside County: Deep Canyon); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Hanson and Menke, 1995:640 (known from Costa Rica, as *argentiopilosus*); Amarante, 2002:43 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:151 (number of ovarioles); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 46 (Mexico: Tamaulipas). – As *Belomicrus argenteopilus* [lapsus]: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

## **23. argentinus Brèthes**

*Oxybelus argentinus* Brèthes, 1913:140, ♀, ♂. Lectotype: ♀, Argentina: Salta: no specific locality (MNCN), designated by R. Bohart, 1993a:189. – R. Bohart and Menke, 1976:367 (listed); Genise, 1990:26 (type material in MACN); R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:43 (in catalog of Neotropical Crabronidae).

#### 24. *argypheus* R. Bohart and Schlinger

*Oxybelus argypheus* R. Bohart and Schlinger, 1956a:38, ♀ (as *argyphem*, incorrect original termination). Holotype: ♀, USA: California: San Diego County: Borrego Springs (CAS). – R. Bohart and Schlinger, 1956c:158 (in checklist of North American *Oxybelus*, as *argyphem*), 1957:119 (in revision of Californian *Oxybelus*, as *argyphem*); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1653 (in catalog of North American Hymenoptera); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

#### 25. *arnoldi* Benoit

*Oxybelus arnoldi* Benoit, 1951:132, ♀ (as *Arnoldi*, incorrect original capitalization). Holotype: ♀, Zaire: Tshuapa, Eala (MRAC). – R. Bohart and Menke, 1976:367 (listed).

#### 26. *aurantiacus* Mocsáry

*Oxybelus aurantiacus* Mocsáry, 1883:48, ♀. Holotype or syntypes: ♀, Hungary: Budapest (TMB, lost). Neotype: sex not indicated, Hungary: Fajsz (TMB), designated by Móczár, 1958c:297. – Kohl, 1884b:111 (in list of known *Oxybelus*); Radoszkowski, 1886a:37 (Turkmenistan, as *aurantiaca*), 1893a:72 (Turkmenistan); Dalla Torre, 1897:638 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Hungary: Kis-Szentmiklós); Maidl in Schmiedeknecht, 1930:661, 664 (in keys to Hymenoptera of North and Central Europe); Zavadil, 1937a:72 (eastern Slovakia); Zavadil, Šusterka, and Bat'a, 1937:173 (in catalog of Sphecidae of Czechoslovakia); Balthasar, 1948:141 (Slovakia: Kovačov); Šnoflak in Zavadil and Šnoflak, 1948:33, 36 (in key to Czechoslovakian Sphecidae); de Beaumont, 1950f:421 (southern Algeria); Zavadil, 1951:86 (Slovakia: Kovačov, Somotor); Guiglia, 1953a:140 (in revision of Italian *Oxybelus*, occurring in Hungary, southern Russia, southern France, Morocco, Algeria); Vogrin, 1955:44 (Yugoslavia); de Beaumont, 1957a:157 (Morocco); Móczár, 1958c:297 (in revision of *Oxybelus* of Hungary, description of ♂); Puławski, 1958a:189 (Bulgaria: Aitos; redescription of ♀); de Beaumont, 1960a:24 (Greece: Island of Rhodes); Puławski, 1964:146 (Egypt: Abydos, Abu Rawash, Ghiza, Kom Osheim); de Beaumont, 1965a:63 (Greece); Mingo Pérez, 1966:96 (in revision of *Oxybelus* of Iberian Peninsula; first record from Spain and Portugal); de Beaumont, 1967a:364 (Turkey); Benedek, 1969a:85 (Hungary: marshy meadow); Balthasar, 1972:164 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:178 (Kazakhstan); de Beaumont, Bytinski-Salz and Puławski, 1973:25 (Israel); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); R. Bohart and Menke, 1976:367 (listed); Puławski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Gayubo, 1982b:8 (Spain: Ávila: Medinilla; Cáceres: Cabezuela del Valle; Salamanca: Peromingo); Józán, 1983:102 (Hungary); Gayubo, 1984b:96 (Spain: previously recorded from Salamanca Province); Józán, 1985b:58 (Hungary: Barcsi borókás), 79 (floral records), 84 (ecological and zoogeographic characteristics); Gayubo, 1986d:114 (Spain: Zamora Province); Gayubo and Heras, 1986:49 (Spain: Segovia Province); Gayubo and Sanza, 1986:57 (Spain: Burgos); Islamov, 1986:532 (Uzbekistan: Tashkent Oblast'); Józán, 1986:371 (Hungary: Kiskunság National Park); Karsai, 1988:100 (Hungary: Kiskunság National Park); Dollfuss, 1989:11 (type material in NHMW); Pádr in Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Guichard, 1990b:283 (Saudi Arabia, Yemen); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Bitsch and Leclercq, 1993:249 (in revision of western European Crabroninae); Guichard, 1993b:530 (in key to European *Oxybelus*); Leclercq, 1993c:45 (Greece: Rhodes: Kremasti); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Wu and Zhou, 1996a:106 (in revision in Economic Insect Fauna of China); Nazarova, 1998:41 (Tajikistan: Tigravaya Balka Nature Reserve); Gayubo, González, and Torres, 2000:186 (Spain: Salamanca Province); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:89 (geographic distribution, collecting localities in Kazakhstan), 2004b:106 (Kazakhstan: western Tien Shan); Gadallah and Assery, 2004a:226 (in catalog of Sphecidae of Saudi Arabia); Nazarova, 2004:107 (Tajikistan: Badakhshan Region: Dasht, Rushan, and Visav), 2005:94 (alfalfa fields in southwestern Tajikistan); Hua, 2006:281 (in list of Chinese insects, geographic

distribution); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Ljubomirov and Yildirim, 2008:248 (in catalog of Crabronidae of Turkey); Dollfuss, 2008:465 (locality records from Bulgaria, Greece, Hungary, Jordan, Kazakhstan, Kyrgyzstan, Mongolia, Morocco, Pakistan, Slovakia, Spain, Syria, Tadjikistan, Turkmenistan, and Turkey); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia).

*Oxybelus rufitarsis* F. Morawitz, 1894:347, ♀. Syntypes: ♀, Turkmenistan: Serax (ZIN). Synonymized with *Oxybelus aurantiacus* by Pulawski, 1965c:576. – Dalla Torre, 1897:647 (in catalog of world Sphecidae).

### 27. *aurifrons* F. Smith

*Oxybelus aurifrons* F. Smith, 1856:389, ♀. Holotype or syntypes: ♀, Brazil: no specific locality (BMNH). – Kohl, 1884b:111 (in list of known *Oxybelus*); Strand, 1910a:157 (Paraguay); Dalla Torre, 1897:638 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); R. Bohart, 1993a:190 (study of type, diagnostic characters), 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

### 28. *ayuttayanus* Tsuneki

*Oxybelus ayuttayanus* Tsuneki, 1974b:655, ♀, ♂. Holotype: ♂, Thailand: Ayuttaya (T. Tano coll., Fukui). – R. Bohart and Menke, 1976:629 (listed).

### 29. *aztecus* Cameron

*Oxybelus aztecus* Cameron, 1891a:157, sex not indicated. Holotype or syntypes: Mexico: Veracruz: no specific locality (BMNH). – Dalla Torre, 1897:638 (in catalog of world Sphecidae); R. Bohart and Schlinger, 1956c:158 (in checklist of North American *Oxybelus*, as *aztecum*); R. Bohart and Menke, 1976:367 (listed); D. Peckham, 1985:866 (nesting habits); R. Bohart, 1993e:160 (listed, geographic distribution); Hanson and Menke, 1995:640 (known from Costa Rica); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae). – As *Notoglossa azteca*: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

### 30. *bareii* Radoszkowski

*Oxybelus bareii* Radoszkowski, 1893c:243, ♀, ♂ (as *Bareii*, incorrect original capitalization). Syntypes: Turkmenistan: Ashkhabad, Serax (Kraków). – Dalla Torre, 1897:638 (in catalog of world Sphecidae, as *bargii*); R. Bohart and Menke, 1976:367 (listed); Dollfuss, 2008:466 (Turkmenistan: 15 km N Ashkhabad and Sandzikatzi area).

### 31. *bechuanae* Arnold

*Oxybelus bechuanae* Arnold, 1936:33, ♂. Holotype: ♂, Botswana: Kuruman (TMP). – R. Bohart and Menke, 1976:367 (listed); Dollfuss, 2008:466 (Namibia: Rundu, South Africa: Northern Cape Province: Van Zylsrus).

### 32. *bicornutus* Arnold

*Oxybelus bicornutus* Arnold, 1929c:412, ♀. Holotype: ♀, Namibia: Mafa (SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae), 1935a:502 (South Africa: Kalahari); R. Bohart and Menke, 1976:367 (listed); Dollfuss, 2008:467 (Namibia: 100 km NE Grootfontein, 100 km SW Rundu)..

### 33. *bipunctatus* Olivier

*Oxybelus bipunctatus* Olivier, 1812b:597, [♀]. Holotype or syntypes: ♀, France: Paris area (lost). – Vander Linden, 1829:40 (bibliographic references, Belgium: Bruxelles, France: Paris); Lepeletier de Saint Fargeau, 1845:220 (in revision of world Hymenoptera; Paris area); Wesmael, 1852:626 (Belgium); F. Smith, 1856:384 (in catalog of Hymenoptera in British Museum); Schenck, 1857:112 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:119 (in key to Sphecidae of Germany); Funk, 1859:58 (Germany: Bayern: Bamberg); Schenck, 1860:146 (Germany: Nassau Region), 1861:142 (Germany: Hessen: Weilburg); Brischke, 1862:105 (Germany: Preussen Province, now Poland: Pomorze Region); Giraud, 1863a:15 (France: Hautes-Alpes: Vallouise near Brian-

con); Taschenberg, 1866:162 (in revision of Hymenoptera of Germany); Gerstaecker, 1867a:77 (in revision of *Oxybelus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region); Chevrier, 1868:410 (in revision of Swiss *Oxybelus*); Wierzejski, 1868:117 (Ukraine: Podole Region); Aichinger, 1870:315 (Austria: Tirol); P. Ivanov, 1872:151 (Ukraine: Khar'kov Oblast': Kupyansk area); Dours, 1874:153 (in catalog of Hymenoptera of France); Wierzejski, 1874:261 (Poland: Żegiestów; Ukraine: L'viv and Podole Region: Sinków); Taschenberg, 1875:380 (Germany: Halle); Radoszkowski, 1877:74 (Uzbekistan: Zaravshan valley; Kazakhstan: Kyzil-Kum); Kohl, 1880:144 (Austria: Tirol, and Italy: Trentino–Alto Adige), 221 (prey: Diptera *Homalomyia incisurata* Z.H. and *Onesia cognata* Meigen); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); Kohl, 1883e:662 (Switzerland); Sickmann, 1883:80 (Germany: Niedersachsen: Wellingholthausen); Kohl, 1884b:111 (in list of known *Oxybelus*); Radoszkowski, 1886a:37 (Turkmenistan); Brischke, 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region), 1889:204 (Germany: Steegen E Danzig, now Poland: Stegna E Gdańsk); Kohl, 1893a:33 (Austria: Niederösterreich); F. Morawitz, 1893a:115 (Russia: Karelian Isthmus); Sickmann, 1893:91 (Germany: Niedersachsen: Iburg); Westerlund, 1893:28 (Russia: Karelian Republic: northern shore of Lake Ladoga); Krieger, 1894:11 (Germany: Kingdom of Saxony); Marquet, 1896:30 (in revision of *Oxybelus* of France); Meunier, 1896:270 (Belgium: Bruxelles area); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); Dalla Torre, 1897:639 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Slovakia); Ferton, 1901a:112 (prey); Chyzer, 1902:34 (Hungary); de Cobelli, 1903:114 (Italy: Province of Trentino: Valdiriva); Antiga and Bofill, 1904:27 (Spain: Cataluña Province); W. Schulz, 1904b:101 (Finland: Terijoki, now Russia: Zelenogorsk); Kubes, 1905:84 (Czech Republic: Kolín); Schmiedeknecht, 1907:203, 205 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dittrich, 1911b:20 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:45 (Italy: Trieste area); Morice, 1911:132 (Algeria: Biskra); Schirmer, 1912:165 (Germany: Berlin area); Alfken, 1914:276 (NW Germany); Dubois, 1919:96 (Belgium: Bruxelles: Uccle); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:38 (Germany: Lower Elbe region); Dubois, 1921c:191, 192, 193 (in key to Belgian Sphecidae); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Maidl, 1922:73 (Albania, Croatia); Leininger, 1924:121 (Germany: Baden-Württemberg: Friedrichstal, Karlsruhe); Berland, 1925d:208 (in Sphecidae Fauna of France); Coulon, 1925:122 (France: Elbeuf, Oise); Forsius, 1925:119 (Finland); Lauterborn, 1925:355 (Germany: Baden-Württemberg: Limbergs near Sasbach); Shestakov, 1925:36 (Russia: Yaroslavl' area); K. Strohm, 1925:211 (Germany: Baden-Württemberg: Ihringen); Chevalier, 1926a:10 (nesting habits); Friese, 1926:144 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); K. Strohm, 1926:74 (reference to Lauterborn, 1925); Grandi, 1927:208 (nest construction and structure, prey); F. Werner, 1927:66 (Austria: Niederösterreich: River Kamp valley); Benoist, 1928:411 (France: Basses-Alpes: Saint-Pons); Grandi, 1928d:314 (prey); Crèvecoeur, 1929:361 (prey carrying, temporary nest closure, cocoon); Maréchal, 1930:7 (cocoon structure; description of mature larva and pupa); Maidl in Schmiedeknecht, 1930:663, 665 (in keys to Hymenoptera of North and Central Europe); Crèvecoeur, 1931:187 (nesting habits, mating, parasites); Grandi, 1931:53 (additional prey: *Calythea albicincta* Fallén and *Hydrotaea armipes* Fallén), 58 (Italy: Toscana: Vallata delle Pozze near Le Mandriole, as *2-punctatus*); Bondroit, 1932:42 (Belgium: abundant in Bruxelles area); Bouwman, 1932:391 (in revision of Sphecidae of Netherlands); Gussakovskij, 1932:28 (Russia: Primorskiy Krai); Balles, 1934:17 (Germany: Baden-Württemberg: Mannheim-Rheinau); Giner Mari, 1934:136 (Spain); Forsius in Forsius and Hellén, 1935:11 (in checklist of Hymenoptera of Finland); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Drogoszewski, 1936:129 (Poland: Łowicz); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina); Zavadil, Šusterka, and Bat'a, 1937:172 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); A. Wagner, 1938a:118 (northwestern Germany); Maréchal, 1939:341 (Belgium: Loën); Móczár, 1939:5 (Hungary: Jászberény); Struve, 1940:823 (Germany: Borkum Island); Hoop, 1941b:70 (Germany: Schleswig-Holstein: Süderhastedt); Schneid, 1941:1034 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:425 (in revision of Swiss *Oxybelus*); Balthasar, 1943:41

(Czech Republic: Moravia: Zlin area); Giner Mari, 1943a:263 (in Sphecid Fauna of Spain); Pate, 1943c:16 (USA: New York: Long Island and Thompson County); Bařa, 1944b:91 (Czech Republic: Veselí); Guiglia, 1944b:40 (Italy); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); Pate, 1946a:165 (USA: District of Columbia, prey, as *bipunctatum*), 1946g:91 (USA: Maine: Bridgton); van Lith, 1947:103 (Netherlands); Balthasar, 1948:140 (Slovakia: Parkan); Krombein, 1948:67 (prey, as *bipunctatum*); Šnoflak in Zavadil and Šnoflak, 1948:35, 39 (in key to Czechoslovakian Sphecidae); Tsuneki, 1948d:52 (nesting habits); P. Verhoeff, 1948:191 (in revision of Western European *Oxybelus*); Fæster, 1949:18, 37 (in revision of Western European *Oxybelus*); Wahis, 1949:201 (prey: *Myospila mediatubunda* F. and *Pollenia rudis* F.); Aerts, 1950a:51 (Germany: Nordrhein-Westfalen: Rheidter Wertchens near Köln; prey impaled on sting); Cavro, 1950:41 (France: Département du Nord); Noskiewicz and Chudoba, 1950:308 (in revision of *Oxybelus* of Śląsk Region, Poland); Szulczewski, 1950:102 (Poland: Wielkopolski National Park 15 km S Poznań); Abrahamsen, 1951:116 (recorded from Denmark after J.C. Nielsen, 1907); Caruel, 1951:100 (France: Marne Department); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); de Beaumont, 1951h:35 (Switzerland: Neuchâtel area); Leininger, 1951:116 (Germany: Baden-Württemberg); Scobiola, 1951:274 (first record from Romania: several localities); Tsuneki, 1951b:63 (nesting habits); Bařa, 1952:167 (Czech Republic); de Beaumont, 1952b:91 (Marquet's 1896 specimens); Guiglia, 1953a:100 (in revision of Italian *Oxybelus*); Móczár, 1953:311 (Hungary); Nouvel and Ribaut, 1953:184 (France: Haute-Garonne: Saint-Béat); Bischoff and Stadler, 1954:127 (Germany: Bayern: Romberg); Blüthgen, 1954:144, 149 (in key to Central European *Oxybelus*), 153 (common in sandy habitats); Grandi, 1954:187 (exclusive prey: *Calythea albocincta* Fallén, a muscid), 244 (Italy); Puławski, 1954:106 (Poland: Błędów); Aerts, 1955:60 (Germany: Rheinland); Steiner, 1955:146 (France: Dordogne); Teschner, 1955:57 (Germany: Nordrhein-Westfalen: Hohe Ward near Münster); Vergne, 1955:6 (France: Auvergne); Vogrin, 1955:44 (Yugoslavia); R. Bohart and Schlinger, 1956c:158 (in checklist of North American *Oxybelus*, as *bipunctatum*); Ceballos, 1956:396 (in catalog of Sphecidae of Spain); Krombein, 1956a:43 (prey); de Beaumont, 1957b:139 (n. Iran); R. Bohart and Schlinger, 1957:109 (in key to North American *Oxybelus*, as *bipunctatum*); Evans, 1957b:111 (description of larva); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Birkenheide, Leistadt); Benno, 1958b:18 (in review of Dutch Sphecidae); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:162, 165 (in key to Polish Sphecidae); Grandi, 1961:263 (nesting habits); Valkeila, 1962b:68 (southwestern Finland); Evans, 1963c:102 (prey impaled on sting during transport); Hoop, 1963a:73 (Germany: Schleswig Holstein: Reher Kratt), 1963b:6 (Germany: Schleswig-Holstein: Reher Kratt, Süderhastedt); Krombein, 1963f:279 (Maryland: Plummers Island near Washington, D.C., as *bipunctatum*); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park, as *bipunctatum*); Babiý, 1964:119 (Austria: Land Salzburg); de Beaumont, 1964c:161 (in Sphecid Fauna of Switzerland); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle), 196 (description of nest); B. Klug, 1965:144 (Germany: Baden-Württemberg: Freiburg im Breisgau area); Mingo Pérez, 1966:75 (in revision of *Oxybelus* of Iberian Peninsula); Balthasar, Hrubant, and Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); Benno, 1967:38 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:365 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Niedl and Deneš, 1967:76 (Czech Republic: Třeboň area); Benedek, 1968:79 (Hungary, floral records); Kurczewski and Harris, 1968:81-82 (New York: Groton, relative abundance); Scobiola-Palade, 1968c:386 (Romania: București, Budești); Benedek, 1969a:85 (Hungary: marshy meadow); Dathe, 1969:438 (Germany: Berlin Zoological Garden); Lefeber, 1969c:234 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Tsuneki, 1969a:11 (nesting habits); Zangheri, 1969:1708 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1970:105 (Hungary: Tapolca); Gauss and Perraudin, 1970:360 (Germany: Baden-Württemberg: Bodensee area); Oehlke, 1970:792 (Democratic Germany); Dathe, 1971:234 (Germany: Berlin Zoological Garden; phenology); Petit, 1971:22 (Luxemburg: Lellingen); Schmidt, 1971b:53 (Germany: Maiz area); Stritt, 1971a:105 (Germany: Baden-Württemberg: Karlsruhe); Balthasar, 1972:154 (in Sphecid Fauna of Czechoslovakia); Niedl and Deneš, 1972:151 (Czech Repub-

lic: Třeboň area); Kazenas, 1972b:176 (Kazakhstan); Kofler, 1972:116 (Austria: eastern Tirol); de Beaumont, Bytinski-Salz and Pulawski, 1973:25 (Israel); Hoop, 1973:47 (Germany: Schleswig-Holstein: Segrahner Berg); Lomholdt, 1973a:108 (Denmark: Funen: Svanninge Bakker); Erlandsson, 1974:87 (Italy); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp. in Kazakhstan), 110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); Simon Thomas, 1974:58 (Netherlands: Limburg); Evans, 1975a:263 (rapid colonizer of new habitats); R. Bohart and Menke, 1976:367 (listed); Haeseler, 1976b:73 (Germany: Friesian Islands: Amrum Island); Simon Thomas and Wiering, 1976:109 (Netherlands); Wolf, 1976:30 (Germany: Nordrhein-Westfalen: Victoria Mine near Littfeld); Lomholdt, 1976:283 (in Sphecidae Fauna of Fennoscandia and Denmark); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Schmidt, 1977:99 (Germany: Schwarzwald); Petit, 1978:87 (Belgium, Genk, Opgrimbie, as Oprimbie); Pulawski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Schwammler, 1978:421 (Germany: Württemberg); Benedek, 1979:236 (Hungary: Bakony Hills); Krombein, 1979b:1653 (in catalog of North American Hymenoptera); Leclercq, Gaspar, and Verstraeten, 1979:map 1423 (Belgium); Schwammler, 1979:118 (Germany: Nordrhein-Westfalen: Gildehauser Venn Nature Reserve); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Kazenas, 1980e:92 (Russia: Far East); Pagliano, 1980:118 (Italy: Piemonte); Haeseler, 1981:51 (Germany: Friesian Island: Amrum Island); Woydak, 1981:42 (Germany: Westfalen: Hamm); Donath, 1982:215 (Germany: Cottbus Bezirk); Finnamore, 1982:122 (in Sphecidae Fauna of Southern Quebec); Gayubo, 1982b:9 (Spain: Salamanca: Montemayor del Rio, Peromingo, Valdefuentes de Sangusín), 1882e:103 (Spain: Cádiz Province); Haeseler, 1982a:20 (Germany: Niedersachsen: urban habitats in Oldenburg); Skibińska, 1982:124 (Poland: Warszawa area); Tsuneki, 1982b:10 (Korea), 16 (known from Korea); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Gayubo, 1983a:123 (prey: Tachinidae flies); Józán, 1983:102 (Hungary); Lefeber, 1983a:85 (Netherlands: Waddendistrict: northern coast sand dunes, West Friesian Islands); Riemann, 1983:86 (Germany: Bremen-Daverden area); Schmidt and Westrich, 1983:123 (first record from Greece); Chevin and Silvestre de Sacy, 1984:7 (France: Yvelines Department); Gayubo, 1984b:90 (Spain: Salamanca Province), 1984c:374 (Portugal: El Algarve Province); Haack, Tschartke, and Vidal, 1984:130 (Germany: Hamburg area); Schmidt and Westrich, 1984:241 (Germany: Rheinland-Pfalz: Bad Münster); Veenendaal, 1984:19 (Netherlands: Amsterdam); Gayubo, 1985c:169 (Spain: Valladolid: Traspinedo); Haeseler, 1985c:571 (Germany: Friesian Islands); Józán, 1985b:58 (Hungary S Lake Balaton), 79 (floral records), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Nemkov, 1985:65 (nesting habits); Brechtel, 1986:73 (Germany: Südpfalz); Gayubo, 1986f:1000 (prey: anthomyiid and tachinid flies); Gayubo and Heras, 1986:49 (Spain: Segovia and Valladolid Provinces); Gayubo and Sanza, 1986:57 (Spain: Burgos, Soria); Gayubo and Tormos, 1986a:15 (Spain: Castellón de la Plana); Józán, 1986:371 (Hungary: Kiskunság National Park); Nemkov, 1986:100 (Russia: Siberia: Irkutsk Oblast'); Skibińska, 1986b:151, 154 (Poland: suburbs of Warszawa); Vikberg, 1986:76 (Finland); Asís and Jiménez, 1987:26 (Spain: Castellón Province); Holtappels, 1987:26 (Germany: Nordrhein Westfalen: Effelder Waldsee); Riemann, 1987b:42 (Germany: Niedersachsen: Nature Reserves Dünengebiet near Neumühlen and Voßberge); Scobiola-Palade, 1987:64 (Romania: Dobrogea); Schmidt and Westrich, 1987:375 (Germany: Mainz area); Dollfuss, 1988:14, 25 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Karsai, 1988:100 (Hungary: Kiskunság National Park); Kowalczyk, 1988b:66 (Poland: environs of Łódź); Wolf, 1988b:141 (Germany: Rheinland-Westfalen); Jacobs, 1989:15 (Germany: Mecklenburg-Vorpommern); Pádr *in* Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Weiffenbach, 1989:108 (Germany: Hessen: Gießen area); Barbier, Rasmont, and Wahis, 1990:32 (Belgium: Hainaut); Gayubo, Asís, and Tormos, 1990b:74 (Spain: Teruel and Toledo provinces); Jacobs and Oehlke, 1990:175 (new records from Democratic Germany); Kurczewski and Acciavatti, 1990:61 (New York: Cayuga County); Pádr, 1990:89 (Czech Republic: Praha area); Pagliano, 1990:78 (in catalog of Italian Sphecidae); Rohe, 1990:1045 (Germany: Rheinland-Pfalz: Lenneberg forest); Schwammler and Priesner, 1990:541 (Austria: Kärnten); von der Heide and Witt, 1990:64 (Germany: Niedersachsen); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Jacobs, 1991:46 (Germany: Mecklenburg-Vorpommern: Nature Reserve Elbtaldünen); Jakubzik, 1991:75 (Germany: Köln);

Kowalczyk, 1991a:91, 100, 102 (Poland: Łódź), 1991b:121 (Poland: Augustów Forest); Kuhlmann et al., 1991:91 (Germany: Senne Region); Pagliano, 1991b:329, 332 (in key to Italian Crabroninae); H.-J. Schulz, 1991:31 (Germany: Oberlausitz: 5 km SW Wittichenau); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Józán, 1992b:174 (Hungary: Boronka-melléki Protected Area), 1992c:289 (Hungary: Zselic Hills); N. Schneider, 1992:178 (Luxemburg); Spofford and Kurczewski, 1992:998 (species of miltogrammine parasites listed), 1002 (counter-cleptoparasitic habits: diversionary flight), 1005 (post-larvipositional counter-cleptoparasitic habits: clean burrow, inordinate amount of post-provisioning time in burrow); Nemkov, 1992b:245 (Russia: Far East: 40 km SSW Svobodnyi near Khingan Nature Reserve); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Bitsch and Leclercq, 1993:249 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*, color variation); Kuhlmann, 1993:77 (Germany: known from Westfalen); Leclercq, 1993c:45 (collecting localities from Spain, Czechoslovakia, Switzerland, and Yugoslavia); Sorg and Wolf, 1993:60 (Germany: Rheinland-Westfalen: Nature Reserve Die Spey); Blagoveshchenskaya, 1994:90 (Russia: Ul'yanovsk Oblast'); Kowalczyk, 1994:76 (Poland: Łagiewniki forest in Łódź); Schmid-Egger, 1994a:688 (Germany: Rheinland-Pfalz: Höllenberg near Grünstadt); Theunert, 1994c:45 (summary of records from Niedersachsen and Bremen, Germany); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Krasnobayev et al., 1995:139 (Russia: Zhiguli Hills NW Samara); Negrisoló, 1995a:22 (Italy: Veneto); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:423 (in key to Sphecidae of Russian Far East); Riemann, 1995:52 (Germany: Bremen); Scharrer, 1995:27 (Germany: Bayern: Aschaffenburg, Karlstadt); Schmid-Egger, Risch, and Niehuis, 1995:199 (summary of records from Germany: Rheinland-Pfalz Province); Verves and Gorobchishin, 1995:54 (parasitoid: *Senotainia conica* (Fallén)); Arens, 1996:441 (Germany: Bayern: Bayreuth area); Blösch, 1996:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Jakubzik, 1996:253 (Germany: Köln); Jakubzik and Cölln, 1996b:400 (Germany: Rheinland-Pfalz); Pawlikowski and Kruszyński, 1996:87 (Poland: Toruń Basin); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: not endangered); Kurczewski, 1996:83 (variation in nesting habits); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg); Woydak, 1996:46 (Germany: Westfalen: summary of distribution and nesting habits); Celary, 1997:58 (in checklist of Animals of Poland); Gauss, 1997:27 (egg of miltogrammatid flies deposited on adult specimens); Schmidt and Schmid-Egger, 1997:21 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:520 (Austria: summary of collecting records from Burgenland); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Haeseler and Ritzau, 1998:51 (Germany: Bremen: Harriersand Island in Weser River and Steller Heide); Jakubzik, Schlüter, and Cölln, 1998:1182, 1184 (Germany: Rheinland-Pfalz); Kurczewski, 1998a:1 (dispersal and range expansion in northeastern North America), 1998d:250 (pine barrens in upstate New York); Kurczewski and Wochadlo, 1998:7 (cell depth inversely related to soil moisture); Lefeber, 1998:182 (Netherlands: Limburg: Sint-Pietersberg near Maastricht at 50°50'N 5°41'E); Mauss and Schindler, 1898:136 (Germany: Schleswig-Holstein: Nordfriesland District); Shkuratov, 1998:98 (Russia: Rostov Oblast'); van der Smissen, 1998:64 (Germany: Mecklenburg-Vorpommern, Niedersachsen, Schleswig-Holstein); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Erhardt, 1999:75 (Germany: Niedersachsen: Ammerland area); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Herrmann, 1999:7 (Germany: Niedersachsen: Oldenburg area; habitats size); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:109 (in catalog of Belgian aculeates); Riemann, 1999:835 (Germany: Niedersachsen: sand pits near Bremen); M. Schwarz, 1999:86 (Austria: Oberösterreich: city of Linz area); Sörensen, Mauss, and Schindler, 1999:504 (Germany: Schleswig-Holstein); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Blösch, 2000:264 (in Sphecidae Fauna of Germany); Cölln and Jakubzik, 2000:226 (Germany: Rheinland-Pfalz: Gönnersdorf); Dressler, 2000:33 (Germany: Hessen: Darmstadt area); Gayubo, González, and Torres,

2000:186 (Spain: Salamanca Province); Jacobs, 2000:8 (Germany: Land Mecklenburg-Vorpommern: not endangered); Schmid-Egger, 2000b:276 (Germany: Baden-Württemberg: shores of Rhine River); Shkuratov, 2000:60 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 180 (review of known biology); Kazenas and Esenbekova, 2001:134 (Kazakhstan: Almatinskiy Nature Reserve); Ohl et al., 2001:140 (distribution in Germany by provinces); Szczepko and Kowalczyk, 2001:188 (Poland: Kampinos National Park near Warszawa); Zettel, Gross, and Mazzucco, 2001:73 (Austria: Wien); Kazenas, 2002a:90 (geographic distribution, collecting localities in Kazakhstan); Kowalczyk, Szczepko, and Świątek, 2002:154 (Poland: Kampinos National Park near Warszawa); Kurczewski, 2002:419 (seasonal variation in nesting habits); C. Schlüter, 2002:141 (Germany: Niedersachsen: anthropogenic habitats in Ammerland District); Shlyakhtenok and Skibinska, 2002:33 (Belarus': no specific locality); Wiśniowski, 2002:70 (Poland: Ojców National Park); Cölln, Esser, and Jakubzik, 2003:62 (Germany: northwestern Rheinland-Pfalz: excavation sites and quarries); Esser and Jakubzik, 2003:291 (Germany: Nordrhein-Westfalen: Niederrheinisches Tiefland); Haeseler, 2003:340 (Germany: Niedersachsen: Harriersand Island near Bremen); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Schmid-Egger, 2003:755 (Italy: Sicilia: Armerina, Madonie); Tischendorf and Treiber, 2003:121 (Germany: Hessen: 15 km SW Frankfurt am Main: nesting under high power lines); von der Heide and Metscher, 2003:103 (Germany: Niedersachsen: Emsland area); Wiśniowski *in* Dylewska and Wiśniowski, 2003:155 (Poland: Ojców National Park); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Kazenas, 2004b:106 (Kazakhstan: western Tien Shan); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); Szczepko and Kowalczyk, 2004:126 (Poland: Kampinos National Park near Warszawa); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Blösch, 2005:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Buck, 2005:281 (introduced to North America before 1935); Dubitzky, Blank, and Schönitzer, 2005:275 (Germany: Bayern: area north of Dachau); Fuhrmann, 2005:89 (Germany: Nordrhein-Westfalen: Grubengelände Littfeld Nature Reserve); Gayubo and Özbek, 2005:24 (Turkey: Diyarbakır: University campus: Erzincan: Agricultural Research Station; Erzurum: University campus); Haeseler, 2005:629 (Germany: Niedersachsen: Steller Heide near Bremen); Kofler, 2005:174 (Austria: Tirol: Lienz District: Forchach in Lavant Common, Nörsach in Nikolsdorf Common); Kraatz, 2005:103 (Germany: Niedersachsen: Bümmerstede near Oldenburg); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Nemkov, 2005a:148 (Russia: Sakhalin Island); Pagliano and Negrisolò, 2005:207 (in Sphecidae Fauna of Italy); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Feitz, Gloden, Melchior, and Schneider, 2006:82 (Luxemburg: Baggerweieren area in Haff Réimech Nature Reserve); Gadoum and Barbier, 2006:43 (France: départements of Val-d'Oise and Yvelines: Parc Naturel Régional du Vexin Français: Guernes); Standfuss and Standfuss, 2006a:86 (Germany: Nordrhein-Westfalen: Dortmund); Vepřek, 2006:511 (Czech Republic: Kokořínsko area); Guldemond, Pijfers, and den Belder, 2007:203 (Netherlands: Gelderland: dairy farm in de Graafschap); Jacobs, 2007:115, 118 (in key to Crabronidae of Germany); Kowalczyk and Nadolski, 2007:284 (Poland: Łódź: railway areas); Nemkov, 2007c:997 (in Appendix to Key to identification of Sphecidae of Far East of Russia); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Venne, Bleidorn, and Lauterbach, 2007:302 (Germany: Nordrhein-Westfalen: Bielefeld); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Danilov, 2008:349 (Russia: Altayskiy Krai: Barnaul area); Dollfuss, 2008:465 (locality records from Bulgaria, Finland, France, Hungary, Italy, Kazakhstan, Mongolia, Serbia, Syria, Turkey, Turkmenistan, and Ukraine); Haeseler, 2008:308 (Germany: Friesian Islands); Haneda, 2008:3 (in key to Japanese Crabroninae); Ljubomirov and Yildirim, 2008:248 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); U. Frommer, 2009a:28



(Germany: in checklist of Sphecidae of Hessen); Pagliano, 2009:180 (Italy: Liguria: Borghetto d'Arroschia); Bitsch and Leclercq, 2009:228 (in supplement to vol. I of Faune de France, 1993: France: first records from Aisne: Courtemont-Varennes and Rocourt-Saint-Martin; Hautes-Alpes: Gap on Durance River and Réotier; Haut-Rhin: Geiswasser); Donie, 2009:9 (Germany: Niedersachsen: Oldenburg); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Nemkov, 2009b:90 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: relatively common).

*Oxybelus nigroaeneus* Shuckard, 1837a:113, ♂. Syntypes: Britain: no specific locality (BMNH). Synonymized with *Oxybelus haemorrhoidalis* by Dahlbom, 1845:512, and with *Oxybelus bipunctatus* by Wesmael, 1852:626. – von Siebold, 1839:49 (Germany: Danzig, now Poland: Gdańsk); Dahlbom, 1844:266 (original description copied); Dours, 1874:153 (in catalog of Hymenoptera of France); D. Baker, 1998:172 (type origin and depository).

*Oxybelus laevigatus* Schilling, 1848:105, sex not indicated. Holotype or syntypes: sex unknown, Germany: Schlesien: Fuchsberge bei Schwoitsch, now Poland: Swojec, a suburb of Wrocław (lost). Synonymized with *Oxybelus bipunctatus* by ... – Erichson, 1848:137 (original description recorded).

#### **spp. *thermophilus* de Beaumont**

*Oxybelus bipunctatus thermophilus* de Beaumont, 1950f:421, ♀, ♂. Holotype: ♀, Algeria: Laghouat (BMNH). – de Beaumont, 1957a:157 (Morocco); R. Bohart and Menke, 1976:367 (listed); Dollfuss, 2008:468 (locality records from Jordan and Morocco).

#### **34. *braunsi* Arnold**

*Oxybelus braunsi* Arnold, 1927:87, ♀ (as *Braunsi*, incorrect original capitalization). Holotype: ♀, South Africa: Sunday River (TMP). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:367 (listed).

#### **35. *brethesi* R. Bohart**

*Oxybelus interruptus* Brèthes, 1913:145, ♀, junior primary homonym of *Oxybelus interruptus* Cresson, 1865. Holotype or syntypes: Argentina: La Pampa: no specific locality (MNCN). – R. Bohart and Menke, 1976:368 (listed); Genise, 1990:26 (type material in MACN).

*Oxybelus brethesi* R. Bohart, 1993a:190. Substitute name for *Oxybelus interruptus* Brèthes, 1913. – R. Bohart, 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America). – Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:468 (Argentina: Entre Ríos: Pronunciamento).

#### **36. *californicus* R. Bohart and Schlinger**

*Oxybelus californicus* R. Bohart and Schlinger, 1956b:147, ♀, ♂ (as *californicum*, incorrect original termination). Holotype: ♂, USA: California: Yolo County: Davis (CAS). Paratypes: w. USA. – R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*, as *californicum*), 1957:121 (in revision of Californian *Oxybelus*, as *californicum*); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:47 (California: Channel Islands); Frommer, 1988:94 (California: Riverside County: Deep Canyon); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Dollfuss, 2008:465 (Washington: Benton County: Prosser area, as *californius*).

#### **37. *callani* Pate**

*Oxybelus callani* Pate, 1943g:281, ♀, ♂. Holotype: ♀, Trinidad: Talparo (originally V.S.L. Pate collection, now Cornell Univ.). Paratype: Brazil. – R. Bohart and Menke, 1976:367 (listed); Callan, 1991a:12 (Trinidad); R. Bohart, 1993a:190 (study of type, diagnostic characters); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Starr and Hook, 2003:19 (in catalog of Aculeata of Trinidad, West Indies).

**38. *canaliculatus* Radoszkowski**

*Oxybelus canaliculatus* Radoszkowski, 1877:73, ♀, ♂. Syntypes: ♂, Uzbekistan: Zaravshan valley; Kazakhstan: Mount Karak near Bayrakum, Syr-Darya steppe (ZMMU). – Kohl, 1884b:111 (in list of known *Oxybelus*); Radoszkowski, 1893a:72 (Turkmenistan); Dalla Torre, 1897:639 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:90 (geographic distribution, collecting localities in Kazakhstan).

**ssp. *seraksensis* Radoszkowski**

*Oxybelus canaliculatus* var. *seraksensis* Radoszkowski, 1893c:244, ♀, ♂. Syntypes: Turkmenistan: Askhabad, Serax (Kraków). – Dalla Torre, 1897:639 (in catalog of world Sphecidae). – **As *Oxybelus seraxensis*** [sic]: Giner Marí, 1943a:262 (in Sphecid Fauna of Spain); Ceballos, 1956:397 (in catalog of Sphecidae of Spain). – **As *Oxybelus canaliculatus seraksensis***: R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**39. *canalis* R. Bohart and Schlinger**

*Oxybelus canalis* R. Bohart and Schlinger, 1956b:149, ♂, ♀. Holotype: ♂, USA: California: Riverside County: Riverside (CAS). – R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*), 1957:127 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera); R. Bohart, 1993e:160 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

**40. *canescens* Cameron**

*Oxybelus canescens* Cameron, 1890b:278, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore (OXUM). – Cameron, 1890b:276 (India: Barrackpore); Bingham, 1897:320 (in Wasp Fauna of British India); Dalla Torre, 1897:639 (in catalog of world Sphecidae); Rothney, 1903:106 (India: West Bengal: Barrackpore); Paiva, 1907:15 (India: West Bengal: Siliguri); Pate, 1938b:389 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:367 (listed); Manikandan, Dey, and Farooqi, 1999:14 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*).

**41. *carinatus* Gussakovskij**

*Oxybelus carinatus* Gussakovskij, 1933b:287, ♂. Syntypes: Iran: Kerman: Serbaz, Mergas: Shurab (ZIN). – R. Bohart and Menke, 1976:367 (listed).

**42. *catamarcensis* (Schrottky)**

*Notoglossa catamarcensis* Schrottky, 1909b:251, ♀. Holotype or syntypes: ♀, Argentina: Catamarca: no specific locality (lost: R. Bohart, 1993a:190). Neotype: ♀, Argentina: Catamarca: Santa Maria (IML), designated by R. Bohart, 1993a:190. – Jörgensen, 1912:294 (Argentina: Mendoza Province); Schrottky, 1913a:234 (Argentina: Catamarca). – **As *Oxybelus catamarcensis***: R. Bohart and Menke, 1976:367 (listed); R. Bohart, 1993a:190 (diagnostic characters); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:468 (French Guiana: Cayenne).

*Oxybelus decipiens* Brèthes, 1913:142, ♂. Holotype or syntypes: Argentina: Entre Ríos: Paraná (MNCN). Synonymized with *Oxybelus camatarcensis* by R. Bohart, 1993a:190. – R. Bohart and Menke, 1976:367 (listed); Genise, 1990:26 (type material in MACN).

*Oxybelus pamparum* Brèthes, 1913:143, ♀. Holotype or syntypes: ♀, Argentina: probably La Pampa: no specific locality (MNCN). Synonymized with *Oxybelus camatarcensis* by R. Bohart, 1993a:190. – Jörgensen, 1912:294 (Argentina: Mendoza Province); R. Bohart and Menke, 1976:367 (listed); Genise, 1990:26 (type material in MACN).

**43. caucasicus Radoszkowski**

*Oxybelus caucasicus* Radoszkowski, 1893c:244, ♀. Holotype or syntypes: ♀, Georgia: Lagodekhi (Kraków). – Dalla Torre, 1897:639 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed).

**44. chilensis Reed**

*Oxybelus chilensis* Reed, 1894:651, sex not indicated. Lectotype: ♂, Chile: no specific locality (NHMW), designated by R. Bohart, 1992:158. – Dalla Torre, 1897:639 (in catalog of world Sphecidae); Brèthes, 1910b:145 (Chile); Jafuel and Piri6n, 1926:376 (Chile: valle de Marga Marga); Gazulla and Ruiz Pereira, 1929:300 (Chile: Hacienda de "Las Mercedes"); R. Bohart and Menke, 1976:367 (listed); Sielfeld, 1981b:74 (in checklist of Chilean Sphecidae); Dollfuss, 1989:11 (type material in NHMW); R. Bohart, 1992:158 (in revision of Chilean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:468 (locality records from Chile).

*Oxybelus comatus* Reed, 1894:651, sex not indicated. Holotype or syntypes: Chile: no specific locality (depository unknown). Synonymized with *Oxybelus chilensis* by R. Bohart, 1992:158. – Dalla Torre, 1897:639 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); Sielfeld, 1981b:74 (in checklist of Chilean Sphecidae).

**45. cinemucro R. Bohart**

*Oxybelus cinemucro* R. Bohart, 1993c:20, ♀, ♂. Holotype: ♀, Argentina: Salta: Cafayate (UCD).

**46. citrinulus Gussakovskij**

*Oxybelus citrinulus* Gussakovskij, 1952:254, ♀. Syntypes: ♀, Tajikistan: Djilikul (ZIN). – R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Dollfuss, 2008:468 (Turkmenistan: Sandikatzi).

**47. citrinus Radoszkowski**

*Oxybelus citrinus* Radoszkowski, 1893a:72, ♀. Holotype or syntypes: ♀, Turkmenistan: Serax (Kraków). – Dalla Torre, 1897:639 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Dollfuss, 2008:468 (Turkey: Gewas/Van G6l6).

**48. clandestinus Kohl**

*Oxybelus clandestinus* Kohl, 1905b:358, ♂, ♀. Lectotype: ♀, Chile: Concepci6n (NHMW), designated by R. Bohart, 1992:160. – R. Bohart and Menke, 1976:367 (listed); Sielfeld, 1981b:74 (in checklist of Chilean Sphecidae); Dollfuss, 1989:11 (type material in NHMW); R. Bohart, 1992:160 (in revision of Chilean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:468 (locality records from Chile).

**49. cocacolae P. Verhoeff**

*Oxybelus cocacolae* P. Verhoeff, 1968:169, ♀, ♂. Holotype: Morocco: Agadir (RMNH). – de Beaumont, 1968a:277 (Canary Islands: Lanzarote, Fuerteventura; as *cocacolai*); R. Bohart and Menke, 1976:367 (listed); B6ez and Ortega, 1978:192 (Canary Islands); Hohmann, La Roche, Ortega, and Barqu6n, 1993:248 (detailed locality records from Canary Islands); Leclercq, 1993c:46 (listed); Dollfuss, 2008:469 (Morocco: 10 km N Mhamid).

**50. cochise Pate**

*Oxybelus cochise* Pate, 1943f:93, ♂, ♀. Holotype: ♂, USA: New Mexico: Steins (depository?). – R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*, 1957:115 (in revision of Californian *Oxybelus*); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera); R. Bohart, 1993e:160 (listed, geographic distribution); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ru6z Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

**51. cocopa Pate**

*Oxybelus cocopa* Pate, 1943h:121, ♂. Holotype: ♂, USA: California: Imperial County: Thompson Ranch (USNM). – Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*), 1957:127 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera).

**52. collaris Kohl**

*Oxybelus collaris* Kohl, 1884b:107, ♀. Holotype or syntypes: ♀, "Arabia felix: Tor", probably Thor in Sinai Peninsula (NHMW). – Kohl, 1884b:111 (in list of known *Oxybelus*), 1898a:354 (description of ♂, Egypt: Adelen-Insel opposite Dahshur, not Darfur); Dalla Torre, 1897:639 (in catalog of world Sphecidae); Honoré, 1942:50 (in catalog of Egyptian Sphecidae); R. Bohart and Menke, 1976:367 (listed); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Al-Houty, 1989:160 (Kuwait: Abdelli, Burjan, Sobiya); Dollfuss, 1989:11 (type material in NHMW); Guichard, 1990b:282 (Jordan, Saudi Arabia, United Arab Emirates), 1991a:340 (Jordan); Leclercq, 1993c:46 (listed); Gadallah and Assery, 2004a:226 (in catalog of Sphecidae of Saudi Arabia); Dollfuss, 2008:469 (Morocco: 10 km N Mhamid, 10 km N Erfoud).

**53. coloratus R. Bohart**

*Oxybelus coloratus* R. Bohart, 1993e:163, ♀, ♂. Holotype: ♀, Mexico: Veracruz: Veracruz (UCD). – R. Bohart, 1993e:160 (listed), 161 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

**54. confusus Alayo Dalmau**

*Oxybelus confusus* Alayo Dalmau, 1968b:20, ♂. Syntypes: ♂, Cuba: Oriente: east of Santiago de Cuba: Siboney, Juraguá, etc. (IZAC). – Alayo Dalmau, 1973:194 (in catalog of Cuban Hymenoptera), 1976:33 (in checklist of Cuban Sphecidae); not listed by Bohart and Menke, 1976; R. Bohart, 1993e:160 (listed, geographic distribution); Reyes and Hernández, 1995:3 (holotype in Inst. Ecol. Sist., La Havana, Cuba); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Portuendo and Fernández, 2004:135 (Cuba: Sierra Maestra); Genaro, 2006:54 (in checklist of Cuban Sphecidae and Crabronidae).

**55. congophilus Benoit**

*Oxybelus congophilus* Benoit, 1951:132, ♂. Holotype: ♂, Zaire: Tshuapa: Bokote (MRAC). – R. Bohart and Menke, 1976:367 (listed).

**56. coniferus Arnold**

*Oxybelus coniferus* Arnold, 1951:165, ♀, ♂. Syntypes: Ethiopia: Addis Ababa, Wondo (BMNH). – R. Bohart and Menke, 1976:367 (listed).

**57. continuus Dahlbom**

*Oxybelus continuus* Dahlbom, 1845:513, ♂. Holotype or syntypes: ♂, Egypt: no specific locality (LUND). – Thomson, 1870:179 (as synonym of *Oxybelus dubius*); Kohl, 1884b:111 (in list of known *Oxybelus*); Dalla Torre, 1897:639 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); Leclercq, 1993c:46 (unrecognizable species).

**58. cordatus Spinola**

*Oxybelus cordatus* Spinola, 1851a:364, ♀, ♂. Lectotype: ♀, Chile: Coquimbo (Torino), designated by R. Bohart, 1992:160. – F. Smith, 1856:390 (in catalog of Hymenoptera in British Museum); Kohl, 1884b:111 (in list of known *Oxybelus*); Reed, 1894:650 (in revision of Chilean Sphecidae); Dalla Torre, 1897:639 (in catalog of world Sphecidae); Brèthes, 1918d:162 (Chile: Río Blanco, affluent of Aconcagua); Jaffuel and Piri6n, 1926:376 (Chile: valle de Marga Marga); Gazulla and Ruiz Pereira, 1929:300 (Chile: Hacienda de "Las Mercedes"); R. Bohart and Menke,

1976:367 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Sielfeld, 1981b:74 (in checklist of Chilean Sphecidae); R. Bohart, 1992:160 (in revision of Chilean *Oxybelus*), 1993c:21 (diagnostic characters); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:469 (locality records from Chile).

### 59. *cordiformis* Gussakovskij

*Oxybelus cordiformis* Gussakovskij, 1952:255, ♀, ♂. Syntypes: Tajikistan: Djilikul and Kabadian area (ZIN). – Myartseva, 1972a:94 (Turkmenistan); Kazenas, 1974b:110 (feeding on flowers of *Nitraria schoberi* L., Zygophyllaceae, in Kazakhstan); R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2004b:106 (Kazakhstan: western Tien Shan); Dollfuss, 2008:469 (locality records from Kazakhstan, Turkmenistan, and Uzbekistan).

### 60. *cornutus* Ch. Robertson

*Oxybelus cornutus* Ch. Robertson, 1889:80, ♂. Lectotype: ♂, USA: Montana: no specific locality (ANSP), designated by Cresson, 1928:53. – C. Baker, 1896:59 (Colorado: Fort Collins); Cockerell and Baker, 1896:23 (New Mexico); Dalla Torre, 1897:639 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); H. Smith, 1908b:407 (in revision of Nebraskan Sphecidae); Mickel, 1918b:367 (in catalog of Nebraskan Sphecidae); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*, as *cornutus*), 1957:115 (in revision of Californian *Oxybelus*, as *cornutus*); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera), 1985b:639 (not a member of subgenus *Anoxybelus*); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:151 (number of ovarioles).

*Oxybelus quadricolor* Cockerell and Baker, 1896:21, ♀. Holotype: ♀, USA: New Mexico: Santa Fe (USNM). Synonymized with *Oxybelus cornutus* by Krombein, 1955b:70. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Rohwer, 1909:117 (description of ♀); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera).

*Oxybelus polygoni* Rohwer, 1909a:116, ♀. Holotype or syntypes: ♀, USA: Colorado: Boulder County: Boulder (USNM). Synonymized with *Oxybelus cornutus* by Krombein, 1955b:70. – Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera).

### 61. *crandalli* R. Bohart and Schlinger

*Oxybelus crandalli* R. Bohart and Schlinger, 1956b:154, ♀. Holotype: ♀, USA: Arizona: Tucson (CAS). – R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*), 1957:108 (in key to North American *Oxybelus*); R. Bohart and Menke, 1976:367 (listed; Arizona, Arkansas); Krombein, 1979b:1654 (in catalog of North American Hymenoptera); R. Bohart, 1993e:160 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

### 62. *cressonii* Ch. Robertson

*Oxybelus cressonii* Ch. Robertson, 1889:83, ♀ (as *Cressonii*, incorrect original capitalization). Holotype: ♀, USA: Illinois: no specific locality (ANSP). – Dalla Torre, 1897:639 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Cresson, 1928:53 (holotype in ANSP); Krombein, 1948a:67 (Virginia, prey); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*), 1957:109 (in key to North American *Oxybelus*); Krombein, 1963f:279 (Maryland: Plummers Island near Washington, D.C.); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park); Kurczewski, 1972a:398 (nesting habits); R. Bohart

and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada), 30 (distribution within Ontario), 55 (first record from Canada: Ontario: list of localities). – As *Notoglossa cressonii*: Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae).

### 63. *cristatus* de Saussure

*Oxybelus cristatus* de Saussure, 1892:559, ♀, ♂. Syntypes: Madagascar: Bezanozano Province: Anosibé (MHNG). – Dalla Torre, 1897:640 (in catalog of world Sphecidae); Arnold, 1945:187 (Madagascar; redescription); Leclercq, 1960a:100 (Madagascar), 1961d:118 (Madagascar); R. Bohart and Menke, 1976:367 (listed); Leclercq, 1990b:120 (Madagascar); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

### 64. *curviscutis* Arnold

*Oxybelus curviscutis* Arnold, 1927:107 and 108, ♀, ♂. Syntypes: Zimbabwe: Sawmilla, Bulawayo; Tanzania: no specific locality (SAM, TMP). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); Scott *in* Arnold, 1933a:370 (Ethiopia: Harar District); Arnold, 1951:166 (Ghana, Mali, Senegal); R. Bohart and Menke, 1976:367 (listed); Al-Houty, 1989:160 (Kuwait: Al-Wafra); Hancock, Chahwanda, and Mhlanga, 1995:39 (syntypes in Bulawayo Museum); Dollfuss, 2008:469 (locality records from Kenya, Mozambique, Namibia, South Africa, Zambia, and Zimbabwe).

### 65. *cyaneus* R. Bohart

*Oxybelus cyaneus* R. Bohart, 1993d:69, ♀. Holotype: ♀, Colombia: Amazonas: La Chorrera (BMNH). – Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

### 66. *decoris* R. Bohart

*Oxybelus decoris* R. Bohart, 1993d:69, ♀, ♂. Holotype: ♀, Brazil: Roraima Territory: Surumú (UCD). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

### 67. *decorosus* (Mickel)

*Notoglossa decorosa* Mickel, 1916a:430, ♀. Holotype: ♀, USA: Nebraska: Omaha (UNL). – Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae); Muma, 1952:21 (holotype in UNL). – As *Oxybelus decorosus*: Burks *in* Muesebeck et al., 1951:1032 (new combination, in catalog of North American Hymenoptera, as *decorosa*); R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*, as *decorosum*), 1957:111 (in key to North American *Oxybelus*, as *decorosum*); Krombein, 1958a:52 (USA: West Virginia: Lost River State Park, as *decorosum*); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park, as *decorosum*); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1654 (in catalog of North American Hymenoptera); Kurczewski, 1996:84 (nest and prey); Peckham and Hook, 1980:560 (nesting habits); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada), 30 (distribution within Ontario), 56 (first record from Canada: Ontario: Forest in Lambton County, Nairn Centre, Windsor).

### 68. *diphyllus* (A. Costa)

*Alepidaspis diphyllus* A. Costa, 1882b:23 and 35, ♀. Holotype ♀, Italy: Sardegna: Cagliari (Napoli). – de Beaumont, 1953i:12 (unnecessary and invalid designation of lectotype, based on a ♀ from Cabras, mentioned by A. Costa in 1884). – As *Notoglossa diphylla*: A. Costa, 1883:92 (new combination, redescription), 1884b:33 (Italy: Sardegna: Cabras). – As *Oxybelus diphyllus*: Kohl, 1884b:111 (new combination, in list of known *Oxybelus*); Dalla Torre, 1897:640 (in catalog of world Sphecidae); Guiglia, 1938b:10 (Sardegna), 12 (redescription); de Beaumont, 1950f:413 (diagnostic characters), 1952c:199 (Algeria: Hoggar), 1953i:12 (type incorrectly interpreted); Guiglia, 1953a:64 (in revision of Italian *Oxybelus*); de Beaumont, 1956a:212 (Tibesti), 1957a:154 (Morocco), 1958b:67 (Algeria: Tassili des Ajjer); Mingo Pérez, 1966:67 (in revision of *Oxybelus* of Iberian Peninsula; Spain: Granada:

Albuñol); R. Bohart and Menke, 1976:367 (listed); Guichard, 1990b:281 (Oman); Pagliano, 1980:120 (Italy: Sardegna), 1990:78 (in catalog of Italian Sphecidae), 1991b:328, 331 (in key to Italian Crabroninae); Bitsch and Leclercq, 1993:251 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:46 (*pharao* is a subspecies or morphé); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Pagliano and Negrisolo, 2005:208 (in Sphecid Fauna of Italy); Dollfuss, 2008:470 (locality records from Algeria, Morocco, Tunisia, and Zambia).

*Notoglossa diphylla* A. Costa, 1884a:334, ♀. Objective synonym of *Alepidaspis diphyllus* A. Costa, 1882.

### **ssp. pharao Kohl**

*Oxybelus pharao* Kohl, 1884b:105, ♀. Syntypes: ♀, Egypt: Cairo (NHMW). – Kohl, 1884b:114 (in list of known *Oxybelus*); Dalla Torre, 1897:646 (in catalog of world Sphecidae); Kohl, 1898a:357 (additional description); von Schulthess, 1926b:219 (Libya: Dernah); Guiglia, 1934b:306 (Libya: bibliography and summary of locality records); Nadig, 1934:31 (Italy: Sardegna: Cagliari); Honoré, 1942:51 (in catalog of Egyptian Sphecidae). – **As *Oxybelus diphyllus pharao***: de Beaumont, 1950f:413 (new status); Guiglia, 1953a:66 (*pharao* is a subspecies of *diphyllus*); de Beaumont, 1957a:155 (redescription); Pulawski, 1964:147 (Egypt: Abydos, Cairo); R. Bohart and Menke, 1976:367 (listed); Dollfuss, 1989:11 (type material in NHMW).

### **69. dissectus Dahlbom**

*Oxybelus dissectus* Dahlbom, 1845:514, ♀. Lectotype: ♀, Germany: Posen, now Poland: Poznań (Lund), designated by Fæster, 1949:23. – Taschenberg, 1858:120 (in key to Sphecidae of Germany: Posen, now Poland: Poznań); Schenck, 1861:158 (redescription; Germany: Danzig and Posen, now Poland: Gdańsk and Poznań); Brischke, 1862:105 (Germany: Preussen Province, now Poland: Pomorze Region); Taschenberg, 1866:162 (in revision of Hymenoptera of Germany); Jaenicke, 1867:147 (Germany: Hessen: Frankfurt area); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:350 (known from Germany); Jaenicke, 1868:8 (Germany: Hessen: Kelsterbach); Kohl, 1883e:663 (Switzerland), 1884b:111 (in list of known *Oxybelus*); Brischke, 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region); Dalla Torre, 1897:640 (in catalog of world Sphecidae); P. Verhoeff, 1948:197 (in revision of Western European *Oxybelus*); de Andrade, 1949:22 (Portugal); Fæster, 1949:23, 40 (in revision of Western European *Oxybelus*); de Beaumont, 1951h:35 (Switzerland: Neuchâtel area); Guiglia, 1953a:119 (in revision of Italian *Oxybelus*); Blüthgen, 1954:145, 152 (in key to Central European *Oxybelus*), 154 (summary of locality records from Germany); de Beaumont, 1954e:98 (Italy); Grandi, 1954:244 (Italy); Morel, Nouvel, and Ribaut, 1956:339 (France: Département des Pyrénées-Orientales); de Beaumont, 1957b:139 (n. Iran); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Diniz, 1959:32 (Portugal: Lisboa); Wolf, 1959b:35 (known from Germany, but not from Nassau); de Beaumont, 1960b:250 (Libya); Noskiewicz and Puławski, 1960:162, 164 (in key to Polish Sphecidae); de Beaumont, 1964c:161 (in Sphecid Fauna of Switzerland), 1965a:61 (Greece); Mingo Pérez, 1966:95 (in revision of *Oxybelus* of Iberian Peninsula); de Beaumont, 1967a:365 (Turkey); Scobiola-Palade, 1968c:386 (Romania: Daia, Segarcea, Turnu Măgurele); de Beaumont, 1969:94 (Turkey); Oehlke, 1970:793 (Democratic Germany); Balthasar, 1972:158 (in Sphecid Fauna of Czechoslovakia: can be expected in the country); Kazenas, 1972b:176 (Kazakhstan); Erlandsson, 1974:87 (Italy, Malta, Spain); R. Bohart and Menke, 1976:367 (listed); Pulawski, 1978:276, 277 (in key to Sphecidae of European part of former USSR); Pagliano, 1980:120 (Italy: Puglia); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Gayubo, 1984c:374 (Portugal: El Algarve Province), 1986a:60 (Spain: Ciudad Real Province); Skibińska, 1986b:151, 154 (Poland: suburbs of Warszawa), 160 (gardens); Al-Houty, 1989:160 (Kuwait: Abdelli, Al-Wafra); Jacobs, 1989:15 (Oehlke's, 1970, record from Mecklenburg is incorrect); Jacobs and Oehlke, 1990:122 and 175 (not collected in Democratic Germany after 1960); Pagliano, 1990:78 (in catalog of Italian Sphecidae); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:404 (Italy); Negrisolo, 1991:319 (Italy: Venezia Province); Pagliano, 1991b:331, 332 (in key to Italian Crabroninae); Schembri, 1991:183 (citation of Erlandsson, 1974); Delarze, 1992:68 (Switzerland:

Valais: Les Follatères); Bitsch and Leclercq, 1993:251 (in revision of western European Crabroninae); Guichard, 1993b:531 and 533 (in key to European *Oxybelus*, color variation); Leclercq, 1993c:46 (references to recent publications, records from Italy and Yugoslavia); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Gayubo and Borsato, 1994:210 (Italy: Toscana); Negrisol, 1995a:18 (visiting flowers of *Echinophora spinosa* L.), 22 (Italy: Veneto; Negrisol *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Celary, 1997:58 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:21 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:520 (Austria: summary of collecting records from Burgenland); Blösch, 2000:264 (in Sphecidae Fauna of Germany); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ohl et al., 2001:140 (distribution in Germany by provinces); Kazenas, 2002a:90 (geographic distribution, collecting localities in Kazakhstan); Drewes, 2003:140 (France: Haute-Savoie: mouth of Dranse); Kazenas, 2004b:106 (Kazakhstan: western Tien Shan); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: last collected before 1954); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Gayubo and Özbek, 2005:24 (Turkey: Erzurum: Palandöken; Kars: Kađýzman, Sarýkamýþ); Jacobs, 2005a:448 (first record from Bulgaria: Melnik); Pagliano and Negrisol, 2005:211 (in Sphecidae Fauna of Italy); Jacobs, 2007:117, 119 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Dollfuss, 2008:470 (locality records from Bulgaria, Greece, Croatia, France, Italy, Kazakhstan, Kyrgyzstan, Mongolia, Morocco, Spain, Syria, Tadjikistan, Turkey, Turkmenistan, and Uzbekistan); Pagliano, 2009:180 (Italy: Liguria: Albenga); Bitsch and Leclercq, 2009:228 (in supplement to vol. I of Faune de France, 1993: recent record from Bulgaria reported; France: first records from Puy-de-Dôme: Neschers; Haute-Savoie: Thonon-les-Bains); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: extinct, last collected in 1954).

*Oxybelus monachus* Gerstaecker, 1867a:84, ♀. Syntypes: Germany: Berlin-Pankow (ZMHU). Synonymized with *Oxybelus dissectus* by Blüthgen, 1949:88. – Chevrier, 1868:412 (summary of diagnostic characters); Kohl, 1884b:114 (in list of known *Oxybelus*); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Schmiedeknecht, 1907:204 (in key to Hymenoptera of Central Europe); Graeffe, 1911:44 (Italy: Trieste area); Kohl, 1912:63 (Austria: Südtirol: Alle Sarche, now Italy: Trentino-Alto Adige: Sarche di Calavino); Schirmer, 1912:165 (recorded from Berlin area, Germany, by Gerstaecker, 1867); A. Wagner, 1920:38 (Germany: Lower Elbe region, not found but can be expected); R. Meyer, 1921:48 (Poland: Bydgoszcz, as Bromberg, recognition characters, description of ♂); Maidl, 1922:74 (Croatia); Noskiewicz, 1922a:8 (Poland: Lwów area, now Ukraine: L'viv area); Grandi, 1930:341 (Italy: Toscana: Maremma); Maidl *in* Schmiedeknecht, 1930:663, 666 (in keys to Hymenoptera of North and Central Europe); Bischoff, 1933:4 (Morocco); Nadig, 1933:77 (Morocco: Goundafa); Drogoszewski, 1936:129 (Poland: Łowicz); Zavadil, Šustera, and Baťa, 1937:173 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); A. Wagner, 1938b:24 (NW Germany: Niendorf on Baltic coast), 1939b:74 (an eastern species in northwestern Germany); Zavadil, 1939:121 (Slovakia: Parkan); de Beaumont, 1942b:426 (in revision of Swiss *Oxybelus*); Giner Marí, 1945b:360 (Morocco); Šnoflak *in* Zavadil and Šnoflak, 1948:35, 40 (in key to Czechoslovakian Sphecidae, not yet found in Czechoslovakia); Noskiewicz and Chudoba, 1949:420 (Poland: Dolny Śląsk: Wrocław area), 1950:313 (in revision of *Oxybelus* of Śląsk Region, Poland); Scobiola, 1951:274 (first record from Romania: Daia in București Region, Seguracea and Turnu Măgurele in Teleorman Region); Puławski, 1954:106 (Poland: Błędów); Vogrin, 1955:45 (Yugoslavia).

***ssp. eburneofasciatus* Dahlbom**

*Oxybelus eburneofasciatus* Dahlbom, 1845:514, ♀ (as *eburneo-fasciatus*, incorrect original hyphenation, authorship attributed to Dufour). Holotype or syntypes: ♀, southern France: no specific locality, but France: Saint-Sever according to Fæster, 1949:25 (Lund). – Eversmann, 1849:416 (Russia: Ural foothills); Kirchner, 1867:223 (in catalog of European Hymenoptera); Marquet, 1881:184 (southern France); Kohl, 1884b:111 (in list of known *Oxybelus*); Marquet, 1896:21 (in revision of *Oxybelus* of France); Dalla Torre, 1897:640 (in catalog of world Sphecidae); de



Gaule, 1908:121 (in catalog of French Hymenoptera); Berland, 1925d:208 (in Sphecid Fauna of France); Fæster, 1949:23, 25, 41 (in revision of Western European *Oxybelus*). – **As *Oxybelus dissectus eburneofasciatus***: de Beaumont, 1952b:90 (new status; Marquet's 1896 specimens); Guiglia, 1953a:123 (in revision of Italian *Oxybelus*, occurring in France and Spain); Grandi, 1954:244 (Italy); Ceballos, 1959:232 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:161 (in Sphecid Fauna of Switzerland), 1965a:62 (Greece); R. Bohart and Menke, 1976:367 (listed); Pagliano, 1990:78 (in catalog of Italian Sphecidae); Bitsch and Leclercq, 1993:252 (in revision of western European Crabroninae).

*Oxybelus dufouri* Marquet, 1896:22, ♀ (as *Dufouri*, incorrect original capitalization). Holotype: ♀, France: Landes: no specific locality (Lausanne). Synonymized with *Oxybelus dissectus eburneofasciatus* by de Beaumont, 1952b:90.

### **spp. elegans Mocsáry**

*Oxybelus elegans* Mocsáry, 1879:138, ♀, ♂. Syntypes: Hungary: Budapest and Grebenác (TMB). – Sajó, 1882:5 (Hungary); Kohl, 1884b:111 (in list of known *Oxybelus*); Dalla Torre, 1897:640 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, Grebenác is in today's Romania); Antiga and Bofill, 1904:27 (Spain: Cataluña Province); von Schulthess, 1926b:219 (Tunisia); Maidl in Schmiedeknecht, 1930:663, 664, 665 (in keys to Hymenoptera of North and Central Europe); Zavadil, 1937a:72 (eastern Slovakia); Zavadil, Šusterka, and Baťa, 1937:172 (in catalog of Sphecidae of Czechoslovakia); Giner Marí, 1943a:263 (in Sphecid Fauna of Spain); Balthasar, 1948:141 (Slovakia: Kovačov); Šnoflak in Zavadil and Šnoflak, 1948:35, 38 (in key to Czechoslovakian Sphecidae); Ceballos, 1949:101 (Spain); Zavadil, 1951:86 (Slovakia: Kovačov, Somotor); Vogrin, 1955:45 (Yugoslavia); Ceballos, 1956:396 (in catalog of Sphecidae of Spain); Balthasar, 1972:146 (in Sphecid Fauna of Czechoslovakia). – **As *dissectus elegans***: Móczár, 1958c:296 (new status, in revision of *Oxybelus* of Hungary); Benedek, 1968:79 (Hungary, floral records), 1969a:85 (Hungary: marshy meadow); Tsuneki, 1972a:160 (Mongolia); de Beaumont, Bytinski-Salz and Pulawski, 1973:25 (Israel; ssp. *elegans* or var.); R. Bohart and Menke, 1976:367 (listed); Tsuneki, 1984e:59 (Russia: Sarepta, now Krasnoarmeysk); Józán, 1986:371 (Hungary: Kiskunság National Park); Karsai, 1988:100 (Hungary: Kiskunság National Park); Pádr in Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Bitsch and Leclercq, 1993:252 (in revision of western European Crabroninae); Yildirim and Ljubomirov, 2005:1798 (Turkey: Konya: Cumra); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Ljubomirov and Yildirim, 2008:248 (in catalog of Crabronidae of Turkey).

### **spp. morosus Chevrier**

*Oxybelus morosus* Chevrier, 1868:390, ♀. Syntypes: Switzerland: Vaud: Nyon area (MHNG). Synonymized with *Oxybelus monachus* by de Beaumont, 1942b:426. – Kohl, 1883e:662 (Switzerland), 1884b:114 (in list of known *Oxybelus*); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Schmiedeknecht, 1907:203 (in key to Hymenoptera of Central Europe); Zilahi Kiss, 1915:80 (Hungary: Simontornya); Vogrin, 1955:45 (Yugoslavia). – **As *Oxybelus dissectus morosus***: Bitsch and Leclercq, 1993:251 (new status).

### **spp. tingitanus de Beaumont**

*Oxybelus dissectus tingitanus* de Beaumont, 1950f:420, ♀, ♂. Holotype: ♀, Morocco: Mehdiya near Port Lyautey, now Kenitra (Lausanne). – de Beaumont, 1957a:155 (Morocco); R. Bohart and Menke, 1976:367 (listed).

### **70. dissimilis Arnold**

*Oxybelus dissimilis* Arnold, 1934:21, ♀, ♂. Syntypes: Zimbabwe: Chirinda Forest (SAM). – R. Bohart and Menke, 1976:367 (listed).

**71. *dusmeti* Mingo Pérez**

*Oxybelus dusmeti* Mingo Pérez, 1966:103, ♀, ♂. Syntypes: Spain: Avila: Navalperal, and Madrid: Madrid and Somosierra (IEE). – Gayubo, 1982b:9 (Spain: Cáceres: Cabezuela del Valle; Salamanca: Montemayor del Río, 1984b:96 (Spain: previously recorded from Salamanca Province); R. Bohart and Menke, 1976:367 (listed); Bitsch and Leclercq, 1993:252 (in revision of western European Crabroninae); Guichard, 1993b:530 (in key to European *Oxybelus*); Leclercq, 1993c:46 (listed); Martin Albaladeo and Izquierdo Moya, 2006:120 (type in Museo Nacional de Ciencias Naturales); Dollfuss, 2008:471 (locality records from Spin); Bitsch and Leclercq, 2009:228 (in supplement to vol. I of Faune de France, 1993: opinions of Guichard, 1993b, and of Dollfuss, 2008, on the male reported).

**72. *eburneoguttatus* Arnold**

*Oxybelus eburneoguttatus* Arnold, 1952:485, ♂. Holotype: ♂, Zimbabwe: Igusi (SAM). – R. Bohart and Menke, 1976:367 (listed).

**73. *eburneus* Radoszkowski**

*Oxybelus eburneus* Radoszkowski, 1877:72, ♀, ♂. Syntypes: Uzbekistan: Zaravschan valley; and Kazakhstan: Bayrakum and Mount Karak near Bayrakum (ZMMU). – Kohl, 1884b:111 (in list of known *Oxybelus*); Dalla Torre, 1897:640 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:90 (geographic distribution, collecting localities in Kazakhstan).

*Oxybelus turkestanicus* Mocsáry, 1879:138. Unnecessary substitute name for *Oxybelus eburneus* Radoszkowski, treated as a junior homonym of *Oxybelus eburneus* Dours, 1874 (which is a nomen nudum and not available)

**74. *elongatus* Radoszkowski**

*Oxybelus elongatus* Radoszkowski, 1877:70, ♂. Holotype: ♂, Uzbekistan: Zaravshan valley: no specific locality (ZMMU). – Kohl, 1884b:112 (in list of known *Oxybelus*); Dalla Torre, 1897:640 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:367 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**75. *emarginatus* Say**

*Oxybelus emarginatus* Say, 1837:375, ♂. Holotype or syntypes: ♂, USA: Indiana: no specific locality (lost). – F. Smith, 1856:390 (in catalog of Hymenoptera in British Museum); Le Conte, 1859b:757 (original description copied); Cresson, 1862:234 (in catalog of North American Hymenoptera); Packard, 1867:435 (revision); Cresson, 1873:226 (Texas); Kohl, 1884b:112 (in list of known *Oxybelus*); Cresson, 1887:286 (in catalog of North American Hymenoptera); Ch. Robertson, 1889:84 (in revision of North American *Oxybelus*); Ashmead, 1890:31 (in checklist of Hymenoptera of Colorado); C. Baker, 1896b:159 (additional description); Dalla Torre, 1897:640 (in catalog of world Sphecidae); Bridwell, 1899:209 (Kansas: Baldwin); Rohwer, 1916b:660 (in catalog of Hymenoptera of Connecticut); Pate, 1930b:40 (first record from New York State); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); Krombein, 1952a:96 (USA: Virginia: Westmoreland State Park); K. Cooper, 1953:34 (Massachusetts: Penikese Island); Krombein, 1953a:296 (visiting foliage of *Quercus marilandica*), 338 (North Carolina), 1953b:123 (visiting foliage of *Quercus virginiana*), 125 (attracted to a grass), 134 (North Carolina: Kill Devil Hills); Krombein and Evans, 1954:235 (Florida), 1955:234 (Florida); R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*, as *emarginatum*), 1957:121 (in revision of Californian *Oxybelus*); Krombein, 1963f:279 (Maryland: Plummers Island near Washington, D.C., as *emarginatum*); Krombein and Kurczewski, 1963:150 (nesting habits); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park, as *emarginatum*); Krombein, 1964b:120 (dolichopodid prey), 1964c:24 (nest, prey); G. Bohart, Nye, and Hawthorn, 1970:48 (Utah: Logan, onion pollinator, as *emarginatum*); Evans, 1970:493 (Wyoming: Jackson Hole); Horning and Barr, 1970:106 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke,

- 1976:367 (listed); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a); Krombein, 1979b:1654 (in catalog of North American Hymenoptera, list of prey); Peckham and Hook, 1980:563 (nesting habits); Fennimore, 1982:123 (in Sphecidae Fauna of Southern Quebec); Frommer, 1988:94 (California: Riverside County: Deep Canyon; as *emarginatum*); Spofford and Kurczewski, 1992:998 (species of miltogrammine parasites listed); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); Kurczewski, 1996:84 (variation in nesting habits), 1998d:250 (pine barrens in upstate New York); Wcislo, 1998:181 (proportions of antennae in relations to parasitic/non-parasitic habits); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:151 (number of ovarioles); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada). – **As *Notoglossa emarginata***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae, as *emarginatus*); Ch. Robertson, 1901:204 (redescription, Illinois); Harrington, 1902:218 (Canada: Ontario: Ottawa, as *emarginatus*); Viereck, 1903d:120 (Maryland: Chestertown); H. Smith, 1908b:406 (in revision of Nebraskan Sphecidae); Stevens, 1917:423 (North Dakota); Mickel, 1918b:363 (in catalog of Nebraskan Sphecidae); Carter, 1925:131 (Canada: Alberta); Hendrickson, 1930:158 (Iowa); Brimley, 1938:450 (North Carolina: Bryson City, Judson, Raleigh).
- Oxybelus dilutus* C. Baker, 1896b:159, ♀. Holotype or syntypes: ♀, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus emarginatus* by R. Bohart and Schlinger, 1956c:160. – Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera). – **As *Notoglossa dilutus***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).
- Oxybelus trifidus* Cockerell and Baker, 1896:23, ♂. Holotype: ♂, USA: New Mexico: Santa Fe (USNM). Synonymized with *Oxybelus emarginatus* by R. Bohart and Schlinger, 1956c:160. – Burks in Muesebeck et al., 1951:1034 (in catalog of North American Hymenoptera). – **As *Notoglossa trifidus***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).
- Notoglossa americana* Ch. Robertson, 1901:204, ♀, ♂. Syntypes: USA: no specific locality (ANSP). Synonymized with *Oxybelus emarginatus* by R. Bohart and Schlinger, 1956c:160. – Hartman, 1905:29 (preying on small dipterans); Hart, 1907:256 (Illinois). – **As *Oxybelus americanus***: Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera, as *americana*).
- Notoglossa pacifica* Rohwer, 1909a:119, ♂. Holotype of syntypes: ♂, USA: Washington: Pullman (USNM). Synonymized with *Oxybelus emarginatus* by Krombein, 1955b:73. – **As *Oxybelus pacificus***: Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera, as *pacifica*).
- Notoglossa minor* Mickel, 1916a:428, ♂. Holotype: ♂, USA: Nebraska: Omaha (UNL). Synonymized with *Oxybelus emarginatus* by R. Bohart and Schlinger, 1956c:160. – Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae); Muma, 1952:21 (holotype in UNL). – **As *Oxybelus minor***: Burks in Muesebeck et al., 1951:1032 (new combination, in catalog of North American Hymenoptera).

## 76. *exclamans* Viereck

- Oxybelus exclamans* Viereck, 1906:215, ♀. Holotype: ♀, USA: Kansas: Morton County: no specific locality (Kansas Univ.). – Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Krombein and Evans, 1954:235 (Florida); R. Bohart and Schlinger, 1956c:160 (in checklist of North American *Oxybelus*); LaBerge, 1956:527 (holotype in Snow Entomological Museum); R. Bohart and Schlinger, 1957:113 (in revision of Californian *Oxybelus*); Kurczewski, 1972a:400 (nesting habits: temporary closure); R. Bohart and Menke, 1976:367 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); Peckham and Hook, 1980:561 (nesting habits); D. Peckham, 1985:869 (nesting habits); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

*Oxybelus townsendi* Rohwer and Cockerell, 1908:180, ♂. Holotype or syntypes: ♂, USA: New Mexico: Las Cruces (USNM). Synonymized with *Oxybelus exclamans* by R. Bohart and Schlinger, 1956c:160. – Burks in Muesebeck et al., 1951:1034 (in catalog of North American Hymenoptera).

*Oxybelus argentarius* Mickel, 1916a:431, ♀. Holotype: ♀, USA: Nebraska: Harrison (UNL). Synonymized with *Oxybelus exclamans* by R. Bohart and Schlinger, 1956c:160. – Mickel, 1918b:366 (in catalog of Nebraskan Sphecidae); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); Muma, 1952:21 (holotype in UNL), 27 (paratype in UNL).

*Oxybelus pectorosus* Mickel, 1918a:321, ♂. Holotype: ♂, USA: Nebraska: Mitchell (UNL). Synonymized with *Oxybelus exclamans* by R. Bohart and Schlinger, 1956c:160. – Mickel, 1918b:368 (in catalog of Nebraskan Sphecidae); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); Muma, 1952:22 (holotype in UNL).

### 77. *eximius* Sickmann

*Oxybelus eximius* Sickmann, 1894:205, ♀, ♂. Syntypes: China: Hopei Province: Tientsin (Münster). – Dalla Torre, 1897:640 (in catalog of world Sphecidae); Yasumatsu, 1935d:39 (first record from Korea: Taiden); Tsunekii, 1982b:18 (known from Korea); R. Bohart and Menke, 1976:367 (listed); Hua, 2006:281 (in list of Chinese insects, geographic distribution).

### 78. *fedtschenkoi* Radoszkowski

*Oxybelus fedtschenkoi* Radoszkowski, 1877:69, ♀, ♂ (as *Fedtschenkoi*, incorrect original capitalization). Syntypes: Uzbekistan: Zeravshan valley; Kazakhstan: Karak, Kyzil-Kum (ZMMU). – Kohl, 1884b:112 (in list of known *Oxybelus*); F. Morawitz, 1893b:416 (Uzbekistan: Pyandjikent); Dalla Torre, 1897:640 (in catalog of world Sphecidae); Gussakovskij, 1935:434 (Tajikistan); R. Bohart and Menke, 1976:367 (listed); Nazarova, 1998:41 (Tajikistan: Tigrovaya Balka Nature Reserve); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:90 (geographic distribution, collecting localities in Kazakhstan).

### 79. *fischeri* Spinola

*Oxybelus fischeri* Spinola, 1839:484, ♀ (as *Fischeri*, incorrect original capitalization). Holotype or syntypes: ♀, Egypt: no specific locality (Torino?). – P. Verhoeff, 1948:204 (in revision of Western European *Oxybelus*); de Beaumont, 1950f:418 (s. Algeria), 1956a:213 (Libya), 1957a:155 (Morocco), 1958b:69 (Algeria: Tassili des Ajjer), Grandi, 1957:392 (Libya: Tripolitania: Bu el Gherab); Pulawski, 1964:146 (Egypt: Abu Rawash, Cairo, Dahshur, Ghiza, Kom Osheim, Maadi, Saqqara, Wadi Digla); de Beaumont, 1968a:276 (Canary Islands: Fuertaventura; as *fischeri fischeri*); de Beaumont, Bytinski-Salz and Pulawski, 1973:25 (Israel); R. Bohart and Menke, 1976:367 (listed); Báez and Ortega, 1978:192 (Canary Islands); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Guichard, 1990b:283 (Saudi Arabia, Yemen); Hohmann, La Roche, Ortega, and Barquín, 1993:249 (detailed locality records from Canary Islands); Leclercq, 1993c:46 (*tegularis* is a subspecies or morph from the Canaries); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah and Assery, 2004a:226 (in catalog of Sphecidae of Saudi Arabia); Dollfuss, 2008:471 (locality records from Algeria, Jordan, Morocco, Spain, Tunisia, and Turkey).

*Oxybelus africanus* Kohl, 1884b:106, ♀. Holotype or syntypes: ♀, Egypt: Cairo (NHMW, TMB). Synonymized with *Oxybelus fischeri* by P. Verhoeff, 1948:204 and de Beaumont, 1950f:418. – Kohl, 1884b:110 (in list of known *Oxybelus*); Dalla Torre, 1897:639 (in catalog of world Sphecidae); Kohl, 1898a:357 (description of ♂); Morice, 1911:132 (Algeria: Biskra); von Schulthess, 1926b:219 (Morocco, Tunisia, Libya); Guiglia, 1934b:306 (Libya: bibliography and summary of locality records); Nadig, 1934:31 (Italy: Sardegna: Cagliari); Honoré, 1942:50 (in catalog of Egyptian Sphecidae); Giner Marí, 1943a:262 (in Sphecid Fauna of Spain); Dollfuss, 1989:11 (type material in NHMW).

**ssp. *tegularis* E. Saunders**

*Oxybelus tegularis* E. Saunders, 1903:210, ♀, ♂. Syntypes: Canary Islands: Tenerife: Orotava (BMNH). – Saunders, 1904a:202 (Canary Islands: Tenerife); Bischoff, 1937b:2 (Canary Islands). – **As *Oxybelus fischeri tegularis***: de Beaumont, 1954:6 (Canary Islands; new status), 1968a:276 (Canary Islands: Gran Canaria, Tenerife); Báez and Ortega, 1978:192 (Canary Islands); Erlandsson, 1978a:206 (Canary Islands; as *fischeri tegulus*); R. Bohart and Menke, 1976:367 (listed); Wolf, 1980:73 (Canary Islands); Hohmann, La Roche, Ortega, and Barquín, 1993:249 (detailed locality records from Canary Islands).

**80. *flavicornis* Arnold**

*Oxybelus flavicornis* Arnold, 1927:97, ♀, ♂. Syntypes: Zimbabwe: Sawmills, Bulawayo, Sanyati River; Botswana: Palapye Road; South Africa: Cape Province: Willowmore (SAM). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:367 (listed); Dollfuss, 2008:472 (locality records from Kenya, Malawi, and Zimbabwe; variation).

**ssp. *nyassae* Arnold**

*Oxybelus flavicornis* race *nyassae* Arnold, 1927:98, ♂. Holotype: ♂, Tanzania: Langenburg on Lake Nyasa (ZMHU). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae, as *nyassae*). – **As *Oxybelus flavicornis nyassae***: R. Bohart and Menke, 1976:368 (listed); Dollfuss, 2008:473 (locality records from Benin, Kenya, Senegal, and Zimbabwe).

**81. *flavipes* Cameron**

*Oxybelus flavipes* Cameron, 1890b:276, ♀. Holotype or syntypes: ♀, India: Bengal: Barrackpore (OXUM). – Cameron, 1890b:276 (India: Barrackpore); Bingham, 1897:319 (original description copied); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Rothney, 1903:106 (India: West Bengal: Barrackpore); Pate, 1938b:389 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:368 (listed); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*).

**82. *flavigaster* Kazenas**

*Oxybelus flavipes* Kazenas, 1972b:179, ♀, junior primary homonym of *Oxybelus flavipes* Cameron, 1890. Holotype: ♀, Kazakhstan: Alma-Ata Oblast': Ayak-Kalkan (ZIN). – R. Bohart and Menke, 1976:368 (listed).

*Oxybelus flavigaster* Kazenas, 2002:37, 39. Substitute name for *Oxybelus flavipes* Kazenas. – Kazenas, 2002a:91 (geographic distribution, collecting localities in Kazakhstan, as nomen novum); Dollfuss, 2008:473 (Turkmenistan: Repetek).

**83. *flaviventris* Arnold**

*Oxybelus flaviventris* Arnold, 1927:80, ♀, ♂. Syntypes: Zimbabwe: Bulawayo (SAM and coll. R. Stevenson). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed); Dollfuss, 2008:473 (Kenya: Voi, Zimbabwe: Masvingo).

**84. *fossor* Rohwer and Cockerell**

*Oxybelus fossor* Rohwer and Cockerell, 1908:179, ♀. Holotype or syntypes: ♀, USA: New Mexico: Mesilla Park (USNM). – Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Krombein, 1955b:72 (synonymy reviewed); R. Bohart and Schlinger, 1956c:160 (in checklist of North American *Oxybelus*), 1957:129 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); D. Peckham, 1985:867 (nesting habits); Frommer, 1988:94 (California: Riverside County: Deep Canyon); R. Bohart, 1993e:160 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

*Oxybelus umbrosus* Mickel, 1916a:432, ♂. Holotype: ♂, USA: Nebraska: Harrison (UNL). Synonymized with *Oxybelus fossor* by Pate, 1943g:125. – Mickel, 1918b:366 (in catalog of Nebraskan Sphecidae); Burks in Muesebeck et al., 1951:1034 (in catalog of North American Hymenoptera); Muma, 1952:22 (holotype in UNL), 27 (paratype in UNL).

*Oxybelus puente* Pate, 1943h:125, ♂, ♀. Holotype: ♂, USA: California: Riverside County: Riverside (ANSP). Synonymized with *Oxybelus fossor* by R. Bohart and Schlinger, 1956c:160. – Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); H. Allen, 1995:16 (holotype in ANSP).

#### 85. *fraternus* R. Bohart

*Oxybelus fraternus* R. Bohart, 1993d:70, ♀, ♂. Holotype: ♀, Argentina: Catamarca: Andalgala (UCD). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

#### 86. *fraudulentus* Arnold

*Oxybelus decipiens* Arnold, 1929c:415, ♀, ♂, junior primary homonym of *Oxybelus decipiens* Brèthes, 1913. Syntypes: Namibia: Zesfontein, Koabenuis (SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae).

*Oxybelus fraudulentus* Arnold, 1940:138. Substitute name for *Oxybelus decipiens* Arnold, 1929. – R. Bohart and Menke, 1976:368 (listed); Dollfuss, 2008:473 (locality records from Mozambique, Namibia, South Africa, and Zimbabwe).

#### 87. *fritzi* R. Bohart

*Oxybelus modestus* Brèthes, 1913:142, ♀, ♂, junior primary homonym of *Oxybelus modestus* Kohl, 1892. Lectotype: ♂, Argentina: Mendoza: no specific locality (MNCN), designated by R. Bohart, 1993a:190. – R. Bohart and Menke, 1976:368 (listed); Genise, 1990:26 (type material in MACN).

*Oxybelus fritzi* R. Bohart, 1993a:190 (diagnostic characters). Substitute name for *Oxybelus modestus* Brèthes, 1913. – R. Bohart, 1993c:21 (diagnostic characters); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:473 (Argentina: Buenos Aires: Sierra de la Ventana).

#### 88. *frontis* R. Bohart

*Oxybelus frontis* R. Bohart, 1993d:70, ♀, ♂. Holotype: ♀, Argentina: Río Negro: Lamarque (originally M. Fritz coll., Salta, Argentina, now AMNH). – R. Bohart, 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America); Dollfuss, 2008:473 (Argentina: Buenos Aires: Sierra de la Ventana).

#### 89. *fulvicaudis* Cameron

*Oxybelus fulvicaudis* Cameron, 1908b:303, ♀. Holotype or syntypes: ♀, India: Gujarat: Deesa (BMNH). – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); Pate, 1938b:389 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:368 (listed); Manikandan, Dey, and Farooqi, 1999:14 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*).

#### 90. *fulvopilosus* Cameron

*Oxybelus fulvopilosus* Cameron, 1890b:279, ♀. Holotype or syntypes: ♀, India: West Bengal: Barrackpore (OXUM). – Cameron, 1890b:276 (India: Barrackpore); Bingham, 1897:319 (in Wasp Fauna of British India); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Rothney, 1903:106 (India: West Bengal: Barrackpore); Pate, 1938b:390 (in list of Oriental Oxybelini, as *fulvopilosum*); R. Bohart and Menke, 1976:368 (listed); Burks, 1983:33 (Sri Lanka); Pu, 1986:8 (China); Manikandan, Dey, and Farooqi, 1999:14 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*); Hua, 2006:281 (in list of Chinese insects, geographic distribution, as *fulvopilosa*).

**91. *funereus* Krombein**

*Oxybelus funereus* Krombein, 1982:34, ♀, ♂. Holotype: ♀, Sri Lanka: Galle District: Sinharaja Jungle (USNM). – Dollfuss, 2008:473 (India: Kerala: Themala at 8°58.0'N 77°03.5'E, Laos: Bolikhamsai in Ban Nape Province).

**92. *furcifer* R. Turner**

*Oxybelus furcifer* R. Turner, 1917e:191, ♀, ♂. Syntypes: India: Bihar: Chapra and Pusa. – Pate, 1938b:390 (in list of Oriental Oxybelini; as *furciferum*); R. Bohart and Menke, 1976:368 (listed); Manikandan, Dey, and Farooqi, 1999:14 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**93. *furculatus* Manikandan, Dey, and Farooqi**

*Oxybelus furculatus* Manikandan, Dey, and Farooqi, 1998:120, ♂. Holotype: ♂, India: Delhi (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:474 (India: Karnataka: 40 km SW Shimoga at 13°36.7'S 75°07.9'E, Uttaranchal: 13 km NW Nainital; Pakistan: Jammu and Kashmir: Azad).

**94. *fuscus* Kazenas**

*Oxybelus fuscus* Kazenas, 2001a:89, ♀, ♂. Holotype: ♀, Kazakhstan: SE Kazakhstan: 30 km E Chilik (ZIN).

**95. *fuscohirtus* Gussakovskij**

*Oxybelus fuscohirtus* Gussakovskij, 1930b:76, ♀, ♂. Syntypes: Tajikistan: Sary-kol Range in Pamir on Chinese border (ZIN). – R. Bohart and Menke, 1976:368 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Dollfuss, 2008:474 (locality records from Kyrgyzstan, Nepal, Tajikistan, and Uzbekistan).

**96. *genisei* R. Bohart**

*Oxybelus genisei* R. Bohart, 1993c:21, ♀, ♂. Holotype: ♀, Brazil: Santa Catarina: Nova Teutonia (UCD). – Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:474 (Bolivia: Rio Seco, Santa Cruz).

**97. *glasunowi* F. Morawitz**

*Oxybelus glasunowi* F. Morawitz, 1894:346, ♀ (as *Glasunowi*, incorrect original capitalization). Holotype or syntypes: ♀, Turkmenistan: Tedzhen (ZIN). – Dalla Torre, 1897:641 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:368 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**98. *gobiensis* Tsuneki**

*Oxybelus gobiensis* Tsuneki, 1972a:164, ♂, ♀. Holotype: ♂, Mongolia: East Gobi Aymag: 40 km NW Khara-Bireg (TMB). – R. Bohart and Menke, 1976:368 (listed); Dollfuss, 2008:474 (locality records from Mongolia).

**99. *gracilissimus* Kazenas**

*Oxybelus gracilissimus* Kazenas, 1990:60, ♀, ♂ (spelled *gracilissimus* on p. 59, but *gracilissimus* on p. 60). Holotype: ♀, Kazakhstan: 65 km W Bakanas (ZIN). – Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:91 (geographic distribution, collecting localities in Kazakhstan), 2008a:103 (Southeastern Kazakhstan: Ili River valley: 65 km W Bakanas, 15 km E Ayak-Kalkan).

**100. *guichardi* de Beaumont**

*Oxybelus guichardi* de Beaumont, 1950f:413. Holotype: ♀, Algeria: Tadjerouna (BMNH). – de Beaumont, 1953a:176 (Mauritania); R. Bohart and Menke, 1976:368 (listed); Guichard, 1990b:281 (Kuwait); Leclercq, 1993c:46 (listed); Dollfuss, 2008:474 (Israel: 32 km SE Beersheba at 30°58'N, 34°58'E).

**101. *haemorrhoidalis* Olivier**

*Oxybelus haemorrhoidalis* Olivier, 1812b:597, sex not indicated. Holotype or syntypes: sex not indicated, France: Paris area (lost). – Vander Linden, 1829:40 (bibliographic references, France: Paris area); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); nec Dahlbom, 1844:272 and 1845:512 (= *Oxybelus trispinosus*);

Schilling, 1848:105 (Germany: Breslau area, now Poland: Wrocław); Eversmann, 1849:416 (Russia: Ural foothills); Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Dresden); Kirschbaum, 1853:47 (Germany: Herzogtum Nassau: Mombach); F. Smith, 1856:386 (in catalog of Hymenoptera in British Museum); Ruthe and Stein, 1857:315 (Germany: Berlin area); Assmus, 1859:616 (Russia: Moscow Oblast'); A. Morawitz, 1864:459 (Russia: St.-Petersburg); Kirchner, 1867:223 (in catalog of European Hymenoptera); Radoszkowski, 1887b:97 (in list of Transcaspiian Hymenoptera); Dalla Torre, 1897:641 (in catalog of world Sphecidae); von Heyden, 1906:82 (Germany: Hessen: Frankfurt); Kohl, 1884b:112 (in list of known *Oxybelus*); R. Bohart and Menke, 1976:368 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection, as *haemorrhoidalis*); Leclercq, 1993c:46 (collecting localities from Europe, Morocco, and Algeria); Gayubo and Borsato, 1994:210 (Italy: Veneto, Lazio); Negrisolò in Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Schmid and Schmid-Egger, 1997:21 (in checklist of German Sphecidae); Blösch, 1998:168 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Dollfuss, Gusenleitner, and Bregant, 1998:521 (Austria: summary of collecting records from Burgenland); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Blösch, 2000:264 (in Sphecidae Fauna of Germany); Schmid-Egger, 2000b:276, 279 (Germany: Baden-Württemberg: shores of Rhine River); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ohl et al., 2001:140 (distribution in Germany by provinces); Drewes, 2003:140 (Germany: Bayern: Karlstadt am Main); Generani, Pagliano, Scaramozzino, and Strumia, 2003:65 (Italy: Arcipelago Toscano); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavalero); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Tischendorf and Treiber, 2003:121, 125 (Germany: Hessen: 15 km SW Frankfurt am Main: nesting under high power lines); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:196 (Germany: Bayern: strongly endangered); Esser, Jakubzik, and Sonnenburg, 2004:18 (Germany: Nordrhein-Westfalen); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Nicoli Aldini, 2004:255 (nesting habits, as *haemorrhoidalis haemorrhoidalis*); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands); Gayubo and Özbek, 2005:24 (Turkey: seven localities); Jacobs, 2005a:448 (Bulgaria: Nesebar); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Pagliano and Negrisolò, 2005:213 (in Sphecidae Fauna of Italy); Reder, 2005:951 (Germany: Rheinland-Pfalz: Eisenberg, Monsheim, Worms); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1798 (Turkey: Erzurum and Konya provinces); Gadoum and Barbier, 2006:43 (France: départements of Val-d'Oise and Yvelines: Parc Naturel Régional du Vexin Français: Guernes); Ljubomirov, 2006:541 (Bulgaria: Rhodope Mountains: Peshtera); Jacobs, 2007:116, 119 (in key to Crabronidae of Germany); Nemkov, 2007c:997 (in Appendix to Key to identification of Sphecidae of Far East of Russia); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Danilov, 2008:350 (Russia: Altayskiy Kray: Barnaul area); Danilov and Tshernyshev, 2008:43 (Russia: Novosibirsk Oblast': Karasuk area); Dollfuss, 2008:474 (locality records from Algeria, Azerbaidjan, Bulgaria, France, Greece, Hungary, Iran, Italy, Japan, Kazakhstan, Kyrgyzstan, Moldova, Mongolia, Morocco, Romania, Serbia, Spain, Syria, Tunisia, Turkey, Turkmenistan, Ukraine, and Uzbekistan); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:249 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); Bitsch and Leclercq, 2009:228 (in supplement to vol. I of Faune de France, 1993: behavioral observation by Nicoli Aldini reported; France: first record from Ain: Sermayer; Loiret: Ardon; Vaucluse: Carpentras et Orange); Guéorguiev and Ljubomirov, 2009:265 (Bulgaria: Maleshevska Planina); Nemkov, 2009b:90 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: rare).



*Oxybelus victor* Lepeletier de Saint Fargeau, 1845:218, ♀. Holotype or syntypes: ♀, France: Paris area (lost?). Synonymized with *Oxybelus haemorrhoidalis* by Bitsch and Leclercq, 1993:253. – F. Smith, 1856:386 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:223 (in catalog of European Hymenoptera); Dours, 1874:153 (in catalog of Hymenoptera of France); Kohl, 1883e:662 (Switzerland), 1884b:116 (in list of known *Oxybelus*); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); Dalla Torre, 1897:650 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Berland, 1925d:210 (in Sphecidae Fauna of France); Coulon, 1925:122 (France); Grandi, 1926:313 (prey carrying, prey), 1928d:313 (prey); Grandi, 1929:289 (Italy: Toscana: valle della Limentra); Maidl in Schmiedeknecht, 1930:662, 666 (in keys to Hymenoptera of North and Central Europe); Bouwman, 1932:393 (in revision of Sphecidae of Netherlands); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Zavadil, Šustera, and Bat'a, 1937:171 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); Molitor, 1938:448 (color recognition); A. Wagner, 1938a:118 (northwestern Germany); Móczár, 1939:5 (Hungary: Jászberény); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Schneid, 1941:1033 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:427 (in revision of Swiss *Oxybelus*); Balthasar, 1943:41 (Czech Republic: Moravia: Zlin area); Giner Marí, 1943a:258 (in Sphecidae Fauna of Spain); Guiglia, 1944b:41 (Italy); van Lith, 1947:104 (Netherlands); Balthasar, 1948:141 (Slovakia: Kovačov, Parkan); Šnoflak in Zavadil and Šnoflak, 1948:35, 40 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:183 (in revision of Western European *Oxybelus*); de Andrade, 1949:21 (Portugal, as *victor victor*); Fæster, 1949:30, 43 (in revision of Western European *Oxybelus*); de Beaumont, 1950f:421 (Algeria); Noskiewicz and Chudoba, 1950:311 (in revision of *Oxybelus* of Śląsk Region, Poland); Leininger, 1951:116 (Germany: Baden-Württemberg); Scobiola, 1951:274 (first record from Romania: București, Mangalia in Constanța Region); de Beaumont, 1952b:91 (Marquet's 1896 specimens); Guiglia, 1953a:88 (in revision of Italian *Oxybelus*, as *victor victor*); Bischoff and Stadler, 1954:127 (Germany: Bayern: Romburg); Blüthgen, 1954:147, 151 (in key to Central European *Oxybelus*), 153 (summary of locality records from Germany); de Beaumont, 1954e:98 (Italy); Vergne, 1955:6 (France: Auvergne); Vogrin, 1955:46 (Yugoslavia); Ceballos, 1956:398 (in catalog of Sphecidae of Spain); de Beaumont, 1956a:213 (Libya); Morel, Nouvel, and Ribaut, 1956:339 (France: Département des Pyrénées-Orientales); de Beaumont, 1957a:156 (Morocco; geographic variation), 1957b:139 (n. Iran); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Birkenheide, Leistadt); Benno, 1958b:18 (in review of Dutch Sphecidae); Diniz, 1959:32 (Portugal: Lisboa, S. João do Estoril); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:163, 165 (in key to Polish Sphecidae); Grandi, 1961:260 (nesting habits, as *victor victor*); de Beaumont, 1964c:162 (in Sphecidae Fauna of Switzerland), 1965a:63 (Greece); Bonelli, 1966c:221 (Italy: Trentino–Alto Adige: Montagna); Mingo Pérez, 1966:85 (in revision of *Oxybelus* of Iberian Peninsula, as *victor victor*); Balthasar, Hrubant, and Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); Benno, 1967:39 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:365 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Scobiola-Palade, 1967a:162 (Romania: Constanța District: Mangalia), 1967b:50 (Romania); Benedek, 1968:79 (Hungary, floral records); Scobiola-Palade, 1968c:386 (Romania: București); Zangheri, 1969:1709 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1969a:85 (Hungary: marshy meadow), 1970:105 (Hungary: Tapolca); de Beaumont, 1970a:405 (Afghanistan), 1970c:17 (Iran: Baluchistan); Oehlke, 1970:798 (Democratic Germany); Schmidt, 1971b:54 (Germany: Mainz area); Tsuneki, 1971m:36 (China: Inner Mongolia: Apaka); Balthasar, 1972:162 (in Sphecidae Fauna of Czechoslovakia); Scobiola-Palade, 1972a:152 (Romania: delta of Danube: Caraorman); Simon Thomas, 1972:187 (France: Gironde, Landes, Lot-et-Garonne); Erlandsson, 1974:88 (Spain, Yugoslavia); Scobiola-Palade, 1974:147 (Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:370 (listed); Simon Thomas, 1976:6 (France: Lot-et-Garonne); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Guichard, 1978:272 (Greece); Marion, 1978:91 (France: Nièvre Department); Pulawski, 1978:276, 277 (in key to Sphecidae of European part of former USSR); Benedek, 1979:237 (Hungary: Bakony Hills); Leclercq, Gaspar, and Verstraeten, 1979:map 1430 (Belgium, as *victor victor*); Pagliano, 1980:120 (Italy: Piemonte); Donath, 1982:215 (Germany: Cottbus Bezirk); Gayubo, 1982b:17 (N Spain:

Spain: Ávila, Cáceres, and Salamanca provinces), 1882e:103 (Spain: Cádiz Province); Tsuneki, 1982b:19 (known from Korea); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Schmidt and Westrich, 1983:124 (Greece); Gayubo, 1984b:92 (Spain: Salamanca Province); Józán, 1985b:58 (Hungary S Lake Balaton), 79 (floral records), 84 (ecological and zoogeographic characteristics); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Brechtel, 1986:73 (Germany: Südpfalz Region); Gayubo, 1986d:115 (Spain: Zamora Province); Gayubo and Heras, 1986: (Spain: Segovia Province); Gayubo and Sanza, 1986:62 (Spain: Burgos, Soria); Józán, 1986:371 (Hungary: Kiskunság National Park); Asis and Jiménez, 1987:27 (Spain: Castellón Province); Schmidt and Westrich, 1987:375 (Germany: Mainz area); Tormos and Jiménez, 1987a:125 (Spain: Valencia); Dollfuss, 1988:14, 26 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Karsai, 1988:100 (Hungary: Kiskunság National Park); Wolf, 1988b:141 (Germany: Rheinland-Westfalen); Józán, 1989:101 (Hungary: Tihany Nature Reserve); Pádr *in* Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:88 (Romania: delta of Danube); Skibińska, 1989b:291 (Poland: moist meadow in Warszawa area); Jacobs and Oehlke, 1990:123 (population regress in Democratic Germany after 1960), 178 (citation of Donath, 1982); Kuznetzova, 1990:25 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pádr, 1990:90 (Czech Republic: Praha area); Pagliano, 1990:80 (in catalog of Italian Sphecidae); Schwammler and Priesner, 1990:542 (Austria: Kärnten); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:133 (in key to Sphecidae of North and Central Europe); Józán, 1991:603 (Hungary: Bátorliget Nature Reserve); Kowalczyk, 1991a:100 (Poland: Łódź); Pagliano, 1991b:329, 332 (in key to Italian Crabroninae); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Gayubo, Borsato, and Osella, 1992:285 (France, Greece); Józán, 1992a:229 (Hungary: Bédakarapancsa Protected Area), 1992b:174 (Hungary: Boronka-melléki Protected Area), 1992c:289 (Hungary: Zselic Hills); Nemkov, 1992b:245 (Russia: Far East: Blagoveshchensk); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Negrisoló and Pagliano, 1993:92 (Italy: Sardegna); Guichard, 1993b:531 and 533 (in key to European *Oxybelus*); Torregrosa, Gayubo, Tormos, and Asis, 1993:19 (Spain: Alicante Province); Dollfuss, 1994:103 (endangered in Austria); Theunert, 1994c:46 (summary of records from Niedersachsen and Bremen, Germany); Tormos, Asis, and Gayubo, 1994:189, 213 (Spain: Albacete Province); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Gusenleitner, 1995:161 (Austria: Steiermark); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:425 (in key to Sphecidae of Russian Far East); Saure and Dürrenfeld, 1995:29 (Germany: Brandenburg: Gabower Hänge near Bad Freienwalde); Scharrer, 1995:28 (Austria: Niederösterreich: Donau-AuenGermany: Bayern: Aschaffenburg, Kahl; Croatia: Island of Krk); Schmid-Egger, Risch, and Niehuis, 1995:201 (summary of records from Germany: Rheinland-Pfalz Province); Verves and Gorobchishin, 1995:54 (preying on *Sarcophila latifrons* (Fallén)); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Minoranskiy and Shkuratov, 1996:82 (Russia: Rostov Oblast'); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg), 110 (locality records); Celary, 1997:59 (in checklist of Animals of Poland); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:109 (in catalog of Belgian aculeates, as *victor victor*); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Dressler, 2000:33 (Germany: Hessen: Darmstadt area); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Shlyakhtenok and Skibinska, 2002:34 (Belarus': no specific locality); Protsenko, 2003:68, 69 (Ukraine: Odessa Oblast': Malyi Tataru island in Danube delta at 45.21°N 29.00°E); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Kofler, 2005:175 (Austria: Tirol: Lienz District: city of Lienz, Untergaimberg in Gaimberg Common); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia);. – *As Oxybelus haemorrhoidalis victor*: Bitsch and Leclercq, 1993:253 (new status, forme or subspecies).

- Oxybelus dubius* Dahlbom, 1845:513, ♂. Holotype or syntypes: ♂, Europe: no specific locality, but Germany: Glogau, (now Poland: Głogów) according to Fæster, 1949:30 (LUND). Synonymized with *Oxybelus victor* by Fæster, 1949:30. – Thomson, 1870:179 (in revision of Swedish Crabroninae).
- Oxybelus fasciatus* Dahlbom, 1845:513, ♀. Holotype or syntypes: ♀, Germany: Posen, now Poland: Poznań (Lund, now lost, see Faester, 1949:30). Synonymized with *Oxybelus victor* by ... – Kirschbaum, 1853:47 (Germany: Herzogtum Nassau: Mombach); Taschenberg, 1858:118 (in key to Sphecidae of Germany: Poland: Poznań; Germany: Mombach); Frauenfeld, 1861:103 (Croatia: Dalmatia); Schenck, 1861:150 (redescription; Germany: Nassau Region: Wiesbaden, now in Hessen); Taschenberg, 1866:160 (in revision of Hymenoptera of Germany); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region); Thomson, 1870:179 (in revision of Swedish Crabroninae); Kohl, 1884b:112 (in list of known *Oxybelus*); Gasperini, 1887:14 (cited from Dalmatia by Frauenfeld, 1861); Borries, 1897:76 (nesting habits unknown); Dalla Torre, 1897:640 (in catalog of world Sphecidae); de Cobelli, 1903:114 (Italy: Province of Trentino: Malè, Rovereto); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- Oxybelus simplex* Dahlbom, 1845:513, ♂. Holotype or syntypes: ♂, "Europ. merid.:" no specific locality, but France: Montpellier according to Fæster, 1949:30 (Lund). Synonymized with *Oxybelus dubius* by Thomson, 1870:179 and with *Oxybelus victor* by Fæster, 1949:30. – Kirchner, 1867:223 (in catalog of European Hymenoptera); Kohl, 1884b:115 (in list of known *Oxybelus*); Dalla Torre, 1897:648 (in catalog of world Sphecidae); von Heyden, 1905:82 (Germany: Hessen: Frankfurt).
- Oxybelus bicolor* Schilling, 1848:105, sex not indicated. Holotype: sex unknown: Germany: Lissa near Glatz, now Poland: Bardo near Klodzko (lost). Synonymized with ... by ..., synonymy confirmed by Bitsch and Leclercq, 1993:253 and Leclercq, 1993c:46. – Erichson, 1948:137 (original description copied); R. Bohart and Menke, 1976:368 (listed). – **As *Oxybelus haemorrhoidalis* var. *bicolor***: Dalla Torre, 1897:641 (in catalog of world Sphecidae).
- Oxybelus elegantulus* Gerstaecker, 1867a:59, ♀. Syntypes: ♀, Germany: Woltersdorf near Berlin (ZMHU). Synonymized with *Oxybelus victor* by Faester, 1949:30. – A. Costa, 1867c:147 (in revision of Italian Sphecidae); Chevrier, 1868:412 (summary of diagnostic characters); A. Costa, 1871b:76 (in revision of Italian Sphecidae); Kohl, 1883e:661 (Switzerland), 1884b:111 (in list of known *Oxybelus*), 1893:33 (Austria: Niederösterreich); Baldini, 1894:72 (Italy: Modena area); Krieger, 1894:11 (Germany: Kingdom of Saxony: Leipzig); Dalla Torre, 1897:640 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Croatia and Slovakia); Chyzer, 1902:34 (Hungary); W. Schulz, 1904b:101 (Czechoslovakia: Houška); Kubes, 1905:84 (Czech Republic: Kolín); Schmiedeknecht, 1907:202 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dittrich, 1911b:20 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Schirmer, 1912:164 (Germany: Berlin area); Alfken, 1914:275 (NW Germany); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); Stöckert, 1919:38 (Germany: Franken); Dubois, 1920:87 (Belgium: Beverloo, 1921c:190, 192, 193 (in key to Belgian Sphecidae); Fahringer and Friese, 1921:161 (Turkey: Erzurum: Dörtjol in Amanus Mts. = Gavur Dağları); Enslin, 1922c:246 (Germany: Bayern: Fürth, Neumerkt, and Nürnberg); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Noskiewicz, 1922b:231 (Poland: Podole Region: Sinków, now Ukraine); Leininger, 1924:121 (Germany: Baden-Württemberg: Friedrichstal, Karlsruhe); Zanon, 1925:89 (Libya: Fueihat 15 km S Benghazi); Guiglia, 1934b:306 (Libya: bibliography and summary of locality records); Szulczewski, 1950:102 (Poland: Wielkopolski National Park 15 km S Poznań).
- Oxybelus incomptus* Gerstaecker, 1867a:76, ♂. Syntypes: ♂, Germany: Berlin area (ZMHU). Synonymized with *Oxybelus victor* by Blüthgen, 1949:87. – Chevrier, 1868:412 (summary of diagnostic characters); Kohl, 1884b:112 (in list of known *Oxybelus*); Dalla Torre, 1897:641 (in catalog of world Sphecidae); O. Schneider, 1898:102 (Germany: Borkum Island); Schmiedeknecht, 1907:205 (in key to Hymenoptera of Central Europe); Schirmer,

- 1912:165 (Germany: Berlin area); Alfken, 1914:276 (NW Germany); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); Maidl in Schmiedeknecht, 1930:666 (in keys to Hymenoptera of North and Central Europe); Schneid, 1941:1034 (Germany: Bayern: Bamberg area, as *comptus*); Šnoflak in Zavadil and Šnoflak, 1948:41 (in key to Czechoslovakian Sphecidae); Noskiewicz and Chudoba, 1950:314 (in revision of *Oxybelus* of Śląsk Region, Poland).
- Oxybelus analis* Gerstaecker, 1867a:93, ♀, junior primary homonym of *Oxybelus analis* Cresson, 1865. Holotype: ♀, Austria: no specific locality (ZMHU). Synonymized with *Oxybelus melancholicus* by Kohl, 1884b:113 and Marquet, 1896:33, synonymy confirmed by Blüthgen, 1949:87. – Chevrier, 1868:413 (summary of diagnostic characters); Kohl, 1880:143 (Austria: Italy: Trentino–Alto Adige), 1883e:663 (Switzerland); Gasperini, 1889:68 (Dalmatia: Spalato, now Croatia: Split); Kohl, 1893a:34 (Austria: Niederösterreich); Krieger, 1894:12 (Germany: Kingdom of Saxony); Marquet, 1896:33 (in revision of *Oxybelus* of France); Kubes, 1905:84 (Czech Republic: Kolín); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Maidl, 1922:73 (Croatia); Blüthgen, 1954:147 (in key to Central European *Oxybelus*, as *Oxybelus victor* var. *analis*).
- Oxybelus melancholicus* Chevrier, 1868:394, ♀, ♂. Syntypes: Switzerland: Lake Léman area: no specific locality (MHNG). Synonymized with *Oxybelus victor* by Blüthgen, 1949:87. – Kohl, 1883e:663 (Switzerland), 1884b:113 (in list of known *Oxybelus*); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); Ferton, 1901a:110 (prey paralyzing and transportation, list of prey), 112 (additional prey record); E. Saunders, 1904c:639 (Spain); Mantero, 1905:71 (Italy: Toscana: Isola del Giglio); Schmiedeknecht, 1907:204 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Ferton, 1908:564 (prey); Morice, 1911:132 (Algeria: Alger, Biskra); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); Maidl, 1922:74 (Croatia); Ferton, 1923:172 (prey paralyzing, list of prey); Berland, 1924:89 (France: Var: Callian), 1925d:210 (in Sphecid Fauna of France); Grandi, 1927:205 (prey, nest provisioning); von Schulthess, 1926b:219 (Tunisia); Grandi, 1928d:312 (prey), 1929:278 (list of prey), 281 (description of mature larva), 289 (Italy: Toscana: valle della Limentra); Maidl in Schmiedeknecht, 1930:662, 666 (in keys to Hymenoptera of North and Central Europe); Bouwman, 1932:391 (in revision of Sphecidae of Netherlands); Giordani Soika, 1932a:23 (Italy: Lido di Venezia); Gussakovskij, 1932:28 (Russia: Primorskiy Krai); Masi, 1933:196 (Italy: Toscana: Isola di Capraia); Giner Mari, 1934:136 (Spain); Grandi, 1934:128 (Italy: Toscana: Taviano, determination tentative); Bernard, 1935:67 (France: Var: Fréjus area); Grandi, 1935a:109 (Italy); Yasumatsu, 1935d:39 (first record from Japan and Korea); Zavadil, Šusterka, and Baťa, 1937:171 (in catalog of Sphecidae of Czechoslovakia); Guiglia, 1938b:10 (Italy: Sardegna); Móczár, 1939:5 (Hungary: Jászberény); de Beaumont, 1942b:429 (in revision of Swiss *Oxybelus*); Balthasar, 1943:41 (Czech Republic: Moravia: Zlin area); Giner Mari, 1943a:259 (in Sphecid Fauna of Spain); Guiglia, 1944a:151 (Cyprus: Cherkas; ♀, redescription of syntypes, comparison with *Oxybelus mandibularis*), 1944b:41 (Italy); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); van Lith, 1947:105 (Netherlands, determination tentative); Šnoflak in Zavadil and Šnoflak, 1948:35, 40 (in key to Czechoslovakian Sphecidae); Noskiewicz and Chudoba, 1949:420 (Poland: Dolny Śląsk: Sułów); Pittioni, 1950:29 (Cyprus); Caruel, 1952b:101 (France: Marne Department); Bischoff and Stadler, 1954:127 (Germany: Bayern: Romberg); Hertzog, 1954:102 (France: Bouches-du-Rhône: Camargue); Vogrin, 1955:45 (Yugoslavia); Morel, Nouvel, and Ribaut, 1956:339 (France: Département des Pyrénées-Orientales); Evans, 1957b:113 (discussion of larva's description by Grandi, 1929:281); Compte Sart, 1959:138 (Spain: Majorca); Scobiola-Palade, 1959:499 (Romania: Constanța Region: Techirghiol); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); Balthasar, 1972:163 (in Sphecid Fauna of Czechoslovakia); Georghiou, 1977:191 (Cyprus); Pádr in Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Pádr, 1990:89 (Czech Republic: Praha area). – As *Oxybelus victor melancholicus*: Giner Mari, 1934:136 (Spain); de Andrade, 1949:22 (Portugal); Verhoeff, 1948:187 (in revision of Western European *Oxybelus*); Guiglia, 1953a:94 (in revision of Italian *Oxybelus*); Grandi, 1954:187 (nest and prey: *Musca domestica* Linnaeus, *Stomoxys calcitrans* Linnaeus), 245 (Italy); Grandi, 1957:337 (parasite: *Smicromyrme viduata*

Pallas), 392 (Italy); Grandi, 1959a:187 (*Metopia staegei* Rondani may be a prey, but also a nest parasite, this form of interrelationships is named alleloparasitism), 1961:260 (nesting habits), 531 (description of larva), 1962:99 (Italy); Mingo Pérez, 1966:87 (in revision of *Oxybelus* of Iberian Peninsula); Simon Thomas, 1972:187 (France: Gironde, Landes, Lot-et-Garonne); de Beaumont, Bytinski-Salz and Pulawski, 1973:24 (Israel); Simon Thomas, 1976:6 (France: Lot-et-Garonne). – **As *Oxybelus victor* var. *melancholica***: Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Diniz, 1959:32 (Portugal: Estoril, Lisboa, Quinta do Mato).

### 102. *harraricus* Arnold

*Oxybelus harraricus* Arnold, 1927:112, ♀, ♂. Syntypes: Ethiopia: Harar (BMNH). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); Scott in Arnold, 1933a:369 (Ethiopia: Harar District); Giordani Soika, 1939c:103 (Eritrea: Adi Caie); R. Bohart and Menke, 1976:368 (listed).

### 103. *hastatus* Fabricius

*Oxybelus hastatus* Fabricius, 1804:317, sex not indicated. Holotype: ♂, Morocco: Mogador (ZMK). – Olivier, 1812b:594 (redescription); Dahlbom, 1844:273 (in revision of Pompilidae and Sphecidae), 1845:514 (in key to *Oxybelus*); F. Smith, 1856:387 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:223 (in catalog of European Hymenoptera, as *hastatus* Dahlbom); Kohl, 1884b:112 (in list of known *Oxybelus*); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Giner Mari, 1943a:260 (in Sphecid Fauna of Spain); Ceballos, 1956:396 (in catalog of Sphecidae of Spain); de Beaumont, 1957a:154 (Morocco; diagnostic characters); van der Vecht, 1961a:71 (study of holotype); Mingo Pérez, 1966:83 (in revision of *Oxybelus* of Iberian Peninsula); R. Bohart and Menke, 1976:368 (listed); Gayubo, 1982b:9 (Spain: Ávila, Cáceres, and Salamanca provinces), 1984b:90 (Spain: Salamanca Province); Gayubo, Asís, and Tormos, 1990b:74 (Spain: Cáceres Province); Bitsch and Leclercq, 1993:254 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:46 (Algeria: Messad; Morocco: Agadir); Dollfuss, 2008:476 (Morocco: 10 km E Guelmim; Spain: Salamanca: Aldea del Obispo: Prada Cano); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

*Oxybelus lancifer* Olivier, 1812b:594, sex not indicated. Holotype or syntypes: Spain: no specific locality (lost). – Synonymized with *Oxybelus hastatus* by Dahlbom, 1844:273. – Vander Linden, 1829:36 (bibliographic references, Spain, may be a synonym of *Oxybelus hastatus*); F. Smith, 1856:3836 (in catalog of Hymenoptera in British Museum); de Beaumont, 1957a:154 (redescription); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).

### 104. *hessei* Arnold

*Oxybelus hessei* Arnold, 1929c:413, ♀, ♂ (as *Hessei*, incorrect original capitalization). Syntypes: Namibia: Zesfontein, Kaross, Otavi, Otjikondo (SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed).

### 105. *huae* R. Bohart

*Oxybelus huae* R. Bohart, 1993d:70, ♀, ♂. Holotype: ♀, Ecuador: Napo: Huahua Sumaco, 45 km on Hallin-Loreto Road (UCD). – R. Bohart, 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

### 106. *hurdi* R. Bohart and Schlinger

*Oxybelus hurdi* R. Bohart and Schlinger, 1956b:155, ♂, ♀. Holotype: ♂, Mexico: Nayarit: Ahuacatlán (CAS). – R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*), 1957:107 (in key to North American *Oxybelus*); R. Bohart and Menke, 1976:368 (listed); R. Bohart, 1993e:160 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crab-

ronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

### 107. *imperialis* Gerstaecker

*Oxybelus imperialis* Gerstaecker, 1867a:24, ♀. Holotype or syntypes: ♀, South Africa: no specific locality (ZMHU). – Kohl, 1884b:112 (in list of known *Oxybelus*); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Arnold, 1927:79 (in revision of southern African *Oxybelus*), 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); S. Gess, 1996:283 (floral records).

### 108. *inornatus* (Robertson)

*Notoglossa inornata* Robertson, 1901:203, ♀, ♂. Syntypes: USA: Illinois: Carlinville (ANSP). – **As *Oxybelus inornatus***: Burks in Muesebeck et al., 1951:1032 (new combination, in catalog of North American Hymenoptera, as *inornata*); R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*), 1957:109 (in key to North American *Oxybelus*, as *inornatum*); Krombein, 1956a:43 (prey); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park, as *inornatum*); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada), 30 (distribution within Ontario), 56 (first record from Canada: Ontario: Forks o the Credit).

### 109. *insularis* Kohl

*Oxybelus insularis* Kohl, 1884b:109, ♀. Holotype: ♀, Sri Lanka: no specific locality (NHMW). – Kohl, 1884b:112 (in list of known *Oxybelus*); Cameron, 1890b:276 (in list of Oriental Sphecidae); Bingham, 1896a:447 (references), 1897:318 (original description translated into English); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Pate, 1938b:390 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:3368 (listed); Krombein, 1983:36 (Sri Lanka, redescription); Dollfuss, 1989:11 (type material in NHMW); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### 110. *irwini* R. Bohart

*Oxybelus irwini* R. Bohart, 1993e:164, ♀, ♂. Holotype: ♀, ♂. Holotype: ♀, El Salvador: Mt. San Salvador (UCD). – R. Bohart, 1993e:160 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Hanson and Menke, 1995:640 (known from Costa Rica, as *irwini*); Cambra and Santos, 2000:51 (first record from Panama: Parque Nacional Coiba in Isla de Coiba, Pacific Ocean; Provincia de Coclé: Antón); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:476 (Dominican Republic: Barahona).

### 111. *iwatai* Tsuneki

*Oxybelus nigriventris* Tsuneki, 1963c:43, ♀, junior primary homonym of *Oxybelus nigriventris* Turnier, 1901. Holotype: ♀, Thailand: Muangfang (Sasayama Univ.).

*Oxybelus iwatai* Tsuneki, 1976e:434. Substitute name for *Oxybelus nigriventris* Tsuneki, 1963, nec Turnier, 1901.

### 112. *jamaicae* R. Bohart

*Oxybelus jamaicae* R. Bohart, 1993e:164, ♀, ♂. Holotype: ♀, Jamaica: St. Catherine Parish: Hellshire Hills (Kansas Univ.). – R. Bohart, 1993e:160 (listed), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

### 113. *kirgisicus* Radoszkowski

*Oxybelus kirgisicus* Radoszkowski, 1893c:244, ♀. Holotype or syntypes: ♀, "Steppes de Kirghises", now Kazakhstan: no specific locality (Kraków). – Dalla Torre, 1897:642 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:368 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**114. *kizilkumii* Radoszkowski**

*Oxybelus kizilkumii* Radoszkowski, 1877:71, ♀, ♂ (as *Kizilkumii*, incorrect original capitalization). Syntypes: Kazakhstan: Kyzyl-Kum and Sur-Daria steppe: no specific locality (ZMMU). – Kohl, 1884b:113 (in list of known *Oxybelus*); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Gussakovskij, 1933b:287 (Iran: Khorassan); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**115. *koreanus* Tsuneki**

*Oxybelus koreanus* Tsuneki, 1974a:383, ♀, ♂. Holotype: Korea: South Pyongan: Pyongan (TMB). – R. Bohart and Menke, 1976:629 (listed); Tsuneki, 1982b:16 (known from Korea).

*Oxybelus koreanus* Tsuneki, 1991:203, as new species. Nomen nudum.

**116. *krombeini* R. Bohart and Schlinger**

*Oxybelus krombeini* R. Bohart and Schlinger, 1956b:149, ♀, ♂. Holotype: ♂, USA: California: Tulare County: Woodlake (CAS). – R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*), 1957:123 (in revision of Californian *Oxybelus*); Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera).

**117. *laetus* Say**

*Oxybelus laetus* Say, 1837:375, ♂. Holotype or syntypes: ♂, USA: Indiana: no specific locality (lost). – F. Smith, 1856:390 (in catalog of Hymenoptera in British Museum); Le Conte, 1859b:758 (original description copied); Cresson, 1862:234 (in catalog of North American Hymenoptera); Packard, 1867:435 (listed); Cresson, 1873:226 (Texas); Kohl, 1884b:113 (in list of known *Oxybelus*); Cresson, 1887:286 (in catalog of North American Hymenoptera); Ch. Robertson, 1889:82 (in revision of North American *Oxybelus*; Virginia, Illinois); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Mickel, 1918b:367 (in catalog of Nebraskan Sphecidae); Brimley, 1938:450 (North Carolina: Raleigh); Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*, as *laetum*), 1957:109 (in key to North American *Oxybelus*, as *laetum*); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); Finnamore, 1982:125 (in Sphecid Fauna of Southern Quebec); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); Kurczewski, 1996:85 (nest); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada), 30 (distribution within Ontario); 56 (first record from Canada: Ontario: Port Franks, Pinery Provincial Park).

***ssp. fulvipes* Ch. Robertson**

*Oxybelus fulvipes* Ch. Robertson, 1889:82, ♂. Holotype: ♂, USA: Florida: Orlando (ANSP). – Dalla Torre, 1897:641 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Cresson, 1928:54 (holotype in ANSP); Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Krombein and Evans, 1954:235 (Florida: Orlando). – **As *Oxybelus laetus fulvipes***: R. Bohart and Schlinger, 1956c:161 (new status, listed); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); D. Peckham and Hook, 1980:557 (nesting habits).

*Oxybelus floridanus* Ch. Robertson, 1901:203, ♂. Holotype or syntypes: ♂, USA: Florida: Inverness (ANSP). Synonymized with *Oxybelus laetus fulvipes* by R. Bohart and Schlinger, 1956c:161. – Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera).

**118. *lamellatus* Olivier**

*Oxybelus lamellatus* Olivier, 1811:595, sex not indicated. Syntypes: Egypt: no specific locality; and Iraq: Baghdad area (lost). – F. Smith, 1856:387 (in catalog of Hymenoptera in British Museum); Gerstaecker, 1867a:26 (bibliographic references); Kohl, 1884b:113 (in list of known *Oxybelus*); Magretti, 1884a:250 (Sudan), 1884c:599 (Sudan: Sawakin; Eritrea: Keren); Kohl, 1894:341 (Cameroon: no specific locality); Magretti, 1895:167 (Somalia); nec Marquet, 1896 (= *Oxybelus andalusiacus*); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Magretti,

1898:52 (Somalia: Ganana, determination tentative); E. Saunders, 1904c:608 (Spain: Mayorca), 639 (Spain); Graeffe, 1906:455 (Tunisia: Carthago); von Schulthess, 1909:442 (Libya: Dernah); Morice, 1911:131 (Algeria); Maidl, 1913:561 (Egypt: Aswan; *Oxybelus arabs*, *diphyllus* and *frondiger* regarded as synonyms); Mantero, 1915:326 (Libya); R. Turner, 1917e:192 (India: Bihar: Pusa); Morice, 1921:824 (Iraq: Amara, Baghdad); Maidl, 1924:234 (Sudan: Tonga on White Nile); von Schulthess, 1926b:219 (Tunisia); Kruger, 1929a:22 and 1929b:57 (Libya: Cyrenaica: Giarabub); Guiglia, 1932:128 (Ethiopia: Harer, determination tentative), 1932b:100 (Libya: Fezzan: Auenat, Ghat), 1932d:480 (Libya: Augila, El Agheila, Gialo); Bischoff, 1933:4 (Morocco); Gussakovskij, 1933b:287 (Iran: Khorassan); Nadig, 1933:77 (Morocco); Scott *in* Arnold, 1933a:369 (Ethiopia: Harar District and Mt. Fantali); Giner Mari, 1934:136 (Spain); Guiglia, 1934b:306 (Libya: bibliography and summary of locality records); Gussakovskij, 1935:434 (Tajikistan); Guiglia, 1936:7 (Libya: Gialo, Marada); Pate, 1938b:390 (in list of Oriental Oxybelini, as *lamellatum*); Guiglia, 1942b:235 (Libya); Honoré, 1942:50 (in catalog of Egyptian Sphecidae); Giner Mari, 1943a:256 (in Sphecidae Fauna of Spain); de Beaumont, 1947b:399 (Cyprus); de Andrade, 1949:21 (Portugal); de Beaumont, 1950f:413 (s. Algeria; diagnostic characters); Pittioni, 1950:28 (Cyprus); de Beaumont, 1952c:199 (Algeria: Hoggar), 1953a:175 (Mauritania); Bytinski-Salz, 1956:227 (Turkey: Aydın, Finike, Istanbul, Karapınar); Ceballos, 1956:396 (in catalog of Sphecidae of Spain); de Beaumont, 1956a:212 (Libya), 1957a:154 (Morocco), 1957b:138 (n. Iran); Grandi, 1957:392 (Libya: Wadi Kaam); de Beaumont, 1958b:67 (Algeria: Tassili des Ajjer); Diniz, 1959:32 (Portugal: six localities); de Beaumont, 1960a:23 (Greece: Island of Rhodes), 1960b:250 (Libya), 1961b:275 (Afghanistan); Myartseva, 1963b:61 (Turkmenistan: lower Murgab River); Pulawski, 1964:147 (Egypt: Abydos, Abu Rawash, Cairo, Ghiza, Kom Osheim, Maadi; Sinai: Oasis Feiran); Myartseva, 1965:96 (Turkmenistan: Akibay, Sakar-Chagin district, Pechekly 50 km N Mary, 65 km N Mary, Bayram-Ali); de Beaumont, 1966:212 (Egypt: Alexandria area: Agami, Amrye, S Abd el Rahman), 1967a:364 (Turkey); Ford, 1969:228 (preying on tsetse fly, *Glossina tachinoides* Westwood, in Nigeria); de Beaumont, 1970c:17 (Iran: Baluchistan); Kazenas, 1972b:176 (Kazakhstan); Myartseva, 1972a:94 (Turkmenistan); de Beaumont, Bytinski-Salz and Pulawski, 1973:24 (Israel); R. Bohart and Menke, 1976:368 (listed); Georghiou, 1977:191 (Cyprus); Guichard, 1980:228 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Krombein, 1983:37 (Sri Lanka); Schmidt and Westrich, 1983:123 (first record from Greece); Islamov, 1986:532 (Uzbekistan: Tashkent Oblast'); Al-Houty, 1989:160 (Kuwait: widely distributed); Guichard, 1990b:281 (Arabian Peninsula); Pagliano, 1990:78 (in catalog of Italian Sphecidae), 1991b:328, 331 (in key to Italian Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:47 (collecting localities from North Africa, Cyprus, Rhodes, Turkey); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula); Negrisol *in* Minelli, Ruffo, and La Posta, 1995b:66 (in catalog of Italian fauna); Wu and Zhou, 1996a:108 (in revision in Economic Insect Fauna of China); Asís, Tormos, and Gayubo, 1997b:62 (description of larva); Nazarova, 1998:41 (Tajikistan: Tigrovaya Balka Nature Reserve); Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Tormos, Asís, Gayubo, Portillo, and Torres, 2000:326 (nesting habits); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 181 (males attracted to humans), 2002a:91 (geographic distribution, collecting localities in Kazakhstan); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Gadallah and Assery, 2004a:216 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 226 (in catalog of Sphecidae of Saudi Arabia), 2004b:1397 (skeletal parts of sting apparatus); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Hua, 2006:281 (in list of Chinese insects, geographic distribution); Yildirim and Ljubomirov, 2007:120 (Turkey: İçel: Aydıncık); Dollfuss, 2008:476 (locality records from Algeria, Egypt, Iran, Jordan, Kazakhstan, Morocco, Pakistan, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, and Uzbekistan); Ljubomirov and Yildirim, 2008:250 (in catalog of Crabronidae of Turkey); Bitsch and Leclercq, 2009:229 (in supplement to vol. I of Faune de France, 1993:229 diagnostic characters by Pulawski, 2006, and behavioral observations by Asís *et al.* reported).

*Oxybelus savignyi* Spinola, 1839:483, ♀, ♂ (as *Savignyi*, incorrect original capitalization). Syntypes: Egypt: no specific locality (Torino). Synonymized with *Oxybelus lamellatus* by ... – Radoszkowski, 1877:74 (Kirghisia: Osh;



Uzbekistan: Tashkent; as *Savignii*, 1887b:97 (in list of Transcaspian Hymenoptera); Gribodo, 1884c:388 (Eritrea: Assab); Kohl, 1884b:115 (in list of known *Oxybelus*); Dalla Torre, 1897:648 (in catalog of world Sphecidae); Kokujev, 1902:11, footnote (NE Iran: Kyariz); Gribodo, 1924b:47 (Libya: Tolmetta, as *savignyi* var.); Zanon, 1925:89 (Libya: Fueihat 15 km S Benghazi); Guiglia, 1934b:306 (Libya: bibliography and summary of locality records); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Notoglossa sagittata* Dahlbom, 1845:514, ♀. Holotype or syntypes: ♀, Africa: no specific locality (LUND). Synonymized with *Oxybelus lamellatus* by ... – Dalla Torre, 1897:647 (in catalog of world Sphecidae); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Oxybelus squamosus* F. Smith, 1875:38, ♀, ♂. Syntypes: ♀, India: no specific locality (OXUM). Synonymized with *Oxybelus lamellatus* by ... – Kohl, 1884b:115 (in list of known *Oxybelus*, as *squamosus*); Cameron, 1890b:276 (India: Barrackpore); Bingham, 1897:315 (in Wasp Fauna of British India); Dalla Torre, 1897:648 (in catalog of world Sphecidae); Rothney, 1903:106 (India: West Bengal: Barrackpore); Lefroy, 1909:209 (nesting habits); Fletcher, 1914:280 (nesting habits); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Oxybelus rufipes* Taschenberg, 1880:781, ♀, ♂. Syntypes: Ethiopia: no specific locality (Halle). Synonymized with *Oxybelus lamellatus* by Pulawski, 2006:165. – Kohl, 1884b:114 (in list of known *Oxybelus*); Dalla Torre, 1897:647 (in catalog of world Sphecidae); Arnold, 1927:111 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed); Pulawski, 2006:165 (diagnostic characters).

*Oxybelus forticarinatus* Cameron, 1908b:304, ♀, ♂. Syntypes: India: Gujarat: Deesa (BMNH). Synonymized with *Oxybelus arabs* by Meade-Waldo in Meade-Waldo, Morley, and Turner, 1915:236, and with *Oxybelus lamellatus* by R. Turner, 1917e:192. – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); Pate, 1938b:389 (in list of Oriental Oxybelini); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Oxybelus ceylonicus* Cameron, 1897a:79, sex not indicated. Holotype or syntypes: Sri Lanka: Trincomalee (OXUM). Synonymized with *Oxybelus lamellatus* by Krombein, 1983:37. – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); Pate, 1938b:389 (in list of Oriental Oxybelini); Manikandan and Dey, 2001:263 (in checklist of Oriental *Oxybelus*).

### ***spp. aequipunctatus* Pate**

*Oxybelus aequipunctatum* Pate, 1938b:382, ♂, incorrect original termination). Holotype: ♂, Philippines: Luzon: Mount Maquiling (USNM). – Pate, 1938b:387 (in list of Oriental Oxybelini); Baltazar, 1966:358 (in catalog of Hymenoptera of Philippines). – As *Oxybelus lamellatus aequipunctatus*: R. Bohart and Menke, 1976:368 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### ***spp. andalusiacus* Spinola**

*Oxybelus andalusiacus* Spinola, 1843:136, ♂. Holotype: ♂, Spain: no specific locality (Torino). – Gerstaecker, 1867a:26 (as synonym of *Oxybelus lamellatus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); de Beaumont, 1950f:413 (redescription), 1952b:89 (Marquet's 1896 specimens); Guiglia, 1953a:66 (in revision of Italian *Oxybelus*); de Beaumont, 1957a:154 (Morocco); Guiglia, 1957:146 (Italy: Isole Pelagie); Móczár, 1958:282 (in key to Hungarian *Oxybelus*, as *andalusiaticus*); Suárez, 1959:60 (Spain: Almería Province); Ceballos, 1959:231 (in supplement to catalog of Spanish Sphecidae); Guiglia, 1960:361 (Italy: Isole Pelagie: Lampedusa); de Beaumont, 1962b:29 (Spain); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); Mingo Pérez, 1966:67 (in revision of *Oxybelus* of Iberian Peninsula); Erlandsson, 1974:87 (Spain); R. Bohart and Menke, 1976:366 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Gayubo, 1982b:8 (N Spain: Sierra de Béjar), 1982e:102 (Spain: Cádiz Province); Gayubo, 1984b:90 (Spain: Salamanca Province), 1984c:374 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:17 (Spain: Valencia); Gayubo, 1985c:169 (Spain: Toledo:

Corchuela, 1986a:60 (Spain: Ciudad Real Province), 1986d:114 (Spain: Zamora Province), 1986e:993 (teratological specimen); Gayubo and Heras, 1986:48 (Spain: Segovia Province; floral records); Tormos and Jiménez, 1987b:316 (Spain: Valencia Province: Dehesa de El Saler); Gayubo, Asís, and Tormos, 1990b:74 (Spain: Badajoz and Cáceres Provinces); Guichard, 1990b:281 (as new synonym of *Oxybelus lamellatus*); Pagliano, 1990:78 (in catalog of Italian Sphecidae); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Pagliano, 1991b:328, 331 (in key to Italian Crabroninae); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Pagliano and Scaramozzino, 1995:730 (Italy: Island of Lampedusa); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Pagliano and Negrisoló, 2005:207 (in Sphecid Fauna of Italy). – **As *Oxybelus lamellatus andalusiacus***: Bitsch and Leclercq, 1993:255 (new status; Sicily, Sardinia, Corsica, Balearic Islands, France: Hérault, Iberian Peninsula); Leclercq, 1993c:4t (locality records from Spain, Portugal, and Morocco); Bitsch and Leclercq, 2009:228 and 229 (in supplement to vol. I of Faune de France, 1993: recent records from Portugal, Sardinia, and Spain reported); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

*Oxybelus arabs* Lepeletier de Saint Fargeau, 1845:212, ♀. Holotype or syntypes: ♀, Algeria: Oran (depository?). Synonymized with *Oxybelus andalusiacus* by ... – Lucas, 1849:261 (Algeria: La Calle, Oran; original description copied with modifications); F. Smith, 1856:387 (in catalog of Hymenoptera in British Museum); Lichtenstein, 1875a:XII (first record from France: Hérault: Cette, now Sète); Marquet, 1875:210 (France: Hérault: Cette, now Sète), 1881:185 (southern France); Kohl, 1884b:111 (in list of known *Oxybelus*); Acloque, 1897:91 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:638 (in catalog of world Sphecidae); Bingham, 1898a:109 (Yemen: Aden); Pérez, 1907:496 (Bahrain); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Berland, 1925d:206 (in Sphecid Fauna of France); Coulon, 1925:122 (Morocco: Tanger); Ceballos, 1959:231 (in supplement to catalog of Spanish Sphecidae); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Notoglossa frondigera* A. Costa, 1883:58 and 92, ♂. Holotype: ♂, Italy: Sardegna: Oschiri (Napoli). Synonymized with *Oxybelus andalusiacus* by Guiglia, 1953a:66. – A. Costa, 1884b:33 (Italy: Sardegna: Oristano, Fordongianus, Scala di Giocca); Schmiedeknecht, 1896:149 (Algeria: Oran Province); de Beaumont, 1953i:12 (unnecessary designation of lectotype). – **As *Oxybelus frondiger***: Kohl, 1884b:112 (new combination, in list of known *Oxybelus*); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Guiglia, 1938b:10 (Italy: Sardegna, redescription), 1948c:203 (Italy: Sardegna: Cagliari); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*, as *frondigera*).

*Notoglossa frondigera* A. Costa, 1884a:334, ♂. Objective synonym of *Notoglossa frondigera* A. Costa, 1883a.

As *Oxybelus lamellatus*: Marquet, 1896:15 (France: Hérault: Sète), corrected to *Oxybelus andalusiacus* by de Beaumont, 1952b:89; Antiga and Bofill, 1904:27 (Spain: Cataluña Province), present correction based on geographic distribution.

### **spp. banksi (Ashmead)**

*Notoglossa banksi* Ashmead, 1905:960, ♀, actually ♂. Holotype: ♂, Philippines: Manila (USNM). – Brown, 1906:686 (in catalog of Philippine Hymenoptera). – **As *Oxybelus banksi***: Pate, 1938b:379 (new combination, redescription), 388 (in list of Oriental Oxybelini); Baltazar, 1966:358 (in catalog of Hymenoptera of Philippines, as *banksi banksi*). – **As *Oxybelus lamellatus banksi***: Tsuneki, 1976b:118 (new status, Philippines); R. Bohart and Menke, 1976:368 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### **spp. bicolorisquama Strand**

*Oxybelus bicolorisquama* Strand, 1923:172, ♂. Lectotype: ♂, Taiwan: Tainan (DEI), designated by Oehlke and Wudowenz, 1974:421. – Pate, 1938b:388 (in list of Oriental Oxybelini); Sonan, 1940b:20 (Taiwan). – **As *Oxybelus lamellatus bicolorisquama***: Tsuneki, 1968g:25 (new status, Taiwan), 1971a:28 (Taiwan: Pingtung Prefecture: Hengchun, Pingtung Prefecture: Kentin; R. Bohart and Menke, 1976:368 (listed); Tsuneki, 1982d:13 (Taiwan);

Porter, Stange, and Wang, 1999:10 (in checklist of Sphecidae of Taiwan); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Oxybelus bicolorisquama* var. *kankauensis* Strand, 1923:173, ♂. Holotype: ♂, Taiwan: Kankau, now Hengchun (DEI). Synonymized with *Oxybelus bicolorisquama*. by Tsuneki, 1968g:26. – Pate, 1938b:389 (in list of Oriental Oxybelini, as *kankauense*); Oehlke and Wudowenz, 1974:423 (holotype in DEI).

### **ssp. *divaricatus* Pate**

*Oxybelus banksi* forma *divaricatus* Pate, 1938b:382, ♂ (as *divaricatum*, incorrect original termination). Holotype: ♂, Philippines: Mindanao: Kolambugan (USNM). – Pate, 1938b:388 (listed). – As *Oxybelus banksi divaricatus*: Baltazar, 1966:359 (new status, in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:368 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### **ssp. *thaiianus* Tsuneki**

*Oxybelus andalsiacus* [sic] *thaiianus* Tsuneki, 1961b:391, ♂. Holotype: ♂, Thailand: Doi Inthanon (Osaka Univ.). – As *Oxybelus lamellatus thaiianus*: Tsuneki, 1974b:652 (Thailand).

### **119. *lanceolatus* Gerstaecker**

*Oxybelus lanceolatus* Gerstaecker, 1867a:26, ♀. Syntypes: ♀, Saudi Arabia (ZMHU). – Kohl, 1884b:113 (in list of known *Oxybelus*); Dalla Torre, 1897:642 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:368 (listed); Gadallah and Assery, 2004a:226 (in catalog of Sphecidae of Saudi Arabia).

### **120. *latifrons* Kohl**

*Oxybelus latifrons* Kohl, 1892:209, ♀. Holotype or syntypes: ♀, Armenia or Azerbaijan: Arax River Valley: no specific locality (NHMW). – Dalla Torre, 1897:642 (in catalog of world Sphecidae); de Beaumont, 1967a:365 (Turkey); R. Bohart and Menke, 1976:368 (listed); Dollfuss, 1989:11 (type material in NHMW); Leclercq, 1993c:47 (listed); Ljubomirov and Yildirim, 2008:250 (in catalog of Crabronidae of Turkey).

### **121. *latilineatus* Cameron**

*Oxybelus latilineatus* Cameron, 1908b:302, ♀. Holotype or syntypes: ♀, India: either Deesa or Matheran, specific locality not indicated (BMNH). – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); Pate, 1938a:391 (listed, as *latilineatum*); R. Bohart and Menke, 1976:368 (listed); Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### **122. *latro* Olivier**

*Oxybelus latro* Olivier, 1812b:594, [♀]. Syntypes: southern France and Paris area, Italy (lost). – Vander Linden, 1829:37 (bibliographic references, France, Italy); Dahlbom, 1844:278 (bibliographic references, unknown to the author), 1845:514 (in key to *Oxybelus*, unknown to the author); Lepeletier de Saint Fargeau, 1845:211 (in revision of world Hymenoptera); Fabre, 1856a:139 (France: Vaucluse: Avignon area); F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); A. Costa, 1867c:150 (in revision of Italian Sphecidae); Gerstaecker, 1867a:80 (in revision of *Oxybelus*; Woltersdorf near Berlin); Kirchner, 1867:223 (in catalog of European Hymenoptera); A. Costa, 1871b:79 (in revision of Italian Sphecidae); Dours, 1874:152 (in catalog of Hymenoptera of France); Martinez y Saez, 1874:31 (first record from Spain: specimens from Madrid area donated to Leon Dufour); Radoszkowski, 1877:76 (Uzbekistan: Zaravshan valley; also: Uzunat); Becker, 1880:152 (Russia: Sarepta, now Krasnoarmeysk S Volgograd); Sajó, 1882:5 (Hungary); Kohl, 1883e:663 (Switzerland), 1884b:113 (in list of known *Oxybelus*); Radoszkowski, 1892:592 (male genitalia); Kohl, 1893a:33 (Austria: Niederösterreich: Wien: Türken-schanze); F. Morawitz, 1893b:416 (Uzbekistan: Serbent), 1894:348 (Turkmenistan: Koshlagar); De Stefani Perez, 1895:228 (in catalog of Sicilian Hymenoptera); Marquet, 1896:19 (in revision of *Oxybelus* of France); Acloque, 1897:91 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Moc-

sáry, 1897:81 (Hungary); Chyzer, 1902:34 (Hungary); Ferton, 1901a:112 (prey); Antiga and Bofill, 1904:27 (Spain: Cataluña Province); W. Schulz, 1904b:101 (Kazakhstan: Semipalatinsk; Russia: Sarepta, now Krasnoarmeysk, and Kolyvansk in Altai Mts.); Vängel, 1905:167 (Hungary); Móczár and Henter, 1907:205 (Hungary: Tiszaalpár); Schmiedeknecht, 1907:202, 203 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Schirmer, 1912:165 (Germany: Berlin area); Alfken, 1914:276 (NW Germany); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); Dubois, 1920:87 (Belgium: Beverloo), 1921c:190, 192, 193 (in key to Belgian Sphecidae); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Maidl, 1922:73 (Croatia); Berland, 1925d:207 (in Sphecid Fauna of France); Coulon, 1925:122 (France: no locality given); Friese, 1926:144 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); A. Müller, 1930:181 (Romania: Măcin; Moldova or Ukraine: Tarutino); Maidl *in* Schmiedeknecht, 1930:661, 664 (in keys to Hymenoptera of North and Central Europe); Dusmet y Alonso, 1931:9 (Portugal: Cova de Piedade, Mitra); Zavadil, 1932:95 (Czechoslovakia); Nadig, 1933:77 (Morocco: Ifrane); Balles, 1934:17 (Germany: Baden-Württemberg: Mannheim-Rheinau); Giner Mari, 1934:136 (Spain); Grandi, 1934:128 (Italy: Lazio: Acilia); Vergne, 1935:120 (France: Auvergne: Pont-du-Chateau); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Zavadil, 1934:187 (Slovakia); Bernard, 1935:67 (France: Var: Fréjus area); Drogoszewski, 1936:129 (Poland: Łowicz); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina, Splawie, Strzeszyn, Strzeszynek); Zavadil, Šustera, and Baťa, 1937:170 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); A. Wagner, 1938a:119 (northwestern Germany); Móczár, 1939:5 (Hungary: Jászberény); Yasumatsu, 1940:31 (China: Inner Mongolia: Kunshan-tagh Desert); Schneid, 1941:1033 (Germany: Bayern: Bamberg area); Yasumatsu, 1942c:114 (China: Nei Mongol: Apaka at 44°N 114.96°E); Balthasar, 1943:40 (Czech Republic: Moravia: Zlin area); Guiglia, 1943b:73 (Albania: Kopliku); de Beaumont, 1942b:423 (in revision of Swiss *Oxybelus*); Giner Mari, 1943a:256 (in Sphecid Fauna of Spain); Timon-David, 1943:29 France: Bouches-du-Rhône: plage de Fos); Guiglia, 1944b:40 (Italy); de Beaumont, 1947b:400 (Cyprus); Šnoflak *in* Zavadil and Šnoflak, 1948:32, 37 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:205 (in revision of Western European *Oxybelus*); de Andrade, 1949:21 (Portugal); Fæster, 1949:17, 31 (in revision of Western European *Oxybelus*); Noskiewicz and Chudoba, 1949:420 (Poland: Dolny Śląsk: Sułów), 1950:300 (in revision of *Oxybelus* of Śląsk Region, Poland); Pittioni, 1950:28 (Cyprus); Szulczewski, 1950:102 (Poland: Wielkopolski National Park 15 km S Poznań); Leininger, 1951:116 (Germany: Baden-Württemberg: Rheinau, Sandhausen, Schwetzingen); de Beaumont, 1952b:90 (Marquet's 1896 specimens); Guiglia, 1953a:70 (in revision of Italian *Oxybelus*); Blüthgen, 1954:145, 149 (in key to Central European *Oxybelus*), 153 (summary of locality records from Germany); de Beaumont, 1954e: 98 (Italy); Puławski, 1954:106 (Poland: Błędów); Atanassov, 1955:197 (Sofia area); Vogrin, 1955:45 (Yugoslavia); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); de Beaumont, 1957b:138 (n. Iran); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Birkenheide); Balthasar, 1958:337 (Czechoslovakia); Puławski, 1958a:190 (Bulgaria: Aitos, Sandanski, Sozopol, Varna); Diniz, 1959:32 (Portugal: eight localities); Suárez, 1959:60 (Spain: Almería Province); Wolf, 1959b:35 (Germany: Nassau); de Beaumont, 1960c:172 (Afghanistan); Noskiewicz and Puławski, 1960:160, 164 (in key to Polish Sphecidae); de Beaumont, 1962b:29 (Spain); Myartseva, 1963b:61 (Turkmenistan: lower Murgab River); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1965a:62 (Greece); Mingo Pérez, 1966:71 (in revision of *Oxybelus* of Iberian Peninsula); Myartseva, 1965:96 (Turkmenistan: Akibay and Bayram-Ali district); Balthasar, Hrubant, and Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:364 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); Scobiola-Palade, 1967b:49 (Romania); Benedek, 1968:78 (Hungary, floral records); Scobiola-Palade, 1968b:143 (Romania: Island of Letea in delta of Danube), 1968c:386 (Romania: Brănești, Budești, Cernica); de Beaumont, 1969:94 (Turkey); Benedek, 1969a:85 (Hungary: marshy meadow); Tsuneki, 1969a:20 (nesting habits); de Beaumont, 1970a:404 (Afghanistan); Oehlke, 1970:794 (Democratic Germany); Atanassov, 1972a:190 (Bulgaria: Stara Planina Mountains), 1972b:32, 48 (Bulgaria: Stara Planina Mountains); Balthasar, 1972:145 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:177

(Kazakhstan); Tsuneki, 1972a:159 (Mongolia); Erlandsson, 1974:87 (Spain); Kazenas, 1974b:109 (feeding on flowers of *Cynanchum sibiricum* Willd., Asclepiadaceae, in Kazakhstan), 110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, *Nitraria schoberi* L., Zygophyllaceae, and *Daucus carota* L., Apiaceae, in Kazakhstan), 111 (feeding on flowers of *Achillea millefolium* L., Asteraceae, in Kazakhstan); R. Bohart and Menke, 1976:368 (listed); Georghiou, 1977:191 (Cyprus); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Guichard, 1978:272 (Greece); Pulawski, 1978:275, 276 (in key to Sphecidae of European part of former USSR); Leclercq, Gaspar, and Verstraeten, 1979:map 1424 (Belgium); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Pagliano, 1980:120 (Italy: Lazio); Donath, 1982:215 (Germany: Cottbus Bezirk); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983a:76 (endangered in Niederösterreich, Austria), 77 (endangered in Burgenland, Austria), 1983b:13 (in catalog of Sphecidae of Austria); Gayubo and Tormos, 1984:18 (Spain: Valencia); Józán, 1985b:58 (Hungary S Lake Balaton), 84 (ecological and zoogeographic characteristics); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Westrich and Schmidt, 1985b:111 (Germany: extinct in Baden-Württemberg); Gayubo, 1986a:61 (Spain: Ciudad Real Province); Gayubo and Sanza, 1986:58 (Spain: Burgos); Gayubo and Tormos, 1986a:15 (Spain: Castellón de la Plana); Józán, 1986:371 (Hungary: Kiskunság National Park); Dollfuss, 1988:26 (Austria: Niederösterreich: Oberweiden); Karsai, 1988:100 (Hungary: Kiskunság National Park); Kowalczyk, 1988b:66 (Poland: environs of Łódź); Jacobs, 1989:15 (Oehlke's, 1970, record from Mecklenburg is incorrect); Pádr *in* Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:122 and 175 (not collected in Democratic Germany after 1960); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:405 (Italy); Kowalczyk, 1991a:100, 102 (Poland: Łódź); Pagliano, 1991b:329, 331 (in key to Italian Crabroninae); H.-J. Schulz, 1991:31 (Germany: Oberlausitz: 5 km SW Wittichenau); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Bitsch and Leclercq, 1993:256 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:47 (collecting localities from Hungary, Italy, Cyprus, and Turkey); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Dollfuss, 1994:98 (endangered in Austria); Theunert, 1994c:45 (summary of records from Niedersachsen and Bremen, Germany); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Scharer, 1995:27 (northern Adriatic area: no specific locality; Croatia: Island of Krk); Schmid-Egger, Risch, and Niehuis, 1995:199 (summary of records from Germany: Rheinland-Pfalz Province); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Minoranskiy and Shkuratov, 1996:82 (Russia: Rostov Oblast'); Pawlikowski and Kruszyński, 1996:87 (Poland: Toruń Basin); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: last collected in 1947); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg), 110 (locality records); Celary, 1997:58 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:22 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:521 (Austria: summary of collecting records from Burgenland); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Pauly, 1999:109 (in catalog of Belgian aculeates); Blösch, 2000:268 (in Sphecid Fauna of Germany); Jacobs, 2000:8, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); Ljubomirov, 2000:10 (Bulgaria, specimens in N. Nedelkov collection); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 181 (nesting habits); Kazenas and Esenbekova, 2001:134 (Kazakhstan: Almatinskiy Nature Reserve); Ohl et al., 2001:140 (distribution in Germany by provinces); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien: Türken-schanze, last collected in 1886); Kazenas, 2002a:91 (geographic distribution, collecting localities in Kazakhstan); Shkuratov, 2002b:142 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Shlyakhtenok and Skibinska, 2002:33 (Belarus': no specific locality); Drewes, 2003:140 (Croatia: Baška on Krk Island; Spain: Tarragona); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Schmid-Egger, 2003:755 (Italy: Sicilia: Armerina); Wickl, Voith, Mandery, Weber, Kraus,

Bausenwein, and Blösch, 2003:193, 195 (extinct in Bavaria, Germany, last collected in 1948); Kazenas, 2004b:106 (Kazakhstan: western Tien Shan); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); Tezcan and Yildirim, 2004:245 (Turkey: Manisa: Muradiye); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Ebrahimi, 2005:133 (in key to selected Iranian Sphecidae); Gayubo and Özbek, 2005:25 (Turkey: many localities); Pagliano and Negrisolo, 2005:209 (in Sphecid Fauna of Italy); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area, last recorded by Alfken, 1915); Yildirim and Ljubomirov, 2005:1798 (Turkey: Bitlis, Erzurum, and Kars provinces); Jacobs, 2007:114, 117 (in key to Crabronidae of Germany); Kazenas, 2007a:91 (Kazakhstan: Akmala Oblast': Kurgandzhin Nature Reserve and vicinity); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Shorenko, 2007b:258 (Ukraine: Crimea: Evpatoriya, Opukskiy Nature Reserve, Tobechikskoye Lake); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); 227 (not occurring in Bohemia); Dollfuss, 2008:478 (locality records from Bulgaria, Croatia, Greece, Hungary, Kazakhstan, Kyrgyzstan, Mongolia, Russia: Rostov, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan); Bitsch and Leclercq, 2009:228 (in supplement to vol. I of Faune de France, 1993:229: recent records from Austria, Bulgaria, Croatia, Germany, Italy, and Spain reported); U. Frommer, 2009a:28 (Germany: in checklist of Sphecidae of Hessen), 37 (Germany: Hessen: Marburg, collected in 1953); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:800 (Iran: East Azarbaijan: Bonab, Tabriz: Khalatpoushan); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: very rare).

*Oxybelus armiger* Olivier, 1812b:594, [♂]. Holotype or syntypes: ♂, France: Paris area (lost). Synonymized with *Oxybelus latro* by Gerstaecker, 1867a:80. – Vander Linden, 1829:38 (bibliographic references, almost certainly a synonym of *Oxybelus uniglumis*); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); Lepelletier de Saint Fargeau, 1845:213 (in revision of world Hymenoptera, Paris area); F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:222 (in catalog of European Hymenoptera); P. Ivanov, 1872:151 (Ukraine: Khar'kiv Oblast': Kupyansk area); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); Acloque, 1897:92 (in Sphecid Fauna of France and Algeria); Antiga and Bofill, 1904:27 (Spain: Cataluña Province); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).

*Oxybelus affinis* Marquet, 1881:185, sex not indicated. Holotype or syntypes: southern France: no specific locality (Lausanne). Synonymized with *Oxybelus latro* by de Beaumont, 1952b:89. – Kohl, 1884b:110 (in list of known *Oxybelus*); Dalla Torre, 1897:638 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera).

*Oxybelus opacus* Tournier, 1901:258, ♂. Holotype: Spain: Balenya (MHNG). Synonymized with *Oxybelus latro* by de Beaumont, 1942b:423. – Antiga and Bofill, 1904:28 (Spain: Cataluña Province); Ceballos, 1956:397 (in catalog of Sphecidae of Spain).

*Oxybelus latro* Olivier var. *rugulosus* Móczár, 1957:425, ♀. Holotype: ♀: Hungary: Balatonszéplak: Tóköspsuszta (TMB). – As *Oxybelus latro rugulosus*: R. Bohart and Menke, 1976:368 (listed).

### 123. *lepturus* Arnold

*Oxybelus lepturus* Arnold, 1927:107, 108, ♀, ♂. Syntypes: Zimbabwe: Bulawayo, Sanyati Valley, Druids Mine (SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed); Dollfuss, 2008:479 (locality records from Malawi, Namibia, Zambia, and Zimbabwe).

### 124. *lewisi* Cameron

*Oxybelus lewisi* Cameron, 1890b:282, ♀ (as *Lewisi*, incorrect original capitalization). Holotype or syntypes: "Sri Lanka: Nugata" (OXUM), but probably Japan: Niigata (Tsuneki, 1966f:7). – Cameron, 1890:276 (listed); Bingham, 1896a:447 (references), 1897:320 (original description copied); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Matsumura, 1908:132 (...); Yasumatsu, 1935d:38 (in revision of Japanese *Oxybelus*); Pate, 1938b:391 (in list of Oriental Oxybelini); Tsuneki, 1968a:7 (Taiwan), 1968g:27 (Taiwan), 1969a:20 (nesting habits); Itami,

1971:28 (Japan: new locality records); Haneda, 1972a:6 (Taiwan); Nambu, 1975b:78 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:368 (listed); Tsuneki, 1977c:21 (Taiwan), 1982d:13 (in key to *Oxybelus* of Taiwan); Krombein, 1983:38 (records from Sri Lanka must be erroneous); Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Porter, Stange, and Wang, 1999:10 (in checklist of Sphecidae of Taiwan); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Negoro, Haneda, and Tano, 2005:46 (Japan: Toyama Prefecture); Hua, 2006:281 (in list of Chinese insects, geographic distribution); Haneda, 2008:3 (in key to Japanese Crabroninae).

*Oxybelus sakuranus* Tsuneki, 1966f:7, ♀. Holotype: Japan: Saitama Prefecture: Sakurazawa (originally K. Tsuneki coll., now Hyogo Mus.). Synonymized with *Oxybelus lewisi* by Tsuneki, 1968a:7. – Hashimoto and Nakanishi, 1997:17 (holotype transferred to Hyogo Mus.); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### 125. *limatus* Arnold

*Oxybelus limatus* Arnold, 1927:95, ♀, ♂. Syntypes: Zimbabwe: Sawmills (SAM). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed); Dollfuss, 2008:479 (South Africa: Western Cape Province: Greyton).

### 126. *lineatus* (Fabricius)

*Nomada lineata* Fabricius, 1787:306, sex not indicated. Holotype: ♀, Germany: Halae Saxonum, now Sachsen-Anhalt: Halle (ZMK). – **As *Crabro lineatus***: Fabricius, 1793:300 (new combination, redescription), 1796:51 (in Index to his Entomologia Systematica, 1793). – **As *Oxybelus lineatus***: Fabricius, 1804:317 (new combination, redescription); Latreille, [1805]:307 (redescription); Jurine, 1807:217 (in checklist of species of *Oxybelus*); Olivier, 1812b:594 (redescription); Vander Linden, 1829:36 (bibliographic references, France, Germany, Italy); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); Dahlbom, 1844:267 (in revision of Sphecidae and Pompilidae), 1845:XXV (type material examined), 513 (in key to *Oxybelus*); Eversmann, 1849:415 (Russia: Kazan' province and Ural foothills); Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Hoflössnitz near Dresden); F. Smith, 1856:384 (in catalog of Hymenoptera in British Museum); Ruthe and Stein, 1857:315 (Germany: Berlin area); Schenck, 1857:130 (in revision of fossorial wasps of Germany); Taschenberg, 1858:118 (in key to Sphecidae of Germany); Funk, 1859:58 (Germany: Bayern: Bamberg); Taschenberg, 1866:160 (in revision of Hymenoptera of Germany); Gerstaecker, 1867a:55 (in revision of *Oxybelus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:350 (known from Germany); Thomson, 1870:178 (in revision of Swedish Crabroninae); Dours, 1874:153 (in catalog of Hymenoptera of France); Taschenberg, 1875:380 (Germany: Leipzig); Marquet, 1881:184 (southern France); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); Kohl, 1884b:113 (in list of known *Oxybelus*), 1888b:726 (Austria: Tirol, now Italy: Alto Adige); Krieger, 1894:11 (Germany: Kingdom of Saxony: Dresden); Marquet, 1896:23 (in revision of *Oxybelus* of France); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Lüderwaldt, 1897b:30 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów, as *lineolatus*); Mocsáry, 1897:80 (Hungary: Budapest); N. Arnold, 1902:86 (Russia: Mohilev Province, now Belarus'); de Cobelli, 1903:114 (Italy: Trentino: Alle Sarche); Kubes, 1905:84 (Czech Republic: Kolín); Schmiedeknecht, 1907:202, 203 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dittrich, 1911b:20 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:44 (Italy: Trieste area); Birula, 1912:536 (Ukraine: Zhytomyr Oblast': Radomyshl'); Schirmer, 1912:164 (Germany: Berlin area); Alfken, 1914:275 (NW Germany); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); Stöckhert, 1919:38 (Germany: Franken); Dubois, 1920:87 (Belgium: Beverloo); Kryger, 1920:138 (first record from Denmark); A. Wagner, 1920:38 (Germany: Lower Elbe region); Dubois, 1921c:190, 191, 193 (in key to Belgian Sphecidae); Enslin, 1922c:246 (Germany: Bayern: Nürnberg); Noskiewicz, 1922a:8 (Poland: Lwów area, now Ukraine: Lviv area); Berland, 1925d:208 (in Sphecid Fauna of France); Coulon, 1925:122 (France: Oise; Germany); Friese, 1926:144 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Maidl in Schmiedeknecht, 1930:661, 664 (in keys to Hymen-

optera of North and Central Europe); Bouwman, 1932:391 (in revision of Sphecidae of Netherlands); Giner Mari, 1934:136 (Spain); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Zavadil, Šusterka, and Bat'a, 1937:170 (in catalog of Sphecidae of Czechoslovakia); A. Wagner, 1938a:118 (northwestern Germany); Móczár, 1939:5 (Hungary: Jászberény); A. Wagner, 1939b:74 (an eastern species in northwestern Germany); Schneid, 1941:1032 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:423 (Switzerland: Peney near Geneva and val Mesocco; redescription); Giner Mari, 1943a:257 (in Sphecid Fauna of Spain); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); van Lith, 1947:103 (Netherlands: Ermelo); Šnoflak *in* Zavadil and Šnoflak, 1948:32, 37 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:168 (in revision of Western European *Oxybelus*); Fæster, 1949:16, 33 (in revision of Western European *Oxybelus*); Noskiewicz and Chudoba, 1950:300 (in revision of *Oxybelus* of Śląsk Region, Poland); Abrahamsen, 1951:115 (recorded from Denmark after J.C. Nielsen, 1907); Leininger, 1951:116 (Germany: Baden-Württemberg: Rastatt); de Beaumont, 1952b:90 (Marquet's 1896 specimens); Guiglia, 1953a:85 (in revision of Italian *Oxybelus*); Blüthgen, 1954:144, 148 (in key to Central European *Oxybelus*), 154 (summary of locality records from Germany); Grandi, 1954:244 (Italy); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Leistadt area); Benno, 1958b:18 (in review of Dutch Sphecidae); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:161, 164 (in key to Polish Sphecidae); van der Vecht, 1961a:71 (study of holotype); de Beaumont, 1964c:160 (in Sphecid Fauna of Switzerland); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle), 196 (males emerge before females, nesting in sand, preying of flies); Mingo Pérez, 1966:84 (in revision of *Oxybelus* of Iberian Peninsula); Benno, 1967:38 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:364 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg: Nördliches Rheinvorland); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Oehlke, 1970:794 (Democratic Germany); Lomholdt, 1971:125 (Denmark: Femmøller, Glatved); Balthasar, 1972:152 (in Sphecid Fauna of Czechoslovakia); Simon Thomas, 1972:187 (France: Lot-et-Garonne); R. Bohart and Menke, 1976:368 (listed); Lomholdt, 1976:276 (in Sphecid Fauna of Fennoscandia and Denmark); Simon Thomas, 1976:6 (France: Lot-et-Garonne); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Pulawski, 1978:275, 276 (in key to Sphecidae of European part of former USSR); Leclercq, Gaspar, and Verstraeten, 1979:map 1425 (Belgium); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983a:75 (endangered in Niederösterreich, Austria), 1983b:13 (in catalog of Sphecidae of Austria); Józán, 1983:102 (Hungary), 1985b:58 (Hungary S Lake Balaton), 69 (map of distribution in Hungary), 84 (ecological and zoogeographic characteristics); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Józán, 1986:371 (Hungary: Kiskunság National Park); Dollfuss, 1987:22 (Austria), 1988:26 (Austria: Niederösterreich: Oberweiden); Jacobs, 1989:15 (Germany: Mecklenburg-Vorpommern); Pádr *in* Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:122 and 176 (not collected in Democratic Germany after 1960); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Pagliano, 1991b:329, 332 (in key to Italian Crabroninae); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Bitsch and Leclercq, 1993:257 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:48 (references to recent publications); Blagoveshchenskaya, 1994:90 (Russia: Ul'yanovsk Oblast'); Dollfuss, 1994:99 (endangered in Austria); Theunert, 1994c:45 (summary of records from Niedersachsen and Bremen, Germany); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:88 (Italy: Ferrara Province); Schmid-Egger, Risch, and Niehuis, 1995:199 (summary of records from Germany: Rheinland-Pfalz Province); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Scharrer, 1995:28 (Germany: Bayern: Aschaffenburg, Kahl); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: last collected in 1966); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Celary, 1997:59 (in checklist of Animals of Poland); Schmidt and Schmid-



Egger, 1997:22 (in checklist of German Sphecidae); Shkuratov, 1998:98 (Russia: Rostov Oblast'); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Majzlan, Rychlík, and Deván, 1999:146 (Slovakia: Čenkovská Step Nature Reserve); Pauly, 1999:109 (in catalog of Belgian aculeates); Blösch, 2000:268 (in Sphecidae Fauna of Germany); Jacobs, 2000:9, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); Shkuratov, 2000:60 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Ohl et al., 2001:140 (distribution in Germany by provinces); Shlyakhtenok and Skibinska, 2002:33 (Belarus': no specific locality); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: extinct or no longer collected); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: last collected in 1866); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Gayubo and Özbek, 2005:25 (Turkey: seven localities); Pagliano and Negrisoló, 2005:210 (in Sphecidae Fauna of Italy); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area, last recorded by Alfken, 1915); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1798 (Turkey: Ankara, Erzurum, and Kars provinces); Jacobs, 2007:114, 117 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia), 227 (first record from Moravia: Bzenec); Dollfuss, 2008:479 (locality records from Bulgaria, Czech Republic, Hungary, Slovakia, and Turkey; variation); Ljubomirov and Yildirim, 2008:251 (in catalog of Crabronidae of Turkey); Bitsch and Lelclercq, 2009:229 (in supplement to vol. I of Faune de France, 1993: France: Gironde: Lacanau-Océan and Landes: Capbreton); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: very rare). – **As *Oxybelus mucronatus* var. *lineatus***: Beuthin, 1876:230 (new status, Germany: Hamburg area, as *lineatus* Dahlbom).

*Oxybelus bellicosus* Olivier, 1812b:595, sex not indicated. Holotype or syntypes: France: Paris area (lost). Synonymized with *Oxybelus lineatus* by Gerstaecker, 1867a:55, 58. – Vander Linden, 1829:38 (bibliographic references, France: Paris area); Shuckard, 1837a:110 (in revision of British Aculeata); von Siebold, 1839:49 (Germany: Danzig, now Poland: Gdańsk); Dahlbom, 1844:269 (in revision of Sphecidae and Pompilidae; Germany: Glogau, now Poland: Głogów), 1845:514 (in key to *Oxybelus*); Lepeletier de Saint Fargeau, 1845:217 (in revision of world Hymenoptera, southern France); Eversmann, 1849:417 (Russia: Sarepta); Lucas, 1849:262 (Algeria: Oran, citation after Lepeletier de Saint Fargeau, 1845); F. Smith, 1856:384 (in catalog of Hymenoptera in British Museum); Taschenberg, 1858:118 (in key to Sphecidae of Germany: Glogau, now Poland: Głogów); Schenck, 1960:146 (Germany: Nassau Region); Brischke, 1864:209 (Germany: Preussen Province, now Poland: Pomorze Region); A. Costa, 1864c:124 (Italy: Campania: Benevento area, determination tentative); Funk, 1864:156 (Germany: Bayern: Bamberg); Taschenberg, 1866:160 (in revision of Hymenoptera of Germany); Kirchner, 1867:223 (in catalog of European Hymenoptera, as *bellicosus* Dahlbom); Schenck, 1867a:352 (Germany: Nassau Region); Dours, 1874:153 (in catalog of Hymenoptera of France); Wierzejski, 1874:261 (Ukraine: Podole Region: Bucyki, Sinków); Frivaldszky, 1876:357 (Hungary: Temes Komitat: Grebenáč, now in Timiș District in Romania); Friese, 1883:200 (Germany: Sachsen-Anhalt: Weissenfels); nec Brischke, 1888b:100 (= *Oxybelus quatuordecimnotatus*); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); nec N. Arnold, 1902:86 (= *Oxybelus quatuordecimnotatus*); de Cobelli, 1903:114 (Italy: Trentino: Rovereto); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).

### 127. *linguifer* R. Turner

*Oxybelus linguifer* R. Turner, 1917e:193, ♀ (as *linguifera*, incorrect original termination). Holotype: ♀, Pakistan: Punjab: Gujranwala in Lahore District (BMNH). – Pate, 1938b:391 (in list of Oriental Oxybelini, as *linguiferum*); R. Bohart and Menke, 1976:368 (listed; as *linguiferus*); Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*, as *linguiferus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*, as *linguiferus*).

**128. *lingula* Gerstaecker**

- Oxybelus lingula* Gerstaecker, 1867a:26, ♀. Syntypes: ♀, South Africa: Cape Province: no specific locality (ZMHU). – Kohl, 1884b:113 (in list of known *Oxybelus*); Dalla Torre, 1897:643 (in catalog of world Sphecidae); Arnold, 1927:105 (in revision of southern African *Oxybelus*), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in sandy soils, prey); Dollfuss, 2008:480 (locality records from Botswana, Mozambique, Senegal, South Africa, and Zimbabwe).
- Oxybelus pinnatus* de Saussure, 1892:562, ♀, ♂. Syntypes: South Africa: no specific locality (Genève). Synonymized with *Oxybelus lingula* by Arnold, 1927:105. – Dalla Torre, 1897:646 (in catalog of world Sphecidae).
- Oxybelus spiniferus* Cameron, 1905m:226, ♀. Holotype or syntypes: ♀, South Africa: Western Cape Province: Stellenbosch (BMNH?). Synonymized with *Oxybelus lingula* by Arnold, 1927:105.
- Oxybelus striatiscutis* Cameron, 1905g:261, ♀. Holotype or syntypes: ♀, South Africa: Eastern Cape Province: Dunbrody, 33°29'S 25°33'E (BMNH). Synonymized with *Oxybelus lingula* by Arnold, 1927:105.
- Oxybelus kalaharicus* Bischoff, 1913b:114, ♂. Holotype or syntypes: ♂, Botswana: Sevrelela in Kakia District (ZMHU). Synonymized with *Oxybelus lingula* by Arnold, 1927:105.

**129. *linsleyi* R. Bohart and Schlinger**

- Oxybelus linsleyi* R. Bohart and Schlinger, 1956b:151, ♀, ♂. Holotype: ♂, USA: California: Riverside County: Keen Camp in San Jacinto Mountains (CAS). – R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*), 1957:117 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera).

**130. *lubricus* de Beaumont**

- Oxybelus lubricus* de Beaumont, 1950f:418, ♀, ♂. Holotype: ♀, Algeria: Aflou (BMNH). – R. Bohart and Menke, 1976:368 (listed); Leclercq, 1993c:48 (listed); Dollfuss, 2008:480 (Tunisia: Nefta oasis at 33°53'N 7°53'E).

**131. *macswaini* R. Bohart and Schlinger**

- Oxybelus macswaini* R. Bohart and Schlinger, 1956b:153, ♂, ♀. Holotype: ♂, USA: California: San Joaquin County: Tracy (CAS). – R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*), 1957:115 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:368 (listed; California, Arizona); Krombein, 1979b:1655 (in catalog of North American Hymenoptera).

**132. *maculipes* F. Smith**

- Oxybelus maculipes* F. Smith, 1856:386, ♀. Holotype or syntypes: ♀, Albania: no specific locality (BMNH or OXUM). – Kirchner, 1867:223 (in catalog of European Hymenoptera); Kohl, 1884b:105 (description of ♂), 113 (in list of known *Oxybelus*); Dalla Torre, 1897:643 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Hungary: Kis-Szentmiklós); Maidl in Schmiedeknecht, 1930:661, 664 (in keys to Hymenoptera of North and Central Europe); Gussakovskij, 1935:434 (Tajikistan); Zavadil, 1937a:72 (eastern Slovakia); Zavadil, Šustera, and Baťa, 1937:173 (in catalog of Sphecidae of Czechoslovakia); Šnoflak in Zavadil and Šnoflak, 1948:32, 36 (in key to Czechoslovakian Sphecidae); de Beaumont, 1960a:23 (Greece: island of Rhodes), 1965a:62 (Greece), 1967a:364 (Turkey); Benedek, 1968:78 (Hungary, visiting flowers of *Reseda lutea* L., and *Cirsium* sp.); Scobiola-Palade, 1968a:822 (first record from Romania: Ilfov District: Budești), 1968b:143 (Romania: Island of Letea in delta of Danube); Balthasar, 1972:153 (in Sphecid Fauna of Czechoslovakia); R. Bohart and Menke, 1976:368 (listed); Pulawski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Schmidt and Westrich, 1983:123 (Greece); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Józán, 1986:371 (Hungary: Kiskunság National Park); Pádr in Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Dollfuss, 1991:132 (in key to Sphecidae of North and Central Europe); Bitsch and Leclercq, 1993:257 (in revision of western European Crabroninae); Guichard, 1993b:531 and 533 (in key to European *Oxybelus*); Leclercq, 1993c:48 (listed); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Wu and Zhou, 1996a:107 (in revision in Eco-

- onomic Insect Fauna of China); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:91 (geographic distribution, collecting localities in Kazakhstan), 2004b:106 (Kazakhstan: western Tien Shan); Yildirim and Ljubomirov, 2005:1798 (Turkey: İçel: Silifke; Konya: Güneysınır); Hua, 2006:281 (in list of Chinese insects, geographic distribution); Kazenas, 2007a:91 (Kazakhstan: Akkala Oblast': Kurgandzhin Nature Reserve and vicinity); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Dollfuss, 2008:480 (locality records from Bulgaria, Greece, Kazakhstan, Kyrgyzstan, Tajikistan, and Turkey); Ljubomirov and Yildirim, 2008:252 (in catalog of Crabronidae of Turkey).
- Oxybelus solskii* Radoszkowski, 1877:72, ♀, ♂ (as *Solskii*, incorrect original capitalization). Syntypes: Uzbekistan: Zaravshan valley and Sokh valley (ZMMU). Synonymized with *Oxybelus maculipes* by Gussakovskij, 1935:434. – Kohl, 1884b:115 (in list of known *Oxybelus*, as *Solskyi*); Dalla Torre, 1897:648 (in catalog of world Sphecidae).
- Oxybelus acuticornis* F. Morawitz, 1891a:209, ♀. Syntypes: ♀, Russia: Astrakhan, and Kazakhstan: Ryn-Peski (ZIN). Synonymized with *Oxybelus maculipes* by Gussakovskij, 1935:434. – Dalla Torre, 1897:638 (in catalog of world Sphecidae).
- Oxybelus pictipes* F. Morawitz, 1891:210, ♂. Holotype or syntypes: ♂, Russia: Astrakhan (ZIN). Synonymized with *Oxybelus maculipes* by Gussakovskij, 1935:434. – Dalla Torre, 1897:646 (in catalog of world Sphecidae).

### 133. *maidlii* Kohl

- Oxybelus maidlii* Kohl, 1924:274, ♀ (as *Maidlii*, incorrect original capitalization). Holotype: ♀, "Baluchistan: Abou" (now in Pakistan), but actually: India: Rajasthan: Mount Abu (BMNH). – Pate, 38b:387 (listed); Krombein, 1985b:634 (redescription; Sri Lanka); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:481 (Laos: Khammouan Province: Ban Khoun Ngeun at 18°07'N 104°29'E, variation).

### 134. *major* Mickel

- Oxybelus major* Mickel, 1916a:434, ♂. Holotype: ♂, USA: Nebraska: South Bend (UNL). – Mickel, 1918b:368 (in catalog of Nebraskan Sphecidae); Brimley, 1938:450 (North Carolina: Cruso); Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Muma, 1952:21 (holotype in UNL); R. Bohart and Schlinger, 1956c:161 (in checklist of North American *Oxybelus*, as *majus*), 1957:108 (in key to North American *Oxybelus*, as *majus*); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection, a species almost certainly different from Mickel's); Ahlstrom, 1995:110 (in checklist of insects of North Carolina).

### 135. *malaysianus* Tsuneki

- Oxybelus malaysianus* Tsuneki, 1974b:654, ♂. Holotype: ♂, Malaysia: Kuala Lumpur (T. Tano coll., Fukui).

### 136. *manaliensis* Manikandan, Dey, and Farooqi

- Oxybelus manaliensis* Manikandan, Dey, and Farooqi, 1999:9, ♀. Holotype: ♀, India: Himachal Pradesh: Manali (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:14 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:481 (recognition characters, description of ♂, India: Uttaranchal: 55 km N Bageshwar).

### 137. *mandibularis* Dahlbom

- Oxybelus mandibularis* Dahlbom, 1845:514, ♀, ♂. Syntypes: Europe: no specific locality (Lund). – Eversmann, 1849:417 (Russia: Orenburg province, Ural foothills, and lower Volga); Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Dresden); Wissmann, 1849:14 (Germany: Kingdom of Hannover: Münden); Ruthe and Stein, 1857:315 (Germany: Berlin area); Schenck, 1857:117 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:119 (in key to Sphecidae of Germany); Schenck, 1860:146 (Germany: Nassau Region); Brischke, 1862:105 (Germany: Prussen Province, now Poland: Pomorze Region), 1864:209 (Germany: Prussen Province, now Poland: Pomorze Region); Taschenberg, 1866:162 (in revision of Hymenoptera of Germany); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:350 (known from Germany); Thom-

son, 1870:178 (in revision of Swedish Crabroninae), 1874:290 (in revision of Hymenoptera of Scandinavia); Radoszkowski, 1877:76 (Uzbekistan: Samarkand; Kyrgyzstan: Shahimardan); Kohl, 1881:56 (as new synonym of *Oxybelus variegatus*); A. Costa, 1882b:23 (Italy: Sardegna); Sajó, 1882:5 (Hungary); Friese, 1883:200 (Germany: Sachsen-Anhalt: Merseburg); Kohl, 1884b:113 (in list of known *Oxybelus*); Brischke, 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region), 1889:204 (Germany: Steegen E Danzig, now Poland: Stegna E Gdańsk); Kohl, 1893a:34 (Austria: Niederösterreich); Radoszkowski, 1893a:72 (Turkmenistan); Engel, 1894:52 (Germany: Bahrenfeld near Hamburg); Krieger, 1894:12 (Germany: Kingdom of Saxony); Borries, 1897:76 (nesting habits unknown); Dalla Torre, 1897:643 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Slovakia); O. Schneider, 1898:103 (Germany: Borkum Island); Morice, 1901a:278 (Great Britain: Surrey: Wisley); Nevinson, 1900:62 (Great Britain: Wales: Criccieth, Towyn); Dalgligh, 1901:7 (Great Britain: Scotland: Irvine); N. Arnold, 1902:86 (Russia: Mohilev Province, now Belarus'); Aurivillius, 1904:300 (in revision of Swedish Sphecidae); W. Schulz, 1904b:102 (Bosnia and Herzegovina: Hvar Island, as Lesina; Germany: Borkum Island); Arnold, 1905:262 (Great Britain: Hampshire: Brockenhurst); Kubes, 1905:84 (Czech Republic: Kolín); Mortimer, 1905:261 (Great Britain: Wales: Aberdovey); von Heyden, 1905:82 (Germany: Hessen: Frankfurt); E. Saunders, 1907b:67 (Great Britain: West Suffolk and Eastbourne); Schmiedeknecht, 1907:204 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dittrich, 1911b:21 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); nec Schirmer, 1912:165 (= *Oxybelus variegatus*); Hallett, 1916:221 (Great Britain: South Wales: Porthcawl); R. Perkins, 1916:231 (specimens in F. Smith collection); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); Maidl, 1922:73 (Croatia); Berland, 1925d:210 (in Sphecid Fauna of France); F. Werner, 1927:66 (Austria: Niederösterreich: River Kamp valley); Benoist, 1928:411 (France: Alpes-Maritimes, Hautes-Alpes); Grandi, 1929:278 (list of prey), 289 (Italy: Toscana: valle della Limentra); Maidl in Schmiedeknecht, 1930:662, 665 (in keys to Hymenoptera of North and Central Europe); Grandi, 1931:58 (Italy: Toscana: Vallata delle Pozze near Le Mandriole); Nadig, 1933:77 (Morocco: Goundafa); Bondroit, 1934:62 (first record from Belgium: Ostende, Solbosch); Jansson, 1934:289 (Sweden); Nadig, 1934:31 (Italy: Sardegna: Gennargentu); Bernard, 1935:67 (France: Var: Fréjus area); Drogoszewski, 1936:129 (Poland: Łowicz); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina); Zavadil, Šusterka, and Bat'a, 1937:172 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); Poll, 1938 (first record from Belgium: Campthout); Móczár, 1939:5 (Hungary: Jászberény); Schneid, 1941:1033 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:428 (in revision of Swiss *Oxybelus*); Giner Marí, 1943a:258 (in Sphecid Fauna of Spain); Móczár, 1943a:59 (Hungary: Szeged); Giordani Soika, 1944:8 (Italy: Sicilia: Falcone); Guiglia, 1944b:41 (Italy); van Lith, 1947:105 (Netherlands, determination tentative); Balthasar, 1948:141 (Slovakia: Parkan); Šnoflak in Zavadil and Šnoflak, 1948:34, 39, 40 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:169 (in revision of Western European *Oxybelus*); Fæster, 1949:19, 33 (in revision of Western European *Oxybelus*); Sala de Castellarnau, 1949:89 (Spain: Teruel: Bronchales); Noskiewicz and Chudoba, 1950:312 (in revision of *Oxybelus* of Śląsk Region, Poland); Leininger, 1951:116 (Germany: Baden-Württemberg); Cleu, 1953:51 (France: Ardèche River basin); Głowacki, 1953:518 (Poland: Podkowa Leśna, Brwinów); Guiglia, 1953a:135 (in revision of Italian *Oxybelus*); Blüthgen, 1954:148 (in key to Central European *Oxybelus*), 154 (common in sandy habitats); Tjeder, 1954:69 (Sweden: eastern Skåne: Vitemölla); Valkeila, 1954:87 (Finland: Lappeenranta); Aerts, 1955:60 (Germany: Rheinland); Guiglia, 1955:105 (in revision of Great Britain *Oxybelus*); Hellén, 1955a:128 (Finland: north to Uleåborg); Vergne, 1955:6 (France: Auvergne); Vogrin, 1955:45 (Yugoslavia); Ceballos, 1956:396 (in catalog of Sphecidae of Spain); Fahlander, 1957:63 (Sweden); Benno, 1958b:18 (in review of Dutch Sphecidae); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:161, 164 (in key to Polish Sphecidae); Grandi, 1961:264 (nesting habits); Valkeila, 1962b:68 (south-western Finland); de Beaumont, 1964c:160 (in Sphecid Fauna of Switzerland); Fæster, 1965:193 (Denmark: Hansted Nature Reserve); Mingo Pérez, 1966:74 (in revision of *Oxybelus* of Iberian Peninsula); Benno, 1967:39 (in checklist of Sphecidae of Netherlands); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Hoop,

1967a:39 (Germany: Schleswig-Holstein: Heidkate); Niedl and Deneš, 1967:76 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:50 (Romania); Benedek, 1968:78 (Hungary, floral records); Scobiola-Palade, 1968c:386 (Romania: București); Benedek, 1969a:85 (Hungary: marshy meadow); Zangheri, 1969:1709 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1970:104 (Hungary: Tapolca); Haeseler, 1970:74 (Germany: Schleswig-Holstein: Amrum); Hoop, 1970:60 (Germany: Schleswig-Holstein: Wendtorfer sluice to Heidkate); Oehlke, 1970:795 (Democratic Germany); Schmidt, 1971b:53 (Germany: Mainz area); Stritt, 1971a:105 (Germany: Baden-Württemberg: Karlsruhe); Balthasar, 1972:160 (in Sphecidae Fauna of Czechoslovakia); Kazenas, 1972b:177 (Kazakhstan); Lomholdt, 1972:123 (Denmark: Læsø Island); Oehlke, 1972:141 (Germany: Hiddensee Island); Scobiola-Palade, 1972a:152 (Romania: delta of Danube: Caraorman); Simon Thomas, 1972:187 (France: Landes, Lot-et-Garonne); Hoop, 1973:47 (Germany: Schleswig-Holstein: Segrahner Berg); Lomholdt, 1975b:32 (Denmark: Anholt Island); R. Bohart and Menke, 1976:368 (listed); Haeseler, 1976b:73 (Germany: Friesian Islands: Amrum Island); Lomholdt, 1976:280 (in Sphecidae Fauna of Fennoscandia and Denmark); Simon Thomas, 1976:6 (France: Lot-et-Garonne); Guichard, 1977:253 (Great Britain: Surrey); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Haeseler, 1978b:63 (Germany: Niedersachsen: a bog near Oldenburg); Pulawski, 1978:276, 276 (in key to Sphecidae of European part of former USSR); Benedek, 1979:236 (Hungary: Bakony Hills); Edwards, 1979:70 (Great Britain: Sussex County); Leclercq, Gaspar, and Verstraeten, 1979:map 1426 (Belgium); Schmidt, 1979a:58 (Germany: Ost-Holstein); Schwammberger, 1979:118 (Germany: Nordrhein-Westfalen: Gildehauser Venn Nature Reserve); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Richards, 1980:60 (in key to Sphecidae of British Isles); Haeseler, 1981:51 (Germany: Friesian Island: Amrum Island); Axelsson, 1982:80 (Sweden); Donath, 1982:215 (Germany: Cottbus Bezirk); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Józán, 1983:102 (Hungary); Lefeber, 1983a:85 (Netherlands: Waddendistrict: northern coast sand dunes, Texel, Terschelling, and Ameland islands); Haack, Tschardtke, and Vidal, 1984:130 (Germany: Hamburg area); Janzon and Svensson, 1984:183 (Sweden: Öland Island); Gayubo, 1985b:495 (first record from Spain: Zamora: Sotillo de Sanabria); Haeseler, 1985c:571 (Germany: Friesian Islands); Józán, 1985b:58 (Hungary S Lake Balaton), 79 (floral records), 84 (ecological and zoogeographic characteristics); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Brechtel, 1986:73 (Germany: Südpfalz); Gayubo and Sanza, 1986:58 (Spain: Burgos, Soria); Józán, 1986:371 (Hungary: Kiskunság National Park); Nemkov, 1986:100 (Russia: Siberia: Irkutsk Oblast'); Skibińska, 1986b:151, 154 (Poland: suburbs of Warszawa), 158 (rural and suburban parks), 160 (gardens), 162 (urban parks), 165 (streetside green), 174 (various green urban habitats); Vikberg, 1986:76 (Finland); Lomholdt, 1987:93 (Denmark: western Jutland: Skallingen Peninsula); Schmidt and Westrich, 1987:375 (Germany: Mainz area); Dollfuss, 1988:14, 26 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Haeseler, 1988:211 (Germany: Friesean Islands); Kowalczyk, 1988a:46 (Poland: Rogów), 1988b:66 (Poland: environs of Łódź); Riemann, 1988:223 (Germany: Bremen area); Wolf, 1988b:141 (Germany: Rheinland-Westfalen); Archer, 1989b:232 (Great Britain: Suffolk); Jacobs, 1989:16 (Germany: Mecklenburg-Vorpommern); Nilsson, 1989:48 (Sweden); Pádr *in* Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Pankevich, Belyavskaya, Molchanova, Shlyakhtenok, and Blinov, 1989:98 (Belarus: Berezinskiy Nature Reserve); Jacobs and Oehlke, 1990:176 (new records from Democratic Germany); Pádr, 1990:89 (Czech Republic: Praha area); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:542 (Austria: Kärnten); von der Heide and Witt, 1990:64 (Germany: Niedersachsen); Archer, 1991a:34 (Great Britain); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:132 (in key to Sphecidae of North and Central Europe); Jacobs, 1991:46, 47 (Germany: Mecklenburg-Vorpommern: Nature Reserve Elbtaldünen); Kowalczyk, 1991a:100, 102 (Poland: Łódź); Kuhlmann et al., 1991:91 (Germany: Senne Region); Pagliano, 1991b:329, 332 (in key to Italian Crabroninae); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Józán, 1992b:174 (Hungary: Boronka-melléki Protected Area); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Bitsch and Leclercq, 1993:258 (in revision of western European Crabroninae); Guichard, 1993b:531 and 532 (in key to European *Oxybelus*); Kuhlmann, 1993:77 (Germany:

known from Westfalen); Leclercq, 1993c:48 (collecting localities from Europe); Kowalczyk, 1994:76 (Poland: Łagiewniki forest in Łódź); Theunert, 1994c:46 (summary of records from Niedersachsen and Bremen, Germany); Józan, 1995:105 (Hungary: projected Duna-Dráva National Park); Negrisola *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:424 (in key to Sphecidae of Russian Far East); Saure and Dürrenfeld, 1995:29 (Germany: Brandenburg: Gabower Hänge near Bad Freienwalde); Scharrer, 1995:28 (Germany: Bayern: Kahl); Schmid-Egger, Risch, and Niehuis, 1995:200 (summary of records from Germany: Rheinland-Pfalz Province); Arens, 1996:441 (Germany: Bayern: Bayreuth area); Blösch, 1996:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Doronin, 1996:18 (Latvia: Ropaži, nest parasitized by *Hedychridium coriaceum* Dahlbom., a chrysidid); Jakubzik, 1996:253 (Germany: Köln); Pawlikowski and Kruszyński, 1996:87 (Poland: Toruń Basin); Minoranskiy and Shkuratov, 1996:82 (Russia: Rostov Oblast'); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg), 110 (locality records); Woydak, 1996:47 (Germany: Westfalen: summary of distribution and nesting habits); Celary, 1997:59 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:22 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:521 (Austria: summary of collecting records from Burgenland); Drewes, 1998:49 (Germany: Niedersachsen: Goldbeck 26 km WSW Hamburg); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Haeseler and Ritzau, 1998:51 (Germany: Bremen: Steller Heide); Jakubzik, Schlüter, and Cölln, 1998:1182, 1184 (Germany: Rheinland-Pfalz); Mauss and Schindler, 1898:136 (Germany: Schleswig-Holstein: Nordfriesland District); van der Smissen, 1998:64 (Germany: Mecklenburg-Vorpommern: Malk-Göhren; Niedersachsen, Schleswig-Holstein); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Archer, 1999a:9 (Great Britain: Lancashire); Herrmann, 1999:7 (Germany: Niedersachsen: Oldenburg area; habitats size); Kuhlmann, Wolf, and Woydak, 1999:569 (endangered in Nordrhein-Westfalen State of Germany); Majzlan, Rychlik, and Deván, 1999:146 (Slovakia: Čenkovská Step Nature Reserve); Mandery, 1999:105 (Germany: Bayern: Coburg area); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:109 (in catalog of Belgian aculeates); Riemann, 1999:835 (Germany: Niedersachsen: sand pits near Bremen); M. Schwarz, 1999:86 (Austria: Oberösterreich: city of Linz area); Blösch, 2000:269 (in Sphecidae Fauna of Germany); Dressler, 2000:33 (Germany: Hessen: Darmstadt area); Jacobs, 2000:9 (Germany: Land Mecklenburg-Vorpommern: not endangered); Ljubomirov, 2000:10 (Bulgaria, specimens in N. Nedelkov collection); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ohl et al., 2001:140 (distribution in Germany by provinces); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Archer and Edwards, 2002:102 (Great Britain: West Sussex: Ambersham and Iping commons); Kazenas, 2002a:92 (geographic distribution, collecting localities in Kazakhstan); Shlyakhtenok and Skibinska, 2002:33 (Belarus: no specific locality); Cölln, Esser, and Jakubzik, 2003:62 (Germany: northwestern Rheinland-Pfalz: excavation sites and quarries); Haeseler, 2003:340 (Germany: Niedersachsen: Harriersand Island near Bremen); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Tischendorf and Treiber, 2003:121, 125 (Germany: Hessen: 15 km SW Frankfurt am Main: nesting under high power lines); von der Heide and Metscher, 2003:103 (Germany: Niedersachsen: Emsland area); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:196 (Germany: Bayern: endangered); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); Szczepko and Kowalczyk, 2004:126 (Poland: Kampinos National Park near Warszawa); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Blösch, 2005:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Haeseler, 2005:629 (Germany: Niedersachsen: Steller Heide near Bremen); Kraatz, 2005:103 (Germany: Niedersachsen: Bümmerstede near Oldenburg); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Nemkov, 2005a:148 (Russia: Sakhalin Island);

Pagliano and Negrisola, 2005:214 (in Sphecidae Fauna of Italy); Reder, 2005:951 (Germany: Rheinland-Pfalz: Eisenberg); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1798 (first record from Turkey: Erzurum and Kars provinces); Vepřek, 2006:511 (Czech Republic: Kokořínsko area); Archer, 2007a:151 (Great Britain: Norfolk: Thetford Warren Lodge); Jacobs, 2007:115, 118 (in key to Crabronidae of Germany); Nemkov, 2007c:997 (in Appendix to Key to identification of Sphecidae of Far East of Russia); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Venne, Bleidorn, and Lauterbach, 2007:302 (Germany: Nordrhein-Westfalen: Bielefeld); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Archer, 2008a:144 (Great Britain: Cumbria: North Walney Nature Reserve and Sandscale Haws); Danilov, 2008:350 (Russia: Altayskiy Kray: Barnaul area); Dollfuss, 2008:482 (locality records from Bulgaria, Finland, Hungary, Mongolia, and Turkmenistan); Haeseler, 2008:308 (Germany: Friesian Islands); Ljubomirov and Yildirim, 2008:252 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); Bitsch and Leclercq, 2009:229 (in supplement to vol. I of Faune de France, 1993: recently recorded from Austria, Bulgaria, Germany, Great Britain, Hungary, Italy, and Spain; France: first records from Manche: Beaubigny and Puy-de-Dôme: Orléat); U. Frommer, 2009a:28 (Germany: in checklist of Sphecidae of Hessen); Nemkov, 2009b:91 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: relatively common).

*Oxybelus sericatus* Gerstaecker, 1867a:89, ♀, ♂. Syntypes: Germany: Berlin area (ZMHU). Synonymized with *Oxybelus mandibularis* by P. Verhoeff, 1948:169 and Blüthgen, 1949:88. – A. Costa, 1867c:150 (in revision of Italian Sphecidae); Chevrier, 1868:412 (summary of diagnostic characters); A. Costa, 1871b:79 (in revision of Italian Sphecidae); Beuthin, 1876:230 (Germany: Hamburg area); Kohl, 1880:143 (Austria: Tirol: Mühlau near Innsbruck), 1884b:115 (in list of known *Oxybelus*), 1893:33 (Austria: Niederösterreich); Sickmann, 1893:91 (Germany: Niedersachsen: Iburg); Dalla Torre, 1897:648 (in catalog of world Sphecidae); Kubes, 1905:84 (Czech Republic: Kolín); Schmiedeknecht, 1907:204 (in key to Hymenoptera of Central Europe); Dittrich, 1911b:21 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Schirmer, 1912:165 (Germany: Berlin area); Torcka, 1913:34 (Germany: Provinz Posen, now Poland: Poznań Region); Alfken, 1914:276 (NW Germany); Birula, 1914:380 (Belarus: Luskopol' near Vitebsk); Zilahi Kiss, 1915:80 (Hungary: Boksánbánya, Csepel); Dubois, 1919:96 (first record from Belgium: Bruxelles: Uccle); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); R. Perkins, 1919a:9 (*sericatus* is correct name for *mandibularis* of Saunders, 1902); Dubois, 1920:87 (Belgium: Scopach, Uccle); A. Wagner, 1920:38 (Germany: Lower Elbe region); Dubois, 1921c:191, 193 (in key to Belgian Sphecidae); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); R. Perkins, 1924a:227 (Great Britain: Devon); Forsius, 1925:119 (Finland); Hellén, 1926:93 (recorded from Finland, determination tentative); Lieftinck, 1928:324 (Netherlands: Texel Island); Maidl *in* Schmiedeknecht, 1930:662, 665 (in keys to Hymenoptera of North and Central Europe); Bouwman, 1932:392 (in revision of Sphecidae of Netherlands); Spooner, 1934b:278 (Great Britain: Devon: Braunton Burrows); Forsius *in* Forsius and Hellén, 1935:11 (in checklist of Hymenoptera of Finland); Grandi, 1935a:109 (Italy); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Drogoszewski, 1936:129 (Poland: Łowicz); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina); Zavadil, Šusterka, and Baťa, 1937:171 (in catalog of Sphecidae of Czechoslovakia); A. Wagner, 1938a:119 (northwestern Germany); Hallett, 1939:16 (Great Britain: Wales: no specific locality); Hoop, 1941b:70 (Germany: Schleswig-Holstein: Süderhastedt); Schneid, 1941:1033 (Germany: Bayern: Bamberg area); Baťa, 1942:85 (Czech Republic); de Beaumont, 1942b:424 (in revision of Swiss *Oxybelus*); J. Perkins, 1942:199 (Sweden: Skåne: Löderup); Balthasar, 1943:41 (Czech Republic: Moravia: Zlin area); Spooner, 1943:75 (Great Britain: New Forest, Parley Heath); Baťa, 1944b:91 (Czech Republic: Veselí); van Lith, 1947:103 (Netherlands); Šnoflak *in* Zavadil and Šnoflak, 1948:34, 37 (in key to Czechoslovakian Sphecidae); Noskiewicz and Chudoba, 1950:302 (in revision of *Oxybelus* of Śląsk Region, Poland); Szulczewski, 1950:103 (Poland: Wielkopolski National Park 15 km S Poznań); Scobiola, 1951:274 (first record from Romania: Sighişoara and Venchiu in Sibiu Region); Baťa,

1952:167 (Czech Republic); Móczár, 1953:311 (Hungary); Teschner, 1955:57 (Germany: Nordrhein-Westfalen: Hohe Ward near Münster); Vogrin, 1955:45 (Yugoslavia); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Birk-enheide); Niedl and Deneš, 1967:75 (Czech Republic: Třeboň area).

### 138. *maracandicus* Radoszkowski

*Oxybelus maracandicus* Radoszkowski, 1877:71, ♀, ♂ (as *Maracandicus*, incorrect original capitalization). Syntypes: Uzbekistan: Samarkand; Kirghisia: Shahimardan; also Pyandjikent (ZMMU). – Kohl, 1884b:113 (in list of known *Oxybelus*); Radoszkowski, 1893a:72 (Turkmenistan); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Gussakovskij, 1933b:287 (e. Iran); R. Bohart and Menke, 1976:368 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

### 139. *marginatus* F. Smith

*Oxybelus marginatus* F. Smith, 1856:389, ♀, ♂. Lectotype: ♀, Brazil: Amazonas: Villa Nova, now Parintins (BMNH), designated by R. Bohart, 1993a:191. – Kohl, 1884b:113 (in list of known *Oxybelus*); Dalla Torre, 1897:644 (in catalog of world Sphecidae); W. Fox, 1897b:386 (Brazil: Santarém); R. Bohart and Menke, 1976:368 (listed); Hanson and Menke, 1995:640 (known from Costa Rica); Amarante, 1993:20 (ne. Brazil); R. Bohart, 1993a:191 (diagnostic characters), 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America), 1993e:160 (listed, geographic distribution), 161 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:482 (Argentina: Entre Ríos: Pronunciamento; Bolivia: Río Seco).

*Oxybelus agnitus* Brèthes, 1913:144, ♀. Holotype or syntypes: ♀, Argentina: Salta: no specific locality (MNCN). Synonymized with *Oxybelus marginatus* by R. Bohart, 1993a:191. – R. Bohart and Menke, 1976:366 (listed); Genise, 1990:26 (type material in MACN).

### 140. *marginellus* Spinola

*Oxybelus marginellus* Spinola, 1851a:365, ♀, ♂. Lectotype: ♂, Chile: no specific locality (Torino), designated by R. Bohart, 1992:161. – F. Smith, 1856:390 (in catalog of Hymenoptera in British Museum); Kohl, 1884b:113 (in list of known *Oxybelus*); Reed, 1894:650 (in revision of Chilean Sphecidae); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Jaffuel and Piri6n, 1926:376 (Chile: valle de Marga Marga); R. Bohart and Menke, 1976:368 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Sielfeld, 1981b:74 (in checklist of Chilean Sphecidae); R. Bohart, 1992:161 (in revision of Chilean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:482 (Chile: 40 km E Curacautín, 10 km Lonquimay road Malacahuello-Languimay).

### 141. *marginicollis* Gussakovskij

*Oxybelus marginicollis* Gussakovskij, 1933b:287, correctly 387, ♀. Holotype: ♀, Iran: Kerman: Kuche: Kambil (ZIN). – R. Bohart and Menke, 1976:368 (listed).

### 142. *matabele* Arnold

*Oxybelus matabele* Arnold, 1927:86, ♀, ♂. Syntypes: Zimbabwe: Sawmills: banks of Umgusa River (SAM, TMP). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed); Hancock, Chahwanda, and Mhlanga, 1995:39 (syntypes in Bulawayo Museum); Dollfuss, 2008:482 (South Africa: Northern Cape Province: SW Loriesfontein, SW Springbok; Western Cape Province: 20 km N Citrusdal).

### 143. *melanitus* R. Bohart

*Oxybelus melanitus* R. Bohart, 1993e:166, ♀, ♂. Holotype: ♀, Mexico: Puebla: Tehuacán (UCD). – R. Bohart, 1993e:160 (listed), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).



**144. *menoni* Manikandan, Dey, and Farooqi**

*Oxybelus menoni* Manikandan, Dey, and Farooqi, 1998:115, ♂. Holotype: ♂, India: Delhi (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**145. *mendozae* R. Bohart**

*Oxybelus mendozae* R. Bohart, 1993c:22, ♀, ♂. Holotype: ♀, Argentina: Mendoza: Tupungato (IML). – Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

**146. *merwensis* Radoszkowski**

*Oxybelus merwensis* Radoszkowski, 1893c:242, ♀, ♂. Syntypes: Turkmenistan: Merv, now Mary (Kraków). – Dalla Torre, 1897:644 (in catalog of world Sphecidae; as *mervensis*); R. Bohart and Menke, 1976:368 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**147. *metopias* Kohl**

*Oxybelus metopias* Kohl, 1894:285, ♀. Holotype or syntypes: ♀, Mozambique: Delagoa Bay (Inst. Roy. Sci. Nat. Belgique). – Dalla Torre, 1897:644 (in catalog of world Sphecidae); Arnold, 1927:110 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:368 (listed).

**148. *mexicanus* Ch. Robertson**

*Oxybelus mexicanus* Ch. Robertson, 1889:83, ♀. Holotype: ♀, Mexico: no specific locality (ANSP). – Cameron, 1891a:156 (listed); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Cresson, 1928:54 (holotype in ANSP); R. Bohart and Schlinger, 1956c:61 (in checklist of North American *Oxybelus*, as *mexicanum*); R. Bohart and Menke, 1976:368 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection, almost certainly a species different from Robertson's); R. Bohart, 1993e:160 (listed, geographic distribution), 161 (in key to Central American and Caribbean *Oxybelus*); Hanson and Menke, 1995:640 (known from Costa Rica); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae). – **As *Notoglossa mexicanus***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

*Oxybelus frontalis* Robertson, 1889:84, ♀, ♂. Lectotype: ♀, USA: southern Illinois: no specific locality (ANSP), designated by Cresson, 1928:54. Synonymized with *Oxybelus mexicanus* by R. Bohart, 1993e:160. – Dalla Torre, 1897:641 (in catalog of world Sphecidae); Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:160 (in checklist of North American *Oxybelus*, as *frontale*), 1957:111 (in key to North American *Oxybelus*, as *frontale*); R. Bohart and Menke, 1976:368 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); Ahlstrom, 1995:110 (in checklist of insects of North Carolina). – **As *Notoglossa frontalis***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae); Mickel, 1918b:363 (in catalog of Nebraskan Sphecidae); Brimley, 1938:450 (North Carolina: Raleigh).

*Oxybelus bugabensis* Cameron, 1891a:156, ♀. Holotype or syntypes: ♀, Panama: Bugaba (BMNH). Synonymized with *Oxybelus mexicanus* by R. Bohart, 1993e:160. – Dalla Torre, 1897:639 (in catalog of world Sphecidae; as *bugabensis*); W. Schulz, 1906:210 (*bugabensis* is correct spelling); R. Bohart and Schlinger, 1956c:159 (in checklist of North American *Oxybelus*, as *bugabense*); R. Bohart and Menke, 1976:367 (listed); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae). – **As *Notoglossa bugabensis***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

*Oxybelus longispina* Cameron, 1891a:157, ♂. Holotype or syntypes: ♂, Mexico: northern Yucatan: Temax (BMNH). Synonymized with *Oxybelus bugabensis* by R. Bohart *in* Bohart and Menke, 1976:367 and 1993e:160 (as new synonym). – Dalla Torre, 1897:643 (in catalog of world Sphecidae); R. Bohart and Schlinger, 1956c:161 (in check-

list of North American *Oxybelus*). – **As *Notoglossa longispina***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

**149. *mimeticus* R. Bohart**

*Oxybelus mimeticus* R. Bohart, 1992:161, ♀, ♂. Holotype: ♀, Chile: Atacama: 26 mi S Copiapó (AMNH). – Amaranthe, 2002:44 (in catalog of Neotropical Crabronidae).

**150. *minutissimus* F. Morawitz**

*Oxybelus minutissimus* F. Morawitz, 1892:180, ♀. Holotype or syntypes: Turkmenistan: Dort-kuyu (ZIN). – Dalla Torre, 1897:644 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:368 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**151. *moczari* Tsuneki**

*Oxybelus moczari* Tsuneki, 1972a:162, ♀. Holotype: ♀, Mongolia: Hovd Aymag: 10 km SSW Somon Bulgan (TMB). – R. Bohart and Menke, 1976:368 (listed).

**152. *morrisoni* R. Bohart**

*Oxybelus morrisoni* R. Bohart, 1993e:166, ♂. Holotype: ♂, Puerto Rico: Anasco District: no specific locality (USNM). – R. Bohart, 1993e:160 (listed), 163 (in key to Central American and Caribbean *Oxybelus*); Amaranthe, 2002:44 (in catalog of Neotropical Crabronidae).

**153. *mucronatus* (Fabricius)**

NOTE: *Oxybelus mucronatus* of several XIX<sup>th</sup> century authors = *quatuordecimnotatus* (see that species for authors).

*Crabro mucronatus* Fabricius, 1793:300, sex not indicated. Holotype: ♂, Germany: no specific locality (ZMK). – Fabricius, 1796:51 (in Index to his Entomologia Systematica, 1793). – **As *Vespa mucronata***: Turton, 1801:532 (new combination, Germany). – **As *Oxybelus mucronatus***: Fabricius, 1804:318 (new combination, redescription); Latreille, [1805]:308 (redescription); Spinola, 1806:92 (Italy: Liguria); Jurine, 1807:217 (in checklist of species of *Oxybelus*); Olivier, 1812b:596 (redescription); Vander Linden, 1829:39 (bibliographic references, Belgium: Bruxelles, France: Paris area, Italy, almost all Europe, probably a misidentification of *Oxybelus argentatus* or *quatuordecimnotatus*); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); Dufour, 1841a:497 and 1841b:236 (digestive tract), 1841a:503 and 1841b:239 (male reproductive system), 1841a:507 and 1841b:243 (female reproductive system); nec Dahlbom, 1842a:13, 1844:265 and 1845:512 (= *Oxybelus argentatus aculeatus*); Dahlbom, 1845:XXV (type material examined); Lepeletier de Saint Fargeau, 1845:216 (in revision of world Hymenoptera, Paris area); nec Schilling, 1848:105 (= *Oxybelus quatuordecimnotatus*); Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Hoflössnitz near Dresden, almost certainly in error); Kirschbaum, 1853:47 (Germany: Herzogtum Nassau: Mombach and Weilburg, probably in error); F. Smith, 1856:383 (in catalog of Hymenoptera in British Museum); nec F. Smith, 1857a:35 (= *Oxybelus argentatus*); Taschenberg, 1858:118 (in key to Sphecidae of Germany); Assmus, 1859:616 (Russia: Moscow Oblast, probably *Oxybelus quatuordecimnotatus*); Funk, 1859:58 (Germany: Bayern: Bamberg, may be *Oxybelus quatuordecimnotatus*); Brischke, 1862:104 (Germany: Preussen Province, now Poland: Pomorze; probably *Oxybelus argentatus*); nec Taschenberg, 1866:1161 (= *Oxybelus argentatus*); Gerstaecker, 1867a:67 (in revision of *Oxybelus*; Germany: Berlin area, in error); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region, probably *Oxybelus argentatus*); Wierzejski, 1868:117 (Ukraine: Janów, Bukowina Region: Kalinowce); Aichinger, 1870:315 (Austria: Tirol); Dours, 1874:152 (in catalog of Hymenoptera of France); Wierzejski, 1874:261 (Poland: Mogilany, Kraków; Ukraine: Hołosko near L'viv, Podole Region: Sinkow, in error); Beuthin, 1876:230 (Germany: Hamburg area, probably *Oxybelus quatuordecimnotatus*); Kohl, 1880:143 (Austria: Tirol, and Italy: Trentino–Alto Adige), 1883e:662 (Switzerland), 1884b:114 (in list of known *Oxybelus*); Radoszkowski, 1887b:97 (in list of Transcaspien Hymenoptera); nec Kohl, 1888b:727 (= *Oxybelus quatuordecimnotatus*); Wüstnei, 1886:40 (Germany: Schleswig-Holstein: Uetersen near Elmshorn, probably *O. argentatus*); Brischke, 1888a:54 (Germany: Hela Peninsula, now

Poland: Hel Peninsula, certainly a misidentification), 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region, certainly a misidentification); nec Alfken, 1893:120 (= *Oxybelus quatuordecimnotatus*); Radoszkowski, 1893a:72 (Turkmenistan); Sickmann, 1893:90 (Germany: Niedersachsen: Iburg, almost certainly a misidentification); nec Westerlund, 1893:28 (= *argentatus*); Krieger, 1894:11 (Germany: Kingdom of Saxony, almost certainly a misidentification); nec Marquet, 1896:16 (= *Oxybelus argentatus gerstaeckeri*); Acloque, 1897:92 (in Sphecid Fauna of France and Algeria); Borries, 1897:76 (nesting habits unknown); Dalla Torre, 1897:644 (in catalog of world Sphecidae); Lüderwaldt, 1897b:30 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów, may be *argentatus* or *quatuordecimnotatus*); Mocsáry, 1897:81 (occurring in Hungary according to Kohl); O. Schneider, 1898:102 (Germany: Borkum Island, may be *argentatus* or *quatuordecimnotatus*); nec Bradley, 1902:267 (Great Britain: North Wales, a misidentification); nec Nevinson, 1900:62, 1901:72, and 1902:12 (= *Oxybelus quatuordecimnotatus*); N. Arnold, 1902:86 (Russia: Mohilev Province, now Belarus', almost certainly a misidentification); nec E. Saunders, 1902b:143 and 1907b:67 (= *Oxybelus argentatus*); de Cobelli, 1903:114 (Italy: Trentino: Alle Sarche); Kubes, 1905:84 (Czech Republic: Kolín, probably *Oxybelus quatuordecimnotatus*); Mortimer, 1905:261 (Great Britain: Wales: Aberdovey, probably *argentatus* or *quatuordecimnotatus*; prey: *Thereva annulata* Fabricius); Schmiedeknecht, 1907:202, 204 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Cavro, 1910:685 (France: Département du Nord, probably *Oxybelus quatuordecimnotatus*); nec Dittrich, 1911b:20 (= *Oxybelus argentatus*); nec Schirmer, 1912:164 (= *Oxybelus argentatus debeaumonti*); Torka, 1913:34 (Germany: Provinz Posen, now Poland: Poznań Region, probably *argentatus debeaumonti* or *quatuordecimnotatus*); Alfken, 1914:275 (NW Germany, probably *Oxybelus argentatus*); Zilahy Kiss, 1915:80 (Hungary: Boksánbánya, may be *Oxybelus argentatus*); nec Hallett, 1916:221 (= *Oxybelus argentatus*); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region, probably *Oxybelus argentatus*); A. Wagner, 1920:38 (Germany: Lower Elbe region, almost certainly in error); nec Dubois, 1921c:191, 192, 193 (= *Oxybelus argentatus*); Strand, 1921:33 (Germany: Bayern: Kulmbach, may be *Oxybelus quatuordecimnotatus*); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg, probably *Oxybelus argentatus*); Jansson, 1922:26 (Sweden: Öland Island, probably *Oxybelus argentatus*); Coulon, 1925:122 (France); nec Forsius, 1925:119 (= *Oxybelus argentatus* or *quatuordecimnotatus*); K. Strohm, 1925:211 (Germany: Baden-Württemberg: Achkarren); nec Friese, 1926:144 (= *Oxybelus quatuordecimnotatus*); Crèvecoeur and Maréchal, 1927:139 (Belgium: Assebrouck, probably *O. quatuordecimnotatus*); Maidl in Schmiedeknecht, 1930:661, 664 (in keys to Hymenoptera of North and Central Europe); nec Bouwman, 1932:392 (= *Oxybelus quatuordecimnotatus*); Giner Mari, 1934:136 (Spain); Jansson, 1934:289 (Sweden, actually either *argentatus* or *quatuordecimnotatus*); nec Forsius in Forsius and Hellén, 1935:11 (in checklist of Hymenoptera of Finland, actually either *argentatus* or *quatuordecimnotatus*); Vergne, 1935:120 (France: Auvergne: common, may be *quatuordecimpunctatus*); Drogoszewski, 1936:129 (Poland: Łowicz, probably *Oxybelus argentatus*); Zavadil, 1937a:72 (eastern Slovakia); Goebel, 1937:39 (Poland: Poznań District: Głuszyna, Poznań-Dębina, may actually be *Oxybelus argentatus*); Zavadil, Šusterka, and Baťa, 1937:170 (in catalog of Sphecidae of Czechoslovakia); Molitor, 1938:448, 449 (color recognition, may actually be *Oxybelus quatuordecimnotatus*); nec A. Wagner, 1938a:118 (= *Oxybelus argentatus*); Dovnar-Zapolskiy, 1940:303 (Russia: Kursk Oblast'); nec Balthasar, 1941b:112 (= *Oxybelus argentatus debeaumonti*); Schneid, 1941:1032 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:423 (in revision of Swiss *Oxybelus*); Giner Mari, 1943a:257 (in Sphecid Fauna of Spain); Giner Mari, 1945b:360 (e. Morocco: Ain Zorah, Muley Ali); Carl and de Beaumont, 1947:69 (Switzerland: Graubünden = Grisons Canton: Swiss National Park); Grandi, 1948:3 (nesting habits); Šnoflak in Zavadil and Šnoflak, 1948:33, 38 (in key to Czechoslovakian Sphecidae); nec P. Verhoeff, 1948:188 (= *Oxybelus quatuordecimnotatus*); de Andrade, 1949:21 (Portugal); nec Cavro, 1950:41 (= *Oxybelus quatuordecimnotatus*); nec de Beaumont, 1950f:420 and 1951h:35 (= *Oxybelus quatuordecimnotatus*); Blüthgen, 1949:88 (*Oxybelus mucronatus* is a synonym of *quatuordecimnotatus*); Noskiewicz and Chudoba, 1950:304 (in revision of *Oxybelus* of Śląsk Region, Poland, probably in error); Szulczewski, 1950:102 (Poland: Wielkopolski National Park 15 km S Poznań, probably *Oxybelus argentatus*); nec Leining, 1951:116 (= *Oxybelus*

*quatuordecimnotatus*); Guiglia, 1953a:124 (in revision of Italian *Oxybelus*); Blüthgen, 1954:144, 152 (in key to Central European *Oxybelus*), 153 (summary of locality records from Germany); Grandi, 1954:244 (Italy); Aerts, 1955:60 (Germany: Rheinland); Teschner, 1955:57 (Germany: Nordrhein-Westfalen: Hohe Ward near Münster, probably *Oxybelus quatuordecimnotatus*); Vogrin, 1955:45 (Yugoslavia); nec Ceballos, 1956:397 (= *Oxybelus quatuordecimnotatus*); Morel, Nouvel, and Ribaut, 1956:339 (France: Département des Pyrénées-Orientales); de Beaumont, 1957b:139 (n. Iran); Grandi, 1957:392 (Italy); Móczár, 1958c:297 (in revision of *Oxybelus* of Hungary); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Puławski, 1958a:189 (Bulgaria: Aitos, Kniazhevo near Sofia, Sandanski, Sozopol, Varna); Ceballos, 1959:232 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1959b:91 (gynandromorph); Diniz, 1959:32 (Portugal: nine localities); Suárez, 1959:60 (Spain: Almería Province); Wolf, 1959b:35 (Germany: Nassau); de Beaumont, 1960a:23 (Greece: Island of Rhodes), 1960c:172 (Afghanistan); Noskiewicz and Puławski, 1960:163, 164 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1961c:52 (Greece: Crete Island); van der Vecht, 1961:72 (study of holotype); de Beaumont, 1962b:29 (Spain); Grandi, 1962:99 (Italy); de Beaumont, 1963c:417 (Afghanistan); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:161 (in Sphecid Fauna of Switzerland), 1965a:62 (Greece); Gauss, 1966c:240 (specimen bearing dipteran egg); Mingo Pérez, 1966:91 (in revision of *Oxybelus* of Iberian Peninsula); de Beaumont, 1967a:365 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); Niedl and Deneš, 1967:75 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:50 (Romania); Benedek, 1968:79 (Hungary, visiting flowers of *Angelica silvestris* L. and *Pastinaca sativa* L.); Parré, 1968:124 (Germany: Sachsen-Anhalt: Staßfurt); de Beaumont, 1969:94 (Turkey); Benedek, 1969a:85 (Hungary: marshy meadow); Zangheri, 1969:1709 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1970:105 (Hungary: Tapolca); Oehlke, 1970:796 (Democratic Germany); Stritt, 1971a:105 (Germany: Baden-Württemberg: Karlsruhe); Atanasov, 1972a:190 (Bulgaria: Stara Planina Mountains), 1972b:32, 48 (Bulgaria: Stara Planina Mountains); Kazenas, 1972b:177 (Kazakhstan); Erlandsson, 1974:87 (Spain, Yugoslavia); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, and *Silaum besseri* L., Apiaceae, in Kazakhstan); Benedek, 1975:251 (Hungary; onion pollinator, as *mucrunatus*); R. Bohart and Menke, 1976:368 (listed); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Guichard, 1978:272 (Greece); Marion, 1978:91 (France: Nièvre Department); Pulawski, 1978:276, 277 (in key to Sphecidae of European part of former USSR); Benedek, 1979:236 (Hungary: Bakony Hills); Casolari and Casolari Moreno, 1980:120 specimens in M. Spinola collection); Pagliano, 1980:120 (Italy: Piemonte); Donath, 1982:215 (Germany: Cottbus Bezirk); Gayubo, 1982b:9 (N Spain: Sierra de Béjar), 1882e:103 (Spain: Cádiz Province); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Schmidt and Westrich, 1983:124 (Greece); Gayubo, 1984b:90 (Spain: Salamanca Province), 1984c:374 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:18 (Spain: Valencia); Gayubo, 1985a:488 (prey: *Musca domestica* Linnaeus), 1985c:169 (Spain: Valladolid: Hornillos, Valladolid); Józán, 1985b:58 (Hungary S Lake Balaton), 84 (ecological and zoogeographic characteristics); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Gayubo, 1986a:61 (Spain: Ciudad Real Province), 1986b:38 (Spain: Andalucía), 1986d:114 (Spain: Zamora Province); Gayubo and Heras, 1986:50 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:59 (Spain: Burgos, Soria); Gayubo and Tormos, 1986a:15 (Spain: Castellón de la Plana); Islamov, 1986:532 (Uzbekistan: Tashkent Oblast'); Asís and Jiménez, 1987:26 (Spain: Castellón Province); Tormos and Jiménez, 1987a:125 (Spain: Valencia); Dollfuss, 1988:14, 26 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Jacobs, 1989:16 (Friese, s 1926, record from Mecklenburg is incorrect); Józán, 1989:101 (Hungary: Tihany Nature Reserve); Pádr in Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:74 (Spain: Cáceres and Salamanca Provinces); Jacobs and Oehlke, 1990:122 and 176 (not collected in Democratic Germany after 1960); Pádr, 1990:90 (Czech Republic: Praha area); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Schwammbberger and Priesner, 1990:542 (Austria: Kärnten); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:132 (in key to Sphecidae of North and Central Europe); Gayubo and Torres, 1991:Table I and p. 81 (Spain: Salamanca; effects of urban pressure); Pagliano, 1991b:329, 333

(in key to Italian Crabroninae); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Gayubo, Borsato, and Osella, 1992:284 (Greece: Euboea); Józán, 1992b:174 (Hungary: Boronka-melléki Protected Area), 1992c:289 (Hungary: Zselic Hills); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Bitsch and Leclercq, 1993:258 (in revision of western European Crabroninae); Guichard, 1993b:531 and 533 (in key to European *Oxybelus*, color variation); Leclercq, 1993c:48 (collecting localities from Europe, Lebanon, and China: Harbin); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Theunert, 1994c:46 (summary of records from Niedersachsen and Bremen, Germany); Tormos, Asís, and Gayubo, 1994:188, 212 (Spain: Albacete Province); Negrísolo *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Minoranskiy and Shkuratov, 1996:82 (Russia: Rostov Oblast'); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Woydak, 1996: (Germany: Westfalen: no vaucher specimen for Sickman's 1883 record); Celary, 1997:59 (in checklist of Animals of Poland, probably in error); Gauss, 1997:27 (egg of miltogrammatid flies deposited on adult specimens); Schmidt and Schmid-Egger, 1997:22 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:521 (Austria: summary of collecting records from Burgenland); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Blösch, 2000:269 (in Sphecidae Fauna of Germany); Gayubo, González, and Torres, 2000:186 (Spain: Salamanca Province); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:107 (Greece); Jacobs, 2000:9, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); Ljubomirov, 2000:10 (Bulgaria, specimens in N. Nedelkov collection); Schmid-Egger, 2000b:276, 279 (Germany: Baden-Württemberg: shores of Rhine River); Zettel, 2000:29 (Austria: Marchegg-Schloßhof, Marchfeld); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Kazenas and Esenbekova, 2001:134 (Kazakhstan: Almatinskiy Nature Reserve); Ljubomirov, 2001b:50 (Bulgaria: Mount Vitoshka near Sofia); Mazzucco, 2001:197, 203 (Austria: Niederösterreich: Steinfeld, common there); Ohl et al., 2001:140 (distribution in Germany by provinces); Salzmann-Wandeler and Rezbanyai-Reser, 2001:157 (Switzerland: Tessin Canton: Meride area); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Kazenas, 2002a:92 (geographic distribution, collecting localities in Kazakhstan); Shlyakhtenok and Skibinska, 2002:33 (Belarus: no specific locality); Drewes, 2003:140 (France: Haute-Savoie: mouth of Dranse; Spain: Tarragona); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Pagliano, 2003b:129 (Italy: Island of Pantelleria); Schmid-Egger, 2003:755 (Italy: Sicilia: Vendicari); Esser, Jakubzik, and Sonnenburg, 2004:18 (Germany: Nordrhein-Westfalen); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Gayubo, Nieves-Aldrey, González, Tormos, Rey del Castillo, and Asís, 2004:108 (Spain: Madrid: Monte de El Pardo); Kazenas, 2004b:106 (Kazakhstan: western Tien Shan); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae, probably in error); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: last collected in 1879); Cruz-Sánchez, Gayubo, González, and Torres, 2005:220 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:26 (Turkey: many localities); Jacobs, 2005a:448 (Bulgaria: Krasново near Hissarya, Melnik); Kofler, 2005:174 (Austria: Tirol: Lienz District: Unterpeischlach in Kals Common); Pagliano and Negrísolo, 2005:211 (in Sphecidae Fauna of Italy); Yildirim and Ljubomirov, 2005:1798 (Turkey: Erzurum, Konya, and Kars provinces); Feitz, Gloden, Melchior, and Schneider, 2006:82 (first record from Luxemburg: Baggerweieren area in Haff Réimech Nature Reserve); Ljubomirov, 2006:541 (Bulgaria and Greece: previous records from Rhodope Mountains summarized); Standfuss and Standfuss, 2006b:99 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Vepřek, 2006:511 (Czech Republic: Kokořínsko area); Baños-Picón, Gayubo, Asís, and González, 2007:257, 259 (Spain: Zamora: Cabañas de Aliste); Jacobs, 2007:117, 120 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Shorenko, 2007b:258 (Ukraine: Crimea: Opukskiy Nature Reserve); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Yildirim and Ljubomirov, 2007:120 (Turkey: İçel and Konya provinces); Cölln and Jakubzik, 2008:8 (Germany: first record from Rheinland-Pfalz: Strohn near Vul-

kaneifel); Danilov, 2008:350 (Russia: Altayskiy Kray: Barnaul area); Dollfuss, 2008:482 (locality records from Bulgaria, China, Greece, Iran, Italy, Jordan, Kazakhstan, Kyrgyzstan, Moldova, Morocco, Serbia, Spain, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, and Uzbekistan); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Kazenas, 2008b:113 (Kazakhstan: foothills of Zailiskiy Alatau: rarely found on inclined surfaces of loess cliffs); Ljubomirov and Yildirim, 2008:253 (in catalog of Crabronidae of Turkey); Bitsch and Leclercq, 2009:229 (in supplement to vol. I of Faune de France, 1993: recent records from Bulgaria, Germany, Luxemburg reported; France: first records from Ardèche: Chauzon and Pradon; Corse: Bucchinera; Lot-et-Garonne: Nérac; Haut-Rhin: Munster); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Guéorguiev and Ljubomirov, 2009:265 (Bulgaria: Maleshevska Planina); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: extremely rare).

*Oxybelus pugnax* Olivier, 1812b:595, sex not indicated. Holotype or syntypes: France: Paris area (lost). Synonymized with *Oxybelus mucronatus* by ... – Vander Linden, 1829:37 (bibliographic references, France: Paris area, Spain); Dahlbom, 1844:278 (bibliographic references, unknown to the author), 1845:514 (in key, unknown to the author); Wesmael, 1852:629 (redescription); F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); Ruthe and Stein, 1857:315 (Germany: Berlin area); Brischke, 1862:105 (Germany: Preussen Province, now Poland: Pomorze Region), 1864:209 (to be deleted from Preussen Province list); Kirchner, 1867:223 (in catalog of European Hymenoptera); Chevrier, 1868:408 (in revision of Swiss *Oxybelus*); Radoszkowski, 1877:75 (Uzbekistan: Zeravshan valley; Tashkent; Kirghisia: Shahimardan; also Hoja-Chiburgan); Kohl, 1880:144 (Italy: Trentino–Alto Adige), 1883e:662 (Switzerland), 1884b:114 (in list of known *Oxybelus*); Gasperini, 1887:14 (Dalmatia: cited from Dalmatia, now Croatia, by Kohl, 1884); Kohl, 1888b:727 (Austria: Tirol, now Italy: Alto Adige), 1893:33 (Austria: Niederösterreich); Marquet, 1896:26 (in revision of *Oxybelus* of France); Dalla Torre, 1897:646 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, localities are in today's Croatia: Fiume, now Rijeka and Slovakia: Nyitra, now Nitra); de Cobelli, 1903:115 (Italy: Trentino: Alle Sarche); Antiga and Bofill, 1904:28 (Spain: Cataluña Province); W. Schulz, 1904b:101 (Transcaspia); Graeffe, 1911:45 (Italy: Trieste area); Morice, 1911:132 (Algeria: Alger, Biskra, Hippône); Schirmer, 1912:165 (recorded from Berlin area, Germany, by Gerstaecker, 1867); Morice, 1921:824 (Iraq: Amara); Fahringer, 1922:184 (Turkey); Maidl, 1922:74 (Croatia); Berland, 1925d:209 (in Sphecid Fauna of France); Grandi, 1929:289 (Italy: Toscana: valle della Limentra); Maidl in Schmiedeknecht, 1930:664, 666 (in keys to Hymenoptera of North and Central Europe); Dusmet y Alonso, 1931:9 (Portugal: Coimbra, Val de Coselhas); Giner Mari, 1934:136 (Spain); Grandi, 1934:128 (Italy: Lazio: Acilia); Bernard, 1935:67 (France: Var: Fréjus area); Dulac, 1937:24 (France: Saône-et-Loire: Saint-Laurent d'Andenay); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina, Strzeszynek); Zavadil, Šusterka, and Bat'a, 1937:173 (in catalog of Sphecidae of Czechoslovakia); Giordani Soika, 1939b:73 (Italy: Lido di Venezia); Schneid, 1941:1034 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:426 (in revision of Swiss *Oxybelus*); Guiglia, 1942a:63 (Greece: Island of Rhodes: Kremasti, Villanova); Giner Mari, 1943a:258 (in Sphecid Fauna of Spain); Giordani Soika, 1944:8 (Italy: Sicilia: Falcone); Guiglia, 1944a:156 (Cyprus: Cherkes), 1944b:41 (Italy); de Beaumont, 1947b:400 (Cyprus); Balthasar, 1948:141 (Slovakia: Kovačov); Guiglia, 1948c:203 (Italy: Sardegna: Cagliari); Šnoflak in Zavadil and Šnoflak, 1948:36, 40 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:195 (in revision of Western European *Oxybelus*); de Andrade, 1949:21 (Portugal); Fæster, 1949:22, 46 (in revision of Western European *Oxybelus*); Noskiewicz and Chudoba, 1949:420 (Poland: Dolny Śląsk: Sułów, Wrocław, record incorrect for zoogeographic reasons), Noskiewicz and Chudoba, 1950:310 (in revision of *Oxybelus* of Śląsk Region, Poland); Pittioni, 1950:28 (Cyprus); de Beaumont, 1952b:90 (Marquet's 1896 specimens); Nouvel and Ribaut, 1953:184 (France: Haute-Garonne: Saint-Béat); de Beaumont, 1954e:98 (Italy); Grandi, 1954:244 (Italy); Steiner, 1955:147 (France: Dordogne); Vergne, 1955:6 (France: Auvergne); Vogrin, 1955:45 (Yugoslavia); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Compte Sart, 1959:139 (Spain: Mayorca); Diniz, 1959:32 (Portugal: seven localities); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); Balthasar, Hrubant, and

- Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); Niedl and Deneš, 1967:76 (Czech Republic: Třeboň area); Balthasar, 1972:155 (in Sphecid Fauna of Czechoslovakia); de Beaumont, Bytinski-Salz and Pulawski, 1973:25 (Israel); Georghiou, 1977:191 (Cyprus); Pádr, 1990:90 (Czech Republic: Praha area); Blagoveshchenskaya, 1994:90 (Russia: Ul'yanovsk Oblast').
- Oxybelus ambiguus* Gerstaecker, 1867a:75, ♀, ♂. Syntypes: Germany: Berlin (ZMHU). Synonymized with *Oxybelus pugnax* by P. Verhoeff, 1948:195. – Chevrier, 1868:412 (summary of diagnostic characters); Kohl, 1880:144 (Italy: Trentino–Alto Adige), 1884b:110 (in list of known *Oxybelus*); Gasperini, 1887:14 (Dalmatia: Spalato, now Croatia: Split); Kohl, 1888b:726 (Austria: Tirol, now Italy: Alto Adige); nec Marquet, 1896:28 (= *Oxybelus trispinosus*); Dalla Torre, 1897:638 (in catalog of world Sphecidae); Mocsáry, 1897:81 (occurring in Hungary according to Kohl); Ferton, 1901a:112 (prey), 1902:517 (prey preference, position of egg on prey); Antiga and Bofill, 1904:27 (Spain: Cataluña Province); W. Schulz, 1904b:101 (Spain: Castilia); Schmiedeknecht, 1907:205 (in key to Hymenoptera of Central Europe); Ferton, 1910:156 (prey selection), 159 (prey); Schirmer, 1912:165 (recorded from Berlin area, Germany, by Gerstaecker, 1867); Alfken, 1914:276 (NW Germany); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); Dubois, 1920:87 (Belgium: Uccle, determination tentative, description); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Ferton, 1923:82 (position of egg on prey), 320 (*Thereva arcuata* is preferred prey, but *Asilus atricapillus*, *Onesia corsicana*, and *Thereva plebeja* are also captured); Ceballos, 1956:396 (in catalog of Sphecidae of Spain).
- Oxybelus scutellaris* A. Costa, 1867c:148 and 1871b:77, ♂. Holotype: ♂, Italy: Piemonte: no specific locality (NAPOLI). Synonymized with *Oxybelus* ... by ... – Kohl, 1884b:115 (in list of known *Oxybelus*); Dalla Torre, 1897:648 (in catalog of world Sphecidae).
- Oxybelus meridionalis* Mocsáry, 1879:140, ♀. Holotype or syntypes: ♀, Hungary: "Thermae Herculis Mehadiensis", now Romania: Baile Herculane (TMB). Synonymized with *Oxybelus* ... by ... – Kohl, 1880:144 (Italy: Trentino–Alto Adige), 221 (redescription), 1884b:113 (in list of known *Oxybelus*); Dalla Torre, 1897:644 (in catalog of world Sphecidae) Mocsáry, 1897:81 (Kingdom of Hungary: Mehádia, now in Romania).
- Oxybelus maculiventris* Tournier, 1901:256, ♀, ♂. Syntypes: Spain: Barcelona: and Switzerland: Genève (MHNG). Synonymized with *Oxybelus pugnax* by de Beaumont, 1942b:426. – Antiga and Bofill, 1904:27 (Spain: Cataluña Province); Ceballos, 1956:397 (in catalog of Sphecidae of Spain). – **As *Oxybelus pugnax maculiventris***: Balthasar, 1958:337 (Slovakia: Čenkov).
- Oxybelus nigriventris* Tournier, 1901:257, ♀. Syntypes: Spain: Monistrol (MHNG). Synonymized with *Oxybelus pugnax* by de Beaumont, 1942b:426 (as questionable synonym). – Antiga and Bofill, 1904:28 (Spain: Cataluña Province); Ceballos, 1956:397 (in catalog of Sphecidae of Spain).
- Oxybelus pugnax* ab. *bistillatus* Balthasar, 1972:156, sex not indicated. Holotype or syntypes: Czechoslovakia: no specific locality (Praha). Not available (Articles 1.3.4, 15.2).

### **spp. *moricei* de Beaumont**

- As *Oxybelus pugnax*: Morice, 1911:132 (Algeria: Alger, Biskra, Hippône).
- Oxybelus pugnax moricei* de Beaumont, 1950f:420, ♀, ♂. Holotype: ♀, Algeria: Biskra (Lausanne). – de Beaumont, 1956a:213 (Libya: n. Tripolitania), 1957a:155 (Morocco). – **As *Oxybelus mucronatus moricei***: de Beaumont, 1958b:68 (Algeria: Tassili des Ajjer), 1960b:250 (Libya), 1968a:276 (Canary Islands: Fuertaventura); R. Bohart and Menke, 1976:368 (listed); Báez and Ortega, 1978:192 (Canary Islands); Hohmann, La Roche, Ortega, and Barquín, 1993:251 (detailed locality records from Canary Islands); Dollfuss, 2008:485 (locality records from Algeria, Morocco, and Tunisia).

### **154. *nanus* Bingham**

- Oxybelus nanus* Bingham, 1897:317, ♂. Holotype: ♂, Burma: Rangoon (BMNH). – Pate, 1938b:391 (in list of Oriental Oxybelini, as *nanum*); R. Bohart and Menke, 1976:369 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**155. *napoensis* R. Bohart**

*Oxybelus napoensis* R. Bohart, 1993d:72, ♀, ♂. Holotype: ♀, Ecuador: Napo: Huahua Sumaco, 45 km on Hallin-Loreto Road (UCD). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amaranter, 2002:4e (in catalog of Neotropical Crabronidae); Dollfuss, 2008:485 (French Guiane: 25 km S St. Laurent de Maroni).

**156. *nasutus* Bischoff**

*Oxybelus nasutus* Bischoff, 1913b:115, ♀. Holotype or syntypes: ♀, Namibia: Rooibank (ZMHU). – Arnold, 1927:100 (in revision of southern African *Oxybelus*), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed).

**157. *natalensis* Arnold**

*Oxybelus natalensis* Arnold, 1927:91, ♀, ♂. Syntypes: South Africa: Natal: Durban, Mlavern, Doonside (Durban Mus., SAM). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed); Dollfuss, 2008:485 (Kenya: Voi; Zimbabwe: 140 km NW Beitbridge, Bubi 80 km NE Beitbridge, Chimanimani, Kami Ruins, Mount Selinda).

**158. *neuvillei* Magretti**

*Oxybelus neuvillei* Magretti, 1908:188, ♂. Holotype or syntypes: Kenya: Rift Valley Province: S Lake Rudolph, now Lake Turkana (MNHN). – Arnold, 1927:111 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed).

**159. *niger* Ch. Robertson**

*Oxybelus niger* Ch. Robertson, 1889:82, ♂. Holotype: ♂, USA: Illinois: no specific locality (ANSP). – Dalla Torre, 1897:645 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Cresson, 1928:54 (holotype in ANSP); Pate, 1930b:40 (first record from New York State: Ithaca); Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:162 (in checklist of North American *Oxybelus*, as *nigrum*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); Finnamore, 1982:126 (in Sphecid Fauna of Southern Quebec); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada).

**160. *nigrilamellatus* Li and Li**

*Oxybelus nigrilamellatus* Li and Li, 2008:65 and 68, ♂. Holotype: ♂, China: Xizang Autonomous Region: no specific locality (Yunnan Agricultural University, Kunming).

**161. *nigritulus* R. Turner**

*Oxybelus nigritulus* R. Turner, 1917e:189, ♀, ♂. Syntypes: India: Assam: Shillong (BMNH). – Pate, 1938b:391 (in list of Oriental Oxybelini, as *nigritulum*); R. Bohart and Menke, 1976:369 (listed); Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**162. *nipponicus* Tsuneki**

*Oxybelus nipponicus* Tsuneki, 1966f:3, ♀, ♂. Holotype: ♀, Japan: Niigata Prefecture: northern coastal area (originally K. Tsuneki coll., now Hyogo Mus.). – Itami, 1968b:17 (Japan); Itami, 1969:53 (Japan: Niigata Prefecture); Tsuneki, 1969a:4 (nesting habits); Nambu, 1975b:78 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:369 (listed); Tano, 1994a:6 (holotype in K. Tsuneki collection); Hashimoto and Nakanishi, 1997:17 (holotype transferred to Hyogo Mus.); Haneda, 2008:4 (in key to Japanese Crabroninae, as *nipponicus nipponicus*); Ohkusa, 2007:34 (Japan: central Honshu: Aichi Prefecture); Okusa and Tajima, 2008:75 (Japan: central Honshu: Aichi Prefecture).



**ssp. formosus Tsuneki**

As *Oxybelus agilis*: Sonan, 1940b:21 (Taiwan), corrected to *Oxybelus nipponicus formosanus* by Tsuneki, 1968g:26.

*Oxybelus nipponicus formosus* Tsuneki, 1968g:26, ♀, ♂. Holotype: ♂, Taiwan, Pingtung Prefecture: Hengchun (originally K. Tsuneki coll., now USNM). – Tsuneki, 1971a:29 (Taiwan: list of localities); Haneda, 1972a:6 (Taiwan); Murota, 1973b:119 (Taiwan); Tsuneki, 1977j:292 (Taiwan), 1982d:13 (in key to *Oxybelus* of Taiwan); R. Bohart and Menke, 1976:369 (listed); Nuhn and Menke, 1994:25 (holotype transferred to USNM); Porter, Stange, and Wang, 1999:10 (in checklist of Sphecidae of Taiwan); Hua, 2006:281 (in list of Chinese insects, geographic distribution).

**163. oasicola Tsuneki**

*Oxybelus oasicola* Tsuneki, 1972a:171, ♂. Holotype: ♂, Bayanhongor Aymag: spring Talyn Bileghbulag (TMB). – R. Bohart and Menke, 1976:369 (listed).

**164. occitanicus Marquet**

*Oxybelus occitanicus* Marquet, 1896:18, ♀, ♂. Lectotype: ♀, France: Hérault: Cette, now Sète (Lausanne), designated by de Beaumont, 1952b:90. – de Beaumont, 1942b:424 (Switzerland: Peney near Geneva; redescription); Šnoflak in Zavadil and Šnoflak, 1948:34, 38 (in key to Czechoslovakian Sphecidae, not yet found in Czechoslovakia); Fæster, 1949:24, 35 (in revision of Western European *Oxybelus*); de Beaumont, 1952b:90 (Fæster's record from Switzerland is erroneous); Guiglia, 1953a:139 (in revision of Italian *Oxybelus*, occurring in France); Balthasar, 1972:161 (in Sphecida Fauna of Czechoslovakia: can be expected in the country); R. Bohart and Menke, 1976:369 (listed); Gayubo, 1983d:204 (taxonomic history, redescription; Spain: Cádiz: Cañas de Meca), 1984c:375 (Portugal: El Algarve Province: Pêra; on *Polygonum equisetiforme* Sibth and Sm.); Bitsch and Leclercq, 1993:260 (in revision of western European Crabroninae); Guichard, 1993b:531 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:48 (reference to Bitsch and Leclercq, 1993); Ljubomirov, 2000:10 (Bulgaria, specimens in N. Nedelkov collection, record questionable for geographic reasons); Bitsch and Leclercq, 2009:230 (in supplement to vol. I of Faune de France, 1993: record from Bulgaria reported).

**165. osteni R. Bohart**

*Oxybelus osteni* R. Bohart, 1993d:72, ♀, ♂. Holotype: ♀, Argentina: Salta: Chicoana (originally M. Fritz coll., now AMNH). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

**166. packardii Ch. Robertson**

*Oxybelus packardii* Ch. Robertson, 1889:80, ♀, ♂ (as *Packardii*, incorrect original capitalization). Lectotype: USA: southern Illinois: no specific locality (ANSP), designated by Cresson, 1928:55. – Cockerell and Baker, 1896:23 (New Mexico: Albuquerque); Dalla Torre, 1897:646 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Mickel, 1918b:367 (in catalog of Nebraskan Sphecidae); Brimley, 1938:450 (North Carolina: Raleigh); Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Krombein, 1955b:71 (as synonym of *Oxybelus laetus*); R. Bohart and Schlinger, 1956c:162 (good species, in checklist of North American species), 1957:113 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); D. Peckham and Hook, 1980:559 (nesting habits); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

*Oxybelus Packardii* var. *texanus* Robertson, 1889:81, ♀, ♂. Lectotype: ♀, USA: Texas: no specific locality (ANSP), designated by Cresson, 1928:56. Synonymized with *Oxybelus laetus* by Krombein, 1955b:71 and with *Oxybelus*

*packardii* by R. Bohart and Schlinger, 1956c:162. – Dalla Torre, 1897:646 (in catalog of world Sphecidae); Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera).

*Oxybelus heterolepis* Cockerell and Baker, 1896:22, ♂. Holotype: ♂, USA: New Mexico: Albuquerque (USNM). Synonymized with *Oxybelus laetus* by Krombein, 1955b:71 and with *Oxybelus packardii* by R. Bohart and Schlinger, 1956c:162. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera).

*Oxybelus heterolepis* var. *defectus* Cockerell and Baker, 1896:22, ♂. USA: New Mexico: Albuquerque (USNM). Synonymized with *Oxybelus laetus* by Krombein, 1955b:71 and with *Oxybelus packardii* by R. Bohart and Schlinger, 1956c:162. – Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera). – **As *Oxybelus dejectus*** [lapsus]: Ashmead, 1899d:162 (in checklist of North American Oxybelidae).

*Oxybelus unicus* Mickel, 1918a:323, ♀. Holotype: ♀, USA: Nebraska: Mitchell (UNL). Synonymized with *Oxybelus laetus* by Krombein, 1955b:71 and with *Oxybelus packardii* by R. Bohart and Schlinger, 1956c:162. – Mickel, 1918b:368 (in catalog of Nebraskan Sphecidae); Hendrickson, 1930:158 (Iowa); Burks in Muesebeck et al., 1951:1034 (in catalog of North American Hymenoptera); Muma, 1952:22 (holotype in UNL), 27 (paratypes in UNL).

*Oxybelus carolinus* Banks, 1921:18, ♀. Holotype: ♀, USA: North Carolina: Southern Pines (MCZ). Synonymized with *Oxybelus packardii* by R. Bohart and Schlinger, 1956c:162. – Brimley, 1938:450 (North Carolina: Raleigh, as *carolina*); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera).

#### **167. *paenemarginatus* Viereck**

*Notoglossa paenemarginata* Viereck, 1906:214, ♀. Holotype: ♀, USA: Kansas: Clark County: no specific locality (KU). – **As *Oxybelus paenemarginatus***: Burks in Muesebeck et al., 1951:1033 (new combination, in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:162 (in checklist of North American *Oxybelus*, as *paenemarginatum*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera).

#### **168. *pallens* Kazenas**

*Oxybelus pallens* Kazenas, 1990:63, ♀. Holotype: ♀, Kazakhstan: 17 km NW Bakanas (ZIN). – Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:92 (geographic distribution, collecting localities in Kazakhstan), 2004a:212 (description of ♂), 2008a:103 (Southeastern Kazakhstan: Ili River valley: 17 km NW Bakanas, 3 km NE Borandysu).

#### **169. *pallidus* Arnold**

*Oxybelus pallidus* Arnold, 1927:101, ♀, ♂. Syntypes: Tanzania: Kilimatinde, Kihu River (ZMHU). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae), 1951:166 (Ethiopia: Ufdem); R. Bohart and Menke, 1976:369 (listed); Dollfuss, 2008:485 (Algeria: Tassili n'Ajjer, Kenya: Voi; Morocco: Mhamid 100 km S Zagora, Tanzania: Arusha Region, Mbuyuni E Iringa).

#### **170. *palmetorum* de Beaumont**

*Oxybelus palmetorum* de Beaumont, 1950f:416, ♀. Holotype: ♀, Algeria: Tadjemout (BMNH). – de Beaumont, 1953a:176 (Mauritania), 1958b:68 (Algeria: Tassili des Ajjer); Pulawski, 1964:147 (Egypt: Abu Rawash, Aswan, Ghiza); R. Bohart and Menke, 1976:369 (listed); Guichard, 1990b:282 (Saudi Arabia); Leclercq, 1993c:48 (listed); Gadallah and Assery, 2004a:216 (in key to Sphecidae of Jeddah Region, Saudi Arabia); Gadallah and Assery, 2004a:226 (in catalog of Sphecidae of Saudi Arabia); Dollfuss, 2008:486 (Morocco: Mhamid 80 km S Zagora, 5 km S Tafa, 6 km S Zagora).

*Oxybelus deserticola* de Beaumont, 1950f:417, ♂. Holotype: ♂, Algeria: Laghouat (BMNH). Synonymized with *Oxybelus palmetorum* by de Beaumont, 1953a:176.

**171. *paraagilis* Manikandan, Dey, and Farooqi**

*Oxybelus paraagilis* Manikandan, Dey, and Farooqi, 1999:5, ♂. Holotype: ♂, India: Punjab: Jammu (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**172. *paracochise* R. Bohart and Schlinger**

*Oxybelus paracochise* R. Bohart and Schlinger, 1956:37, ♂, ♀. Holotype: ♂, USA: Arizona: Sonoita (CAS). – R. Bohart and Schlinger, 1956c:162 (in checklist of North American *Oxybelus*), 1957:107 (in key to North American *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1655 (in catalog of North American Hymenoptera); R. Bohart, 1993e:161 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:44 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

**173. *paraguayensis* Brèthes**

*Oxybelus paraguayensis* Brèthes, 1909d:239, ♀. Holotype or syntypes: ♀, Paraguay: San Bernardino (MNCN). – Schrottky, 1913a:234 (Paraguay); R. Bohart and Menke, 1976:369 (listed); Genise, 1990:27 (type material in MACN); R. Bohart, 1993a:191 (diagnostic characters), 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:44 (in catalog of Neotropical Crabronidae).

*Oxybelus Jörgenseni* Brèthes: Jörgensen, 1912:294, nomen nudum (Argentina: Mendoza Province).

*Oxybelus jörgenseni* Brèthes, 1913:141, ♀ (as *Jörgenseni*, incorrect original capitalization and diacritic mark). Holotype: ♀, Argentina: Mendoza: no specific locality (MNCN). Synonymized with *Oxybelus paraguaensis* by R. Bohart, 1993a:191. – R. Bohart and Menke, 1976:368 (listed); Genise, 1990:26 (type material in MACN); R. Bohart, 1992:161 (in revision of Chilean *Oxybelus*).

**174. *paramenoni* Manikandan, Dey, and Farooqi**

*Oxybelus paramenoni* Manikandan, Dey, and Farooqi, 1998:116, ♂. Holotype: ♂, India: Delhi (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**175. *paratransiens* Manikandan, Dey, and Farooqi**

*Oxybelus paratransiens* Manikandan, Dey, and Farooqi, 1998:119, ♀. Holotype: ♀, India: Bihar: Chapra (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:486 (India: Uttaranchal: 13 km NW Nainital).

**176. *paratridentatus* Manikandan, Dey, and Farooqi**

*Oxybelus paratridentatus* Manikandan, Dey, and Farooqi, 1999:8, ♂. Holotype: ♂, India: Bihar: Banhar (Indian Agricultural Research Institute, New Delhi). – Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**177. *parvus* Cresson**

*Oxybelus parvus* Cresson, 1865b:476, ♀. Holotype: ♀, USA: Colorado: no specific locality (ANSP). – Packard, 1867:436 (listed); Kohl, 1884b:114 (in list of known *Oxybelus*); Cresson, 1887:286 (in catalog of North American Hymenoptera), 1916:103 (holotype in ANSP); R. Bohart and Schlinger, 1956c:162 (in checklist of North American *Oxybelus*, as *parvum*), 1957:127 (in revision of Californian *Oxybelus*, as *parvum*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera); Peckham, 1985:868 (nesting habits); Frommer, 1988:94 (California: Riverside County: Deep Canyon; as *parvum*); R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument, as *parvum*); Amarante, 2002:45 (in cata-

log of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

*Oxybelus intermedius* C. Baker, 1896b:160, ♀. Holotype or syntypes: ♀, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus parvus* by R. Bohart and Schlinger, 1956c:162. – Pate, 1930b:40 (first record from New York State: Ithaca); Krombein, 1951a:143 (Virginia: Dunn Loring; visiting tulip-tree honeydew); Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera). – **As *Notoglossa intermedia***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae); H. Smith, 1908b:406 (in revision of Nebraskan Sphecidae); Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae).

*Oxybelus coloradensis* C. Baker, 1896b:160, ♂. USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus intermedius* by Krombein, 1955b:72, and with *Oxybelus parvus* by R. Bohart and Schlinger, 1956c:163. – Cockerell and Baker, 1896:23 (New Mexico: Las Cruces); Strickland, 1947:127 (Canada: Alberta: Medicine Hat, Lethbridge); Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera). – **As *Notoglossa coloradensis***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

*Notoglossa incisura* Mickel, 1916a:430, ♂. Holotype: ♂, USA: Nebraska: Harrison (UNL). Synonymized with *Oxybelus intermedius* by Krombein, 1955b:72, and with *Oxybelus parvus* by R. Bohart and Schlinger, 1956c:163. – Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae); Muma, 1952:21 (holotype in UNL), 27 (paratypes in UNL). – **As *Oxybelus incisurus***: Burks in Muesebeck et al., 1951:1032 (new combination, in catalog of North American Hymenoptera, as *incisura*).

### 178. *paucipunctatus* Arnold

*Oxybelus paucipunctatus* Arnold, 1927:84, ♀, ♂. Syntypes: Zimbabwe: Sawmills (SAM); South Africa: Cape Province: Willowmore (TMP). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed); Hancock, Chahwanda, and Mhlanga, 1995:39 (syntypes in Bulawayo Museum); Dollfuss, 2008:486 (locality records from Kenya, Malawi, Namibia, and South Africa).

### 179. *pectoralis* F. Morawitz

*Oxybelus pectoralis* F. Morawitz, 1893b:416, ♀. Holotype or syntypes: ♀, Tajikistan: Varzaminor (ZIN). – Dalla Torre, 1897:646 (in catalog of world Sphecidae); Gussakovskij, 1935:434 (Tajikistan); Myartseva, 1963b:61 (Turkmenistan: lower Murgab River), 1965:96 (Turkmenistan: Akibay and Bayram-Ali district), 1972:95 (Turkmenistan); R. Bohart and Menke, 1976:369 (listed); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:92 (geographic distribution, collecting localities in Kazakhstan), 2004b:106 (Kazakhstan: western Tien Shan); Dollfuss, 2008:486 (locality records from Kazakhstan, Kyrgyzstan, Mongolia, Turkmenistan, and Uzbekistan).

### 180. *penai* R. Bohart

*Oxybelus penai* R. Bohart, 1992:162, ♀, ♂. Holotype: ♀, Chile: Valparaiso: Concon (Catolica Mus., Valparaiso). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:487 (Chile: Talca, Nahuelbuta 30 km W Angol).

### 181. *peringueyi* de Saussure

*Oxybelus peringueyi* de Saussure, 1892:563, ♀. Holotype or syntypes: ♀: South Africa: no specific locality (MHNG). – Dalla Torre, 1897:646 (in catalog of world Sphecidae, as *peringuezii*); W. Schulz, 1906:210 (correct spelling is *Péringueyi*); Arnold, 1927:92 (in revision of southern African *Oxybelus*, South Africa: Cape Province, Orange), 1930:14 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Dollfuss, 2008:487 (locality records from Malawi and South Africa).

**182. *perornatus* Arnold**

*Oxybelus perornatus* Arnold, 1945:186, ♀, ♂. Syntypes: Madagascar: Bekily (MNHN). – Leclercq, 1961d:118 (Madagascar); R. Bohart and Menke, 1976:369 (listed); Leclercq, 1990b:120 (Madagascar); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

**183. *peruensis* R. Bohart**

*Oxybelus peruensis* R. Bohart, 1993d:73, ♀, ♂. Holotype: ♀, Peru: Huanuco: Tingo Maria (UCD). – R. Bohart, 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**184. *peruvicus* R. Bohart**

*Oxybelus peruvicus* R. Bohart, 1993d:73, ♀, ♂. Holotype: ♀, Peru: Huanuco: Tingo Maria (CAS). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America), 1993e:161 (listed, geographic distribution) and 163 (in key to Central American and Caribbean *Oxybelus*); Hanson and Menke, 1995:640 (known from Costa Rica); Cambra and Santos, 2000:53 (Panama: Parque Nacional Coiba in Isla de Coiba, Pacific Ocean); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:487 (Venezuela: Bolivar: Río Caroni 120 km W Santa Elena).

**185. *philippinensis* Pate**

*Oxybelus philippinensis* Pate, 1938b:383, ♀ (as *philippinense*, incorrect original termination). Holotype: ♀, Philippines: Luzon: Los Baños (ANSP). – Pate, 1938b:392 (in list of Oriental Oxybelini); H. Allen, 1995:15 (holotype in ANSP); Baltazar, 1966:359 (in catalog of Hymenoptera of Philippines, as *philippinense philippinense*). – **As *Oxybelus philippinensis***: R. Bohart and Menke, 1976:369 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

***ssp. reticulatus* Pate**

*Oxybelus philippinense* forma *reticulatus* Pate, 1938b:385, ♀ (as *reticulatum*, incorrect original termination). Holotype: ♀, Philippines: Mindanao: Kolambugan (USNM). – Pate, 1938b:392 (in list of Oriental Oxybelini); Baltazar, 1966:359 (in catalog of Hymenoptera of Philippines). – **As *Oxybelus philippinensis reticulatus***: R. Bohart and Menke, 1976:369 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

**186. *phyllophorus* Kohl**

*Oxybelus phyllophorus* Kohl, 1898a:355, ♂, ♀. Syntypes: Egypt: Cairo and Adelen-Insel opposite Dahshur, not Darfur (NHMW and TMB). – Honoré, 1942:51 (in catalog of Egyptian Sphecidae) de Beaumont, 1950f:413 (s. Algeria), 1956a:212 (Tibesti), 1958b:68 (Algeria: Tassili des Ajjer); Pulawski, 1964:147 (Egypt: Aswan, Maadi); R. Bohart and Menke, 1976:369 (listed); Leclercq, 1993c:48 (Algeria: Ahaggar: Oued Tekouiat); Dollfuss, 2008:487 (Morocco: 5 km N Agadir, Mhamid 100 km S Zagora, Tagounite 60 km S Zagora, 5 km S Zagora).

**187. *pictisentis* Cameron**

*Oxybelus aurifrons* Cameron, 1902c:287, ♀, junior primary homonym of *Oxybelus aurifrons* F. Smith, 1856. Holotype or syntypes: ♀, India: Gujarat: Deesa (BMNH). Synonymized with *Oxybelus pictisentis* by R. Turner, 1917e:190. – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

*Oxybelus pictisentis* Cameron, 1908b:302, ♀. Holotype or syntypes: ♀, India: Gujarat: Deesa (BMNH). – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); R. Turner, 1917e:190 (recognition characters, common in Northern India and Punjab, as *Oxybelus pictiscutis*); Pate, 1938b:388 and 392 (in list of Oriental Oxybelini); Tsuneki, 1963c:43 (Thailand, as *pictiscutis*); R. Bohart and Menke, 1976:369 (listed); Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:487 (Laos: Bolikhamsai: Ban Nape area).

**188. *pictus* Arnold**

*Oxybelus pictus* Arnold, 1927:115, ♀. Holotype: ♀, Zimbabwe: Sawmills (coll. R. Stevenson, now SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae), 1951:166 (Mali: Tillembeya); R. Bohart and Menke, 1976:369 (listed).

**189. *pilosus* Arnold**

*Oxybelus pilosus* Arnold, 1927:114, ♀, ♂. Syntypes: Ethiopia: Harar (BMNH). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); Scott in Arnold, 1933a:369 (Ethiopia: Harar District); R. Bohart and Menke, 1976:369 (listed); Bonelli, 1976:231 (nesting habits); Dollfuss, 2008:487 (Malawi: Dedza 85 km SE Lilongwe, Zambia: 45 km SE Kitwe, 60 km W Solwezi).

**190. *pitanta* Pate**

*Oxybelus pitanta* Pate, 1943h:123, ♂. Holotype: ♂, USA: California: San Bernardino County: Cronise (ANSP). – Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*), 1957:129 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Blow Sand Mountains); R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); H. Allen, 1995:16 (holotype in ANSP); Amarante, 2002:45 (in catalog of Neotropical Crabronidae, authorship attributed to Cresson); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Amarante, 2005a:11 (correction to his 2002 catalog).

**191. *platensis* Brèthes**

*Oxybelus platensis* Brèthes, 1901:193, ♀. Syntypes: Argentina: Buenos Aires: San Martin near Buenos Aires (lost: R. Bohart, 1993a:191). Neotype: ♀, Argentina: Argentina: Lonacepin (La Plata Mus.), designated by R. Bohart, 1993a:191. – Schrottky, 1903b:177 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Jørgensen, 1912:294 (Argentina: Mendoza Province); Brèthes, 1913:145 (additional description); Schrottky, 1913a:234 (Argentina: Buenos Aires); R. Bohart and Menke, 1976:369 (listed); Genise, 1990:26 (type material in MACN); R. Bohart, 1993a:191 (diagnostic characters), 1993d:67 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:45 (in catalog of Neotropical Crabronidae), 2005a:11 (correction to his 2002 catalog); Dollfuss, 2008:487 (Argentina: Buenos Aires: San Osidos in Sierra de la Ventana).

*Oxybelus tarijensis* Brèthes, 1913:144, ♀. Lectotype: ♀, Argentina: Tarija (MNCN), designated by R. Bohart, 1993a:191. Synonymized with *Oxybelus platensis* by R. Bohart, 1993a:191. – R. Bohart and Menke, 1976:370 (listed); Genise, 1990:27 (type material in MACN).

**192. *plaumanni* R. Bohart**

*Oxybelus plaumanni* R. Bohart, 1993d:74, ♀, ♂. Holotype: ♀, Brazil: Santa Catarina: Nova Teutonia (UCD). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**193. *polyacanthus* A. Costa**

*Oxybelus polyacanthus* A. Costa, 1882a:197, [♂]. Holotype or syntypes: ♂, Italy: Sardegna: no specific locality (Napoli). – Dalla Torre, 1897:646 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:369 (listed); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Leclercq, 1993c:48 (unrecognizable species); Pagliano and Negrisolò, 2005:489 (in Sphecid Fauna of Italy, as nomen dubium).

**194. *polyceros* Pate**

*Oxybelus polyceros* Pate, 1943g:284, ♂, ♀. Holotype: ♂, Venezuela: Carabobo: San Esteban (ANSP). Paratypes: Colombia, Ecuador, French Guiana, Trinidad. – R. Bohart and Menke, 1976:369 (listed); Callan, 1991a:12 (Trini-

dad); H. Allen, 1995:16 (holotype in ANSP); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Starr and Hook, 2003:19 (in catalog of Aculeata of Trinidad, West Indies).

#### 195. *propodealis* R. Bohart

*Oxybelus propodealis* R. Bohart, 1993e:166, ♂. Holotype: ♂, Honduras: Zamora (USNM). – R. Bohart, 1993e:161 (listed), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

#### 196. *pulawskii* Tsuneki

*Oxybelus pulawskii* Tsuneki, 1972a:169, ♂. Holotype: ♂, Mongolia: South Gobi Aymag: Tahila ul (TMB). – R. Bohart and Menke, 1976:369 (listed); Dollfuss, 2008:488 (description of ♀, locality records from Mongolia).

#### 197. *pygidialis* Gussakovskij

*Oxybelus pygidialis* Gussakovskij, 1952:257, ♀, ♂. Syntypes: Tajikistan: Djilikul (ZIN). – R. Bohart and Menke, 1976:369 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia).

#### 198. *pyrurus* (Rohwer)

*Notoglossa pyrura* Rohwer, 1914:520, ♀, ♂. Holotype: sex not indicated, Guatemala: Quirigua (USNM). – **As *Oxybelus pyrura***: R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); R. Bohart, 1993e:161 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae). – **As *Oxybelus pyrurus***: Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

#### 199. *quatuordecimnotatus* Jurine

*Oxybelus quatuordecimnotatus* Jurine, 1807:217 and pl. 11, Fig. 14, ♂ (as *14 notatus*, incorrect original spelling). Holotype or syntypes: ♂, Europe, probably Switzerland: no specific locality (lost: Frei-Gessner, Kohl, and Kriechbaumer, 1882:395). – Olivier, 1812b:596 (redescription, as *quatuordecim notatus* in the text); Vander Linden, 1829:39 (bibliographic references, southern France, Greece, Italy); Shuckard, 1837a:112 (in revision of British Aculeata, as *quatuordecimguttatus*); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); Ghiliani, 1842:25 (listed from Italy: Sicilia, as *14-guttatus*); Dahlbom, 1844:270 (original description copied, as *14-guttatus*), 1845:513 (in key to *Oxybelus*, as *14-guttatus*); Lepeletier de Saint Fargeau, 1845:220 (in revision of world Hymenoptera, Paris area; as *quator-decimnotatus*); Eversmann, 1849:416 (Russia: Ural foothills); Wesmael, 1852:630 (interpretation of species); F. Smith, 1856:383 (in catalog of Hymenoptera in British Museum, as *quatuordecim-notatus*); A. Costa, 1858:20 (Italy: Campania: Monti Partenii in Benevento Region, as *14-notatus*); A. Morawitz, 1864:458 (Russia: St.-Petersburg); A. Costa, 1867c:148 (in revision of Italian Sphecidae); Gerstaecker, 1867a:62 (in revision of *Oxybelus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Palma, 1867:41 (Italy: Sicilia settentrionale, as *14-guttatus*); Chevrier, 1868:402 (in revision of Swiss *Oxybelus*); Thomson, 1870:179 (in revision of Swedish Crabroninae, as *14-guttatus*); A. Costa, 1871b:77 (in revision of Italian Sphecidae); Dours, 1874:153 (in catalog of Hymenoptera of France); Marquet, 1875:210 (France: Haute-Garonne: Toulouse); Taschenberg, 1875:380 (Germany: Halle); Radoszkowski, 1877:75 (Uzbekistan: Samarkand; Tajikistan: Varzaminor; Kirghisia: Osh; Kazakhstan: Bayrakum); Kohl, 1880:143 (Austria: Tirol, and Italy: Trentino-Alto Adige); Magretti, 1881:213 (Italy: Lombardia), 271 (listed); Marquet, 1881:185 (southern France); A. Costa, 1882b:23 (Italy: Sardegna; as *14-guttatus*), 1883:58 (Italy: Sardegna: Tissi; as *14-notatus*), 90 (description of aberrant specimen, as *quadrinotatus* and *14-notatus*); Kohl, 1883e:662 (Switzerland); von Heyden, 1884:119 (Germany: Frankfurt am Main area, as *14.notatus* Olivier); Wüstnei, 1886:39 (Germany: Schleswig Holstein: Uetersen near Elmshorn); Riggio and De Stefani-Perez, 1888:149 (Italy: Ustica Island); F. Morawitz, 1889a:161 (China or Mongolia, as *14-punctatus*); F. Gasperini, 1889:68 (Dalmatia: Spalato, now Croatia: Split, as *quatuordicemnotatus*); Morawitz, 1891a:211 (Russia: Astrakhan Government); Baldini, 1894:73 (Italy: Modena area); Krieger, 1894:11 (Germany: Kingdom of Saxony: Leipzig); F. Morawitz, 1894:345 (Turkmenia: Serax); De Stefani Perez,

1895:228 (in catalog of Sicilian Hymenoptera); Marquet, 1896:24 (in revision of *Oxybelus* of France); Schmiedeknecht, 1896:149 (Algeria: Oran Province); Acloque, 1897:92 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:647 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Croatia); Flamary, 1898:45 (France: Saône-et-Loire: Mâcon area); Chyzer, 1902:34 (Hungary); Ferton, 1902:516 (prey, prey carrying); Kokujev, 1902:11 (Turkmenistan: Merv, now Mary); Antiga and Bofill, 1904:28 (Spain: Cataluña Province); E. Saunders, 1904c:639 (Spain, as *14-notatus*); W. Schulz, 1904b:101 (Austria, Croatia); Mantero, 1905:71 (Italy: Toscana: Isola del Giglio); W. Schulz, 1906:210 (Dahlbom's use of the name *quatuordecimnotatus* and *quatuordecimguttatus*); Schmiedeknecht, 1907:202, 205 (in key to Hymenoptera of Central Europe); Cecconi, 1908:23 (Italy: Puglia: Isole Tremiti); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Ferton, 1908:564 (prey); Dittrich, 1911b:20 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:44 (Italy: Trieste area); Mantero, 1911:73 (Italy: Sardegna: Isola dell'Asinara, determination questionable); Morice, 1911:132 (Algeria); Schirmer, 1912:165 (Germany: Berlin area); Alfken, 1914:275 (NW Germany); Zilahi Kiss, 1915:80 (Hungary: Bethlen, Boksánbánya, Debreczen, Felső-Ilosva, Nagyilonda); Dubois, 1919:96 (Belgium: Bruxelles: Uccle); Kerenskiy, 1919:33 (Russia: Penza Government); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:38 (Germany: Lower Elbe region); Dubois, 1921c:191, 192, 193 (in key to Belgian Sphecidae); Morice, 1921:824 (Iran: Qazvin); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Maidl, 1922:74 (Croatia); Berland, 1925d:210 (in Sphecid Fauna of France); Coulon, 1925:122 (France: Oise, Germany; Morocco: Tanger); Lauterborn, 1925:355 (Germany: Nordrhein-Westfalen: Neuhoften); K. Strohm, 1925:211 (Germany: Baden-Württemberg: Ihringen); Chevalier, 1926a:11 (nesting habits); von Schulthess, 1926b:219 (Libya: Benghazi); Kuznetzov-Ugamskij, 1927:246 (Kazakhstan: Aulie-Ata, now Dzhambul); F. Werner, 1927:66 (Austria: Niederösterreich: River Kamp valley, as *XIV notatus*); Benoist, 1928:411 (France: Basses-Alpes: Saint-Pons); Grandi, 1929:289 (Italy: Toscana: valle della Limentra), 1930: 341 (Italy: Toscana: Maremma); A. Müller, 1930:181 (Romania: Măcin; Moldova or Ukraine: Tarutino, as *XIV-notatus*); Maidl in Schmiedeknecht, 1930:664, 665 (in keys to Hymenoptera of North and Central Europe); Dusmet y Alonso, 1931:9 (Portugal: Évora, Mitra); Grandi, 1931:58 (Italy: Toscana: Vallata delle Pozze near Le Mandriole); Giordani Soika, 1932a:23 (Italy: Lido di Venezia); Gussakovskij, 1932:28 (Russia: Primorskiy Krai); Bernard, 1933:62 (France: Drôme: Dieulefit); Bischoff, 1933:4 (Morocco); Drogoszewski, 1933:118 (Poland: Łowicz); Nadig, 1933:77 (Morocco); Bondroit, 1934:62 (Belgium: Ostende); Giner Marí, 1934:136 (Spain); Grandi, 1934:128 (Italy: Lazio: Acilia, and Toscana: San Vincenzo); Guiglia, 1934b:306 (Libya: bibliography and summary of locality records); Gussakovskij, 1934a:10 (China: Szechuan); Bernard, 1935:67 (France: Var: Fréjus area); Gussakovskij, 1935:434 (Tajikistan); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina, Puszczukowo, Strzeszyn, Strzeszynek); Zavadil, Šustera, and Bat'a, 1937:173 (in catalog of Sphecidae of Czechoslovakia); Guiglia, 1938b:10 (Italy: Sardegna); Blüthgen, 1937:235 (Germany: Saale River valley: Eulau); Móczár, 1938c:81 (Hungary: Kőszeg Hills, as *14-notatus*); A. Wagner, 1938a:118 (northwestern Germany); Móczár, 1939:5 (Hungary: Jászberény, as *quatuordecimnotatus*); Benno, 1940a:205 (Netherlands: Drunen); Struve, 1940:823 (Germany: Island of Borkum); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Guiglia, 1941c:168 (Italy: Calabria: Grande Sila); Leclercq, 1941b:16 (Belgium: Liège area); Schneid, 1941:1034 (Germany: Bayern: Bamberg area); de Beaumont, 1942b:427 (in revision of Swiss *Oxybelus*); Guiglia, 1942a:63 (Greece: Island of Rhodes: Villanova); Yasumatsu, 1942c:114 (China: Beijing); Giner Marí, 1943a:259 (in Sphecid Fauna of Spain); Guiglia, 1943b:73 (Albania: Kopluku); Giordani Soika, 1944:8 (Italy: Sicilia: Falcone); Guiglia, 1944a:151 (Cyprus: Cherkas), 1944b:42 (Italy); Giner Marí, 1945b:360 (Morocco: Ain Zorah); Deleurance, 1946b:64 (nest vertical, prey impaled on sting during transportation, list of prey), 67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); Guiglia, 1947a:28 (Italy: Piano Maiuri); Balthasar, 1948:141 (Slovakia: Kovačov, Parkan); Šnoflak in Zavadil and Šnoflak, 1948:36, 40 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:188 (in revision of western European *Oxybelus*); de Beaumont, 1950f:420 (S Algeria); Noskiewicz and Chudoba, 1950:311 (in revision of *Oxybelus* of Śląsk Region, Poland); Pittioni, 1950:29 (Cyprus);



Szulczewski, 1950:103 (Poland: Wielkopolski National Park 15 km S Poznań); Bat'a, 1952:167 (Czech Republic); de Beaumont, 1952b:90, 91 (Marquet's 1896 specimens); Guiglia, 1953a:106 (in revision of Italian *Oxybelus*); Głowacki, 1953:518 (Poland: Podkowa Leśna); Móczár, 1953:311 (Hungary); Nouvel and Ribaut, 1953:184 (France: Central Pyrénées: common in Garonne River valley); Bischoff and Stadler, 1954:127 (Germany: Bayern: Romberg); Blüthgen, 1954:146, 152 (in key to Central European *Oxybelus*, as *quattuordecimnotatus*), 153 (common in sandy areas); de Beaumont, 1954e:98 (Italy); Grandi, 1954:244 (Italy); Hertzog, 1954:102 (France: Bouches-du-Rhône: Camargue); Vogrin, 1955:45 (Yugoslavia); Bytinski-Salz, 1956:227 (Turkey: Dinar, Elmali, Istanbul, Karapınar, Ulu Dag); Morel, Nouvel, and Ribaut, 1956:340 (France: Département des Pyrénées-Orientales); de Beaumont, 1957a:156 (Morocco; geographic variation; as *quattuordecimnotatus*), 1957b:139 (n. Iran; as *14.notatus*); Grandi, 1957:392 (Italy); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Pfalz region, as XIV-notatus); Benno, 1958b:18 (in review of Dutch Sphecidae); Móczár, 1958c:296 (in revision of *Oxybelus* of Hungary); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Puławski, 1958a:189 (Bulgaria: Kniazhevo near Sofia, Sandanski, Varna); Ceballos, 1959:232 (in supplement to catalog of Spanish Sphecidae); Scobiola Palade, 1959:499 (Romania: Constanța Region: Agiea Vasile Roaită); Suárez, 1959:60 (Spain: Almería Province); Wolf, 1959b:35 (Germany: Nassau); de Beaumont, 1960a:23 (Greece: Island of Rhodes); Noskiewicz and Puławski, 1960:163, 165 (in key to Polish Sphecidae); de Beaumont, 1961b:276 (Afghanistan), 1961c:52 (Greece: Crete Island), 1962b:29 (Spain); Grandi, 1962:99 (Italy); de Beaumont, 1963c:417 (Afghanistan); Lehrer and Scutaru, 1963:286 (Romania: Moldova: Găureni in Iași District); Scobiola, 1963:825 (Romania: Periprava in Danube delta, as *quatordecimpunctata*); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:162 (in Sphecid Fauna of Switzerland); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle, as *quattuordecimnotatus*), 196 (visiting flowers of *Daucus carota* L., *Falcaria vulgaris* Bernh., and *Pastinaca sativa* L.); de Beaumont, 1965a:62 (Greece); B. Klug, 1965:144 (Germany: Baden-Württemberg: Freiburg im Breisgau area); Mingo Pérez, 1966:99 (in revision of *Oxybelus* of Iberian Peninsula, as *14-notatus*); Balthasar, Hrubant, and Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); Benno, 1967:39 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:365 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); Niedl and Deneš, 1967:76 (Czech Republic: Třeboň area); Scobiola-Palade, 1967a:162 (Romania: Constanța District: Hagieni; as *quadridecemnotatus*), 1967b:50 (Romania); Benedek, 1968:79 (Hungary, floral records); Scobiola-Palade, 1968b:143 (Romania: Island of Letea in delta of Danube; as *quattuordecimpunctatus*), 1968c:386 (Romania: eleven localities); Benedek, 1969a:85 (Hungary: marshy meadow), 1969b:421 (Hungary: Csopak, collected in vicinity of aphid *Hyalopteritena pruni* (Geoffroy)); Dathe, 1969:438 (Germany: Berlin Zoological Garden); Lefeber, 1969a:78 (Netherlands: Schinveld, St. Pietersberg), 1969c:234 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Zangheri, 1969:1709 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1970:105 (Hungary: Tapolca); de Beaumont, 1970a:404 (Afghanistan), 1970c:17 (Iran: Teheran); Gauss and Perraudin, 1970:360 (Germany: Baden-Württemberg: Bodensee area); Oehlke, 1970:796 (Democratic Germany); Dathe, 1971:234 (Germany: Berlin Zoological Garden; phenology); Schmidt, 1971b:53 (Germany: Mainz area); Stritt, 1971a:105 (Germany: Baden-Württemberg: Karlsruhe; as *quattuordecimpunctatus*); Balthasar, 1972:157 (in Sphecid Fauna of Czechoslovakia); Tsuneki, 1972a:164 (Mongolia); Oehlke, 1972:141 (Germany: Hiddensee Island); Kazenas, 1972b:177 (Kazakhstan); Scobiola-Palade, 1972a:152 (Romania: delta of Danube: Caraorman); Simon Thomas, 1972:187 (France: Gironde, Landes); de Beaumont, Bytinski-Salz and Pulawski, 1973:24 (Israel); Erlandsson, 1974:88 (Italy, Yugoslavia); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp. in Kazakhstan), 110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, *Nitraria schoberi* L., Zygophyllaceae, and *Daucus carota* L., Apiaceae, in Kazakhstan), 111 (feeding on flowers of *Lepidium crassifolium* W. et K., Brassicaceae, in Kazakhstan); Scobiola-Palade, 1974:145 (Romania: Sărăturile sandbank in Danube delta); Simon Thomas, 1974:58 (Netherlands: Limburg); Benedek, 1975:251 (Hungary: onion pollinator); R. Bohart and Menke, 1976:369 (listed); Tsuneki, 1976d:308 (China: Manchuria); Georghiou, 1977:191 (Cyprus); Haeseler, 1978b:63 (Germany: Niedersachsen: a bog near Oldenburg), 1978c:195 (Germany:

Friesian Islands: Borkum Island); Marion, 1978:91 (France: Nièvre Department); Pulawski, 1978:276, 278 (in key to Sphecidae of European part of former USSR, as *quattuordecimnotatus*); Benedek, 1979:236 (Hungary: Bakony Hills); Leclercq, Gaspar, and Verstraeten, 1979:map 1427 (Belgium); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Guichard, 1980:228 (Oman); Pagliano, 1980:120 (Italy: Piemonte); Donath, 1982:215 (Germany: Cottbus Bezirk); Gayubo, 1982b:11 (N Spain: Sierra de Béjar), 1882e:103 (Spain: Cádiz Province); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Gayubo, 1983a:126 (prey of an asilid); Józán, 1983:103 (Hungary); Riemann, 1983:87 (Germany: Bremen-Daverden area); Schmidt and Westrich, 1983:124 (Greece); Gayubo, 1984b:91 (Spain: Salamanca Province); Haack, Tschardtke, and Vidal, 1984:130 (Germany: Hamburg area); Tsuneki, 1984e:59 (Russia: Sarepta, now Krasnoarmeysk); Chevin and Chevin, 1985:39 (France: Aude); Gayubo, 1985a:488 (prey: *Chryzomiza* sp., Uldidae), 1985c:169 (Spain: Valladolid: Hornillos, Traspinedo, Valladolid); Haeseler, 1985c:571 (Germany: Friesian Islands); Józán, 1985a:181 (Hungary), 1985b:58 (Hungary S Lake Balaton), 79 (floral records), 84 (ecological and zoogeographic characteristics); Leféber, 1985:87 (Netherlands: southern Limburg); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Brechtel, 1986:73 (Germany: Südpfalz); Gayubo, 1986a:61 (Spain: Ciudad Real Province), 1986d:114 (Spain: Zamora Province); Gayubo and Heras, 1986:50; Gayubo and Heras, 1986:50 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Sanza, 1986:59 (Spain: Burgos, Soria); Islamov, 1986:532 (Uzbekistan: Tashkent Oblast'); Józán, 1986:371 (Hungary: Kiskunság National Park); Nemkov, 1986:100 (Russia: Siberia: Irkutsk Oblast'); Schmidt and Westrich, 1987:375 (Germany: Mainz area; as *quatuordecimmaculatus*); Tormos and Jiménez, 1987b:316 (Spain: Valencia Province: Dehesa de El Saler); Dollfuss, 1988:14, 26 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Haeseler, 1988:211 (Germany: Friesian Islands); Karsai, 1988:100 (Hungary: Kiskunság National Park); Kowalczyk, 1988a:46 (Poland: Rogów), 1988b:66 (Poland: environs of Łódź, as *quatreordecimnotatus*); Borsato, 1989:201 (Italy: Lombardia: Busatello marsh); Jacobs, 1989:16 (Germany: Mecklenburg-Vorpommern); Pádr *in* Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae, as *quattuordecimnotatus*); Scobiola-Palade, 1989:88 (Romania: delta of Danube, as *quattuordecimnotatus*); Gayubo, Asís, and Tormos, 1990b:74 (Spain); Guichard, 1990b:283 (Saudi Arabia: Hofuf); Jacobs and Oehlke, 1990:177 (new records from Democratic Germany); Kuznetzova, 1990:25 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pádr, 1990:90 (Czech Republic: Praha area); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:542 (Austria: Kärnten); von der Heide and Witt, 1990:64 (Germany: Niedersachsen); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:132 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:405 (Italy); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Guichard, 1991a:340 (Jordan); Gusenleitner, 1991:646 (Austria: Linz); Józán, 1991:603 (Hungary: Bátorliget Nature Reserve, as *quattuordecimnotatus*); Kowalczyk, 1991a:100, 102 (Poland: Łódź, as *quattuordecimnotatus*), 1991b:121 (Poland: Augustów Forest); Negrisolo, 1991:319 (Italy: Venezia Province); Pagliano, 1991b:331, 332 (in key to Italian Crabroninae); van der Smissen, 1991:97 (nw. Germany); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Gayubo, Borsato, and Osella, 1992:284 (France, Greece, Turkey); Józán, 1992a:229 (Hungary: Béda-Karapanca Protected Area), 1992b:174 (Hungary: Boronka-melléki Protected Area), 1992c:289 (Hungary: Zselic Hills, as *quattuordecimnotatus*); Leclercq, 1992c:208 (prey); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Bitsch and Leclercq, 1993:260 (in revision of western European Crabroninae); Guichard, 1993b:531 and 533 (in key to European *Oxybelus*); Leclercq, 1993c:48 (collecting localities from Europe, North Africa, and Turkey); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Blagoveshchenskaya, 1994:90 (Russia: Ul'yanovsk Oblast'); Gayubo and Borsato, 1994:210 (Italy: Lombardia, Toscana, Lazio); Theunert, 1994c:46 (summary of records from Niedersachsen and Bremen, Germany); Tormos, Asís, and Gayubo, 1994:189, 212 (Spain: Albacete Province); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Negrisolo, 1995a:18 (visiting flowers of *Echinophora spinosa* L.), 22 (Italy: Veneto); Negrisolo *in* Minelli, Ruffó, and La Posta, 1995b:6 (in catalog of Italian fauna); Nemkov *in* Nemkov, Ka-

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- Crabro crassipes* Walckenaer, 1817:35, sex not indicated, junior primary homonym of *Crabro crassipes* Fabricius, 1798. Holotype or syntypes: sex unknown, France: Paris area (lost, not preserved by the author). Synonymized with *Oxybelus quattuordecimnotatus* by Leclercq *in* Bohart and Menke, 1976:369.
- Crabro punctatus* Walckenaer, 1817:35, sex not indicated. Holotype or syntypes: sex unknown, France: Paris area (lost, not preserved by the author). Synonymized with *Oxybelus quattuordecimnotatus* by Leclercq *in* Bohart and Menke, 1976:369.
- Crabro parisinus* Kittel, 1828:925, sex not indicated. Holotype or syntypes: France: Paris area (lost?). Synonymized with *Oxybelus quattuordecimnotatus* by Bitsch and Leclercq, 1993:260. – **As *Oxybelus parisinus***: R. Bohart and Menke, 1976:369 (listed).
- Oxybelus bellus* Dahlbom, 1844:268, ♂. Holotype: ♂, Germany: Silesia: Glogau, now Poland: Głogów (Lund). Synonymized with *Oxybelus quattuordecimnotatus* by Gerstaecker, 1867a:62, with *Oxybelus fasciatus* by Thomson,

1870:179, and with *Oxybelus mucronatus* (correctly: *quatuordecimnotatus*) by Fæster, 1949:29. – Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Dresden); F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); Ruthe and Stein, 1857:315 (Germany: Berlin area); Schenck, 1857:115 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:120 (in key to Sphecidae of Germany); Funk, 1859:58 (Germany: Bayern: Bamberg); Schenck, 1860:146 (Germany: Nassau Region); Brischke, 1862:104 (Germany: Preussen Province, now Poland: Pomorze Region), 1864:209 (*Oxybelus bellus* is a synonym of *Oxybelus furcatus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region); Kohl, 1884b:111 (in list of known *Oxybelus*); Brischke, 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region; = ♂ of *furcatus*); Dalla Torre, 1897:638 (in catalog of world Sphecidae); N. Arnold, 1902:87 (Russia: Mohilev Province, now Belarus'); de Cobelli, 1903:114 (Italy: Trentino: Isera, Malè); Dubois, 1920:87 (Belgium: Beverloo).

*Oxybelus furcatus* Lepeletier de Saint Fargeau, 1845:214, ♀. Holotype or syntypes: ♀, France: Paris area (depository?). Synonymized with *Oxybelus quatuordecimnotatus* by Gerstaecker, 1867a:623, synonymy confirmed by Bitsch and Leclercq, 1993:260. – Wesmael, 1852:624 (Belgium); F. Smith, 1856:384 (in catalog of Hymenoptera in British Museum); Schenck, 1857:114 (in revision of fossorial wasps of Nassau Region, Germany); Funk, 1859:58 (Germany: Bayern: Bamberg); Schenck, 1860:146 (Germany: Nassau Region); Brischke, 1862:104 (Germany: Preussen Province, now Poland: Pomorze Region), 1864:209 (Germany: Preussen Province, now Poland: Pomorze Region); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region); Chevrier, 1868:397 (in revision of Swiss *Oxybelus*); P. Ivanov, 1872:151 (Ukraine: Khar'kov Oblast': Kupyansk area); Dours, 1874:152 (in catalog of Hymenoptera of France); Becker, 1880:152 (Russia: Sarepta, now Krasnoarmeysk S Volgograd); Kohl, 1880:143 (Italy: Trentino–Alto Adige); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); Kohl, 1883e:662 (Switzerland), 1884b:112 (in list of known *Oxybelus*); von Heyden, 1884:119 (Germany: Frankfurt am Main area); Gasperini, 1887:14 (Dalmatia: San Giorgio, now Sućuraj on Hvar Island); Brischke, 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region); Kohl, 1893a:33 (Austria: Niederösterreich); Marquet, 1896:32 (in revision of *Oxybelus* of France); Meunier, 1896:270 (Belgium: Bruxelles area); Acloque, 1897:92 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Meunier, 1897b:353 (Belgium: coastal sand dunes at Blankenberge); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); de Cobelli, 1903:114 (Italy: Trentino: Isera, Malè, Mollaro, Mori, Rovereto); Antiga and Bofill, 1904:27 (Spain: Cataluña Province); W. Schulz, 1904b:101 (Spain); Kohl, 1905c:233 (Turkey: Kayseri: Erciyes Daği); Kubes, 1905:84 (Czech Republic: Kolín); Mantero, 1905:71 (Italy: Toscana: Isola del Giglio); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Graeffe, 1911:44 (Italy: Trieste area); Maidl, 1922:73 (Albania, Croatia); Vogrin, 1955:45 (Yugoslavia); Bradley, 1957:48 (Lepeletier's specimens in Turin); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).

*Oxybelus raptor* Lepeletier de Saint Fargeau, 1845:219, ♀. Holotype or syntypes: ♀, France: Paris area (depository?). Synonymized with *Oxybelus quatuordecimnotatus* by Bitsch and Leclercq, 1993:260. – F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:223 (in catalog of European Hymenoptera); Dours, 1874:153 (in catalog of Hymenoptera of France); Kohl, 1884b:114 (in list of known *Oxybelus*); Acloque, 1897:92 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:647 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Bradley, 1957:48 (Lepeletier's specimens in Turin); R. Bohart and Menke, 1976:369 (listed); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).

*Oxybelus timidus* Chevrier, 1868:399, ♀, ♂. Syntypes: Switzerland: Lake Léman area: no specific locality (MHNG). Synonymized with *Oxybelus quatuordecimnotatus* by de Beaumont, 1942b:427. – Kohl, 1883e:662 (Switzerland), 1884b:115 (in list of known *Oxybelus*); Dalla Torre, 1897:648 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera).

- Oxybelus venustus* Sickmann, 1894:207, ♀, ♂. Syntypes: China: Tientsin, now Tienjin (Westf. Provinz. Mus. Naturk., Münster I. W.). Synonymized with *Oxybelus quatuordecimnotatus* by Bitsch and Leclercq, 1993:261. – Dalla Torre, 1897:650 (in catalog of world Sphecidae); Yasumatsu, 1942c:114 (China: Beijing); Tsuneki, 1969a:1 (nesting habits), 1971m:35 (China: Beijing; redescription); R. Bohart and Menke, 1976:370 (listed); Dollfuss, 1989:11 (type material in NHMW).
- Oxybelus maritimus* Marquet, 1896:25, ♀. Lectotype: ♀, France: Hérault: Cette, now Sète (Lausanne), designated by de Beaumont, 1952b:90. Synonymized with *Oxybelus quatuordecimnotatus* by de Beaumont, 1952b:90.
- As *Oxybelus bellicosus*: Schenck, 1857:114 (in revision of fossorial wasps of Nassau Region, Germany); Brischke, 1862:104 (Germany: Preussen Province, now Poland: Pomorze Region), 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region; = ♂ of *furcatus*); N. Arnold, 1902:86 (Russia: Mohilev Province, now Belarus', = *Oxybelus quatuordecimnotatus* given as synonym).
- As *Oxybelus mucronatus*: Schilling, 1848:105 (Germany: Breslau area, now Poland: Wrocław), present correction; Wesmael, 1852:623 (Belgium: Ostende), present correction; Kawall, 1857:25 (Kurland, now Latvia); Ruthe and Stein, 1857:315 (Germany: Berlin area), present correction; Taschenberg, 1866:161 (in revision of Hymenoptera of Germany), present correction; Thomson, 1870:17 (in revision of Swedish Crabroninae), present correction; Taschenberg, 1875:380 (Germany: Halle); present correction; Kohl, 1888b:727 (Austria: Tirol, now Italy: Alto Adige; present correction: *pugnax* used simultaneously); Alfken, 1893:120 (Germany: Friesian Islands: Juist Island), present correction based on geographic distribution; Nevinson, 1900:62 (Great Britain: Wales: Towyn), 1901:72 (Great Britain: Wales: Criccieth), 1902:12 (Great Britain: Cornwall: Holywell Bay); Aurivillius, 1904:298 (in revision of Swedish Sphecidae), present correction based on geographic distribution; Friese, 1926:144 (in key to Sphecidae of Central Europe, short morphological and biological characteristics), present correction based on geographic distribution; Harttig, 1930b:8 (specimen bearing dipteran egg), present correction based on geographic distribution; Bouwman, 1932:391 (in revision of Sphecidae of Netherlands), present correction; P. Verhoeff, 1948:188 (in revision of Western European *Oxybelus*); Fæster, 1949:29, 42 (in revision of Western European *Oxybelus*), corrected to *Oxybelus quatuordecimnotatus* by Fæster, 1951:456; Cavro, 1950:41 (France: Département du Nord), present correction; de Beaumont, 1950f:420 (Algeria; as senior synonym of *quatuordecimnotatus*), 1951h:35 (Switzerland: Neuchâtel area; as senior synonym of *quatuordecimnotatus*); Leininger, 1951:116 (Germany: Baden-Württemberg); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District; synonym of *quatuordecimnotatus*).

### 200. *rancocas* Pate

*Oxybelus rancocas* Pate, 1943f:91, ♂. Holotype: ♂, USA: New Jersey: Camden County: Atco (ANSP). – Burks *in* Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*), 1957:108 (in key to North American *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera); H. Allen, 1995:16 (holotype in ANSP).

### 201. *rejectus* C. Baker

*Oxybelus rejectus* C. Baker, 1896a:59, ♂. Holotype or syntypes: ♂, USA: Colorado: Fort Collins (USNM). – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Burks *in* Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*, as *rejectum*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera).

### 202. *rhodopyga* R. Bohart

*Oxybelus rhodopyga* R. Bohart, 1993e:167, ♀, ♂. Holotype: ♀, Mexico: Jalisco: La Primavera (UCD). – R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante,

2002:45 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae).

### 203. *robertsonii* C. Baker

*Oxybelus robertsonii* C. Baker, 1896b:156, ♂. Holotype or syntypes: ♂: USA: Colorado: 5 mi W Fort Collins (USNM). – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); H. Smith, 1908b:409 (in revision of Nebraskan Sphecidae); Mickel, 1918b:366 (in catalog of Nebraskan Sphecidae); Burks *in* Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*), 1957:119 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera).

*Oxybelus varicoloratus* C. Baker, 1896b:157, ♀. Holotype or syntypes: ♀, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus robertsonii* by Krombein, 1955b:71. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Burks *in* Muesebeck et al., 1951:1034 (in catalog of North American Hymenoptera).

*Oxybelus hirsutus* C. Baker, 1896b:157, ♀. Holotype or syntypes: ♀, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus robertsonii* by Krombein, 1955b:71. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae).

*Oxybelus apicatus* H. Smith, 1908b:409, ♂. Holotype: ♂, USA: Nebraska: Sioux County: Warbonnet Canyon (UNL). Synonymized with *Oxybelus robertsonii* by R. Bohart and Schlinger, 1956c:163. – Mickel, 1918b:366 (in catalog of Nebraskan Sphecidae); Muma, 1952:21 (holotype in UNL); Burks *in* Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera).

*Oxybelus glenensis* H. Smith, 1908b:410, ♀. Holotype: ♀, USA: Nebraska: Sioux County: Glen (UNL). Synonymized with *Oxybelus robertsonii* by R. Bohart and Schlinger, 1956c:163. – Mickel, 1918b:366 (in catalog of Nebraskan Sphecidae); Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Muma, 1952:21 (holotype in UNL).

### 204. *robustus* Cameron

*Oxybelus robustus* Cameron, 1890b:276, ♀. Holotype or syntypes: ♀, India: Maharashtra: Poona (OXUM). – Cameron, 1890b:276 (India: Poona); Bingham, 1897:315 (in Wasp Fauna of British India); Dalla Torre, 1897:647 (in catalog of world Sphecidae); Rothney, 1903:106 (India: West Bengal: Barrackpore); Pate, 1938b:392 (in list of Oriental Oxybelini, as *robustum*); R. Bohart and Menke, 1976:369 (listed); Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*); Dollfuss, 2008:492 (locality records from India and Laos).

### 205. *romingeri* R. Bohart

*Oxybelus romingeri* R. Bohart, 1993e:167, ♀, ♂. Holotype: ♀, Dominican Republic: Monti Cristi (UCD). – R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

### 206. *roraimae* R. Bohart

*Oxybelus roraimae* R. Bohart, 1993d:74, ♀, ♂. Holotype: ♀, Brazil: Roraima Territory: Surumú (UCD). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

### 207. *rubrocaudatus* Arnold

*Oxybelus rubrocaudatus* Arnold, 1927:107, ♀, ♂. Syntypes: Zimbabwe: no specific locality; South Africa: Natal: Scottsburg; Tanzania: no specific locality (SAM, TMP). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:369 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Hancock, Chahwanda, and Mhlanga, 1995:39 (syntypes in Bulawayo Museum; Zimbabwean syn-

types are from Bulawayo); Dollfuss, 2008:492 (locality records from Malawi, Mozambique, South Africa, Tanzania, and Zimbabwe).

### 208. *ruficaudis* Cameron

*Oxybelus ruficaudis* Cameron, 1905f:208, ♀. Holotype or syntypes: ♀, South Africa: Cape Province: Grahamstown (AMG). – Cameron, 1905g:262 (comparison with *Oxybelus striatiscutis*); Arnold, 1927:89 (in revision of southern African *Oxybelus*), 1930:14 (in checklist of Afrotropical Sphecidae); Scott in Arnold, 1933a:370 (Ethiopia: Harar District); Jacot-Guillarmod, 1961:13 (type in Albany Museum, Grahamstown); R. Bohart and Menke, 1976:369 (listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Dollfuss, 2008:493 (locality records from Kenya, Malawi, Namibia, South Africa, and Zimbabwe).

*Oxybelus capensis* Cameron, 1905f:209, ♂. Holotype or syntypes: ♂, South Africa: Cape Province: Brak Kloof (AMG). Synonymized with *Oxybelus ruficaudis* by Arnold, 1927:89. – Jacot-Guillarmod, 1961:13 (type in Albany Museum, Grahamstown).

### ssp. *melanarius* Arnold

*Oxybelus ruficaudis* var. *melanarius* Arnold, 1927:91, ♀, ♂. Holotype: sex not indicated, South Africa: Cape Province: Port Elizabeth, Ladismith, or Willowmore (TMP). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae). – As *Oxybelus ruficaudis melanarius*: R. Bohart and Menke, 1976:369 (new status, listed).

### 209. *ruficornis* F. Smith

*Oxybelus ruficornis* F. Smith, 1856:388, ♀. Holotype or syntypes: ♀, India: no specific locality (BMNH). – Cameron, 1890b:276 (in list of Oriental Sphecidae); Kohl, 1884b:114 (in list of known *Oxybelus*); Bingham, 1897:317 (in Wasp Fauna of British India); Dalla Torre, 1897:647 (in catalog of world Sphecidae); Pate, 1938b:392 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:369 (listed); Manikandan, Dey, and Farooqi, 1999:14 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### 210. *rufopictus* F. Morawitz

*Oxybelus rufopictus* F. Morawitz, 1892:180, ♀. Holotype or syntypes: ♀, Turkmenistan: Dort-kuyu (ZIN). – Dalla Torre, 1897:647 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:369 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia).

### 211. *sarafschani* Radoszkowski

*Oxybelus sarafschani* Radoszkowski, 1877:69, ♀, ♂ (as *Sarafschani*, incorrect original capitalization). Syntypes: Uzbekistan: Zeravshan valley: no specific locality (ZMMU). – Kohl, 1884b:115 (in list of known *Oxybelus*); Radoszkowski, 1888b:344 (Turkmenistan: Ashkhabad); Dalla Torre, 1897:647 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:369 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:93 (geographic distribution, collecting localities in Kazakhstan).

### 212. *schlingeri* R. Bohart

*Oxybelus schlingeri* R. Bohart, 1993c:22, ♀, ♂. Holotype: ♀, Venezuela: Zulia: El Tucuco, Perija (UCD). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:493 (Ecuador: Napo: Puerto Napo 8 km S Tena).

### 213. *schusteri* R. Bohart

*Oxybelus schusteri* R. Bohart, 1993c:22, ♀, ♂. Holotype: ♀, Ecuador: Galapagos Islands: Santa Cruz Island: Darwin Research Station (UCD). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

### 214. *scutellatus* R. Bohart

*Oxybelus scutellatus* R. Bohart, 1993d:76, ♂. Holotype: ♂, Argentina: Neuquén: Piedra Aguila (originally M. Fritz coll., Salta, Argentina, now AMNH). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).



**215. sericeus Ch. Robertson**

*Oxybelus sericeus* Ch. Robertson, 1889:81, ♀. Holotype: ♀, USA: Illinois: no specific locality (ANSP). – Dalla Torre, 1897:648 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Cresson, 1928:56 (holotype in ANSP); Pate, 1930b:41 (first record from New York State); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); Krombein and Evans, 1954:235 (Florida); R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*, as *sericeum*), 1957:113 (in revision of Californian *Oxybelus*, as *sericeum sericeum*); R. Bohart and Marsh, 1976:115 (nesting habits, as *sericeum*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera); Hook and Matthews, 1980:21 (nesting habits, nest guarding by male); Parks, 1986:35 (California: Torrey Pines State Reserve); R. Bohart, 1993e:161 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); Hanson and Menke, 1995:640 (known from Costa Rica); Cambra and Santos, 2000:53 (first record from Panama: Parque Nacional Coiba in Isla de Coiba, Pacific Ocean; Provincia de Coclé: Antón); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada), 30 (distribution within Ontario), (first record from Canada: Ontario: Windy Point; Quebec: New Richmond); Ruíz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from Tamaulipas State).

*Oxybelus delicatus* Mickel, 1918a:322, ♂. Holotype: ♂, USA: Nebraska: Mitchell (UNL). Synonymized with *Oxybelus sericeus* by R. Bohart and Schlinger, 1956c:163. – Mickel, 1918b:367 (in catalog of Nebraskan Sphecidae); Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Muma, 1952:21 (holotype in UNL).

*Oxybelus sericeus crocatus* Krombein, 1955c:73, ♂, ♀. Holotype: ♂, Mississippi: Jackson County: Pascagoula (USNM). Synonymized with *Oxybelus sericeus* by R. Bohart in Bohart and Menke, 1976:369. – R. Bohart and Schlinger, 1956c:163 (in checklist of North American *Oxybelus*, as *sericeum crocatum*).

**216. similis Cresson**

*Oxybelus similis* Cresson, 1865b:476, ♀. Holotype: ♀, USA: Colorado: no specific locality (ANSP). – Packard, 1867:434 (listed); Cresson, 1887:287 (in catalog of North American Hymenoptera); Ashmead, 1890:31 (in checklist of Hymenoptera of Colorado); Dalla Torre, 1897:648 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Cresson, 1916:103 (holotype in ANSP); Kohl, 1884b:115 (in list of known *Oxybelus*); Ch. Robertson, 1889:79 (in revision of North American *Oxybelus*); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:164 (in checklist of North American *Oxybelus*, as *simile*), 1957:121 (in revision of Californian *Oxybelus*, as *simile*); Horning and Barr, 1970:106 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera).

*Notoglossa striatifrons* Mickel, 1916a:429. Holotype: ♂, USA: Wyoming: Newcastle (UNL). Synonymized with *Oxybelus similis* by R. Bohart and Schlinger, 1956c:164. – Muma, 1952:21 (holotype in UNL), 27 (paratype in UNL). – As *Oxybelus striatifrons*: Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera).

**217. slanskyae R. Bohart**

*Oxybelus slanskyae* R. Bohart, 1993c:24, ♀, ♂. Holotype: ♀, Peru: Huanuco: Tingo Maria (UCD). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:493 (Ecuador: Napo: Puerto Napo 8 km S Tena).

**218. solitarius Arnold**

*Oxybelus solitarius* Arnold, 1927:88, ♂. Holotype: ♂, Zimbabwe: Sawmills (SAM). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae), 1934:26 (Zimbabwe: Khami, description of ♀); R. Bohart and Menke, 1976:369 (listed).

**219. *sparideus* Cockerell**

*Oxybelus sparideus* Cockerell, 1895a:292, ♂. Lectotype: ♂, USA: New Mexico: Las Cruces (ANSP), designated by Cresson, 1928:56. – W. Fox, 1896e:171 (is a valid species); Dalla Torre, 1897:648 (in catalog of world Sphecidae, as *sparidens*); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:164 (in checklist of North American *Oxybelus*, as *sparideum*), 1957:111 (in key to North American *Oxybelus*, as *sparideum*); R. Bohart, Lin, and Holland, 1966:818 (nesting habits); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera, list of prey); D. Peckham, 1985:871 (nesting habits), 1991:170 (use of female sarcophagid as prey and resulting destruction of nest content); R. Bohart, 1993e:161 (listed, geographic distribution, in key to Central American and Caribbean *Oxybelus*); Hanson and Menke, 1995:640 (known from Costa Rica); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae). – As *Notoglossa sparidens* [lapsus]: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae).

**220. *spectabilis* Gerstaecker**

*Oxybelus spectabilis* Gerstaecker, 1867a:83, ♂. Holotype or syntypes: ♂, Spain: Andalucía: no specific locality (ZMHU). – Chevrier, 1868:412 (summary of diagnostic characters); Kohl, 1884b:115 (in list of known *Oxybelus*); Dalla Torre, 1897:648 (in catalog of world Sphecidae); Antiga and Bofill, 1904:28 (Spain: Cataluña Province); Giner Marí, 1943a:260 (in Sphecid Fauna of Spain); P. Verhoeff, 1948:207 (in revision of Western European *Oxybelus*); de Andrade, 1949:22 (Portugal); de Beaumont, 1950f:413 (s. Algeria: Aflou); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); de Beaumont, 1957a:155 (Morocco; diagnostic characters); Ceballos, 1959:232 (in supplement to catalog of Spanish Sphecidae); Diniz, 1959:32 (Portugal: Cascais); de Beaumont, 1962b:29 (Spain); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); Mingo Pérez, 1966:70 (in revision of *Oxybelus* of Iberian Peninsula); R. Bohart and Menke, 1976:369 (listed); Gayubo, 1982b:14 (Spain: Ávila, Cáceres, and Salamanca provinces), 1882e:103 (Spain: Cádiz Province); Gayubo, 1984b:91 (Spain: Salamanca Province), 1984c:375 (Portugal: El Algarve Province), 1985c:169 (Spain: Valladolid: Traspinedo), 1986d:115 (Spain: Zamora Province), 1986f:1000 (prey: an anthomyiid fly and calliphorid *Pollenia rudis* F.); Gayubo and Heras, 1986a:51 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:60 (Spain: Burgos, Soria); Gayubo, 1986:61 (Spain: Ciudad Real Province); Gayubo, Asís, and Tormos, 1990b:74 (Spain: Cáceres and Toledo Provinces); Bitsch and Leclercq, 1993:261 (in revision of western European Crabroninae); Guichard, 1993b:530 and 532 (in key to European *Oxybelus*); Leclercq, 1993c:49 (collecting localities from Spain and Morocco); Tormos, Asís, and Gayubo, 1994:189, 213 (Spain: Albacete Province); Asís, Tormos, and Gayubo, 1997b:60 (description of larva); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Baños-Picón, Gayubo, Asís, and González, 2007:257, 259 (Spain: Zamora: Cabañas de Aliste); Dollfuss, 2008:493 (Morocco: Ifrane, 10 km N Rich); Bitsch and Leclercq, 2009:230 (in supplement to vol. I of Faune de France, 1993: recently recorded from Spain, occurs also in Tunisia: no specific locality); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

**221. *spinulosus* Gussakovskij**

*Oxybelus spinulosus* Gussakovskij, 1935:434, ♂. Syntypes: Tajikistan: Kulab area; Uzbekistan: Tashkent area, Samarkand area, Bukhara (ZIN). – R. Bohart and Menke, 1976:369 (listed); Islamov, 1986:532 (Uzbekistan: Tashkent Oblast'); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:93 (geographic distribution, collecting localities in Kazakhstan), 2004b:106 (Kazakhstan: western Tien Shan); Dollfuss, 2008:493 (locality records from Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, and Uzbekistan).

**222. *stangei* R. Bohart**

*Oxybelus stangei* R. Bohart, 1993c:24, ♀, ♂. Holotype: ♀, Argentina: Salta: Angustaco (IML). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**223. *stevensoni* Arnold**

*Oxybelus stevensoni* Arnold, 1927:85, ♂ (as *Stevensoni*, incorrect original capitalization). Holotype: ♂, Zimbabwe: Bulawayo (originally R. Stevenson coll., now SAM). – Arnold, 1930:14 (in checklist of Afrotropical Sphecidae), 1934:23 (further description, description of ♀); R. Bohart and Menke, 1976:369 (listed); Krombein, 1985b:637 (taxonomy).

**224. *strandi* Yasumatsu**

*Oxybelus strandi* Yasumatsu, 1935d:39, ♀, ♂. Holotype: ♂, Japan: Honshu: Shinano: Kamikôchi (Entomol. Lab. Fukuoka Univ.). – Matsuda, 1939a:47 (nesting habits); Tsuneki and Shimoyama, 1963:50 (Japan: Towada Prefecture); Tsuneki, 1967g:44 (W Japan: Mt. Hyonosen); Haneda, 1968a:47 (Japan); Itami, 1968a:17 (Japan: Yamagata Prefecture: foot of Mount Iide); Tano, 1968:35 (Japan); Itami, 1969:53 (Japan: Niigata Prefecture); Tsuneki, 1969a:5 (nesting habits); Haneda, 1970:13 (Japan: Akita Prefecture); Yamada, 1971:36 (Japan: Aichi Prefecture); Nambu, 1973d:153 (Japan: Saitama Prefecture); Suda, 1973:124 (Japan: Yamanashi Prefecture); Tsuneki, 1974a:384 (Korea); Nambu, 1975b:78 (Japan: Saitama Prefecture); Tsuneki, 1979d:12 (Japan), 1982b:10 (Korea), 16 (known from Korea); Tanaka, 1985:277-283 (alternative prey-carrying mechanisms); Tsuneki, 1991:203 (Korea); Miyatake, 1996:102 (specimens in Hiroshi Aoki collection); Haneda, Nosaka, Tano, Kurokawa, and Murota, 2004:33 (Japan: Gifu Prefecture); Suda, 2004:41 (Japan: Yamanashi Prefecture); Haneda, Inoue, Nozaka, Tano, Kurokawa, and H. and T. Murota, 2005:66 (Japan: Fukui Prefecture: Mount Monju); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2005:48 (Japan: Gifu Prefecture); Kinota, Haneda, and Tano, 2005:30 (Japan: Hokkaido); Negoro, Haneda, and Tano, 2005:46 (Japan: Toyama Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2006:24 (Japan: Toyama Prefecture); Nambu, 2006:247 (Japan: Tokyo: Imperial Palace garden); Haneda, 2008:4 (in key to Japanese Crabroninae); Ohkusa, 2007:34 (Japan: central Honshu: Aichi Prefecture); Okusa and Tajima, 2008:75 (Japan: central Honshu: Aichi Prefecture).

**225. *subcornutus* Cockerell**

*Oxybelus subcornutus* Cockerell, 1895a:293, ♀. Lectotype: ♀, USA: New Mexico: Las Cruces (ANSP), designated by Cresson, 1928:56. – Dalla Torre, 1897:648 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Pate, 1946a:165 (USA: District of Columbia, prey); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:164 (in checklist of North American *Oxybelus*, as *subcornutum*), 1957:107 (in key to North American *Oxybelus*, as *subcornutum*); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park, as *subcornutum*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1656 (in catalog of North American Hymenoptera, list of prey); Kurczewski and Acciavatti, 1990:61 (New York: Cayuga County); Spofford and Kurczewski, 1992:998 (species of miltogrammine parasites listed); R. Bohart, 1993e:161 (listed, geographic distribution), 162 (in key to Central American and Caribbean *Oxybelus*); Kurczewski, 1996:86 (nest, prey), 1998d:250 (pine barrens in upstate New York); Peckham and Hook, 1980:562 (nesting habits); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada), 30 (distribution within Ontario), 56 (first record from Canada: Ontario: list of localities).

*Oxybelus cockerellii* C. Baker, 1896a:61, ♂. Holotype or syntypes: ♂, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus subcornutus* by R. Bohart and Schlinger, 1956c:164. – Burks in Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera). – **As *Notoglossa cockerellii***: Ashmead, 1899d:162 (new combination, in checklist of North American Oxybelidae); H. Smith, 1908b:406 (in revision of Nebraskan Sphecidae); Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae).

*Oxybelus punctatus* C. Baker, 1896a:60, ♂, junior secondary homonym of *Oxybelus punctatus* (Walckenaer, 1817). Holotype or syntypes: ♂, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus subcornutus* by R. Bohart and Schlinger, 1956c:164. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera).

*Oxybelus striatus* C. Baker, 1896a:60, ♂. Holotype or syntypes: ♂, USA: Colorado: Fort Collins (USNM). Synonymized with *Oxybelus subcornutus* by R. Bohart and Schlinger, 1956c:164. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); H. Smith, 1908b:409 (in revision of Nebraskan Sphecidae); Mickel, 1918b:367 (in catalog of Nebraskan Sphecidae); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera).

*Oxybelus denverensis* Rohwer, 1909a:118, ♀. Holotype or syntypes: ♀, USA: Colorado: Denver (USNM). Synonymized with *Oxybelus subcornutus* by R. Bohart and Schlinger, 1956c:164. – Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera).

### 226. *subcristatus* de Saussure

*Oxybelus subcristatus* de Saussure, 1892:561, ♀. Syntypes: ♀, Madagascar: Bezanozono Province: Anosibé (MHNG). – Dalla Torre, 1897:648 (in catalog of world Sphecidae); Arnold, 1945:188 (Madagascar, redescription); Leclercq, 1960a:100 (Madagascar), 1961d:118 (Madagascar); R. Bohart and Menke, 1976:369 (listed); Leclercq, 1990b:120 (Madagascar); Madl, 1997:821 (Madagascar: Nosy Boraha Island), 822 (in checklist of Nosy Boraha Sphecidae); Pulawski, 2003b:797 (in checklist of Malagasy Sphecidae).

### 227. *subspinus* Klug

*Oxybelus subspinus* Klug in Waltl, 1835:98, ♀. Holotype: ♀, Spain: Andalusia: no specific locality (ZMHU). – Klug in Waltl, 1835:88 (in list of Hymenoptera of Andalusia); Kirchner, 1867:223 (in catalog of European Hymenoptera); Marquet, 1875:210 (France: Haute-Garonne: Toulouse), 1881:185 (southern France); Kohl, 1884b:115 (in list of known *Oxybelus*); Marquet, 1896:20 (in revision of *Oxybelus* of France); Dalla Torre, 1897:648 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Berland, 1925d:208 (in Sphecid Fauna of France); Guiglia, 1929:397 (Libya: Cirenaica: Jarabub oasis and Porto Bardia), 1932d:480 (Libya: Augila), 1934b:306 (Libya: bibliography and summary of locality records); de Beaumont, 1942b:427 (Switzerland: Peney near Geneva; redescription); Honoré, 1942:50 (in catalog of Egyptian Sphecidae); Yasumatsu, 1942c:114 (China: Nei Mongol: Apaka at 44°N 114.96°E); Giner Marí, 1943a:257 (in Sphecid Fauna of Spain); Šnoflak in Zavadil and Šnoflak, 1948:36 (in key to Czechoslovakian Sphecidae, not yet found in Czechoslovakia); P. Verhoeff, 1948:202 (in revision of Western European *Oxybelus*); Fæster, 1949:26, 44 (in revision of Western European *Oxybelus*); de Beaumont, 1950f:418 (Algeria), 1952b:90 (Marquet's 1896 specimens); Guiglia, 1953a:73 (in revision of Italian *Oxybelus*); Grandi, 1954:244 (Italy); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Morel, Nouvel, and Ribaut, 1956:339 (France: Département des Pyrénées-Orientales); de Beaumont, 1957a:155 (Morocco); Móczár, 1958c:291 (in revision of *Oxybelus* of Hungary); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Puławski, 1958a:190 (Bulgaria: Sozopol); Ceballos, 1959:232 (in supplement to catalog of Spanish Sphecidae); Suárez, 1959:60 (Spain: Almería Province); de Beaumont, 1960b:250 (Libya), 1962b:29 (Spain); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1965a:62 (Greece); Bonelli, 1966c:221 (Italy: Trentino–Alto Adige: Montagna); Mingo Pérez, 1966:97 (in revision of *Oxybelus* of Iberian Peninsula); de Beaumont, 1967a:366 (Turkey); Benedek, 1968:78 (Hungary, visiting flowerw of *Cicuta virosa* L.); de Beaumont, 1969:94 (Turkey), 1970a:405 (Afghanistan), 1970c:17 (Iran: Kerman); Balthasar, 1972:148 (in Sphecid Fauna of Czechoslovakia); de Beaumont, Bytinski-Salz and Pulawski, 1973:25 (Israel; ssp.?); Erlandsson, 1974:88 (Spain); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp. and *Cynanchum sibiricum* Willd., Asclepiadaceae, in Kazakhstan), 110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); Scobiola-Palade, 1974:146 (first record from Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:369 (listed); Pulawski, 1978:275, 279 (in key to Sphecidae

of European part of former USSR); Benedek, 1979:236 (Hungary: Bakony Hills); Pagliano, 1980:120 (Italy: Lazio); Gayubo, 1982b:15 (Spain: Ávila, Cáceres, and Salamanca provinces), 1882e:103 (Spain: Cádiz Province); Gayubo, 1984b:91 (Spain: Salamanca Province), 1984c:376 (Portugal: El Algarve Province), 1985c:169 (Spain: Palencia: Paredes de Nava; Valladolid: Rioseco, Valladolid), 1986a:61 (Spain: Ciudad Real Province), 1986d:115 (Spain: Zamora Province), 1986f:1001 (mating on flowers); Gayubo and Heras, 1986:52 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:61 (Spain: Burgos); Józán, 1986:371 (Hungary: Kiskunság National Park); Tormos and Jiménez, 1987b:316 (Spain: Valencia Province: Dehesa de El Saler); Gayubo, Asís, and Tormos, 1990b:75 (Spain); Guichard, 1990b:283 (Saudi Arabia); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Pagliano, 1990:80 (in catalog of Italian Sphecidae); Dollfuss, 1991:132 (in key to Sphecidae of North and Central Europe); Guichard, 1991a:340 (Jordan); Pagliano, 1991b:329, 331 (in key to Italian Crabroninae); Gayubo, Borsato, and Osella, 1992:284 (Greece: Euboea); Bitsch and Leclercq, 1993:262 (in revision of western European Crabroninae); Guichard, 1993b:530 and 533 (in key to European *Oxybelus*); Leclercq, 1993c:49 (collecting localities from Europe and Turkey); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Shkuratov, 1998:98 (Russia: Rostov Oblast'); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Gonzáles, Gayubo, and Torres, 1999:355 (Spain: Valladolid: Viana de Cega); Gayubo, González, and Torres, 2000:186 (Spain: Salamanca Province); Ljubomirov, 2001b:50 (Bulgaria: Mount Vitoshka near Sofia); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavalier); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Protsenko, 2003:68, 69 (Ukraine: Odessa Oblast': Malyi Tataru island in Danube delta at 45.21°N 29.00°E); Schmid-Egger, 2003:755 (Italy: Sicilia: Armerina); Gadallah and Assery, 2004a:216 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 226 (in catalog of Sphecidae of Saudi Arabia); Gayubo et al. 2004:131 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Gayubo and Özbek, 2005:26 (Turkey: ten localities); Jacobs, 2005a:448 (Bulgaria: Primorsko); Pagliano and Negrisolo, 2005:209 (in Sphecid Fauna of Italy); Standfuss and Standfuss, 2006b:99 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Shoreenko, 2007b:258 (Ukraine: Crimea: Opukskiy Nature Reserve, Shchelkino village in Leninskiy District); Danilov, 2008:350 (Russia: Altayskiy Kray: Barnaul area); Dollfuss, 2008:494 (support for Guichard's 1993b:534 opinion that *latidens* is a junior synonym of *subspinosus*, locality records from Algeria, Armenia, Bulgaria, Czech Republic, Greece, Iran, Italy, Jordan, Kazakhstan, Kyrgyzstan, Morocco, Romania, Slovakia, Spain, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, and Ukraine); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:254 (in catalog of Crabronidae of Turkey); Pagliano, 2009:180 (Italy: recorded from Campania by A. Costa, 1869); Bitsch and Leclercq, 2009:230 (in supplement to vol. I of Faune de France, 1993: France: first record from Alpes-de-Haute Provence: Moustiers-Sainte-Marie); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

*Oxybelus fissus* Lepeletier de Saint Fargeau, 1845:215, ♂. Holotype or syntypes: ♂, France: Lyon area (depository?). Synonymized with *Oxybelus subspinosus* by ..., synonymy confirmed by Bitsch and Leclercq, 1993:262. – F. Smith, 1856:386 (in catalog of Hymenoptera in British Museum); A. Costa, 1867c:149 and 1871b:78 (in revision of Italian Sphecidae); P. Ivanov, 1872:151 (Ukraine: Khar'kov Oblast': Kupyansk area); Dours, 1874:152 (in catalog of Hymenoptera of France); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); A. Costa, 1883:58 (Italy: Sardegna: Molentargius); Kohl, 1884b:112 (in list of known *Oxybelus*); Acloque, 1897:91 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:640 (in catalog of world Sphecidae); de Gaulle, 1908:121 (in catalog of French Hymenoptera); R. Bohart and Menke, 1976:367 (listed).

*Oxybelus latidens* Gerstaecker, 1867a:93, ♀. Syntypes: ♀, Germany: Brieselanger Forst near Berlin and Austria: no specific locality (ZMHU). Synonymized with *Oxybelus subspinosus* by Fæster, 1949:26, 44, and Guichard, 1993b:534, synonymy confirmed by Dollfuss, 2008:477. – Chevrier, 1868:413 (summary of diagnostic characters); Taschenberg, 1875:380 (Germany: Halle); Beuthin, 1876:230 (Germany: Hamburg area); Kohl, 1883e:662 (Switzerland), 1884b:113 (in list of known *Oxybelus*); F. Morawitz, 1894:348 (Turkmenistan: Dort-kuyu); Dalla Torre, 1897:642 (in catalog of world Sphecidae); Schmiedeknecht, 1907:203 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dittrich, 1911b:21 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Schirmer, 1912:165 (Germany: Berlin area); Zilahi Kiss, 1915:80 (Hungary: Simontornya); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:38 (Germany: Lower Elbe region); Coulon, 1925:122 (Morocco: Tanger); Maidl in Schmiedeknecht, 1930:662, 665 (in keys to Hymenoptera of North and Central Europe); Drogoszewski, 1936:129 (Poland: Łowicz); Goebel, 1937:39 (Poland: Poznań District: Poznań-Dębina, Strzeszynek); Zavadil, 1937a:72 (eastern Slovakia); Zavadil, Šustera, and Bat'a, 1937:171 (in catalog of Sphecidae of Czechoslovakia); A. Wagner, 1938a:118 (northwestern Germany); Móczár, 1939:5 (Hungary: Jászberény); Zavadil, 1939:121 (Czech Republic: Morava: Čejč, Kobyli; Slovakia: Filakovo); Dovnar-Zapolskiy, 1940:303 (Russia: Kursk Oblast'); de Beaumont, 1942b:428 (Switzerland: Peney near Geneva; redescription); Balthasar, 1948:141 (Slovakia: Parkan); Šnoflak in Zavadil and Šnoflak, 1948:34, 38 (in key to Czechoslovakian Sphecidae); P. Verhoeff, 1948:201 (in revision of Western European *Oxybelus*); Noskiewicz and Chudoba, 1950:312 (in revision of *Oxybelus* of Śląsk Region, Poland); Szulczewski, 1950:102 (Poland: Wielkopolski National Park 15 km S Poznań); Scobiola, 1951:274 (first record from Romania: Furceni in Putna Region); Guiglia, 1953a:76 (in revision of Italian *Oxybelus*); Blüthgen, 1954:146, 151 (in key to Central European *Oxybelus*); Puławski, 1954:106 (Poland: Błędów); Vogrin, 1955:45 (Yugoslavia); Wolf, 1959b:35 (known from Germany, but not from Nassau); Noskiewicz and Puławski, 1960:161, 164 (in key to Polish Sphecidae); Balthasar, Hrubant, and Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:366 (Turkey); Benedek, 1968:78 (Hungary, floral records), 1969a:85 (Hungary: marshy meadow), 1970:104 (Hungary: Tapolca); Oehlke, 1970:793 (Democratic Germany); Balthasar, 1972:147 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:176 (Kazakhstan); Scobiola-Palade, 1972a:152 (Romania: delta of Danube: Caraorman); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, *Nitraria schoberi* L., Zygophyllaceae, and *Silaum besseri* L., Apiaceae, in Kazakhstan), 111 (feeding on flowers of *Barbarea vulgaris* R. Br., Brassicaceae, in Kazakhstan); Scobiola-Palade, 1974:147 (Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:368 (listed); Lomholdt, 1976:281 (in Sphecid Fauna of Fennoscandia and Denmark); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Pulawski, 1978:275, 277 (in key to Sphecidae of European part of former USSR); Benedek, 1979:236 (Hungary: Bakony Hills); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983a:75 (endangered in Niederösterreich, Austria), 79 (endangered in Kärnten, Austria), 1983b:13 (in catalog of Sphecidae of Austria); Józán, 1985b:58 (Hungary S Lake Balaton), 84 (ecological and zoogeographic characteristics); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Islamov, 1986:532 (Uzbekistan: Tashkent Oblast'); Józán, 1986:371 (Hungary: Kiskunság National Park); Skibińska, 1986b:162 (Poland: Warszawa: urban parks), 174 (various green urban habitats); Dollfuss, 1988:14, 25 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Karsai, 1988:100 (Hungary: Kiskunság National Park); Pádr in Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:122 and 175 (not collected in Democratic Germany after 1960); Kuznetzova, 1990:25 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pagliano, 1990:79 (in catalog of Italian Sphecidae); Schwammlberger and Priesner, 1990:542 (Austria: Kärnten); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:131 (in key to Sphecidae of North and Central Europe); Pagliano, 1991b:329, 331 (in key to Italian Crabroninae); Bitsch and Leclercq, 1993:256 (in revision of western European Crabroninae); Guichard, 1993b:34 (as new synonym of *Oxybelus subspinosus*); Leclercq, 1993c:47 (Slovakia: Gbelce); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Wu and Zhou, 1996a:107 (in revision in Economic Insect Fauna of China); Celary, 1997:58 (in

checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:22 (in checklist of German Sphecidae); Gusenleitner, 1999:594 (Austria: Burgenland: Heidl bei Nickelsdorf); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Blösch, 2000:267 (in Sphecid Fauna of Germany); Jacobs, 2000:8, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); Ohl et al., 2001:140 (distribution in Germany by provinces); Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Kazenas, 2002a:90 (geographic distribution, collecting localities in Kazakhstan); Kazenas, 2004b:106 (Kazakhstan: western Tien Shan); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: last collected before 1954); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Gayubo and Özbek, 2005:25 (Turkey: eight localities); Pagliano and Negrisola, 2005:208 (in Sphecid Fauna of Italy); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Hua, 2006:281 (in list of Chinese insects, geographic distribution); Jacobs, 2007:114, 120 (in key to Crabronidae of Germany); Kazenas, 2007a:91 (Kazakhstan: Akmala Oblast': Kurgandzhin Nature Reserve and vicinity); Nemkov, 2007c:997 (in Appendix to Key to identification of Sphecidae of Far East of Russia); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Dollfuss, 2008:477 (support for Guichard's 1993b:534 opinion that *latidens* is a synonym of *Oxybelus subspinosus*, locality records from Bulgaria, Iran, Kazakhstan, Mongolia, Serbia, Turkey, Turkmenistan, and Ukraine); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); Bitsch and Leclercq, 2009:229 (in supplement to vol. I of Faune de France, 1993: review of recent opinions on the species status); Nemkov, 2009b:91 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: extremely rare), 2010b:43 (Germany: Brandenburg: Mallnow at 52°56'N 13°17'E, previously collected in Germany in 1911).

*Oxybelus psammobius* Kohl, 1884b:108, ♀, ♂. Syntypes: Turkey: Bursa (NHMW). Synonymized with *Oxybelus latidens* by ... – Kohl, 1884b:114 (in list of known *Oxybelus*), 1893:34 (Austria: Niederösterreich: Wien: Türken-schanze and Piesting); Dalla Torre, 1897:646 (in catalog of world Sphecidae); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); Zavadil, Šusterka, and Bat'a, 1937:174 (Slovakia); Šnoflak *in* Zavadil and Šnoflak, 1948:34, 37 (in key to Czechoslovakian Sphecidae); Dollfuss, 1989:11 (type material in NHMW).

### ***ssp. flavitibialis* Tsuneki**

*Oxybelus latidens flavitibialis* Tsuneki, 1971:36, ♂. Holotype: China: Inner Mongolia: Apaka (originally K. Tsuneki coll., now USNM). – R. Bohart and Menke, 1976:368 (listed); Nuhn and Menke, 1994:25 (holotype transferred to USNM); Hua, 2006:281 (in list of Chinese insects, geographic distribution).

### **228. *subtilis* Gussakovskij**

*Oxybelus subtilis* Gussakovskij, 1935:436, ♀. Holotype: ♀, Tajikistan: Say-Varzob in Hissar Mts. (ZIN). – R. Bohart and Menke, 1976:369 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia).

### **229. *subulatus* Ch. Robertson**

*Oxybelus mucronatus* Packard, 1867:436, ♂, ♀, junior secondary homonym of *Oxybelus mucronatus* (Fabricius, 1793). Lectotype: ♂, USA: Illinois: no specific locality (ANSP), designated by Cresson, 1928:54. – Cresson, 1887:286 (in catalog of North American Hymenoptera).

*Oxybelus subulatus* Ch. Robertson, 1889:79, ♀, ♂. Syntypes: USA: Colorado, Illinois, Montana, Pennsylvania (ANSP). Synonymized with *Oxybelus mucronatus* Packard by R. Bohart and Schlinger, 1956c:164.– Ashmead, 1890:31 (in checklist of Hymenoptera of Colorado); C. Baker, 1896a:61 (Colorado: Fort Collins); Dalla Torre, 1897:648 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); H. Smith, 1908b:407 (in revision of Nebraskan Sphecidae); Stevens, 1917:423 (North Dakota); Mickel, 1918b:368 (in catalog of Nebraskan Sphecidae); Pate, 1930b:41 (first record from New York State: Cold Spring Harbor); Brim-

ley, 1938:450 (North Carolina: Aberdeen, Bryson City); Strickland, 1947:127 (Canada: Alberta: Lethbridge, Medicine Hat); Burks *in* Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); R. Bohart and Schlinger, 1956c:164 (in checklist of North American *Oxybelus*, as *subulatum*), 1957:108 (in key to North American *Oxybelus*, as *subulatum*); Peckham, Kurczewski, and Peckham, 1973:652 (male habits, nest structure, prey transport, parasites); Evans, 1975a:263 (rapid colonizer of new habitats); R. Bohart and Menke, 1976:369 (listed); D. Peckham, 1977:823 (males guarding nest entrance against miltogrammine parasites); Krombein, 1979b:1657 (in catalog of North American Hymenoptera, list of prey); Peckham and Hook, 1980:562 (nesting habits); Finnamore, 1982:127 (in Sphecidae Fauna of Southern Quebec); Spofford and Kurczewski, 1992:998 (species of miltogrammine parasites listed), 1002 (counter-cleptoparasitic habits: diversionary flight), 1003 (counter-cleptoparasitic habits: male guarding), 1005 (post-larvipositional counter-cleptoparasitic habits: abandon prey, inordinate amount of post-provisioning time in burrow); Ahlstrom, 1995:110 (in checklist of insects of North Carolina); Kurczewski, 1996:86 (nest), 1998d:250 (pine barrens in upstate New York); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada).

*Oxybelus packardi* Dalla Torre, 1890:203 (as *Packardi*, incorrect original capitalization), junior primary homonym of *Oxybelus packardii* Robertson, 1889. Substitute name for *Oxybelus mucronatus* Packard.

*Oxybelus acutus* C. Baker, 1896:61, ♀. Holotype or syntypes: ♀, USA: Colorado: Fort Collins (...). Synonymized with *Oxybelus subulatus* by R. Bohart and Schlinger, 1956c:164. – Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Burks *in* Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera).

*Oxybelus albosignatus* H. Smith, 1908b:407, ♀. Holotype: ♀, USA: Nebraska: West Point (UNL). Synonymized with *Oxybelus subulatus* by R. Bohart and Schlinger, 1956c:164. – Mickel, 1918b:368 (in catalog of Nebraskan Sphecidae); Carter, 1925:131 (Canada: Alberta: Lethbridge); Burks *in* Muesebeck et al., 1951:1031 (in catalog of North American Hymenoptera); Muma, 1952:21 (holotype in UNL), 27 (paratype in UNL).

*Oxybelus mottensis* Mickel, 1918a:323, ♀. USA: North Dakota: Mott (UNL). Synonymized with *Oxybelus subulatus* by R. Bohart and Schlinger, 1956c:165. – Burks *in* Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera); Muma, 1952:21 (holotype in UNL), 27 (paratype in UNL).

### 230. *suluensis* Pate

*Oxybelus suluensis* Pate, 1938b:377, ♂, ♀ (as *suluense*, incorrect original termination). Holotype: ♂, Borneo: Sandakan (USNM). – Pate, 1938b:393 (in list of Oriental Oxybelini); Baltazar, 1966:359 (in catalog of Hymenoptera of Philippines). – **As *Oxybelus suluensis***: R. Bohart and Menke, 1976:369 (listed); Manikandan and Dey, 2001:264 (in checklist of Oriental *Oxybelus*).

### 231. *taenigaster* (Viereck)

*Notoglossa taenigaster* Viereck, 1906:215, ♀. Holotype: ♀, USA: Kansas: Morton County: no specific locality (KU). – **As *Oxybelus taenigaster***: R. Bohart and Schlinger, 1956c:165 (in checklist of North American *Oxybelus*), 1957:109 (in key to North American *Oxybelus*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1979b:1657 (in catalog of North American Hymenoptera); R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:151 (number of ovarioles).

*Oxybelus fastigatus* Mickel, 1916a:433. Holotype: ♂, USA: Nebraska: Harrison (UNL). Synonymized with *Oxybelus taenigaster* by R. Bohart and Schlinger, 1956c:165. – Mickel, 1918b:367 (in catalog of Nebraskan Sphecidae); Muma, 1952:21 (holotype in UNL), 27 (paratypes in UNL).

*Notoglossa albomaculata* Mickel, 1918a:320, ♂. Holotype: ♂, USA: Nebraska: Mitchell (UNL). Synonymized with *Oxybelus taenigaster* by R. Bohart and Schlinger, 1956c:165. – Mickel, 1918b:364 (in catalog of Nebraskan Sphecidae); Muma, 1952:21 (holotype in UNL), 27 (paratype in UNL). – **As *Oxybelus albomaculatus***: Burks *in* Muesebeck et al., 1951:1031 (new combination, in catalog of North American Hymenoptera, as *albomaculata*).



**232. *taprobanensis* Pate**

*Oxybelus ceylonicus* Cameron, 1900a:41, ♀, junior primary homonym of *Oxybelus ceylonicus* Cameron, 1897. Holotype or syntypes: ♀, Sri Lanka: no specific locality (BMNH). – Ramakrishna Aiyar, 1916:559 (in catalog of Indian aculeates described after Bingham, 1897); Manikandan and Dey, 2001:265 (in checklist of Oriental *Oxybelus*).

*Oxybelus taprobanensis* Pate, 1930a:20. Substitute name for *Oxybelus ceylonicus* Cameron, 1900. – Pate, 1938b:389 and 393 (in list of Oriental Oxybelini, as *taprobanense*); R. Bohart and Menke, 1976:369 (listed); Krombein, 1983:38 (diagnostic characters); Manikandan and Dey, 2001:265 (in checklist of Oriental *Oxybelus*).

**233. *tarapacae* R. Bohart**

*Oxybelus tarapacae* R. Bohart, 1992:163, ♀, ♂. Holotype: ♀, Chile: Tarapaca: Chusmisa (Catolica Mus., Valparaiso). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**234. *tartagalae* R. Bohart**

*Oxybelus tartagalae* R. Bohart, 1993d:75, ♀, ♂. Holotype: ♀, Argentina: Salta: Tartagal (originally M. Fritz coll., Salta, Argentina, now AMNH). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Dollfuss, 2008:496 (Bolivia: Río Seco).

**235. *taschenbergi* Kohl**

*Oxybelus fasciatus* Taschenberg, 1875:380, ♂, junior primary homonym of *Oxybelus fasciatus* Dahlbom, 1845. Holotype: ♂, South Africa: Cape Province: no specific locality (Halle).

*Oxybelus taschenbergi* Kohl, 1884b:112 and 115 (as *Taschenbergi*, incorrect original capitalization). Substitute name for *Oxybelus fasciatus* Taschenberg. – Dalla Torre, 1897:648 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:370 (listed); Dollfuss, 1989:11 (type material in NHMW).

**236. *tengu* Tsuneki**

*Oxybelus tengu* Tsuneki, 1972a:167, ♂. Holotype: ♂, Mongolia: Hovd Aymag: 10 km SSW Soman Bulgan (TMB). – R. Bohart and Menke, 1976:370 (listed).

**237. *thailanditus* Tsuneki**

*Oxybelus transiens thaianus* Tsuneki, 1963c:42, ♂, junior primary homonym of *Oxybelus thaianus* Tsuneki, 1961. Holotype: Thailand: Chiang Mai (Sasayama Univ.).

*Oxybelus thailanditus* Tsuneki, 1974b:654. Substitute name for *Oxybelus thaianus* Tsuneki, 1963 (full species status). – R. Bohart and Menke, 1976:629 (listed); Dollfuss, 2008:496 (Laos: Lao Pako area 35 km NE Vientiane at 18°10'N 102°52'E).

*Oxybelus transiens thaiensis* Tsuneki, 1977i:4. Substitute name for *Oxybelus thaianus* Tsuneki, 1963.

**238. *timberlakei* R. Bohart and Schlinger**

*Oxybelus timberlakei* R. Bohart and Schlinger, 1956b:150, ♀, ♂. Holotype: ♂, USA: California: Riverside County: Sherkey Creek in San Jacinto Mountains (CAS). – R. Bohart and Schlinger, 1956c:165 (in checklist of North American *Oxybelus*), 1957:119 (in revision of Californian *Oxybelus*); R. Bohart and Menke, 1976:370 (listed); Krombein, 1979b:1657 (in catalog of North American Hymenoptera).

**239. *tinklyi* Guichard**

*Oxybelus tinklyi* Guichard, 1990b:282, ♀, ♂. Holotype: ♀, Israel: Jericho: Wadi Qilt (BMNH). Paratypes: Saudi Arabia, Yemen, United Arab Emirates, Mali, Niger). – Leclercq, 1993c:49 (listed); Gadallah and Assery, 2004a:226 (in catalog of Sphecidae of Saudi Arabia); Dollfuss, 2008:496 (locality records from Jordan, Senegal, Syria, and Yemen).

**240. *toroi* R. Bohart**

*Oxybelus toroi* R. Bohart, 1992:163, ♀, ♂. Holotype: ♀, Chile: Antofagasta: San Pedro (Catolica Mus., Valparaiso). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**241. *transcaspicus* Radoszkowski**

*Oxybelus transcaspicus* Radoszkowski, 1888b:345, ♀. Holotype or syntypes: ♀, Turkmenistan: Ashgabat (Kraków). – Radoszkowski, 1888b:345 (Turkmenistan: Ashgabat); Dalla Torre, 1897:649 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:370 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**242. *transiens* R. Turner**

*Oxybelus transiens* R. Turner, 1917e:192, ♀. Syntypes: ♀, India: Bihar: Chapra (BMNH). – Pate, 1938b:3393 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:370 (listed); Manikandan, Dey, and Farooqi, 1999:12 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:265 (in checklist of Oriental *Oxybelus*).

**243. *tricolor* Gussakovskij**

*Oxybelus tricolor* Gussakovskij, 1952:256, ♀. Syntypes: Tajikistan: Dzhilikul (ZIN). – R. Bohart and Menke, 1976:370 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia).

**244. *tridentatus* F. Smith**

*Oxybelus tridentatus* F. Smith, 1856:387, ♂. Syntypes: ♂, India: no specific locality (BMNH). – Kohl, 1884b:115 (in list of known *Oxybelus*); Cameron, 1890b:276 (in list of Oriental Sphecidae); Bingham, 1897:317 (in Wasp Fauna of British India; Burma); Dalla Torre, 1897:649 (in catalog of world Sphecidae); Pate, 1938b:393 (in list of Oriental Oxybelini, as *tridentatum*); R. Bohart and Menke, 1976:370 (listed); Manikandan, Dey, and Farooqi, 1999:13 (in key to Indian *Oxybelus*); Manikandan and Dey, 2001:265 (in checklist of Oriental *Oxybelus*).

**245. *trispinosus* (Fabricius)**

*Apis trispinosa* Fabricius, 1787:303, ♀. Holotype: ♀, Germany: Halae Saxonum, now Sachsen-Anhalt: Halle (Halle, Taschenberg coll.: P. Verhoeff, 1948:195, Blüthgen, 1949:86). – **As *Crabro trispinosus***: Fabricius, 1793:301 (new combination, Germany: Halle), 1796:51 (in Index to his Entomologia Systematica, 1793). – **As *Vespa trispinosa***: Turton, 1801:533 (new combination, Germany: Halle). – **As *Oxybelus trispinosus***: Fabricius, 1804:318 (new combination, redescription); Latreille, 1806:pl. XIII, fig. 13 (illustration); Jurine, 1807:217 (in checklist of species of *Oxybelus*); Vander Linden, 1829:40 (bibliographic references, Germany); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); Dahlbom, 1844:270 (in revision of Sphecidae and Pompilidae), 1845:XXV (type material examined), 512 (in key to *Oxybelus*); Lepeletier de Saint Fargeau, 1845:222 (in revision of world Hymenoptera; Paris area); Schilling, 1848:105 (Germany: Breslau area, now Poland: Wrocław); Eversmann, 1849:416 (Russia: Ural foothills); Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony: Oberlausitz area); Wissmann, 1849:14 (Germany: Kingdom of Hannover: Regenstein); Tischbein, 1850:10 (Germany: Rheinland-Pfalz: Herrstein in Fürstenthum Birkenfeld); Wesmael, 1852:625 (Belgium); Kirschbaum, 1853:47 (Germany: Herzogtum Nassau: Mombach); F. Smith, 1856:383 (in catalog of Hymenoptera in British Museum); Kawall, 1857:25 (Kurland, now Latvia); Ruthe and Stein, 1857:315 (Germany: Berlin area); Schenck, 1857:113 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:120 (in key to Sphecidae of Germany; identity); Assmus, 1859:616 (Russia: Moscow Oblast'); Funk, 1859:58 (Germany: Bayern: Bamberg); Schenck, 1860:146 (Germany: Nassau Region); Brischke, 1862:104 (Germany: Preussen Province, now Poland: Pomorze Region); Taschenberg, 1866:161 (in revision of Hymenoptera of Germany); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region); Chevriér, 1868:406 (in revision of Swiss *Oxybelus*); Jaenicke, 1868:8 (Germany: Hessen: Bieberer Höhe); Aichinger, 1870:315 (Austria: Tirol); P. Ivanov, 1872:151 (Ukraine: Khar'kov Oblast': Kupyansk area); Dours, 1874:152 (in catalog of Hymenoptera of France); Wierzejski, 1874:261 (Ukraine: Podole Region: Janów, Kalinowce); Marquet, 1875:210 (France: Haute-Garonne: Toulouse); Beuthin,

1876:230 (Germany: Hamburg area); Kohl, 1880:144 (Austria: Tirol, and Italy: Trentino–Alto Adige); Marquet, 1881:185 (southern France); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); Sickmann, 1883:80 (Germany: Niedersachsen: Wellingholthausen); Kohl, 1884b:116 (in list of known *Oxybelus*); Brischke, 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region), 1889:204 (Germany: Steegen E Danzig, now Poland: Stegna E Gdańsk); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); Dalla Torre, 1897:649 (in catalog of world Sphecidae); N. Arnold, 1902:87 (Russia: Mohilev Province, now Belarus'); de Cobelli, 1903:114 (Italy: Province of Trentino: Mollaro, Mori, Rovereto); E. Saunders, 1904c:639 (Spain); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Schirmer, 1912:165 (*Oxybelus trispinosus* is a synonym of *nigripes*); Coulon, 1925:122 (Germany); Verhoeff, 1948:192 (in revision of Western European *Oxybelus*); Fæster, 1949:21 (as junior synonym of *Oxybelus uniglumis*); de Beaumont, 1951h:35 (Switzerland: Neuchâtel area); de Beaumont, 1952b:90 (Marquet's 1896 specimens); Guiglia, 1953a:116 (in revision of Italian *Oxybelus*); Nouvel and Ribaut, 1953:184 (France: Central Pyrénées: Garonne River valley, Hautes-Pyrénées: Cauterets, Orédon); Blüthgen, 1954:144, 150, 152 (in key to Central European *Oxybelus*), 153 (common in sandy habitats); Grandi, 1954:245 (Italy); Aerts, 1955:60 (Germany: Rheinland); Steiner, 1955:146 (France: Dordogne); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Morel, Nouvel, and Ribaut, 1956:339 (France: Département des Pyrénées-Orientales); Fahlander, 1957:63 (Sweden: Småland: Södra Vi); Grandi, 1957:392 (Italy); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Leistadt); Benno, 1958b:18 (in review of Dutch Sphecidae); de Beaumont, 1958c:213 (Swiss National Park); Compte Sart, 1959:138 (Spain: Mayorca); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:162, 165 (in key to Polish Sphecidae); van der Vecht, 1961a:73 (taxonomic history); Valkeila, 1962b:68 (southwestern Finland); Babi, 1964:119 (Austria: Land Salzburg); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:161 (in Sphecidae Fauna of Switzerland); B. Klug, 1965:144 (Germany: Baden-Württemberg: Freiburg im Breisgau area); Bonelli, 1966c:221 (Italy: Trentino–Alto Adige: Piazzòl, Varena); Lefeber, 1966:209 (Netherlands: Bemelen, St. Pietersberg); Mingo Pérez, 1966:79 (in revision of *Oxybelus* of Iberian Peninsula); Benno, 1967:39 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:365 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Niedl and Deneš, 1967:76 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:50 (Romania), 1968c:386 (Romania: București, Turnu Măgurele); Bonelli, 1969c:176 (nesting habits); Lefeber, 1969c:234 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Romanova, 1969:136 (Russia: North Caucasus); Zangheri, 1969:1709 (Italy: in catalog of flora and fauna of Romagna Region); Gauss and Perraudin, 1970:360 (Germany: Baden-Württemberg: Bodensee area); Oehlke, 1970:797 (Democratic Germany); Schmidt, 1971b:53 (Germany: Mombach area, doubtful); Kofler, 1972:116 (Austria: eastern Tirol); Niedl and Deneš, 1972:151 (Czech Republic: Třeboň area); Simon Thomas, 1972:187 (France: Gironde, Landes); Kofler, 1974:320 (Austria: Kärnten); Lefeber, 1975b:156 (Belgium); R. Bohart and Menke, 1976:370 (listed); Lomholdt, 1976:285 (in Sphecidae Fauna of Fennoscandia and Denmark); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Marion, 1978:91 (France: Nièvre Department); Puławski, 1978:276, 277 (in key to Sphecidae of European part of former USSR); Schwammberger, 1978:421 (Germany: Württemberg); Benedek, 1979:236 (Hungary: Bakony Hills); Leclercq, Gaspar, and Verstraeten, 1979:map 1428 (Belgium); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Jacob-Remacle and Leclercq, 1980:192 (Belgium: gardens in Liège); Pagliano, 1980:120 (Italy: Piemonte); Dollfuss and Ressler, 1981:322 (Austria: Niederösterreich: Scheibbs District); Donath, 1982:215 (Germany: Cottbus Bezirk); Leclercq, 1982a:124 (Belgium: Liège); Skibińska, 1982:124 (Poland: Warszawa area); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Józán, 1983:103 (Hungary); Gayubo, 1984b:92 (Spain: Salamanca Province); Jacob Remacle, 1984:260 (Belgium: urban center of Liège); Lefeber, 1984:29 (Netherlands: Maastricht); Józán, 1985b:58 (Hungary S Lake Balaton), 69 (map of distribution in Hungary), 79 (floral records), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Brechtel, 1986:73 (Germany: Südpfalz); Gayubo, 1986d:115 (Spain: Zamora Province); Nemkov, 1986:100 (Russia: Siberia: Irkutsk Oblast'); Vikberg, 1986:76 (Finland); Holtappels, 1987:26 (Germany: Nordrhein Westfalen: Effelder Waldsee); Tormos and

Jiménez, 1987a:125 (Spain: Valencia); Dollfuss, 1988:14, 26 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Kowalczyk, 1988a:46 (Poland: Rogów); Jacobs, 1989:16 (Germany: Mecklenburg-Vorpommern); Pádr *in* Šedivý, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:75 (Spain: Salamanca Province); Jacobs and Oehlke, 1990:123 (population regress in Democratic Germany after 1960), 177 (new records from Democratic Germany); Kowalczyk, 1990:292 (Poland: Góry Świętokrzyskie); Pádr, 1990:90 (Czech Republic: Praha area); Pagliano, 1990:80 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:542 (Austria: Kärnten); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:132 (in key to Sphecidae of North and Central Europe); Kowalczyk, 1991a:100, 102 (Poland: Łódź), 1991b:121 (Poland: Augustów Forest); Pagliano, 1991b:329, 332 (in key to Italian Crabroninae); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Józán, 1992b:174 (Hungary: Boronka-melléki Protected Area), 1992c:289 (Hungary: Zselic Hills); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Wiśniowski, 1993a:95 (Poland: Białowieża Primeval Forest); Bitsch and Leclercq, 1993:263 (in revision of western European Crabroninae); Guichard, 1993b:531 and 532 (in key to European *Oxybelus*); Kuhlmann, 1993:77 (Germany: known from Westfalen); Leclercq, 1993c:50 (collecting localities from Europe); Sorg and Wolf, 1993:60 (Germany: Rheinland-Westfalen: Nature Reserve Die Spey); Wolf, 1993:14 (Germany: Bayern: Gersthofen); Wiśniowski, 1993a:97 (Poland: in checklist of Sphecidae of Białowieża Primeval Forest); Theunert, 1994c:46 (summary of records from Niedersachsen and Bremen, Germany); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Negrisola *in* Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:424 (in key to Sphecidae of Russian Far East); Schmid-Egger, Rich, and Niehuis, 1995:200 (summary of records from Germany: Rheinland-Pfalz Province); Arens, 1996:441 (Germany: Bayern: Bayreuth area); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: not endangered); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Woydak, 1996:48 (Germany: Westfalen: summary of distribution and nesting habits), 104 (not recorded after 1950); Celary, 1997:59 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:22 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:521 (Austria: summary of collecting records from Burgenland); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Lefeber, 1998:182 (Netherlands: Limburg: Sint-Pietersberg near Maastricht at 50°50'N 5°41'E); Petit, 1998a:109 (Belgium: Bassenge, visiting flowers of *Polygonum cuspidatum* Siebold and Zucc.); K. Weber, 1998:145 (Germany: Bayern: Bamberg area); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Gusenleitner, 1999:599 (Austria: Vorarlberg: locality records); Kuhlmann, Wolf, and Woydak, 1999:568 (extinct or presumably extinct in Nordrhein-Westfalen State of Germany); Ljubomirov, 1999b:52 (Bulgaria: Mt. Vitoshka near Sofia); Majzlan, Rychlík, and Deván, 1999:146 (Slovakia: Čenkovská Step Nature Reserve); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Pagliano and Scaramozzino, 1999:157 (Italy: Piemonte: Borgomale); Pauly, 1999:109 (in catalog of Belgian aculeates); Salzmänn-Wandeler and Rezbanyai-Reser, 1999:101 (Switzerland: Tessin: Monte Generoso); M. Schwarz, 1999:86 (Austria: Oberösterreich: city of Linz area); Skibińska, 1999:96 (previously recorded from Białowieża Primeval Forest, Poland); Blösch, 2000:270 (in Sphecid Fauna of Germany); Jacobs, 2000:9, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); M. Mader and Chalwatzis, 2000:60 (Germany: Hessen: Oderwald Mts.); Schmid-Egger, 2000b:276 (Germany: Baden-Württemberg: shores of Rhine River); Basset, 2001:83 (France: Département de Gironde); Ohl et al., 2001:140 (distribution in Germany by provinces); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia); Skibińska, 2001:220 (Poland: Białowieża Primeval Forest); Wolf, 2001a:171 (Germany: Bayern: Lech valley from Augsburg to Donau); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Shlyakhtenok and Skibinska, 2002:33 (Belarus: no specific locality); Wiśniowski, 2002:70 (Poland: Ojców National Park); Ziska, 2002:9 (Germany: Berlin-Köpenick: Krumme Lake); Feitz, Schneider, and Pauly, 2003:81 (first record from Luxemburg: Dudelange); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Nieves-Aldrey, Fontal-Cazalla, Gar-

rido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Tischendorf and Treiber, 2003:121 (Germany: Hessen: 15 km SW Frankfurt am Main: nesting under high power lines); Wiśniowski in Dylewska and Wiśniowski, 2003:155 (Poland: Ojców National Park); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Gayubo et al. 2004:131 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Hellrigl, 2004a:173 (Italy: Trentino-Alto Adige, as Südtirol: Sigmundskron near Bozen = Bolzano); Litt, 2004:222 (Switzerland: Valais: Vissoie); Nicoli Aldini, 2004:255 (nesting habits); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Dubitzky, Blank, and Schönitzer, 2005:275 (Germany: Bayern: area north of Dachau); Kofler, 2005:174 (Austria: Tirol: Lienz District: several localities); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Pagliano and Negrisolo, 2005:213 (in Sphecidae Fauna of Italy); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area, last recorded by Alfken, 1915); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Dathe, 2006:38 (*Crabro trispinosus*, recorded from Plauenscher Grund near Dresden, Germany, by von Block, 1799, is *Oxybelus trispinosus* now); Vepřek, 2006:511 (Czech Republic: Kokořínsko area); Jacobs, 2007:116, 119 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Dollfuss, 2008:497 (locality records from Bulgaria, Croatia, France, Finland, Italy, Mongolia, and Romania); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Ban-Calefariu, 2008:205 (Romania: Maramureş District: Poienile de Sub Munte); Ljubomirov and Yildirim, 2008:254 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); Bitsch and Leclercq, 2009:230 (in supplement to vol. I of Faune de France, 1993: observations by Nicoli Aldini reported; France: first record from Ardèche: Aset); Flügel, 2009b:63 (Germany: Hessen: Borken, in inactive open brown coal mine); U. Frommer, 2009a:28 (Germany: in checklist of Sphecidae of Hessen); Guéorguiev and Ljubomirov, 2009:265 (Bulgaria: Maleshevska Planina, as *trispinosa*); Nemkov, 2009b:92 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: relatively common).

*Oxybelus nigripes* Olivier, 1812b:596, sex not indicated. Holotype or syntypes: France: Paris area (lost). Synonymized with *Oxybelus trispinosus* by F. Smith, 1856:383, Schirmer, 1912:165, and Blüthgen, 1949:87. – Vander Linden, 1829:39 (bibliographic references, France); Shuckard, 1837a:109 (in revision of British Aculeata); von Siebold, 1839:49 (Germany: Danzig, now Poland: Gdańsk); Dufour, 1841a:497 and 1841b:236 (digestive tract), 1841a:503 and 1841b:239 (male reproductive system), 1841a:507 and 1841b:243 (female reproductive system); Dahlbom, 1842a:13 (in review of Scandinavian aculeates), 1845:513 (in key to *Oxybelus*); Lepeletier de Saint Fargeau, 1845:217 (in revision of world Hymenoptera, France: Paris area); Ruthe and Stein, 1857:315 (Germany: Berlin area); A. Morawitz, 1864:459 (Russia: St.-Petersburg); A. Costa, 1867c:149 (in revision of Italian Sphecidae); Gerstaecker, 1867a:71 (in revision of *Oxybelus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Thomson, 1870:177 (in revision of Swedish Crabroninae); A. Costa, 1871b:78 (in revision of Italian Sphecidae); Thomson, 1874:289 (in revision of Hymenoptera of Scandinavia); Taschenberg, 1875:380 (Germany: Halle); Margretti, 1881:214 (Italy: Lombardia), 271 (listed); A. Costa, 1883:58 (Italy: Sardegna: Alghero, Oristano); Friese, 1883:200 (Germany: Thüringen: Gumperda); Kohl, 1883e:662 (Switzerland), 1884b:114 (in list of known *Oxybelus*); 1893:33 (Austria: Niederösterreich); F. Morawitz, 1893a:115 (Russia: Karelian Isthmus: Terijoki); Sickmann, 1893:90 (Germany: Niedersachsen: Iburg); Krieger, 1894:11 (Germany: Kingdom of Saxony); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); Dalla Torre, 1897:645 (in catalog of world Sphecidae); Kozhevnikov, 1897:15 (Russia: Moscow Government); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Romania); Flamary, 1898:45 (France: Saône-et-Loire: Mâcon area); Chyzer, 1902:34 (Hungary); Antiga and

- Bofill, 1904:27 (Spain: Cataluña Province); Aurivillius, 1904:300 (in revision of Swedish Sphecidae); Mortimer, 1905:261 (not founding in Aberdovey, Wales, Great Britain); von Heyden, 1905:82 (Germany: Hessen: Frankfurt); Schmiedeknecht, 1907:203, 205 (in key to Hymenoptera of Central Europe); Cecconi, 1908:23 (Italy: Puglia: Isole Tremiti); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Dittrich, 1911b:21 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:45 (Italy: Trieste area); Birula, 1912:536 (Ukraine: Zhytomyr Oblast': Radomyshl'); Schirmer, 1912:165 (Germany: Berlin area); Smits van Burgst, 1913a:319 (Tunisia); Alfken, 1914:275 (NW Germany: Baden); Birula, 1914:379 (Belarus': Ambrosovich near Vitebsk); R. Perkins, 1916:231 (specimens in F. Smith collection); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:38 (Germany: Lower Elbe region); Dubois, 1921c:191, 192, 193 (in key to Belgian Sphecidae); Berland, 1925d:209 (in Sphecid Fauna of France); Coulon, 1925:122 (France: Pont-de-l'Arche); Shestakov, 1925:36 (Russia: Yaroslavl' area); Friese, 1926:144 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); F. Werner, 1927:66 (Austria: Niederösterreich: River Kamp valley); Benoist, 1928:411 (France: Alpes-Maritimes: Saint-Martin-Vésubie); Maidl *in* Schmiedeknecht, 1930:663, 666 (in keys to Hymenoptera of North and Central Europe); Minkiewicz, 1931b:211 (nesting habits); Bondroit, 1932:42 (Belgium: recorded by Wesmael); Bouwman, 1932:392 (in revision of Sphecidae of Netherlands); Giordani Soika, 1932a:23 (Italy: Lido di Venezia; determination?); Balles, 1934:17 (Germany: Baden-Württemberg: Achern); Giner Marí, 1934:136 (Spain); Bernard, 1935:67 (France: Var: Fréjus area); Forsius *in* Forsius and Hellén, 1935:11 (in checklist of Hymenoptera of Finland); Minkiewicz, 1935:215, 219 (Poland: Lake Garbaś 20 km W Suwałki); Richards, 1935a:166 (incorrectly recorded from British Isles); Vergne, 1935:120 (France: Auvergne: Clermont-Ferrand); Crèvecoeur and Maréchal, 1936:257 (in catalog of Belgian Hymenoptera); Drogoszewski, 1936:129 (Poland: Łowicz, Opatów); Minkiewicz, 1936:3 (male of on-place watcher type); Richards, 1936a:170 (second specimen recorded from British Isles by F. Smith, clearly not nigripes); Dulac, 1937:24 (France: Saône-et-Loire: Saint-Laurent d'Andenay); Zavadil, Šustera, and Bat'a, 1937:172 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); A. Wagner, 1938a:119 (northwestern Germany); Maréchal, 1939:341 (Belgium: Loën); Teunissen, 1939:174 (Netherlands: Mechelen); Dovnar-Zapolskiy, 1940:303 (Russia: Kursk Oblast'); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Leclercq, 1941b:16 (Belgium: Liège area); Schneid, 1941:1033 (Germany: Bayern: Bamberg area); Balthasar, 1942:4 (Czech Republic: Moravia); de Beaumont, 1942b:425 (in revision of Swiss *Oxybelus*); Giner Marí, 1943a:257 (in Sphecid Fauna of Spain); Móczár, 1943a:59 (Hungary: Szeged); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); van Lith, 1947:104 (Netherlands); Balthasar, 1948:141 (Slovakia: Parkan); Guiglia, 1948c:203 (Italy: Sardegna: Cagliari); Muller, 1948:139 (Belgium: Lanaye); Šnoflak *in* Zavadil and Šnoflak, 1948:36, 38 (in key to Czechoslovakian Sphecidae); Fæster, 1949:22, 39 (in revision of Western European *Oxybelus*); Cavro, 1950:42 (France: Département du Nord); Georgel, 1950:64 (France: Seine-et-Oise: Sucy-en-Brie); Noskiewicz and Chudoba, 1950:308 (in revision of *Oxybelus* of Śląsk Region, Poland); Szulczewski, 1950:103 (Poland: Wielkopolski National Park 15 km S Poznań); Caruel, 1951:100 (France: Marne Department); Pittioni, 1950:28 (Cyprus); Głowacki, 1953:518 (Poland: Podkowa Leśna); Valkeila, 1954:87 (Finland: Lappeenranta); Vogrin, 1955:45 (Yugoslavia); Babić, 1964:119 (Austria: Land Salzburg); Niedl and Deneš, 1967:76 (Czech Republic: Třeboň area); Balthasar, 1972:156 (in Sphecid Fauna of Czechoslovakia); Georghiou, 1977:191 (Cyprus); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Skibińska, 1989b:291 (Poland: moist meadow in Warszawa area); Gorobchishin, 1993:47 (Ukraine: Kanev Nature Reserve). – **As *Oxybelus trispinosus* var. *nigripes***: A. Costa, 1858:20 (Italy: Campania: Monti Partenii in Benevento Region).
- Oxybelus nigripes* Olivier var. *immaculatus* Guiglia, 1944a:156, ♀. Holotype: ♀, Cyprus: Cherkas (Genoa). – Guiglia, 1944b:41 (Italy: Lazio); Pittioni, 1950:28 (Cyprus); R. Bohart and Menke, 1976:368 (as synonym of *Oxybelus mucronatus*).
- As *Oxybelus haemorrhoidalis*: Dahlbom, 1844:272 (in revision of Sphecidae and Pompilidae) and 1845:512 (in key to *Oxybelus*), determination corrected to *Oxybelus trispinosus* by Thomson, 1870:179.

As *Oxybelus ambiguus*: Marquet, 1896:28 (in revision of *Oxybelus* of France), corrected to *Oxybelus trispinosus* by de Beaumont, 1952b:90.

#### 246. *tshardarensis* Kazenas

*Oxybelus tshardarensis* Kazenas, 1994f:911, ♀, ♂. Holotype: ♀, Kazakhstan: 8 km SW Chardary (ZIN). – Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:93 (geographic distribution, collecting localities in Kazakhstan).

#### 247. *uniglumis* (Linnaeus)

*Vespa uniglumis* Linnaeus, 1758:573, sex not indicated. Lectotype: ♀, Europe: no specific locality (Linnean Society, London), designated by Day, 1979:75. – Christ, 1791:246 (redescription, as *uniglummis*); Day and Fitton, 1978:194 (recuration of Linnean type material). – As *Crabro uniglumis*: Fabricius, 1775:376 (new combination, redescription), 1781:472 (redescription), 1787:297 (redescription); Rossi, 1790:92 (in revision of insects of Etruria, now Toscana, Italy); Olivier, 1792:518 (redescription); Fabricius, 1793:300 (redescription); Fabricius, 1796:51 (in Index to his Entomologia Systematica, 1793); Roth von Schreckenstein, 1802:32 (Germany: Baden-Württemberg); Illiger, 1807b:151 (synonymy, redescription). – As *Oxybelus uniglumis*: Latreille, 1802b:343 (new combination); Fabricius, 1804:316 (redescription); Latreille, [1805]:307 (redescription); Jurine, 1807:217 (in checklist of species of *Oxybelus*); Olivier, 1812b:595 (redescription); Vander Linden, 1829:37 (bibliographic references, Belgium: Bruxelles, most of Europe); Haliday, 1833:516 (Ireland: eastern coast N Dublin); Guérin-Méneville, 1835:pl. 71, Fig. 2 (illustration of habitus); Shuckard, 1837a:107 (in revision of British Aculeata); Zetterstedt, 1838:446 (in revision of insects of Lapland); von Siebold, 1839:49 (Germany: Danzig, now Poland: Gdańsk); Herrich-Schaeffer, 1840:295 (Germany: Bayern: Regensburg area); von Siebold, 1841:1 (nesting habits); Dahlbom, 1842a:13 (in review of Scandinavian aculeates), 1844:273 (in revision of Sphecidae and Pompilidae), 1845:XXV (specimens in collection Fabricius examined), 514 (in key to *Oxybelus*); Guérin-Méneville, 1844:441 (explanations of his 1835 figure, bibliographic references); Lepeletier de Saint Fargeau, 1845:221 (in revision of world Hymenoptera, Paris area); Schilling, 1848:105 (Germany: Breslau area, now Poland: Wrocław); Kiesenwetter, 1849:90 (Germany: Kingdom of Saxony); F. Smith, 1849b:2551 (preying on flies); Wissmann, 1849:14 (Germany: Kingdom of Hannover: sandy habitats); Tischbein, 1850:10 (Germany: Rheinland-Pfalz: Herrstein in Fürstenthum Birkenfeld); Wesmael, 1852:623 (Belgium); Kirchner, 1854:313 (Czechoslovakia: Kaplitz in Budweiser District, now České Budějovice); Fabre, 1856a:139 (France: Vaucluse: Avignon area); F. Smith, 1856:382 (in catalog of Hymenoptera in British Museum); Kawall, 1857:25 (Kurland, now Latvia); Ruthe and Stein, 1857:315 (Germany: Berlin area); Schenck, 1857:116 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:119 (in key to Sphecidae of Germany); Assmus, 1859:616 (Russia: Moscow Oblast'); Funk, 1859:58 (Germany: Bayern: Bamberg); Schenck, 1860:146 (Germany: Nassau Region), 1861:142 (legs may be all black); Brischke, 1862:105 (Germany: Preussen Province, now Poland: Pomorze Region); A. Morawitz, 1864:458 (Russia: St.-Petersburg); Taschenberg, 1866:162 (in revision of Hymenoptera of Germany); Gerstaecker, 1867a:85 (in revision of *Oxybelus*); Kirchner, 1867:223 (in catalog of European Hymenoptera); Schenck, 1867a:352 (Germany: Nassau Region); Chevriér, 1868:388 (in revision of Swiss *Oxybelus*); Jaennicke, 1868:8 (Germany: Hessen: Offenbach); Wierzejski, 1868:117 (Poland: Kraków); Aichinger, 1870:315 (Austria: Tirol); Bold, 1870:150 (Great Britain: Northumberland and Durham); Thomson, 1870:178 (in revision of Swedish Crabroninae, as *I-glumis*); P. Ivanov, 1872:151 (Ukraine: Khar'kov Oblast': Kupyansk area); Schlechtendal, 1872:36 (Germany: Sachsen: Zwickau); Dours, 1874:152 (in catalog of Hymenoptera of France); Thomson, 1874:290 (in revision of Hymenoptera of Scandinavia, as *I-glumis*); Wierzejski, 1874:261 (Poland: Kraków); Schlechtendal, 1872:36 (Germany: Zwickau); Marquet, 1875:210 (France: Haute-Garonne: Toulouse); Taschenberg, 1875:380 (Germany: Halle); Beuthin, 1876:230 (Germany: Hamburg area); Schmiedeknecht, 1876:186 (Germany: Thüringen: Rothensteiner Felsen); Girard, 1879:938 (morphology and habits), 961 (reference to Siebold, 1841); Becker, 1880:152 (Russia: Sarepta, now Krasnoarmeysk S Volgograd); Kohl, 1880:142 (Austria: Tirol, and Italy: Trentino–Alto Adige), 221 (preying on

Diptera *Homalomyia incisurata* and *H. scalaris*); Siebke, 1880:72 (Norway, as *I-glumis*); Marquet, 1881:185 (southern France); Yaroshevskiy, 1881:121 (Ukraine: Khar'kiv Oblast': Kupyansk); Kohl, 1883e:663 (Switzerland); Sickmann, 1883:80 (Germany: Niedersachsen: Wellingholthausen); Harwood, 1884:212 (England: Essex: Colchester area); Kohl, 1884b:116 (in list of known *Oxybelus*); Sickmann, 1886:280 (Germany: Friesean Islands: Spiekeroog Island); Wüstnei, 1886:39 (Germany: Schleswig-Holstein); Cresson, 1887:287 (in catalog of North American Hymenoptera); Brischke, 1888a:54 (Germany: Hela Peninsula, now Poland: Hel Peninsula), 1888b:100 (Germany: Preussen Province, now Poland: Pomorze Region), 1889:204 (Germany: Steegen E Danzig, now Poland: Stegna E Gdańsk); Ch. Robertson, 1889:85 (listed, in revision of North American *Oxybelus*); F. Morawitz, 1891a:213 (Russia: Astrakhan Government); Bezzi, 1892:123 (Italy: Lombardia: Provincia di Pavia); Alfken, 1893:120 (Germany: Friesian Islands: Juist Island); Kohl, 1893a:33 (Austria: Niederösterreich); F. Morawitz, 1893a:115 (Russia: Karelian Isthmus); Sickmann, 1893:91 (Germany: Niedersachsen: Iburg); Westerlund, 1893:28 (Russia: Karelian Republic: northern shore of Lake Ladoga); Krieger, 1894:11 (Germany: Kingdom of Saxony); Freke, 1896:41 (Ireland); Marquet, 1896:31 (in revision of *Oxybelus* of France); Meunier, 1896:270 (Belgium: Bruxelles area); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); Borries, 1897:76 (nesting habits); Dalla Torre, 1897:649 (in catalog of world Sphecidae); Meunier, 1897b:353 (Belgium: coastal sand dunes at Blankenberge); Mocsáry, 1897:81 (Kingdom of Hungary, some localities are in today's Romania and Slovakia); O. Schneider, 1898:102 (Germany: Borkum Island); Strand, 1898b:96 (Norway); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); R. Bradley, 1900:13 (Great Britain: Birmingham); Nevinson, 1900:62 (Great Britain: Wales: Crickieth, Towyn); Adlerz, 1901:193 (nesting habits); Carr, 1901:16 (Great Britain: Lincolnshire: Skegness); DalGLISH, 1901:7 (Great Britain: Scotland: Irvine); Thornley, 1901:63 (Great Britain: Skegness); N. Arnold, 1902:86 (Russia: Mohilev Province, now Belarus); Chyzer, 1902:34 (Hungary); Friese, 1902:478 (occurring in Lapland according to Zetterstedt, 1838); Kieffer, 1902:81 (nesting habits); Nevinson, 1902:12 (Great Britain: Cornwall: Newquay); E. Saunders, 1902a:52 (sw. Ireland), 1902b:143 (Great Britain: Channel Islands: Guernsey and Jersey Islands; France: Bretagne: St. Briac); de Cobelli, 1903:114 (Italy: Trentino: Malè, Rovereto); Strand, 1903:7 (Norway: Austad); Adlerz, 1904:41 (nesting habits); Antiga and Bofill, 1904:28 (Spain: Cataluña Province); W. Schulz, 1904b:102 (Germany: Borkum Island); Kubes, 1905:84 (Czech Republic: Kolín); Mortimer, 1905:261 (Great Britain: Wales: Aberdovey); Móczár and Henter, 1907:205 (Hungary: Tiszaalpár); Schmiedeknecht, 1907:204 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:121 (in catalog of French Hymenoptera); Orr, 1909a:25 (Ireland: Down County); Cavro, 1910:685 (France: Département du Nord); Ferton, 1910:159 (prey); Dittrich, 1911b:21 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:45 (Italy: Trieste area); Schirmer, 1912:165 (Germany: Berlin area); Kohl, 1913b:16 (Russia: Voronezh Oblast': Valuyki at 50°14'N 38°08'E); Szilády, 1913:89 (Hungary: Budaörs); Torka, 1913:34 (Germany: Provinz Posen, now Poland: Poznań Region); Alfken, 1914:276 (NW Germany); Birula, 1914:379 (Belarus': Ambrosovich and Luskopol' near Vitebsk); Haines, 1914:129 (Great Britain: Dorset); Krausse, 1915:157 (Germany: Eberswalde); Hallett, 1916:221 (Great Britain: South Wales: Porthcawl); Dubois, 1919:96 (Belgium: Bruxelles: Uccle); Hallett, 1919:262 (Great Britain: Island of Guernsey); R. Perkins, 1916:231 (specimens in F. Smith collection); O. Meyer, 1919:149 (Germany: Posen Province, now Poland: Poznań Region); Morley, 1919:209 (Great Britain: Hampshire: New Forest); R. Robertson, 1919:60 (Great Britain: Kent: Faversham area); A. Wagner, 1920:38 (Germany: Lower Elbe region); Dubois, 1921c:190, 193 (in key to Belgian Sphecidae); Jansson, 1922:26 (Sweden: Öland Island); Alfken, 1924:425 (Germany: Memmert Island; prey); R. Perkins, 1924a:227 (Great Britain: Devon); Berland, 1925d:208 (in Sphecidae Fauna of France); Coulon, 1925:122 (France); Grönblom, 1925:9 (prey); Shestakov, 1925:36 (Russia: Yaroslavl' area); K. Strohm, 1925:211 (Germany: Baden-Württemberg: Ihringen); Chevalier, 1926a:1 (nesting habits); Friese, 1926:144 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Hémon, 1926:200 (France: Finistère: Fouesnant); Stelfox, 1927:303 (Ireland: list of localities); Jones, 1928b:14 (Great Britain: Hampshire: Milford-on-Sea); Hamm and Richards, 1930:114 (summary of nesting habits), 125 (list of prey); Harttig, 1930b:8 (specimen bearing dipteran egg); Maidl



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ski-Salz, 1956:227 (Turkey: Erciyas Dag); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Fahlander, 1957:63 (Sweden); Yeo, 1957:19 (Great Britain: Middlesex, now in London; prey: *Chironia atrata*); Zirngiebl, 1957:178 (Germany: Rheinland-Pfalz: Pfalz region); Benno, 1958b:18 (in review of Dutch Sphecidae); de Beaumont, 1958c:213 (Swiss National Park); Tonapi, 1958a:510 (spiracular structures), 1958b:250 (respiratory system); Wolf, 1959b:35 (Germany: Nassau); Noskiewicz and Puławski, 1960:162, 165 (in key to Polish Sphecidae); Hoop, 1961:64 (Germany: Schleswig-Holstein); Valkeila, 1962b:68 (southwestern Finland); Erlandsson, 1963:66 (Denmark: Bornholm Island); Felton, 1963:178 (Great Britain: Kent County); Hoop, 1963a:73 (Germany: Schleswig-Holstein: Reher Kratt); Babiş, 1964:119 (Austria: Land Salzburg); de Beaumont, 1964c:161 (in Sphecidae Fauna of Switzerland); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle), 197 (prey carried impaled on sting); Valkeila, Brander, and Käpylä, 1964:76 (Finland: Southern Finland: Tammela); Fæster, 1965:193 (Denmark: Hansted Nature Reserve); B. Klug, 1965:144 (Germany: Baden-Württemberg: Freiburg im Breisgau area); Gauss, 1966c:240 (specimen bearing dipteran egg); Mingo Pérez, 1966:77 (in revision of *Oxybelus* of Iberian Peninsula); Benno, 1967:39 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:364 (Turkey); Gauss, 1967:560 (Germany: Baden-Württemberg); J. Heinrich, 1967:83 (Germany: Bayern: Unterfranken District); Leclercq, Simon, and Verstraeten, 1967:261 (France: Landes: Seignosse, collected in resin pot); Niedl and Deneš, 1967:75 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:50 (Romania); Benedek, 1968:79 (Hungary, floral records); Leclercq, 1968b:39 (Great Britain: Kent), 1968d:109 (Belgium: city of Liège); Scobiola-Palade, 1968c:386 (Romania: Andronache, Bucureşti, Budeşti, Păsarea); Benedek, 1969a:85 (Hungary: marshy meadow), 1969b:421 (Hungary: Csopak, collected in vicinity of aphid *Hyalopteritena pruni* (Geoffroy)); de Beaumont, 1969:94 (Turkey); Lefeber, 1969c:234 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Benedek, 1970:104 (Hungary: Tapolca); Hoop, 1970:60 (Germany: Schleswig-Holstein: many localities); Lefeber and Petit, 1970:130 (Belgium: Plombières); Oehlke, 1970:797 (Democratic Germany); Dathe, 1971:234, 238 (Germany: Berlin Zoological Garden; phenology); Schmidt, 1971b:53 (Germany: Mainz area); Stritt, 1971a:105 (Germany: Baden-Württemberg: Karlsruhe); Balthasar, 1972:159 (in Sphecidae Fauna of Czechoslovakia); Haeseler, 1972:157, 171, 175, 187, 188, 191, 197 (Germany: Schleswig-Holstein; anthropogenic habitats); Kazenas, 1972b:178 (Kazakhstan); Kofler, 1972:116 (Austria: eastern Tirol); Lomholdt, 1972:123 (Denmark: Læsø Island); Oehlke, 1972:141 (Germany: Hiddensee Island); Scobiola-Palade, 1972a:152 (Romania: delta of Danube: Caraorman), 1972b:255 (Romania); Tsuneki, 1972a:160 (Mongolia); Wolf, 1973:41 (Germany: Siegerländer Hütten-sand); Erlandsson, 1974:88 (Italy); Käpylä, 1974:64 (Finland: diurnal activity); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); Scobiola-Palade, 1974:146 (Romania: Sărăturile sand-bank in Danube delta); Simon Thomas, 1974:58 (Netherlands: Limburg); Lefeber, 1975b:120 (Netherlands: Schiepersberg); Lomholdt, 1975b:32 (Denmark: Anholt Island); R. Bohart and Menke, 1976:370 (listed); Haeseler, 1976b:73 (Germany: Friesian Islands: Amrum Island); Leclercq, Gaspar, Lajoinie, and Thirion, 1976:178 (Belgium: Chaumont-Gistoux); Lomholdt, 1976:282 (in Sphecidae Fauna of Fennoscandia and Denmark); Simon Thomas and Wiering, 1976:109 (Netherlands); Wolf, 1976:30 (Germany: Nordrhein-Westfalen: Victoria Mine near Littfeld); Guichard, 1977:252 (Great Britain: Surrey); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Schmidt, 1977:99 (Germany: Schwarzwald), 1977/78:59 (Germany); Haeseler, 1978a:371 (Germany: Niedersachsen: Mel-lum Island), 1978b:63 (Germany: Niedersachsen: a bog near Oldenburg), 1978c:195 (Germany: Friesian Islands: Borkum Island); Marion, 1978:91 (France: Nièvre Department); Puławski, 1978:276, 277 (in key to Sphecidae of European part of former USSR); Schwammberger, 1978:421 (Germany: Württemberg); Benedek, 1979:236 (Hungary: Bakony Hills); Krombein, 1979b:1657 (in catalog of North American Hymenoptera, list of prey); Leclercq, Gaspar, and Verstraeten, 1979:map 1429 (Belgium); Marchal and Leclercq, 1979:10 (Belgium: Gembloux); Richards, 1979:399 (British Channel Islands); Schmidt, 1979a:58 (Germany: Ost-Holstein); Schwammberger, 1979:118 (Germany: Nordrhein-Westfalen: Gildehauser Venn Nature Reserve); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection); Jacob-Remacle and Leclercq, 1980:192 (Belgium: gardens in Liège); Pagliano, 1980:120 (Italy: Trentino Alto Adige); Peckham and Hook, 1980:563 (nesting habits); Richards, 1980:60 (in

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Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:109 (in catalog of Belgian aculeates); Petit, 1999:113 (Netherlands: Boschkapelle, Nieuw-Namen); Riemann, 1999:835 (Germany: Niedersachsen: sand pits near Bremen); M. Schwarz, 1999:86 (Austria: Oberösterreich: city of Linz area); Sørensen, Mauss, and Schindler, 1999:504 (Germany: Schleswig-Holstein); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Archer, 2000c:115 (Great Britain: Lincolnshire); Blösch, 2000:271 (in Sphecidae Fauna of Germany); Dressler, 2000:33 (Germany: Hessen: Darmstadt area); Gayubo, González, and Torres, 2000:186 (Spain: Salamanca Province); Gonzáles, Gayubo, and Tormos, 2000:20 (Andorra: Santa Coloma); Jacobs, 2000:9 (Germany: Land Mecklenburg-Vorpommern: not endangered); M. Mader and Chalwatzis, 2000:60 (Germany: Hessen: Oderwald Mts.); Nachtigall, 2000:6 (wing bending and folding during flight without or with prey); Wiśniowski, 2000:161 (Poland: Bieszczady Mts.); Archer, 2001a:107 (Great Britain: Watsonian Yorkshire); Cungs and Jakubzik, 2001:122, 123 (Luxemburg); Haeseler, 2001:266 (Germany: Niedersachsen: Brookdeich near Oldenburg); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia), 181 (review of known biology); Kazenas and Esenbekova, 2001:134 (Kazakhstan: Almatinskiy Nature Reserve); Ljubomirov, 2001b:51 (Bulgaria: Mount Vitosha near Sofia); Ohl et al., 2001:140 (distribution in Germany by provinces); Skibińska, 2001:220 (Poland: Białowieża Primeval Forest); Szczepko and Kowalczyk, 2001:188 (Poland: Kampinos National Park near Warszawa); Tischendorf, 2001:30 (Germany: Hessen: Kühkopf-Knoblochsaue Nature Reserve); Wolf, 2001a:172 (Germany: Bayern: Lech valley from Augsburg to Donau); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Archer, 2002b:120 (Great Britain: Watsonian Yorkshire: distribution map); Archer and Edwards, 2002:102 (Great Britain: West Sussex: Ambersham and Iping commons); Beavis, 2002:109 (Great Britain: Kent: Tunbridge Wells area, prey: *Phaonia pallida* (Fabricius), a muscid fly); Esser and Cölln, 2002:1136 (SW Germany: Eifel region); Kazenas, 2002a:93 (geographic distribution, collecting localities in Kazakhstan); Kowalczyk, Szczepko, and Świątek, 2002:154 (Poland: Kampinos National Park near Warszawa); Litt, 2002:166 (Belgium); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); C. Schlüter, 2002:141 (Germany: Niedersachsen: anthropogenic habitats in Ammerland District); Shlyakhtenok and Skibinska, 2002:34 (Belarus: no specific locality); Wiśniowski, 2002:70 (Poland: Ojców National Park); Cölln, Esser, and Jakubzik, 2003:62 (Germany: northwestern Rheinland-Pfalz: excavation sites and quarries); Drewes, 2003:140 (France, Germany: miscellaneous locality records); Flügel, 2003:8 (Germany: Hessen: Knüllwald); Haeseler, 2003:340 (Germany: Niedersachsen: Harriersand Island near Bremen); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warnecke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Pitts and Parker, 2003:8 (nest parasite: mutillid *Odontophotopsis succinea*); Protsenko, 2003:68, 69 (Ukraine: Odessa Oblast': Malyi Tataru island in Danube delta at 45.21°N 29.00°E); von der Heide and Metscher, 2003:103 (Germany: Niedersachsen: Emsland area); Wiśniowski in Dylewska and Wiśniowski, 2003:156 (Poland: Ojców National Park); Abenius, 2004:40 (Sweden: Norrbottens: Luleå area); Archer, 2004:47 (Great Britain: Worcestershire: Devils Spittleful Nature Reserve); Buck, 2004:26 (in checklist of Crabronidae of Ontario, Canada); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:263 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Gayubo, Nieves-Aldrey, González, Tormos, Rey del Castillo, and Asís, 2004:108 (Spain: Madrid: Monte de El Pardo); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); van Achterberg and Peeters, 2004:31 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Archer, 2005:30 (Great Britain: Watsonian Yorkshire); Beavis, 2005:196 (Great Britain: Isles of Scilly); Blösch, 2005:4 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Dubitzky, Blank, and Schönitzer, 2005:275 (Germany: Bayern: area north of Dachau); Fuhrmann, 2005:89 (Germany: Nordrhein-Westfalen: Grubengelände Littfeld Nature Reserve); Gayubo and Özbek, 2005:26 (Turkey: Bayburt: Kop Mountain; Erzurum: Palandöken, Þenkaya; Konya: Güneysýnýr); Gregory and Wright, 2005:140 (Great Britain: Shotover Hill 5 km E Oxford); Haeseler, 2005:629 (Germany: Niedersachsen: Steller Heide near Bremen); Kofler, 2005:174 (Austria: Tirol: Lienz District: several localities); Kraatz, 2005:103 (Germany: Niedersachsen: Büm-

merstede near Oldenburg); Nemkov, 2005a:149 (Russia: Sakhalin Island); Pagliano and Negrisolo, 2005:215 (in Sphecida Fauna of Italy); Riemann and Hohmann, 2005:562 (Germany: Niedersachsen: city of Bremen and adjacent area); Shorenko, 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Wiśniowski, 2005a:312 (Poland: Ojców National Park; occurring in all non-forest biotopes); Yildirim and Ljubomirov, 2005:1799 (Turkey: Erzurum Province); Archer, 2006a:21 (Great Britain: Lincolnshire: Rauceby Warren National Park), 2006c:217 (Great Britain: Staffordshire: Highgate Common); Dathe, 2006:38 (*Crabro uniglumis*, recorded from Plauenscher Grund near Dresden, Germany, by von Block, 1799, is *Oxybelus uniglumis* now); Feitz, Gloden, Melchior, and Schneider, 2006:82 (Luxembourg: Baggerweieren area in Haff Réimech Nature Reserve); Kroupa, 2006b:25 (Germany: Bayern: Oberfranken Region); Ljubomirov, 2006:541 (Bulgaria: Rhodope Mountains: Peshtera); Standfuss and Standfuss, 2006a:86 (Germany: Nordrhein-Westfalen: Dortmund); Vepřek, 2006:511 (Czech Republic: Kokořínsko area); Baños-Picón, Gayubo, Asís, and González, 2007:257, 259 (Spain: Zamora: Cabañas de Aliste); Archer, 2007a:151 (Great Britain: Norfolk: Thetford Warren Lodge), 2007c:152 (Great Britain: South Devon coast); Flügel, 2007:40 (Germany: Hessen: Halberg near Neumorschen); Jacobs, 2007:116, 118 (in key to Crabronidae of Germany); Kazenas, 2007a:91 (Kazakhstan: Akkala Oblast': Kurgandzhin Nature Reserve and vicinity); Kowalczyk and Nadolski, 2007:284 (Poland: Łódź: railway areas); Nemkov, 2007b:70 (Russia: Kuril Islands: Iturup Island); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Shorenko, 2007b:258 (Ukraine: Crimea: Simferopol', Karasevka village in Belogorskiy District); Venne, Bleidorn, and Lauterbach, 2007:302 (Germany: Nordrhein-Westfalen: Bielefeld); Vepřek and Straka, 2007:204 (in catalog of Sphecidae of Czech Republic and Slovakia); Yildirim and Ljubomirov, 2007:120 (Turkey: Erzurum and Konya provinces); Archer, 2008a:144 (Great Britain: Cumbria: North Walney Nature Reserve, Sandscale Haws, and Lindisfarne Nature Reserve); Danilov, 2008:350 (Russia: Altayskiy Kray: Barnaul area); Dollfuss, 2008:497 (locality records from Bulgaria, Estonia, Finland, France, Hungary, Italy, Kazakhstan, Kyrgyzstan, Mongolia, Poland, Romania, Slovenia, Spain, Tajikistan, Turkey, Ukraine, USA: Washington: Prosser, and Ukraine); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Haeseler, 2008:308 (Germany: Friesian Islands); Ljubomirov and Ban-Calefariu, 2008:205 (Romania: Maramureş District: Bârsana, Vişeu de Jos); Ljubomirov and Yildirim, 2008:255 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:20 (in catalog of Crabronidae of Asiatic Russia); Bitsch and Leclercq, 2009:230 (in supplement to vol. I of Faune de France, 1993: recent record from Bulgaria reported; France: first record from Aisne: Chézy-sur-Marne; Alpes-de-Haute-Provence: Moustiers-Sainte-Marie; Ardèche: Chauzon, Saint-Thomé; Haute-Loire: Tence); Donie, 2009:9 (Germany: Niedersachsen: Oldenburg); Flügel, 2009a:67 (Germany: Thüringen: Weimar), 2009b:63 (Germany: Hessen: Borken, in inactive open brown coal mine); U. Frommer, 2009a:28 (Germany: in checklist of Sphecidae of Hessen); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castromoño – Vega del Duero); Nemkov, 2009b:92 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Archer, 2010:52 (Great Britain: Watsonian Nottinghamshire: Spalford Warren); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: relatively common).

As *Vespa biglumis*: Linnaeus, 1758:419 (biological data only), corrected to *Oxybelus uniglumis* by Day, 1979:52. – Bondroit, 1933:33 (biological data refer to an *Oxybelus*).

*Nomada punctata* Fabricius, 1793:346. Holotype or syntypes: Canada: no specific locality (depository unknown: van der Vecht, 1961a:72). Synonymized with *Oxybelus tridens* by Fabricius, 1804:... – Fabricius, 1796:115 (in Index to his Entomologia Systematica, 1793); van der Vecht, 1961a:72 (discussion of name identity).

*Crabro tridens* Fabricius, 1798:270, sex not indicated. Holotype: ♀, Germany: Halae Saxonum, now Sachsen-Anhalt: Halle (ZMK). Synonymized with *Oxybelus lineatus* by Dahlbom, 1845:XXV, and with *Oxybelus uniglumis* by P. Verhoeff, 1948:181, synonymy confirmed by Faester, 1949:21, and van der Vecht, 1961a:72. – Fabricius, 1799:17 (in Index to his Supplementum, 1798). – As *Oxybelus tridens*: Fabricius, 1804:313 (new combination, re-description); Jurine, 1807:217 (in checklist of species of *Oxybelus*); Olivier, 1812b:596 (redescription); Vander

- Linden, 1829:39 (bibliographic references, France, Germany); Lepeletier de Saint Fargeau, 1845:223 (in revision of world Hymenoptera, Paris area); Dours, 1874:153 (in catalog of Hymenoptera of France); Marquet, 1875:210 (France: Haute-Garonne: Toulouse), 1881:185 (southern France); Acloque, 1897:92 (in Sphecidae Fauna of France and Algeria); Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- ? *Vespa decimmaculata* Donovan, 1806:43, [♀] (as *decim-maculata*, incorrect original hyphenation). Holotype: ♀, Great Britain: Kent: no specific locality (lost). Synonymized with *Oxybelus uniglumis* by Gerstaecker, 1867a:86. – R. Bohart and Menke, 1976:370 (listed as questionable synonym of *Oxybelus uniglumis*).
- Oxybelus pygmaeus* Olivier, 1812b:597, sex not indicated. Holotype or syntypes: France: Paris area (lost). Synonymized with *Oxybelus uniglumis* by Gerstaecker, 1867:86. – Vander Linden, 1829:40 (bibliographic references, France: Versailles); F. Smith, 1856:385 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:223 (in catalog of European Hymenoptera); Dours, 1874:153 (in catalog of Hymenoptera of France).
- Oxybelus quadrinotatus* Say, 1824:338, sex not indicated (as *4-notatus*, incorrect original spelling). Holotype or syntypes: USA: Pennsylvania: no specific locality (lost). Synonymized with *Oxybelus uniglumis* by r. Bohart and Menke, 1976:370. – Say, 1837:375 (coloration, comparison with *Oxybelus trispinosus* F.); F. Smith, 1856:390 (in catalog of Hymenoptera in British Museum); Le Conte, 1859a:228 (original description copied), 1859b:758 (reprint of Say, 1837:375); Cresson, 1862:234 (in catalog of North American Hymenoptera); Packard, 1867:437 (revision); Provancher, 1882:99 and 1883:652 (in revision of Canadian Hymenoptera; as *4-notatus*); Kohl, 1884b:114 (in list of known *Oxybelus*); Cresson, 1887:286 (in catalog of North American Hymenoptera, as *4-notatus*); Ashmead, 1890:31 (in checklist of Hymenoptera of Colorado); C. Baker, 1896a:61 (Colorado: Fort Collins); Cockerell and Baker, 1896:23 (New Mexico: Santa Fe); Dalla Torre, 1897:646 (in catalog of world Sphecidae); Ashmead, 1899d:162 (in checklist of North American Oxybelidae); Bridwell, 1899:209 (Kansas: no specific locality); Harrington, 1902:218 (Canada: Ontario: Ottawa); H. Smith, 1908b:408 (in revision of Nebraskan Sphecidae); J. Parker, 1915:74 (nesting habits); Rohwer, 1916b:659 (in catalog of Hymenoptera of Connecticut), 1917a:241 (California: Alameda and San Francisco Counties); Stevens, 1917:423 (North Dakota); Mickel, 1918b:368 (in catalog of Nebraskan Sphecidae); Carter, 1925:131 (Canada: Alberta); J.Ch. Bradley, 1926:175 (New York: Lloyd-Cornell Reservation near McLean), 1928:1021 (in catalog of New York Sphecidae); Pate, 1930b:40 (first record from New York State); Krombein, 1936:95 (dipteran prey), 99 (floral records); Brimley, 1938:450 (North Carolina: Charlotte, as *quadrinotatus*); Strandtmann, 1945a:313 (nest and prey); Strickland, 1947:127 (Canada: Alberta); Krombein, 1948a:67 (prey, as *quadrinotatum*); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera); K. Cooper, 1953:34 (Massachusetts: Penikese Island); Evans, 1957b:112 (description of larva); Kurczewski and Kurczewski, 1963:149 (Pennsylvania: Presque Isle State Park); Horning and Barr, 1970:107 (USA: Idaho: Craters of the Moon National Monument). – As *Oxybelus uniglumis quadrinotatus*: R. Bohart and Schlinger, 1956c:165 (new status, listed, as *quadrinotatum*), 1957:111 (in revision of Californian *Oxybelus*); G. Bohart, Nye, and Hawthorn, 1970:48 (Utah: Logan, onion pollinator, as *quadrinotatum*); Evans, 1970:493 (Wyoming: Jackson Hole, nesting habits, list of prey); Elliott and Kurczewski, 1973:80 (Alaska); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument).
- Oxybelus impatiens* F. Smith, 1856:390, ♀. Holotype or syntypes: ♀, USA: California: no specific locality (BMNH). Synonymized with *Oxybelus uniglumis* by Ch. Robertson, 1889:78. – Cresson, 1862:234 (in catalog of North American Hymenoptera); Kohl, 1884b:112 (in list of known *Oxybelus*); Cresson, 1887:286 (in catalog of North American Hymenoptera).
- Oxybelus interruptus* Cresson, 1865b:475, ♀. Holotype: ♀, USA: Colorado: no specific locality (ANSP). Synonymized with *Oxybelus uniglumis* by Ch. Robertson, 1889:78. – Packard, 1867:436 (listed); Cresson, 1887:286 (in catalog of North American Hymenoptera); Dalla Torre, 1897:641 (in catalog of world Sphecidae); Cresson, 1916:103 (holotype in ANSP); Kohl, 1884b:112 (in list of known *Oxybelus*).
- Oxybelus fallax* Gerstaecker, 1867a:91, ♀. Holotype: ♀, Germany: Brieselanger Forst near Berlin (ZMHU). Synonymized with *Oxybelus uniglumis* by Blüthgen, 1949:88. – Chevriér, 1868:413 (summary of diagnostic charac-

ters); Kohl, 1884b:112 (in list of known *Oxybelus*); Dalla Torre, 1897:640 (in catalog of world Sphecidae); Schmiedeknecht, 1907:204 (in key to Hymenoptera of Central Europe); Schirmer, 1912:165 (recorded from Berlin area, Germany, by Gerstaecker, 1867); Maidl in Schmiedeknecht, 1930:662, 665 (in keys to Hymenoptera of North and Central Europe); Giner Mari, 1943a:259 (in Sphecid Fauna of Spain); van Lith, 1947:104 (Netherlands, determination tentative); Šnoflak in Zavadil and Šnoflak, 1948:33 (in key to Czechoslovakian Sphecidae; not yet found in Czechoslovakia).

*Oxybelus brodiei* Provancher, 1883:811, ♀ (as *Brodiei*, incorrect original capitalization). Lectotype: ♀, Canada: Toronto (Laval Univ.), designated by Gahan and Rohwer, 1918:105. Synonymized with *Oxybelus uniglumis* by Ch. Robertson, 1889:78. – Kohl, 1884b:111 (in list of known *Oxybelus*); Cresson, 1887:286 (in catalog of North American Hymenoptera); Faull, 1913:385 (Canada: Toronto region).

*Oxybelus quadrinotatus* var. *montanus* Robertson, 1889:78, ♂, ♀. Syntypes: USA: Montana (...). Synonymized with *Oxybelus uniglumis quadrinotatus* by R. Bohart and Schlinger, 1956c:165. – Dalla Torre, 1897:647 (in catalog of world Sphecidae); Stevens, 1917:423 (North Dakota, as *quadrinotatus montanus*); F. Williams, 1936a:1 (California: San Francisco; nesting habits); Strickland, 1947:127 (Canada: Alberta: Lethbridge, as *quadrinotatus montanus*); Burks in Muesebeck et al., 1951:1033 (in catalog of North American Hymenoptera).

*Oxybelus hispanicus* García Mercet (nomen nudum): Dusmet y Alonso, 1935:48 (Spain: Madrid: Ribas de Jarama), 53 (Spain: Madrid: Río Alberche), 65 (Spain: Avila: Las Navas del Marqués).

*Oxybelus hispanicus* Giner Mari, 1943a:260, ♀, ♂ (authorship attributed to Mercet). Syntypes: Spain: Río Alberche, Ribas (IEE). Synonymized with *Oxybelus uniglumis* by Guiglia, 1953:129.

#### 248. *uralensis* Tsuneki

*Oxybelus deserticola* Tsuneki, 1972a:161, ♀, junior primary homonym of *Oxybelus deserticola* de Beaumont, 1950. Holotype: ♀, Mongolia: Central Aymag: Ulan Khodag (TMB). – R. Bohart and Menke, 1976:367 (listed).

*Oxybelus uralensis* Tsuneki, 1976:434. Substitute name for *Oxybelus deserticola* Tsuneki, 1972. – Dollfuss, 2008:498 (Mongolia: Gichigniy Nuruu Mountains: 10 km SW Talshand).

#### 249. *uturoae* Cheesman

*Oxybelus uturoae* Cheesman, 1928a:177, ♀, ♂. Syntypes: Society Islands: Raiatea and Bora-Bora (BMNH). – R. Bohart and Menke, 1976:370 (listed).

#### 250. *vardyi* R. Bohart

*Oxybelus vardyi* R. Bohart, 1993c:25, ♀, ♂. Holotype: ♀, Peru: Lima: Lurin (IML). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

#### 251. *varians* F. Morawitz

*Oxybelus varians* F. Morawitz, 1891a:211, ♀. Holotype or syntypes: European Kazakhstan: Mt. Bogdo (ZIN). – Dalla Torre, 1897:650 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:370 (listed); Kazenas, 2001b:38 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:93 (geographic distribution, collecting localities in Kazakhstan).

#### 252. *variegatus* Wesmael

*Oxybelus variegatus* Wesmael, 1852:628, ♀. Syntypes: ♀, Switzerland: Genève (Bruxelles). – F. Smith, 1856:386 (in catalog of Hymenoptera in British Museum); A. Costa, 1867c:150 (in revision of Italian Sphecidae); Gerstaecker, 1867a:94 (in revision of *Oxybelus*; Germany: Berlin area); Kirchner, 1867:223 (in catalog of European Hymenoptera); Chevrier, 1868:391 (in revision of Swiss *Oxybelus*); Kohl, 1880:143 (Austria: Tirol, and Italy: Trentino–Alto Adige); A. Costa, 1871b:79 (in revision of Italian Sphecidae); Kohl, 1881:56 (synonymy); Marquet, 1881:185 (France: Haute-Garonne: Toulouse); A. Costa, 1883:58 (Italy: Sardegna: montagna d'Aggius, Oschiri); Kohl, 1883c:663 (Switzerland); Baldini, 1894:73 (Italy: Modena area); Marquet, 1896:34 (in revision of *Oxybelus* of France); Dalla Torre, 1897:650 (in catalog of world Sphecidae, as *variegatus* Marquet); Chyzer, 1902:34 (Hun-



gary); Antiga and Bofill, 1904:28 (Spain: Cataluña Province); de Gaulle, 1908:121 (in catalog of French Hymenoptera); P. Verhoeff, 1948:198 (in revision of Western European *Oxybelus*); de Andrade, 1949:22 (Portugal); Fæster, 1949:27, 45 (in revision of Western European *Oxybelus*); de Beaumont, 1951h:35 (Switzerland: Neuchâtel area), 1952b:91 (Marquet's 1896 specimens); Guiglia, 1953a:111 (in revision of Italian *Oxybelus*); Nouvel and Ribaut, 1953:184 (France: Central Pyrénées: common in Garonne River valley); Blüthgen, 1954:148, 152 (in key to Central European *Oxybelus*), 154 (summary of locality records from Germany); de Beaumont, 1954e:98 (Italy); Grandi, 1954:245 (Italy); Bytinski-Salz, 1956:227 (Turkey: Istanbul); Ceballos, 1956:398 (in catalog of Sphecidae of Spain); Morel, Nouvel, and Ribaut, 1956:340 (France: Département des Pyrénées-Orientales); de Beaumont, 1957b:139 (n. Iran); Nouvel and Ribaut, 1958:17 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Puławski, 1958a:190 (Bulgaria: Kniazhevo near Sofia); Diniz, 1959:32 (Portugal: Lisboa); Suárez, 1959:60 (Spain: Almería Province); Wolf, 1959b:35 (known from Germany, but not from Nassau); Noskiewicz and Puławski, 1960:163, 165 (in key to Polish Sphecidae); de Beaumont, 1962b:29 (Spain); Grandi, 1962:99 (Italy); Ceballos, 1964:95 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:162 (in Sphecid Fauna of Switzerland), 1965a:63 (Greece); Bonelli, 1966c:221 (Italy: Trentino–Alto Adige: Montagna); Mingo Pérez, 1966:89 (in revision of *Oxybelus* of Iberian Peninsula); Balthasar, Hrubant, and Hrubant, 1967:170 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:366 (Turkey); Benedek, 1968:80 (Hungary, floral records); Benedek, 1969a:85 (Hungary: marshy meadow), 1970:105 (Hungary: Tapolca); de Beaumont, 1970a:404 (Afghanistan); Gauss and Perraudin, 1970:362 (Germany: Baden-Württemberg: Taubergiessen near Kappel am Rhein); Oehlke, 1970:798 (Democratic Germany); Stritt, 1971a:105 (Germany: Baden-Württemberg: Karlsruhe); Balthasar, 1972:161 (in Sphecid Fauna of Czechoslovakia); Erlandsson, 1974:88 (Italy, Spain, Yugoslavia); Scobiola-Palade, 1974:146 (first record from Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:370 (listed); Kolesnikov, 1977:321 (Russia: Bryansk Oblast'); Guichard, 1978:272 (Greece); Marion, 1978:91 (France: Nièvre Department); Pulawski, 1978:276, 278 (in key to Sphecidae of European part of former USSR); Benedek, 1979:237 (Hungary: Bakony Hills); Pagliano, 1980:120 (Italy: Piemonte); Gayubo, 1982b:16 (Spain: Ávila, Cáceres, and Salamanca provinces), 1882e:103 (Spain: Cádiz Province); Dollfuss, 1983b:13 (in catalog of Sphecidae of Austria); Józán, 1983:104 (Hungary); Schmidt and Westrich, 1983:124 (Greece); Gayubo, 1984b:92 (Spain: Salamanca Province), 1984c:376 (Portugal: El Algarve Province), 1985c:170 (Spain: Valladolid: Hornillos, Traspinedo, Valladolid); Józán, 1985b:58 (Hungary S Lake Balaton), 79 (floral records), 84 (ecological and zoogeographic characteristics); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Gayubo, 1986a:62 (Spain: Ciudad Real Province), 1986d:115 (Spain: Zamora Province); Gayubo and Heras, 1986:52 (Spain: Valladolid Province); Gayubo and Sanza, 1986:62 (Spain: Burgos); Gayubo and Tormos, 1986a:15 (Spain: Castellón de la Plana; prey: *Musca domestica* L.); Józán, 1986:371 (Hungary: Kiskunság National Park); Asís and Jiménez, 1987:27 (Spain: Castellón Province); Dollfuss, 1988:14, 26 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Karsai, 1988:100 (Hungary: Kiskunság National Park); Kowalczyk, 1988a:46 (Poland: Rogów), 1988b:66 (Poland: environs of Łódź); Jacobs, 1989:16 (Germany: Mecklenburg-Vorpommern); Józán, 1989:101 (Hungary: Tihany Nature Reserve); Pádr *in* Šedivy, 1989a:171 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:75 (Spain); Jacobs and Oehlke, 1990:123 (population regress in Democratic Germany after 1960), 178 (new records from Democratic Germany); Kuznetzova, 1990:25 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pagliano, 1990:80 (in catalog of Italian Sphecidae); Schwammlberger and Priesner, 1990:542 (Austria: Kärnten); Day, 1991:xvii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:133 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:405 (Italy); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Pagliano, 1991b:331, 332 (in key to Italian Crabroninae); Delarze, 1992:68 (Switzerland: Valais: Les Fol-latères); Gayubo, Borsato, and Osella, 1992:285 (France, Greece); Józán, 1992a:229 (Hungary: Béda-Karapanca Protected Area), 1992b:174 (Hungary: Boronka-melléki Protected Area), 1992c:289 (Hungary: Zselic Hills); Bitsch and Leclercq, 1993:265 (in revision of western European Crabroninae); Guichard, 1993b:531 and 533 (in

key to European *Oxybelus*); Leclercq, 1993c:50 (collecting localities from Europe and Turkey); Torregrosa, Gayubo, Tormos, and Asís, 1993:19 (Spain: Alicante Province); Blagoveshchenskaya, 1994:90 (Russia: Ulyanovsk Oblast'); Gayubo and Borsato, 1994:211 (Italy: Veneto); Schmid-Egger, 1994b:16 (Germany: conservation in upper Rhein area); Theunert, 1994c:46 (summary of records from Niedersachsen and Bremen, Germany); Tormos, Asís, and Gayubo, 1994:189, 213 (Spain: Albacete Province); Gusenleitner, 1995:161 (Austria: Steiermark); Negrisoló, 1995a:18 (visiting flowers of *Echinophora spinosa* L.), 22 (Italy: Veneto); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:6 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:88 (Italy: Ferrara Province); Saure and Dürrenfeld, 1995:29 (Germany: Brandenburg: Gabower Hänge near Bad Freienwalde); Schmid-Egger, Rich, and Niehuis, 1995:200 (summary of records from Germany: Rheinland-Pfalz Province); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Celary, 1997:59 (in checklist of Animals of Poland); Schmid-Egger and Niehuis, 1997:14 (Germany: Rheinland-Pfalz); Schmidt and Schmid-Egger, 1997:23 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:521 (Austria: summary of collecting records from Burgenland); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Gayubo, García, Torres, and González, 1999:90 (Spain: Soria Province); Salzmänn-Wandeler and Rezbanyai-Reser, 1999:101 (Switzerland: Tessin: Monte Generoso); Wickl, 1999a:107 (Germany: Bayern: Oberpfalz area), 1999c:201 (Germany: Bayern: near Freihung); Blösch, 2000:273 (in Sphecidae Fauna of Germany); Gayubo, González, and Torres, 2000:186 (Spain: Salamanca Province); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:107 (Greece); Jacobs, 2000:9, 17 (Germany: Land Mecklenburg-Vorpommern: endangered); Ljubomirov, 2000:11 (Bulgaria: specimens in N. Nedelkov collection); Schmid-Egger, 2000b:276, 280 (Germany: Baden-Württemberg: shores of Rhine River); Zettel, 2000:29 (Austria: Fürth, Hundsheimer Kogel); Ljubomirov, 2001b:51 (Bulgaria: Mount Vitosha near Sofia); Ohl et al., 2001:140 (distribution in Germany by provinces); Schmid-Egger, 2001:17 (France: Alsace: Bollenbergs), 19 (distribution in Germany); Zettel, Gross, and Mazzucco, 2001:74 (Austria: Wien); Drewes, 2003:140 (Germany: Bayern: Erlangen; Hungary: Harkany); Generani, Pagliano, Scaramozzino, and Strumia, 2003:65 (Italy: Arcipelago Toscano); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Gusenleitner, 2003:804 (Austria: Oberösterreich: Kappen SE Marchtrenk at 48°11'N 14°08'E); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:68 (in catalog of wasps and bees of Bayern, Germany); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Schmid-Egger, 2003:755 (Italy: Sicilia: Armerina); Wagemann, 2003:27 (Germany: Rheinland-Pfalz: Ebenberg Nature Reserve); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: no longer endangered); Gayubo et al. 2004:131 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Nicoli Aldini, 2004:254 (nesting habits); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); Wiśniowski, 2004:46 and 61 (in checklist of Polish Sphecidae); Gusenleitner, 2005:1204 (Austria: Oberösterreich: Gstocket N Alkoven at 48°18'N 14°07'E and Steyregg/Pulgarn at 48°16'58"N 14°23'14"E); Gayubo and Özbek, 2005:27 (Turkey: Erzurum: University campus, Palandöken, Turalý, Pasinler, Rabat; Kars: Akkurt); Pagliano and Negrisoló, 2005:216 (in Sphecidae Fauna of Italy); Shorenko, 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1799 (Turkey: Erzurum, Kars, and Niğde provinces); Ljubomirov, 2006:542 (Greece: previous records from Rhodope Mountains by Schmidt and Westrich, 1983, reported); Standfuss and Standfuss, 2006b:99 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Baños-Picón, Gayubo, Asís, and González, 2007:257, 259 (Spain: Zamora: Cabañas de Aliste); Jacobs, 2007:116, 120 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Shorenko, 2007b:258 (Ukraine: Crimea: Krasnoles'ye village in Simferopol District, Demerdzhy Mountain, Rybach'ye village in Alushta District, Pravda village in Pervomayskiy District); Vepřek and Straka, 2007:204 (in

catalog of Sphecidae of Czech Republic and Slovakia); Yildirim and Ljubomirov, 2007:120 (Turkey: Erzurum: Oltu); Danilov, 2008:350 (Russia: Altayskiy Kray: Barnaul area); Dollfuss, 2008:498 (locality records from Bulgaria, Croatia, France, Greece, Hungary, Italy, Iran, Kazakhstan, Kyrgyzstan, Moldova, Romania, Spain, Turkey, Turkmenistan, Ukraine, and Uzbekistan); Gayubo, González, Tormos, and Asís, 2008:139 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:256 (in catalog of Crabronidae of Turkey); Bitsch and Leclercq, 2009:230 (in supplement to vol. I of Faune de France, 1993: behavioral observations by Nicoli Aldini, 2004, reported; France: first record from Ardèche: Saint-Thomé; Isère: Saint-Laurent-de-Beaumont); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Guéorguiev and Ljubomirov, 2009:265 (Bulgaria: Maleshevska Planina); Schmid-Egger, 2010a:17 (in red list of Aculeata of Germany: rare).

*Oxybelus pulchellus* Gerstaecker, 1867a:65, ♂. Syntypes: ♂, (Germany: Berlin area (ZMHU). Synonymized with *Oxybelus variegatus* by Marquet, 1896:14 and Blüthgen, 1949:88. – Chevrier, 1868:412 (summary of diagnostic characters); Marquet, 1875:210 (France: Haute-Garonne: Toulouse); Kohl, 1880:143 (Austria: Tirol, and Italy: Trentino–Alto Adige); Marquet, 1881:185 (southern France); Kohl, 1883e:662 (Switzerland), 1884b:114 (in list of known *Oxybelus*); Krieger, 1894:11 (Germany: Kingdom of Saxony); Dalla Torre, 1897:646 (in catalog of world Sphecidae); Antiga and Bofill, 1904: (Spain: Cataluña Province); Kubes, 1905:84 (Czech Republic: Kolín); Schmiedeknecht, 1907:205 (in key to Hymenoptera of Central Europe); Schirmer, 1912:165 (recorded from Berlin area, Germany, by Gerstaecker, 1867); Alfken, 1914:275 (NW Germany: Baden, Hülsen); O. Meyer, 1919:150 (Germany: Posen Province, now Poland: Poznań Region); Stöckhert, 1919:39 (Germany: Franken); A. Wagner, 1920:38 (Germany: Lower Elbe region); ); Balles, 1934:17 (Germany: Baden-Württemberg: Mannheim-Rheinau); Dovnar-Zapolskiy, 1940:303 (Russia: Kursk Oblast', determination tentative); Szulczewski, 1950:103 (Poland: Wielkopolski National Park 15 km S Poznań); Ceballos, 1956:397 (in catalog of Sphecidae of Spain); Gauss, 1967:560 (Germany: Baden-Württemberg: Nördliches Rheinvorland); Stritt, 1968:110 (Germany: Baden-Württemberg, is a junior synonym of *Oxybleus variegatus*).

As *Oxybelus mandibularis*: Schirmer, 1912:165 (Germany: Berlin area), present correction based on synonymy with *variegatus*; de Beaumont, 1942b:428 (Switzerland).

### 253. *ventralis* W. Fox

*Oxybelus ventralis* W. Fox, 1894c:107, ♀. Holotype or syntypes: ♀, Mexico: Baja California Sur: San José del Cabo (CAS). – Dalla Torre, 1897:650 (in catalog of world Sphecidae); R. Bohart and Schlinger, 1956c:165 (in checklist of North American *Oxybelus*, as *ventrale*), 1957:117 (in revision of Californian *Oxybelus*, as *ventrale*); R. Bohart and Menke, 1976:370 (listed); Krombein, 1979b:1658 (in catalog of North American Hymenoptera); D. Peckham, 1985:865 (nesting habits); R. Bohart, 1993e:161 (listed, geographic distribution), 163 (in key to Central American and Caribbean *Oxybelus*); Amarante, 2002:45 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:664 (in checklist of Mexican Sphecidae); Dollfuss, 2008:499 (USA: Washington, Benton County: Prosser).

*Oxybelus manni* Rohwer, 1909a:117, ♀. Holotype or syntypes: ♀, USA: Washington: Pullman (USNM). Synonymized with *Oxybelus ventralis* by R. Bohart and Schlinger, 1956c:165. – Burks in Muesebeck et al., 1951:1032 (in catalog of North American Hymenoptera).

### 254. *verhoeffi* de Beaumont

*Oxybelus verhoeffi* de Beaumont, 1950f:415, ♀. Holotype: ♀, Algeria: Tadjemout (BMNH). – de Beaumont, 1953a:176 (Mauritania), 1956a:212 (Libya: Fezzan); R. Bohart and Menke, 1976:370 (listed); Guichard, 1990b:281 (United Arab Emirates, Oman); Leclercq, 1993c:50 (listed); Dollfuss, 2008:500 (Morocco: 10 km N Mhamid; Tunisia: Ghar el Melh 35 km SE Bizerte, Monastir-Skanes at 35°45'N10°44'E).

**255. wasbaueri R. Bohart**

*Oxybelus wasbaueri* R. Bohart, 1993c:25, ♀, ♂. Holotype: ♀, Ecuador: Carchi: Río Chota, 35 km on Ibarra-Tulcan section of Pan American Highway (UCD). – Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**256. willinki R. Bohart**

*Oxybelus willinki* R. Bohart, 1993d:75, ♀, ♂. Holotype: ♀, Argentina: Buenos Aires: Buenos Aires (UCD). – R. Bohart, 1993d:66 (in key to *uniglumis* and *scutellatus* groups in South America); Amarante, 2002:45 (in catalog of Neotropical Crabronidae).

**257. willowmorensis Arnold**

*Oxybelus willowmorensis* Arnold, 1927:99, ♀. Holotype: ♀, South Africa: Cape Province: Willowmore (TMP). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:370 (listed).

**258. woosnami Arnold**

*Oxybelus woosnami* Arnold, 1927:111, ♀ (as *Woosnami*, incorrect original capitalization). Holotype: ♀, Botswana: Lake Ngami (BMNH). Paratypes: South Africa: Pretoria. – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae), 1935a:502 (South Africa: Kalahari); R. Bohart and Menke, 1976:370 (listed); Dollfuss, 2008:500 (Namibia: Rundu).

**259. xanthogaster Pate**

*Oxybelus xanthogaster* Pate, 1938b:378, ♀. Holotype: ♀, East Malaysia (Borneo): Lebang: Hara (Mus. Hamburg according to original description, actually ANSP). – Pate, 1938b:393 (in list of Oriental Oxybelini); R. Bohart and Menke, 1976:370 (listed); H. Allen, 1995:16 (holotype in ANSP); Manikandan and Dey, 2001:265 (in checklist of Oriental *Oxybelus*).

**260. xerophilus R. Bohart and Schlinger**

*Oxybelus xerophilus* R. Bohart and Schlinger, 1956b:154, ♂ (as *xerophilum*, incorrect original termination). Holotype: ♂, USA: California: Inyo County: Stovepile Wells in Death Valley (CAS). – R. Bohart and Schlinger, 1956c:165 (in checklist of North American *Oxybelus*), 1957:115 (in revision of Californian *Oxybelus*, as *xerophilum*); Krombein, 1979b:1658 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:370 (listed); Krombein, 1979b:1658 (in catalog of North American Hymenoptera); Hook, 1998:251 (first record from Colorado: Weld County: Rogen); Ohl and Linde, 2003:151 (number of ovarioles, identification tentative).

**261. zavattarii Guiglia**

*Oxybelus zavattarii* Guiglia, 1943c:74, ♂ (as *Zavattarii*, incorrect original capitalization). Holotype: ♂, Ethiopia: Gamo Gofa: Gondaraba at 4°58'N 36°49'E (MSNG). – R. Bohart and Menke, 1976:370 (listed).

*Oxybelus zavattarii* Guiglia, 1950:259. Objective synonym of *Oxybelus zavattarii* Guiglia, 1943.

**262. zohnsteini Kazenas**

*Oxybelus zohnsteini* Kazenas, 2004a:210, ♂. Holotype: ♂, Kazakhstan: South Kazakhstan: 50 km SW village Bairkum at about 42°N 67°E (ZMMU).

**sp.**

Schrottky, 1908:48 (visiting flowers of *Petroselinum sativum* Hoffm.); Morice, 1911:133 (Algeria: Biskra); Rohwer, 1917a:241 (California: Santa Barbara); Dubois, 1919:96 (Belgium: Bruxelles: Uccle); Morice, 1921:824 (Iraq: Amara); von Schulthess, 1927:304 (Iraq: Basra); Bischoff, 1931:9 (Spain), 1933:4 (Morocco); Bondroit, 1934:62 (Belgium); Guiglia, 1939c:190 (Libya; *lamellatus* group), 1942b:235 (Libya; *lamellatus* group); Yasumatsu, 1942c:115 (China: Nei Mongol: Apaka at 44°N 114.96°E); Arnold, 1943:84 (Zaire: Albert National Park); de Beaumont, 1960c:172 (Afghanistan), 1963c:417 (Afghanistan), 1967b:512 (South Africa), 1970a:404 (Afghanistan); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Al-Ali, 1977:100

(Iraq: Baghdad, Basra); Guichard, 1980:228 (listed); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Hilchie, 1982:107 (Alberta: Empress); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Al-Houty, 1989:160 (Kuwait: Sobiya); Callan, 1991a:12 (Trinidad); Guichard, 1991a:340 (Jordan, sp. near *variegatus*); Amarante, 1993:20 (ne. Brazil); Cambra, 1993:16 (Peru: Pakitza, 11°57'S, 71°17'W); Snelling, 1993:19 (British Virgin Islands: Mona Island); Gonzáles, Gayubo, and Torres, 1999:355 (Spain: Valladolid: Viana de Cega, aff. *subspinosus*); Wetsching and Depisch, 1999:178 (pollinator of *Welwitschia mirabilis*); Gayubo, González, and Torres, 2000:186 (Spain: Salamanca Province); Skevington et al., 2001:128 (Canada: Ontario: Lambton County); Starr and Hook, 2003:19 (in catalog of Aculeata of Trinidad, West Indies); Kazenas, 2007a:91 (Kazakhstan: Akkala Oblast': Kurgandzhin Nature Reserve and vicinity, two species) Dollfuss, 2008:500-504 (16 species from Africa).

### NOMINA NUDA IN *OXYBELUS*

- Oxybelus antigae* Tournier: Antiga and Bofill, 1904:27 (Spain: Cataluña Province); Ceballos, 1956:396 (in catalog of Sphecidae of Spain).
- Oxybelus barrei* Radoszkowski: Kazenas, 2001b:37, 39 (Turkmenistan).
- Oxybelus concinnus* Stephens: Kirchner, 1867:223 (in catalog of European Hymenoptera).
- Oxybelus difficilis* Tournier: Destefani, 1894:216 (Italy: Sicilia), 1895:228 (in catalog of Sicilian Hymenoptera).
- Oxybelus duponti*: Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- Oxybelus eburneus* Dufour: Dours, 1874:153 (in catalog of French Hymenoptera); de Gaulle, 1908:121 (in catalog of French Hymenoptera).
- Oxybelus eburneofasciatus* Dufour: Dours, 1874:153 (in catalog of Hymenoptera of France).
- Oxybelus egregius* Kazenas, 2001b:37, 39 (in checklist of Sphecidae of Kazakhstan and Central Asia).
- Oxybelus hastatus* var. *schulthessi*: von Schulthess, 1926b:219 (Tunisia, authorship attributed to Kohl).
- Oxybelus genisei* R. Bohart: Amarante, 1993:20 (ne. Brazil).
- Oxybelus ornatus*: Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- Oxybelus pusillus*: Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- Oxybelus sericeomarginatus* Kohl: Ferton, 1912a:369 (Algeria, list of prey).
- Oxybelus siculus*: Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- Oxybelus trispinilabris* L. Dufour: Dours, 1874:153 (in catalog of Hymenoptera of France); de Gaulle, 1908:121 (in catalog of French Hymenoptera).
- Oxybelus trispinosulus* L. Dufour: Dours, 1874:153 (in catalog of Hymenoptera of France); de Gaulle, 1908:121 (in catalog of French Hymenoptera).
- Oxybelus vagabundus*: Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).
- Oxybelus zonatus*: Casolari and Casolari Moreno, 1980:120 (specimens in M. Spinola collection).

### SPECIES DESCRIBED IN *OXYBELUS* AND TRANSFERRED TO OTHER GENERA

- argenteolineatus* Cameron, 1890 = *Encopognathus*
- bellulus* Dalla Torre, 1897 = *Encopognathus*
- bellus* Cameron, 1890, nec Dahlbom, 1844 = *Encopognathus*
- cladothricis* Cockerell, 1895 = *Belomicrus*
- columbianus* Kohl, 1892 = *Belomicrus*
- forbesii* Robertson, 1889 = *Belomicrus*
- modestus* Kohl, 1892 = *Belomicrus*
- nitidus* Cameron, 1890 = *Entomognathus*

*obscurus* Kohl, 1892 = *Belomicrus*

*odontophorus* Kohl, 1892 = *Belomicrus*

*parvulus* Radoszkowski, 1877 = *Belomicrus*

*radoszkowskyi* Dalla Torre, 1897 = *Belomicrus*

*rufipes* in collection Fabricius = *Nomada* (Dahlbom, 1845:XXV)

*santschii* von Schulthess, 1925 = *Pseudomicroides*