

Last updated: 6 June 2010

## **LESTIPHORUS**

*Lestiphorus* Lepeletier de Saint Fargeau, 1832:70. Type species: *Crabro bicinctus* Rossi, 1794, junior primary homonym of *Crabro bicinctus* Fabricius, 1793 (a name suppressed by International Commission on Zoological Nomenclature, Opinion 675, 1963:331), validated in the same Opinion, by monotypy.

*Lestophorus* Agassiz, 1847:208. Emendation of *Lestiphorus* Lepeletier de Saint Fargeau, 1832.

*Hypomellinus* Ashmead, 1899d:299. Type species: *Gorytes rufocinctus* W. Fox, 1892 [= *Gorytes piceus* Handlirsch, 1888], by original designation.

*Mellinogastra* Ashmead, 1899d:300. Type species: *Gorytes mellinoides* W. Fox, 1895, by original designation.

Revisions: Nemkov, 1992a (Russia and adjacent countries).

Review of biology: Kazenas, 2001b:224.

### **1. *becquarti* (Yasumatsu)**

*Gorytes becquarti* Yasumatsu, 1943:13, ♂. Holotype: ♂, China: Kiangsi: Kuling (Heude Mus., Shanghai). – **As *Lestiphorus becquarti***: R. Bohart and Menke, 1976:506 (new combination, listed); Hua, 2006:280 (in list of Chinese insects, geographic distribution).

### **2. *bicinctus* (Rossi)**

*Crabro bicinctus* Rossi, 1794:123, sex not indicated, junior primary homonym of *Crabro bicinctus* Fabricius, 1793 (a name suppressed by International Commission on Zoological Nomenclature, Opinion 675, 1963:331), validated in the same Opinion. Holotype or syntypes: Italy: Etruria, now Toscana: : no specific locality (lost). – Lepeletier de Saint Fargeau and Brullé, 1835:808 (discussion of species identity). – **As *Gorytes bicinctus***: Vander Linden, 1829:95 (new combination, bibliographic references, Belgium: Bruxelles, description); Curtis, 1834:pl.524 (illustration of habitus, antennae, and mouthparts); Shuckard, 1837a:219 (in revision of British Aculeata); F. Smith, 1856:361 (in catalog of Hymenoptera in British Museum); Kohl, 1880:171 (Austria: Tirol: Amras, now part of Innsbruck; Italy: Trentino-Alto Adige: Riva del Garda); Handlirsch, 1888b:453 (in revision of world Bembicinae); Kohl, 1888b:727 (Austria: Tirol, now Italy: Trentino – Alto Adige: Riva), 1893:27 (Austria: Niederösterreich: Wien); Dalla Torre, 1897:537 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary: Pregrada in today's Croatia); de Cobelli, 1903:113 (Italy: Trentino – Alto Adige: Riva); Martineau, 1904:46 (England: Budleigh Salterton); Mercet, 1906a:130 (in key to Spanish *Gorytes*); Schmiedeknecht, 1907:222 (in key to Hymenoptera of Central Europe); Frisby, 1907:159 (Great Britain: Surrey: Redhill); Dittrich, 1911b:23 (Germany: Niederschlesien Province: Wernersdorf and Reichenstein, now Poland: Dolny Śląsk Region: Wojnarowice and Złoty Stok); Graeffe, 1911:46 (Italy: Trieste area, as *bicinetus*); Birula, 1912:540 (Ukraine: Zhytomyr Oblast': Radomyshl'); Zilahi Kiss, 1915:80 (Hungary: Boksánbánya); Dubois, 1921c:202, 204 (in key to Belgian Sphecidae); Berland, 1925d:90 (in Sphecidae Fauna of France); Friese, 1926:160 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Schmiedeknecht, 1930:684 (in keys to Hymenoptera of North and Central Europe); Zavadil, 1932:96 (Czechoslovakia); Bernard, 1934b:249 (prey: *Philaenus spumarius* Linnaeus); Crèvecoeur and Maréchal, 1936:253 (in catalog of Belgian Hymenoptera); Zavadil, Šusterka, and Bat'a, 1937:192 (in catalog of Sphecidae of Czechoslovakia); van Lith, 1938:122 (Netherlands: Limburg: Aalbeek); A. Wagner, 1938a:121 (northwestern Germany); Maidl and Klima, 1939:104 and 106 (in catalog of world Astatinae and Bembicinae); Benno, 1943:67 (Netherlands: Babberich); Giner Marí, 1943a:173 (in Sphecidae Fauna of Spain); Balthasar, 1945:115 (Czech Republic: southeastern Morava Region); Šnoflak in Zavadil and Šnoflak, 1948:74 (in key to Sphecidae of Czechoslovakia); Ceballos, 1949:101 (Spain); de Beaumont, 1951g:307 (Italy); Leininger, 1951:117 (Germany: Baden-Württemberg: Sandhausen); Scobiola, 1951:273 (first record from Romania: Cișmigiu-

București); Caruel, 1952b:101 (France: Marne Department); de Beaumont, 1954e:88 (Italy); Grandi, 1954:231 (Italy); Aerts, 1955:62 (Germany: Rheinland); Vergne, 1955:4 (France: Auvergne); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:381 (in catalog of Hymenoptera of Spain); Bajári, 1957a:100 (in key to Hungarian Sphecidae); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Pfalz region); de Beaumont, 1959a:22 (Italy); Noskiewicz and Puławski, 1960:96 (in key to Polish Sphecidae); de Beaumont, 1964c:51 (in Sphecid Fauna of Switzerland); Scobiola-Palade, 1967b:48 (Romania); Benedek, 1968:72 (Hungary, visiting flowers of *Pastinaca sativa* L.); Scobiola-Palade, 1968c:384 (Romania: București, Budești); Stritt, 1968:110 (Germany: Baden-Württemberg); Lefeber, 1969c:233 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Stritt, 1969:131 (Germany: Baden-Württemberg: Karlsruhe); Zangheri, 1969:1701 (Italy: in catalog of flora and fauna of Romagna Region); Haeseler, 1970:73 (Germany: Schleswig-Holstein); Oehlke, 1970:695 (Democratic Germany); Hoop, 1971:83 (Germany: Schleswig-Holstein: Eggstedt, Flemhude, Kiel, Kiel-Eihof, Kronshagen); Schmidt, 1971c:73 (Germany: Schleswig-Holstein); Stritt, 1971a:104 (Germany: Baden-Württemberg: Karlsruhe); Balthasar, 1972:317 (in Sphecid Fauna of Czechoslovakia); Haeseler, 1972:155 (Germany: Schleswig-Holstein; anthropogenic habitats), 1973:53 (Germany: Schleswig-Holstein: Bad Schwartau N Lübeck); Gauss, 1974:199 (Germany: Baden-Württemberg: Witten Valley); Lefeber, 1975b:156 (Belgium); Eck, 1976:90 (Democratic Germany); Lefeber, 1976:151 (Netherlands: Weerselo); Guichard, 1977:254 (Great Britain: Surrey); Haeseler, 1977a:23 (Germany: Schleswig-Holstein: Hundsmühlen 5 km SW Oldenburg, Schleswig); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:200 (in key to Sphecidae of European part of former USSR); Benedek, 1979:230 (Hungary: Bakony Mountains); Lefeber, 1979:11 (in checklist of Sphecidae of Netherlands), 43 (Netherlands: distribution map); Richards, 1979:401 (British Channel Islands), 1980:80 (in key to Sphecidae of British Isles); Skibińska, 1982:119, 123 (Poland: Mazovian Voivodship: Ursynów, Wola Mrokowska, Warszawa); Verdcourt, 1982:99 (Great Britain: Surrey: Kew Botanic Gardens); Skibińska, 1986b:157 (Poland: Warszawa area: rural and suburban parks), 160 (gardens), 162 (urban parks), 164 (streetside green), 174 (various green urban habitats); Pádr *in* Šedivy, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Kowalczyk, 1990:291 (Poland: Góry Świętokrzyskie); Pádr, 1990:70 (Czech Republic: Praha area); Jakubzik, 1991:74 (Germany: Köln); Delarze, 1992:67 (Switzerland: Valais: Les Follaterres); Harvey and Plant, 1996:80 (Great Britain: summary of records from Essex); Denton, 1998:350 (England: Hampshire). – **As *Hoplissus bicinctus***: Kirschbaum, 1853:45 (new combination, Germany: Herzogtum Nassau: Mainz-Mombach); Taschenberg, 1875:369 (in collection of Zoological Museum of Halle University, Germany); Harwood, 1884:211 (England: Essex: Colchester area); R. Perkins, 1924a:228 (Great Britain: Devon); Guichard, 1939a:43 (Britain: southern Cornwall: Polperro); Spooner, 1943:74 (Great Britain); Bradley, 1957:49 (Lepeletier's specimens); Yeo, 1957:20 (England: Middlesex, now in London); Felton, 1959:244 (Great Britain: Surrey: Woking); Guichard, 1972:245 (England: London: Bushey Park); Andrewes, 1975:104 (England: Somerset); Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Tyrner, 1987:232 (Czech Republic). – **As *Lestiphorus bicinctus***: Lepeletier de Saint Fargeau, 1832:70 (new combination, in revision of world Hymenoptera); Wesmael, 1839:79 (contact area of gastral segments I and II crenulate); Herrich-Schaeffer, 1840:291 (Germany: Bayern: Regensburg area); Dahlbom, 1843:156 (in revision of Sphecidae and Pompilidae), 1845:480 (in key to world Bembicinae); Lepeletier de Saint Fargeau, 1845:73 (in revision of world Hymenoptera); Wesmael, 1852:107 (Belgium); A. Costa, 1858:19 (Italy: Campania: Monti Partenii in Benevento Region), 1859:39 (in revision of Sphecidae of Kingdom of Naples, Italy), 1967c:59 (in revision of Italian Sphecidae); Kirchner, 1867:219 (in catalog of European Hymenoptera); A. Costa, 1869b:75 (in revision of Italian Sphecidae); Dours, 1874:150 (in catalog of Hymenoptera of France); Kohl, 1883e:667 (Switzerland); Sickmann, 1883:83 (Germany: Niedersachsen: Wellingholthausen); Radoszkowski, 1892:5583 (male genitalia); Acloque, 1897:84 (in Sphecid Fauna of France and Algeria); de Gaulle, 1908:120 (in catalog of French Hymenoptera); A. Wagner, 1920:33 (Germany: Lower Elbe region); Blüthgen, 1929:83 (Germany: Saale River valley: Naumburg); Hamm and Richards, 1930:103 (nesting habits unknown); Bondroit, 1932:32 (Belgium: Uccle), 1933:26 (*Lestiphorus bicinctus* of Lepeletier should have a new name); Blüthgen, 1937:236 (Germany: Saale River valley: Naumburg), 1942:10

(Germany: Sachsen: known from Saal Valley but not from Kyffhäuser); Cavro, 1950:35 (France: Département du Nord); Nouvel and Ribaut, 1953:178 (France: Haute-Garonne: Saint-Béat); Benno, 1958b:11 (in review of Dutch Sphecidae); Wolf, 1959b:31 (Germany: Nassau); Benno, 1961 (Netherlands: Babberich), 1963:104 (Netherlands: Babberich); Benno, 1966<sup>7</sup>:7 (flight period in Netherlands); Evans, 1966d:69 (summary of known behavior, nest parasite: *Nysson trimaculatus*); Lefeber, 1966:209 (Netherlands: Bemelen, St. Pietersberg); Benno, 1967:34 (in checklist of Sphecidae of Netherlands); Wolf, 1968:11 (Germany: Nordrhein-Westfalen: Siegen, inhabitant of forest edge); R. Bohart and Menke, 1976:506 (listed); Leclercq, 1978b:map 1190 (distribution in Belgium); Marchal and Leclercq, 1979:11 (Belgium: Gembloux); Schmidt, 1979b:351 (Germany); Jacob-Remacle and Leclercq, 1980:194 (Belgium: gardens in Liège); Dollfuss and Ressler, 1981:317, 324 (Austria: Niederösterreich: Scheibbs District); Gayubo, 1982b:45 (Spain: Salamanca: Béjar); Leclercq, 1982a:125 (Belgium: Liège); Dollfuss, 1983a:77 (endangered in Niederösterreich, Austria), 78 (endangered in Burgenland, Austria), 78 (endangered in Oberösterreich, Austria), 79 (endangered in Kärnten, Austria), 80 (endangered in Steiermark, Austria), 81 (endangered in Vorarlberg, Austria), 1983b:23 (in catalog of Sphecidae of Austria); Riemann, 1983:84 (Germany: Bremen-Daverden area); Steinmann, 1983:164 (Switzerland: Graubünden Canton, nesting next to wood buildings); Chevin and Silvestre de Sacy, 1984:10 (France: Yvelines Department); Haack, Tschardtke, and Vidal, 1984:129 (Germany: Hamburg area); Lefeber, 1984:29 (Netherlands: Maastricht); Schmidt and Westrich, 1984:240 (Germany: Rheinland Pfalz: Bad Münster); Józán, 1985b:61 (recorded from Balatonszemes by Bajári, 1957), 71 (map of distribution in Hungary), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Dollfuss, 1987:24 (Austria); Holtappels, 1987:26 (Germany: Nordrhein Westfalen: Effelder Waldsee); Schmidt and Westrich, 1987:360 (Germany: Mainz area); Chevin, 1988:16 (France: La Manche Department); Jacobs and Oehlke, 1990:213 (new records from Democratic Germany); Pagliano, 1990:74 (in catalogue of Italian Sphecidae); Schwammerberger and Priesner, 1990:552 (Austria: Kärnten); Day, 1991:xvi (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:202 (in key to Sphecidae of North and Central Europe); Kowalczyk, 1991a:89, 100, 101, 105 (Poland: Łódź); Sorg and Wolf, 1991:195 (Germany: Koppelstein Reserve SE Koblenz); Nemkov, 1992a:936 (in revision of *Lestiphorus* of Russia and adjacent countries); Pagliano, 1992:42 (in key to Italian Nyssoninae); Archer, 1993:46 (Great Britain: Channel Islands); Kuhlmann, 1993:75 (Germany: known from Westfalen); Sorg and Wolf, 1993:60 (Germany: Rheinland-Westfalen: Nature Reserve Die Spey); Dollfuss, 1994:102 (endangered in Austria); Felton and Schneider, 1994:290 (Luxembourg); Kowalczyk, 1994:73 (Poland: Łagiewniki forest in Łódź); Theunert, 1994c:42 (summary of records from Niedersachsen and Bremen, Germany); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Negrisola *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Saure and Dürrenfeld, 1995:29 (Germany: Brandenburg: Gabower Hänge near Bad Freienwalde); Scharrer, 1995:29 (Germany: Baden-Württemberg: Büchelberg); Schmid-Egger, Risch, and Niehuis, 1995:192 (summary of records from Germany: Rheinland-Pfalz State); Arens, 1996:442 (Germany: Bayern: Bayreuth area); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Jakubzik, 1996:252 (Germany: Köln); Jakubzik and Cölln, 1996b:399 (Germany: Rheinland-Pfalz); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: probably endangered); Voblenko, Gorobchishin, and Nesterov, 1996:15 (Ukraine: Polesye Region); Woydak, 1996:96 (Germany: Westfalen: summary of distribution and nesting habits); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:232 (in Sphecid Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Lauterbach, 1997c:86 (Germany: Nordrhein-Westfalen: Bielefeld); Pagliano and Alma, 1997:179 (known prey listed); Schmidt and Schmid-Egger, 1997:16 (in checklist of German Sphecidae); Standfuss and Woydak, 1997:20 (Germany: Dortmund); Dollfuss, Gusenleitner, and Bregant, 1998:524 (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, 1998b:260 (Belgium: Wonck); van der Smissen, 1998:61 (Germany: Schleswig-Holstein); K. Weber, 1998:142 (Germany: Bayern: Bamberg area); Hermann, 1999:7 (Germany: Niedersachsen: Oldenburg area; habitats size); Kuhlmann, Wolf, and Woydak, 1999:569 (strongly endangered in Nordrhein-Westfalen State of Germany);

Ljubomirov, 1999b:57 (Bulgaria: Mt. Vitosha near Sofia); Majzlan, Rychlík, and Deván, 1999:146 (Slovakia: Čenkovská Step Nature Reserve); Neumayer, Schwarz, and Bregant, 1999:224 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:111 (in catalog of Belgian aculeates); Riemann, 1999:835 (Germany: Niedersachsen: sand pits near Bremen); Blösch, 2000:387 (in Sphecidae Fauna of Germany); Jacobs, 2000:8, 17 (Germany: Land Mecklenburg-Vorpommern: probably endangered); Kuhlmann, 2000:64 (Germany: Hessen: Diemel River valley); Ljubomirov, 2000:12 (Bulgaria, specimens in N. Nedelkov collection); Ohl et al., 2001:139 (distribution in Germany by provinces); Tischendorf, 2001:30 (Germany: first record from Hessen: Kühkopf-Knoblochsaue Nature Reserve); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien); Beavis, 2002:111 (Great Britain: Kent: Tunbridge Wells area); Kowalczyk, Szczepko, and Świątek, 2002:155 (Poland: Kampinos National Park near Warszawa); Shlyakhtenok and Skibinska, 2002:35 (Belarus: no specific locality); Cölln, Esser, and Jakubzik, 2003:62 (Germany: northwestern Rheinland-Pfalz: excavation sites and quarries); Drewes, 2003:138 (France: Bretagne: near Plouescat); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Haeseler, 2003:339 (Germany: Niedersachsen: Harriersand Island near Bremen); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:67 (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); von der Heide and Metscher, 2003:102 (Germany: Niedersachsen: Emsland area); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Gayubo et al. 2004:130 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Jakubzik, Niehuis, and Cölln, 2004:458 (Germany: Rheinland-Pfalz: Roßstein in Rhein valley at 50°06'42"N 7°43'87"E); Schneider and Carrières, 2004:98 (Luxemburg: Bon-Pays Region); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: last collected before 1942); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:51 and 62 (in checklist of Polish Sphecidae); Gayubo and Özbek, 2005:19 (first record from Turkey: Erzurum: Tortum); Gusenleitner, 2005:1204 (Austria: Oberösterreich: Böhmendorf NW Reichenthal at 48°33'N 14°21'E); Haeseler, 2005:629 (Germany: Niedersachsen: Steller Heide near Bremen); Pagliano and Negrisolo, 2005:167 (in Sphecidae Fauna of Italy); Riemann and Hohmann, 2005:559 (Germany: Niedersachsen: city of Bremen and adjacent area); Theunert, 2005a:17 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1792 (Turkey: Şenkaya); Standfuss and Standfuss, 2006a:86 (Germany: Nordrhein-Westfalen: Dortmund); Baños-Picón, Gayubo, Asís, and González, 2007:255, 258 (Spain: Zamora: Cañas de Aliste); Evans and O'Neil, 2007:59 (summary of information on nesting habits); Jacobs, 2007:178 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Venne, Bleidorn, and Lauterbach, 2007:301 (Germany: Nordrhein-Westfalen: Bielefeld); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Haeseler, 2008:308 (Germany: Friesian Islands); Ljubomirov and Yildirim, 2008:93 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); U. Frommer, 2009a:27 (Germany: in checklist of Sphecidae of Hessen); Nemkov, 2009b:138 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: relatively common).

### 3. *bilunulatus* A. Costa

*Lestiphorus bilunulatus* A. Costa, 1867c:59, ♂. Holotype: ♂, Italy: Piemonte: Canavese (NAPOLI). – A. Costa, 1871c:95 (comparison with *Lestiphorus bicinctus*), pl. III fig. 4 (color illustration); Kohl, 1883e:667 (Switzerland); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Dubois, 1920:88 (specimen in coll. Wesmael); Blüthgen, 1942:10 (Germany: Sachsen: known from Saal Valley but not from Kyffhäuser); Wolf, 1959b:31 (known from Germany, but not from Nassau); R. Bohart and Menke, 1976:506 (listed); Schmidt, 1979b:351 (Germany); Kazenas, 1980e:82 (Russia: Primorskiy Krai and Sakhalin); Dollfuss and Ressler, 1981:317, 324 (Austria: Niederösterreich: Scheibbs District); Dollfuss, 1983a:76 (endangered in Niederösterreich, Austria), 1983b:23 (in catalog

of Sphecidae of Austria); Józán, 1985b:61 (Hungary S Lake Balaton), 71 (map of distribution in Hungary), 81 (floral records), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Jacobs and Oehlke, 1990:213 (the only record from Democratic Germany is Blüthgen, 1942); Schwammberger and Priesner, 1990:552 (Austria: Kärnten); Day, 1991:xvi (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:202 (in key to Sphecidae of North and Central Europe); Gusenleitner, 1992:688 (Austria: Burgenland); Józán, 1992c:290 (Hungary: Zselic Hills); Nemkov, 1992a:936 (in revision of *Lestiphorus* of Russia and adjacent countries), 1992b:250 (Russia: Far East: Khingan Nature Reserve); Pagliano, 1992:42 (in key to Italian Nyssoninae); Dollfuss, 1994:99 (endangered in Austria); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:465 (in key to Sphecidae of Russian Far East); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: probably endangered); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:232 (in Sphecid Fauna of Western Europe); Schmidt and Schmid-Egger, 1997:17 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:524 (Austria: summary of collecting records from Burgenland); Blösch, 2000:387 (in Sphecid Fauna of Germany); Gusenleitner, 2000:955 (Austria: first record from Steiermark Province); Ohl et al., 2001:139 (distribution in Germany by provinces); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Nemkov, 2005a:160 (Russia: Sakhalin Island); Pagliano and Negrisoló, 2005:167 (in Sphecid Fauna of Italy); Jacobs, 2007:178 (in key to Crabronidae of Germany); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Moravia and Slovakia); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Zettel, Wiesbauer, and Zimmermann, 2008:137 (Austria: Niederösterreich: Donauauen); Nemkov, 2009b:138 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia). – *As Gorytes bilunulatus*: Handlirsch, 1888b:451 (new combination, in revision of world Bembicinae); Kohl, 1888b:727 (Austria: Tirol: Bozen, now Italy: Alto Adige: Bolzano), 1893:27 (Austria: Niederösterreich: Piesting); Dalla Torre, 1897:538 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, Mehadia, now in Romania); Schmiedeknecht, 1907:222 (in key to Hymenoptera of Central Europe); Dubois, 1921c:203, 204 (in key to Belgian Sphecidae); Berland, 1925d:90 (in Sphecid Fauna of France); Schmiedeknecht, 1930:684 (in keys to Hymenoptera of North and Central Europe); Gussakovskij, 1932:29 (Russia: Primorskiy Kray); Zavadil, Šusterka, and Bat'a, 1937:192 (in catalog of Sphecidae of Czechoslovakia); Maidl and Klima, 1939:105 (in catalog of world Astatinae and Bembicinae); Šnoflak *in* Zavadil and Šnoflak, 1948:74 (in key to Sphecidae of Czechoslovakia); Steiner, 1955:145 (France: Dordogne); Vogrin, 1955:35 (Yugoslavia); Bajári, 1957a:100 (in key to Hungarian Sphecidae, not yet found in Hungary); Noskiewicz and Puławski, 1960:97 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1964c:51 (in Sphecid Fauna of Switzerland); Scobiola-Palade, 1967b:48 (Romania), 1968c:384 (Romania: București); Oehlke, 1970:695 (not recorded from Democratic Germany); Balthasar, 1972:318 (in Sphecid Fauna of Czechoslovakia); Gauss, 1974:199 (Germany: Baden-Württemberg: Gerold valley near Kirchzarten); Kazenas, 1978b:73 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:200 (in key to Sphecidae of European part of former USSR); Lefeber, 1979:11 (in checklist of Sphecidae of Netherlands), 44 (Netherlands: distribution map); Pádr *in* Šedivy, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: extinct, last collected in 1971).

*Lestiphorus bilunulatus* A. Costa, 1869b:75. Objective synonym of *Lestiphorus bilunulatus* A. Costa, 1867c:59.

*Gorytes semistriatus* Schmiedeknecht, 1881:286, ♂. Holotype: Germany: Thüringen: Gumperda (depository unknown). Synonymized with *Gorytes bilunulatus* by Kohl, 1883e:667 and Handlirsch, 1888b:451

### **ssp. yamatonis Tsuneki**

*Lestiphorus bilunulatus yamatonis* Tsuneki, 1963a:9, ♀. Holotype: ♀, Japan: Nikko (originally K. Tsuneki coll., now Hyogo Mus.). – Tsuneki, 1963a:2 (in key to Gorytini of Japan and Korea), 1963h:54 (Japan: locality records),

1965c:29 (in key to Bembicinae of Japan and Korea); Itami, 1968b:17 (Japan), 1969:47 (Japan: Niigata Prefecture); Tsuneki, 1982b:18 (known from Korea); R. Bohart and Menke, 1976:506 (listed); Tano, 1994a:8 (holotype in K. Tsuneki coll.); Hashimoto and Nakanishi, 1997:24 (holotype transferred to Hyogo Mus.); Haneda, Nosaka, Tano, Kurokawa, and Murota, 2004:38 (Japan: Gifu Prefecture); Suda, 2004:46 (Japan: Yamanashi Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2005:54 (Japan: Gifu Prefecture), 2006:30 (Japan: Toyama Prefecture);

#### 4. *cockerelli* (Rohwer)

*Gorytes cockerelli* Rohwer, 1909f:371, ♂. Holotype: ♂, USA: Colorado: Boulder: University Campus (USNM). – **As *Lestiphorus cockerelli***: Pate, 1946e:212 (new combination, in revision of North American *Lestiphorus*); Krombein in Muesebeck et al., 1951:988 (in catalog of North American Hymenoptera); Krombein, 1958a:52 (USA: West Virginia: Lost River State Park); R. Bohart and Menke, 1976:506 (listed); Krombein, 1979b:1696 (in catalog of North American Hymenoptera); Finnamore, 1982:224 (in Sphecidae Fauna of Southern Quebec); Kurczewski and Miller, 1991:254 (Pennsylvania: Erie County; prey: *Acanalonia bivittata* (Say), a homopteran); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada), 31 (distribution within Ontario), 66 (first records from New Brunswick and Ontario: list of localities).

*Mellinogastra williamsi* Mickel, 1916a:402, ♂. Holotype: ♂, USA: Nebraska: Omaha (UNL). Synonymized with *Lestiphorus cockerelli* by Pate, 1946e:212. – Mickel, 1918b:395 (in catalog of Nebraskan Sphecidae); Muma, 1952:19 (holotype in UNL). – **As *Gorytes williamsi***: Maidl and Klima, 1939:106 (new combination, in catalog of world Astatinae and Bembicinae, in subgenus *Lestiphorus*).

#### 5. *densipunctatus* (Yasumatsu)

*Gorytes densipunctatus* Yasumatsu, 1943:19, ♀. Holotype: ♀, China: Kiangsi: Kuling (Heude Mus., Shanghai). – **As *Lestiphorus densipunctatus***: R. Bohart and Menke, 1976:506 (new combination, listed); Wu and Zhou, 1996a:146 (in revision in Economic Insect Fauna of China); Hua, 2006:280 (in list of Chinese insects, geographic distribution).

#### 6. *egregius* (Handlirsch)

*Gorytes egregius* Handlirsch, 1893b:278, ♂. Holotype: ♂, Armenia: Arax valley (NHMW). – Handlirsch, 1895:911 (in revision of world Bembicinae); Dalla Torre, 1897:541 (in catalog of world Sphecidae); Maidl and Klima, 1939:105 (in catalog of world Astatinae and Bembicinae); Dollfuss, 1989:10 (holotype in NHMW). – **As *Lestiphorus egregius***: R. Bohart and Menke, 1976:506 (new combination, listed); Nemkov, 1992a:938 (in revision of *Lestiphorus* of Russia and adjacent countries).

#### 7. *greenii* (Bingham)

*Gorytes greenii* Bingham, 1896a:444, ♀. Holotype: ♀, Sri Lanka: Central Province: Nuvara Eliya District: Pundaluoya (BMNH). – Bingham, 1897:272 (redescription; as *greeni*); Maidl and Klima, 1939:64 (in catalog of world Astatinae and Bembicinae, as *greeni*). – **As *Lestiphorus greenii***: R. Bohart and Menke, 1976:506 (new combination; listed); Krombein, 1985a:21 (redescription).

#### 8. *icariiformis* (Bingham)

*Gorytes icariiformis* Bingham, 1908:356, ♀. Holotype: ♀, India: no specific locality (BMNH). – Ramakrishna Aiyar, 1916:556 (in catalog of Indian aculeates described after Bingham, 1897); Maidl and Klima, 1939:64 (in catalog of world Astatinae and Bembicinae). – **As *Lestiphorus icariiformis***: R. Bohart and Menke, 1976:506 (new combination, listed).

#### 9. *mellinoides* (W. Fox)

*Gorytes mellinoides* W. Fox, 1896a:524, ♀. Holotype or syntypes: ♀, USA: Texas: no specific locality (ANSP). – Maidl and Klima, 1939:105 (as synonym of *Gorytes bicinctus*). – **As *Mellinogastra mellinoides***: Ashmead,

1899:300 (new combination, in checklist of North American Crabronidae); Mickel, 1918b:395 (in catalog of Nebraskan Sphecidae). – **As *Lestiphorus mellinoides***: Krombein, 1939:143 (new combination, New York State); Pate, 1946e:212 (in revision of North American *Lestiphorus*); R. Bohart and Menke, 1976:506 (new combination, listed); Krombein, 1979b:1696 (in catalog of North American Hymenoptera); .

#### 10. *mimicus* (Arnold)

*Arpactus mimicus* Arnold, 1931:206, ♂. Holotype: ♂, Namibia: Aus (BMNH). – **As *Gorytes mimicus***: Moidl and Klima, 1939:54 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Lestiphorus mimicus***: R. Bohart and Menke, 1976:506 (new combination, listed).

#### 11. *oreophilus* (Kuznetsov-Ugamskij)

*Gorytes oreophilus* Kuznetsov Ugamskij, 1927:246, ♂. Lectotype: ♂, Uzbekistan: Min-Bulak, 65 km NE Tashkent (ZIN), designated by Nemkov, 1992a:938. – Moidl and Klima, 1939:54 (in catalog of world Astatinae and Bembicinae); Kazenas, 1978b:73 (in key to Sphecidae of Kazakhstan and Central Asia, as *oreophitus*). – **As *Lestiphorus oreophilus***: R. Bohart and Menke, 1976:506 (new combination, listed); Kazenas, 1986:238 (rare in Kazakhstan, needs protection); Nemkov, 1992a:938 (in revision of *Lestiphorus* of Russia and adjacent countries); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia); Kazenas and Esenbekova, 2001:135 (Kazakhstan: Almatinskiy Nature Reserve); Kazenas, 2002a:123 (geographic distribution, collecting localities in Kazakhstan), 2004b:110 (Kazakhstan: western Tien Shan), 2008a:105 (Southeastern Kazakhstan: 5-8 km S, 5 km SW, 10-12 and 40 km W Alma Ata 4 km S Talgar).

#### 12. *pacificus* (Gussakovskij)

*Gorytes pacificus* Gussakovskij, 1932:29, ♀. Lectotype: ♀, Russia: Primorskiy Kray: Maykhe River in Shkotov District near Vladivostok (ZIL), designated by Nemkov, 1992a:937. – Moidl and Klima, 1939:105 (in catalog of world Astatinae and Bembicinae). – **As *Lestiphorus pacificus***: R. Bohart and Menke, 1976:506 (new combination, listed); Kazenas, 1980e:83 (Russia: Far East); Nemkov, 1992a:937 (in revision of *Lestiphorus* of Russia and adjacent countries); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:465 (in key to Sphecidae of Russian Far East); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia), 2009a:66 (is an endemic of Russian Far East), 2009b:139 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia).

#### 13. *peregrinus* (Yasumatsu)

*Gorytes peregrinus* Yasumatsu, 1943:10, ♂, ♀. Holotype: China: Beijing (Heude Mus., Shanghai). – **As *Lestiphorus peregrinus***: R. Bohart and Menke, 1976:506 (new combination, listed); Hua, 2006:280 (in list of Chinese insects, geographic distribution).

#### 14. *persimilis* (R. Turner)

*Gorytes persimilis* R. Turner, 1926b:200, ♀. Syntypes: Peninsular Thailand: Nakon Sri Tamarat: Khao Ram (BMNH). – Moidl and Klima, 1939:64 (in catalog of world Astatinae and Bembicinae, in subgenus *Ammatomus*). – **As *Lestiphorus persimilis***: R. Bohart and Menke, 1976:506 (new combination, listed).

#### 15. *philippinicus* Tsuneki

*Lestiphorus philippinicus* Tsuneki in Tsuneki et al., 1992c:3, ♂. Holotype: ♂, Philippines: Mindanao: Cagayan de Oro, Makahambus Cave (USNM). – Nuhn and Menke, 1994:26 (holotype in USNM).

#### 16. *piceus* (Handlirsch)

*Gorytes piceus* Handlirsch, 1888b:455, ♂. Holotype: ♂, Canada: British Columbia: Revelstocke (NHMW). – W. Fox, 1896a:524 (in revision of North American *Gorytes*); Dalla Torre, 1897:549 (in catalog of world Sphecidae); Ashmead, 1899d:329 (in checklist of North American Crabronidae, generic placement tentative); Moidl and Klima, 1939:106 (in catalog of world Astatinae and Bembicinae); Dollfuss, 1989:10 (type series in NHMW). – **As *Hypomellinus piceus***: Ashmead, 1899d:300 (tentative new combination, in checklist of North American Crabronidae).

dae). – **As *Lestiphorus piceus***: Pate, 1946e:213 (new combination, in revision of North American *Lestiphorus*); Krombein in Muesebeck et al., 1951:988 (in catalog of North American Hymenoptera); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:506 (listed); Krombein, 1979b:1696 (in catalog of North American Hymenoptera).

*Gorytes rufocinctus* W. Fox, 1892:153, ♀. Holotype: ♀, USA: Washington: no specific locality (ANSP). Synonymized with *Lestiphorus piceus* by Pate, 1946e:213. – Handlirsch, 1895:913 (original description translated into German); W. Fox, 1896a:524 (in revision of North American *Gorytes*); Dalla Torre, 1897:553 (in catalog of world Sphecidae); Cresson, 1928:48 (holotype in ANSP); Maidl and Klima, 1939:106 (as synonym of *Gorytes bicinctus*). – **As *Hypomellinus rufocinctus***: Ashmead, 1899d:300 (new combination, in checklist of North American Crabronidae). – **As *Lestiphorus rufocinctus***: Pate, 1936e:213 (new combination).

### 17. *pictus* Nemkov

*Lestiphorus pictus* Nemkov, 1992a:940, ♂. Holotype: ♂, Kyrgyzstan: S shore of Issyk-Kul Lake (ZIN).

### 18. *rugulosus* Wu and Zhou

*Lestiphorus rugulosus* Wu and Zhou, 1969:146, ♀, ♂. Holotype: ♀, China: Sichuan: Emeishan (Inst. Zool., Academia Sinica, Beijing). – Hua, 2006:280 (in list of Chinese insects, geographic distribution).

### sp.

Hanson and Menke, 1995:647 (Costa Rica).

## NOMEN NUDUM IN *LESTIPHORUS*

*chalconotus* Brèthes, 1910a:276 (Argentina).

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

*africanus* Radoszkowski, 1881 = *Pseudoplisus natalensis* F. Smith, 1856

*asiaticus* Radoszkowski, 1886 = *Ammatomus*

*behni* Dahlbom, 1842 = *Hoplisoides ater* (Gmelin, 1790)

*mitjaevi* (Kazenas, 1972) = *Ammatomus coarctatus* (Spinola, 1808).