RECENT RECORDS OF RARE AND NEW FOR UKRAINIAN CARPATHIANS SPECIES OF LONGHORN BEETLES (INSECTA: COLEOPTERA: CERAMBYCIDAE) WITH NOTES ON THEIR DISTRIBUTION

Andrew M. Zamoroka* and Ruslan Yu. Panin**

* Pre-Carpathian national university named after Vasyl Stefanyk, T. Shevchenko str., 57, Ivano-Frankivsk, UKRAINE. E-mail: zamoroka@hotmail.com

** Lviv department of Ukrainian Entomological Society at State Museum of Natural History, Teatralna str., 18, Lviv, UKRAINE. E-mail: rpanin@mail.ru

[Zamoroka, A. M. & Panin, R. Yu. 2011. Recent records of rare and new for Ukrainian Carpathians species of Longhorn beetles (Insecta: Coleoptera: Cerambycidae) with notes on their distribution. Munis Entomology & Zoology, 6 (1): 155-165]

ABSTRACT: We listed 11 species of long horn beetles that are rare or new in Carpathians region of Ukraine. These species were recorded during the years 2008-2009 and include new for Ukrainian fauna species Stenopterus flavicornis, Trichoferus campestris, Trichoferus pallidus and Agapanthia intermedia. We also listed species Leptura aurulenta, Batesiata tesserula, Paracorymbia fulva, Dorcadion aethiops and Phytoecia tigrina that have not been recorded for the past 50-110 years. The endangered and listed in Ukrainian Red Data Book species Rosalia alpina and Aromia moschata were also recorded. The areal distribution of all species is described. The Key to Insect taxa of Trichoferus and Stenopterus genera in Ukraine is presented.

KEY WORDS: Cerambycidae, Ukrainian Carpathians, Rare species.

The long horned beetles family (*Coleoptera*: *Cerambycidae*) is one of the five largest families of *Coleoptera* that consists of 25000 species found worldwide (Sama and al., 2010). They occupy various habitats and play an important role in natural ecosystems. The long horn beetles are the first level consumers and essential components of food chains of the forest ecosystems. As woodboring insects they are potential pests, and many of them use dead trees of deciduous and coniferous species (Zamoroka, 2009).

To date, over 625 species of *Cerambycidae* are found in Europe (Althoff and Danilevsky, 1997). This is the most studied *Coleoptera* family in Europe and Ukraine. According to recent studies, there are 275 (Zahaykevych, 1991) or 280 (Bartenev, 2004) species of long horned beetles found in Ukraine.

The long horn beetles studies in Ukrainian Carpathians were initiated in the middle of the XIX century by Marian Lomnicki, who presented the first detailed faunistic description of *Cerambycidae*. Based on his studies conducted in various parts of Ukrainian and Polish Carpathians and Halicia, M. Lomnicki compiled and published the first list of 132 long horned beetle species found in the area (Lomnicki, 1884). These studies were interrupted in the first part of the XX century and continued after the Second World War in 1950s. During the second part of the XX century Ivan Zhaykevych continued faunistic studies of *Cerambycidae* and listed 150 species in Ukrainian Carpathians (Zahaykevych, 1991). This list was further expanded by Zamoroka (2006) and now includes 160 species. Nevertheless, the recent studies indicate that this list is far from being completed (Zamoroka, 2009).

METHODS

The *Cerambycids* were collected during the years 2008-2009 in Ukrainian Carpathians Mountains including adjoining Pannonia and Pre-Carpathia plains. Multiple insect collection methods were applied. These included collecting insects on forage plants, on withered, felled and damaged coniferous and broadleaf trees, shaking tree branches, using entomological sweep-net, Berber's soil traps (4% formaldehyde) and light traps (ethyl acetate). Insects were identified using the Key to Insect Orders "Beetles of Central Europe" (Freude H. and al, 1966).

Abbreviations: *surr*. – surround; *loc*. – locality; *vlg*. – village; *twn*. – town; *dstr*. – district; *reg*. – region; *coll*. – collector; *SMNH* – State Museum of Natural History (Lviv).

RESULTS AND DISCUSSIONS

According to the recent faunistic publications, there are about 160 species of long horned beetles found in Ukrainian Carpathians (Zahaykevych, 1991, Zamoroka, 2009). Some of these species are very rare and represented by single specimens. Many of these species were recorded last time more than 50 years ago.

In this paper we present the recent record of 11 long horned beetle species that comprise 10 genera, 8 tribes and 3 subfamilies.

The list of recorded rare long horn beetle species found in Ukrainian Carpathians is given below.

Family Cerambycidae Latreille, 1802 Subfamily Lepturinae Latreille, 1802 Tribe Lepturini Latreille, 1804

Leptura aurulenta Fabricius, 1793

Material examined: 2 females 17.VII.2009, Carpathian Biosphere Reserve, "Kuziy" loc., Luh vlg. surr., Rakhiv dstr., Transcarpathian reg., Ukraine, coll. Yuriy Heriak.

The last known data collection for *L. aurulenta* in Ukrainian Carpathians was performed in Perechyn twn. surr., Transcarpathian reg by I. Zahaykevych in 1957. To date, there are only few known records of *L. aurulenta* in Ukrainian Carpathians. Thus, our record is the first publication after 52 years.

L. aurulenta is found in Ukraine in Carpathians (Zahaykevych, 1991), Chernihiv and Kharkiv reg. (Bartenev, 2004).

L. aurulenta is distributed throughout Europe excluding its north part, and it is found in some parts of North Africa including Algeria (Rosa, 2003). In Europe L. aurulenta was recorded in Portugal (Althoff and Danilevsky, 1997), Spain (Rosa, 2003), Britain (Rejzek, 2004), France (Brustel and al, 2002), Luxemburg, Germany (Althoff and Danilevsky, 1997), Austria (Adlbauer, 2001), Czech Republic, Poland (Althoff and Danilevsky, 1997), Ukraine (Zahaykevych, 1991, Bartenev, 2004), Slovakia (Holekova, 1996), Hungary (Csóka and Kovács, 1999), Moldova (Baban, 2006), Romania, Bulgaria, Greece, Albany, Bosnia and Herzegovina, Italy (Althoff and Danilevsky, 1997), Serbia (Pil, 2005), Slovenia (Brelih and al, 2006), and West Russia (Mamontov, 2009).

Batesiata tesserula (Charpentier, 1825)

Material examined: 1 female, 17.VII.2009, loc. "Kuziy", Carpathian Biosphere Reserve, Luh vlg. surr., Rakhiv dstr., Transcarpathian reg., Ukraine, coll. Yuriy Heriak.

This is a new record for Carpathian Biosphere Reserve. *B. tesserula* is found in old beech forests of Reserve. In Ukraine *B. tesserula* is encountered only in Carpathians, especially in Trancarpathian part.

B. tesserula is distributed in Central and South Europe, Asia Minor, Caucasus and Cental Asia. In Europe it occupies areals in Czech Republic (Szopa, 2002), Ukraine (Zahaykevych, 1991), Romania (Serafim, 2006), Slovakia, Poland, Hungary, Bulgaria, Greece, Albany, and Serbia (Althoff and Danilevsky, 1997). According to Ozdikmen H. (2008) B. tesserula also occurs in Turkey (Asia Minor). Also, it was recorded in Georgia, Azerbaijan and Iran (Barteney, 2004).

Paracorymbia fulva (De Geer, 1775)

Material examined: 1 female, 13.VII.2008, loc. "Chorna Hora", Vynohradiv twn. surr., Trancarpathian reg., Ukraine, coll. Ruslan Panin.

This record of *P. fulva* in Ukrainian Carpathians is the first record in Ukraine after 80 years. Our record also established a new locality of this species. Prior to our record, *P. fulva* was known only in two localities: Pasika vlg. surr. (Svalyava dstr., Transcarpathian reg.) and unidentified location named "Osa" (Transcapathian reg.) without existing administrative authorities (Zahaykevych, 1961). Generally, *P. fulva* is distributed very sporadically in Ukraine. It was recorded in Kharkiv reg. (Bartenev, 2004), Khmelnytsk reg. (Sokolivka vlg. surr., Yarmolynets dstr.) and Transcarpathian reg. (Zahaykevych, 1961).

In Europe *P. fulva* is widely distributed with the exception of North Europe. It is found in Portugal (Althoff and Danilevsky, 1997), Spain (Pena, 2007 a 6), Britain (Rejzek, 2004), France (Brustel and al, 2002), Germany, Czech Republic, Slovakia, Poland, Ukraine (Zahaykevych, 1961, Bartenev, 2004), Hungary (Kovács and al, 2001), Romania (Serafim, 2006), Bulgaria (Serafim, 2006) Greece, Albany, Serbia, Italy (Althoff and Danilevsky, 1997), Slovenia (Brelih and al, 2006), South-Western Russia (Althoff and Danilevsky, 1997, Bartenev, 2004). It was also recorded in Asia Minor, namely the Black Sea region of Turkey (Ozdikmen, 2007).

Subfamily Cerambycinae Latreille, 1802 Tribe Hesperophanini Mulsant, 1839

Trichoferus campestris (Faldermann, 1835)

Material examined: 1 male, 27.VII.2009, Ivano-Frankivsk city (Doroshenka str., 18a), Ukraine, coll. Andrew Zamoroka, collected in the evening using light trap. 1 female, 11.IX.2009, Kalush twn. Ivano-Frankivsk reg., Ukraine, collected in the City Park in evening using light trap, coll. Andrew Zamoroka.

Previously we reported *T. campestris* as a new species for Ukrainian fauna (Zamoroka 2009). This conclusion was based on the review of Longhorn beetles of Ukraine by A. Bartenev (2004). Unfortunately, the publication of V. Terekhova and A. Bartenev (2007) where authors describe the distribution of *T. campestris* in Eastern Ukraine was not available for us at the time. According to V. Terekhova

and A. Bartenev (2007), while *T. campestris* was first recorded in 1998, it was correctly identified only in 2006.

In Ukrainian Carpathians *T. campestris* was previously collected in Kryvets vlg. surr. (Bohorodchany dstr., Ivano-Frankivsk reg.) (Zamoroka, 2009). These records of *T. campestris* are novel for Carpathians. Therefore, it should be considered that *T. campestris* is more widely distributed in Ukrainian Carpathians and Central Europe than it was previously thought. It was collected from the following localities in Ukraine: Sevastopol (Zamoroka, 2009), Evpatoria (Crimean Autonomous Republic), Odessa, Donetsk, Kharkiv, Dyakove (Luhansk reg.), Natural Reserve "Kam'yani Mohyly" (Volodarske dtr., Donetsk reg.), National park "Homilshanski Lisy" (Zmiiv dst., Kharkiv reg.) (Terkhova, 2007), and Ivano-Frankivsk reg. (Zamoroka, 2009).

Originally, *T. campestris* was found in Transcaucasia, Central Asia, Mongolia, Korea, North China and Japan (Lobanov, 1982). Nowadays, it is found from Far East to Carpathians, and it is also reported in Canada and USA (Zamoroka, 2009, Grebennikov, and Gill, 2010). *T. campestris* is spreading to west of Europe.

Trichoferus pallidus (Oliver, 1790)

Material examined: 2 males, 20.VII.2009, Berehove twn. surr., Transcarpathian reg., Ukraine, coll. Yuriy Heriak, collected under bark of oak.

Our finding of *T. pallidus* is the first record in Ukrainian Carpathians and the first certain record in Ukrainian fauna after 110 years. The only known record of this species is from 1900, when *T. pallidus* was found in surrounding Alushta area (Crimean peninsula) (Bartenev, 2004). In our previous publication (Zamoroka, 2009) we predicted presence of *T. pallidus* in Transcarpathian plain.

Since *T. pallidus* is very rare species in Ukraine and it is already included to the Red Lists of neighboring countries such as Poland (Pawłowski and all., 2002) and Slovakia (Baláž, 2001, Jendek, 2006), we suggest to include *T. pallidus* to the fourth edition of the Red Book of Ukraine.

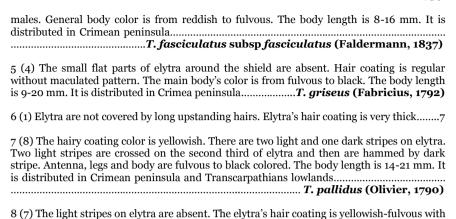
In Europe *T. pallidus* is found in Portugal (Grosso-Silva, 2007), Spain (Pena and all, 2007), France (Brustel and all, 2002), Austria (Adlbauer, 2002), south of Germany, south of Poland (Gutowski, 1986), Czech Republic, Slovakia (Sláma, 1998), Hungary (Kovács and all, 2001), Slovenia (Brelih and all, 2006) Bulgaria, Greece, Romania, and Caucasian coast of Russia (Althoff and Danilevsky, 1997).

Since *T. pallidus* and *T. campestris* were not included to the Key to Insect Orders of *Trichoferus* species in Ukraine, we present the respective Key to Insect Orders below.

The key for identification of species of Trichoferus Wollaston, 1854 in Ukraine

1 (6) Elytra is covered by long upstanding hairs	2
2 (3) The elytra's hair coating is not regular, without hairy maculates. The elytra are lust The long upstanding hairs cover the second half of the elytra. Main coloration of body fulvous. The body length is 11-20 mm. It is distributed throughout all Ukraine	y is
3 (2) The hairy coating of elytra is thick and maculated. Long upstanding hairs cover ent surface of elytra	

4 (5) The small flat parts of elytra occupies the area around the shield. Hair on maculae creates irregular pattern. Two distinct hair maculae are present on the pronotum's disk of



distinct maculae. The elytra's surface is unequal under hair. The body color is fulvous to black. The body length is 14-22 mm. It is distributed in South and East Ukraine.....

Tribe Compsocerini Thomson, 1864

Rosalia alpina (Linnaeus, 1758)

Material examined: 1 male, 11.VII.2009, loc. "Ilma", Natural Reserve "Gorgany", Zelena vlg. surr., Nadvirna dstr., Ivano-Frankivsk reg. Ukraine, coll. Volodymyr Tretiak.

R. alpina is endangered species. It is included to the Red List of IUCN as vulnerable (VU) species, to the Red Data Book of Ukraine (VU) (Rizun and al., 2000, Akimov, 2009). Poland (EN) (Pawłowski, 2002). Russia (2-d category = EN) (Dezhkin, 2001), Sweden (RE) (Gärdenfors, 2005) et cet.

Our record of R. alpina show new location of the species in Ukrainian Carpathians, where its distribution is very spotted. While in Transcarpathians it has continuous distribution range in beech forests, in Pre-Carpathians it is only found in few localities. These include samples from areas surrounding the towns of Yaremche (Tymochko and Kyselyuk, 2005), Bolekhiv, Scole and city of Lviv (data of SMNH collection). In general, R. alpina is found in Carpathians and Crimea in Ukraine (Zahaykevych, 1974). Single records are known from Kviv. Cherkasy (Rizun and al., 2000), Volynia and Kharkiv (Bartenev, 2004).

R. alpina is widely spread in Europe, Caucasus, Asia Minor (Ozdikmen, 2007) black sea). Near East (Barteney, 2004, Ozdikmen, 2007 black sea) and North Africa. In Europe it is found in Spain (Pena, 2002, 2007), France (Brustel and al, 2002, Dutto, 2005), Switzerland (Althoff and Danilevsky, 1997), Austria (Adlbauer, 2001), Hungary (Csóka and Kovács, 1999), Poland (Pawłowski, 2002), Czech Republic, Slovakia (Sláma M.E.F. 1998, Brelih and al, 2006), Ukraine (Zahaykevych, 1974, Barteney, 2004), Romania, Bulgaria, Greece, Albany (Althoff and Danilevsky, 1997), Slovenia (Jurc, 2008), Serbia (Pil, 2005), Italy (Vitali, 1999, Dutto, 2005), Moldova (Baban, 2006), and Western Russia (Barteney, 2004, Althoff and Danilevsky, 1997). According to IUCN R. alpina is distributed in Iran and in several countries of North Africa such as Libia, Algeria, Morocco. R. alpina was excluded from the long horn beetle species list of Israel (Sama, 2010).

Tribe Callichromatini Blanchard, 1845

Aromia moschata (Linnaeus, 1758)

Material examined: 1 female, 27.VII.2009, Halych National Park, Shevchenkove vlg. surr., Halych dstr., Ivano-Frankivsk reg., Ukraine, coll. Volodymyr Buchko.

A. moschata is included to the Red Data Book of Ukraine (VU) (Rizun and al., 2000, Akimov, 2009).

Our finding shows a new location of *A. moschata* in Ukrainian Carpathians and represents the first record for Halych National Park. In Ukrainian Carpathians *A. moschata* was recorded from few localities only. These localities are found in areas surrounding Ivano-Frankivsk region such as the towns of Verkhovyna and Kolomya, villages of Novosilky (Nadvirna dstr.) (Rizun and al., 2000), Zelena (Nadvirna dstr.) and Biloberizka (Verkhovyna dstr) (Zamoroka, 2007), and city of Ivano-Frankivsk (Lomnicki, 1885, Zamoroka, 2007). In Lviv region *A. moschata* was known from SMNH collections from the following localities: village Shehyni (Mostysky dstr.), towns Truskawec (Drohobych dstr.) and Sambir, city of Lviv. In general, *A. moschata* is very abundant along rivers in Ukraine (Bartenev, 2004).

A. moschata is distributed in all palearctic regions and occupies the territory from the Atlantic to the Pacific ocean. The two subspecies are found in Europe. These are A. moschata moschata (Linnaeus, 1758) and A. moschata ambrosiaca (Steven, 1809). A. moschata moschata occupies most of Europe including Britain, France, Germany (Althoff and Danilevsky, 1997), Poland, Czech Republic, Austria, Slovakia (Adlbauer, 2001), Ukraine (Zahaykevych, 1991, Bartenev, 2004, Zamoroka, 2007), Hungary (Csóka and Kovács, 1999), Moldova (Baban, 2006), Byelorussia, Russia, Romania, Bulgaria, Albany (Althoff and Danilevsky, 1997), Serbia (Pil, 2005), Slovenia, Northern Italy (Brelih and al, 2006), and Northern Spain (Pena, 2002). It is also found in Caucasus, Kazakhstan and Turkey. A. moschata ambrosiaca occupies countries of Mediterranean basin including Portugal, Spain (Pena, 2002), Italy, Greece (Althoff and Danilevsky, 1997) and Southern France (Brustel and al, 2002).

Tribe Stenopterini Fairmaire, 1868

Stenopterus flavicornis Kuster, 1846

Material examined: 2 females, 2 males, 13.VII.2008, 1♀ 07.VII.2009, loc. "Chorna Hora", Vynohradiv twn. surr., Trancarpathian reg. Ukraine, coll. Ruslan Panin.

- *S. favicornis* is new for Ukrainian fauna species. It was not described in early faunistic publications for Ukrainian territory (Zahaykevych, 1991, Althoff and Danilevsky, 1997, Barteney, 2004).
- S. favicornis belongs to small Mediterranean genera Stenopterus Illiger, 1804, which includes 8 species. It is found from North Africa (Sama G. et all, 2005) and Southern Europe (H. Brustel et all, 2002) to Near East (Ozdikmen H., 2007) and Caucasus (Althoff J., Danilevsky M. L., 1997). The seven species that are distributed in Europe are S. ater Linnaeus, 1767, S. rufus (Linnaeus, 1767), S. atricornis Pic, 1891, S. similatus Holzschuh, 1979, S. creticus Sama, 1995, S. mauritanicus Lucas, 1846, and S. favicornis (Althoff J., Danilevsky M. L., 1997, Sama G.and all, 2005). The S. kraatzi (Pic, 1892) was found only in Asia Minor and Near East (Ozdikmen H., 2007).

S. favicornis is widely distributed in Central and South-East Europe. It occupies South-East France (H. Brustel et all, 2002), South Germany, Austria (Adlbauer, 2001), lowlands of Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Balkans and North-East Italy (Althoff J., Danilevsky M. L., 1997). Some locations of S. favicornis in Turkey and Israel were misidentified and belong to S. kraatzi (H. Brustel et all, 2002).

Since *S. favicornis* is new species for Ukrainian fauna, we present the Key to Insect Orders of *Stenopterus* species below.

The key for identification of species of Stenopterus Illiger, 1804 in Ukraine

- 4 (3) The first segment of antenna is without furrow. Males and females are the same color. Elytra, legs and antenna are reddish with the black top and base parts. The body length is 6-16 mm. It is distributed in steppe and forest-steppe biomes of Ukraine.....

Subfamily Lamiinae Latreille, 1825 Tribe Dorcadiini Latreille, 1825

Dorcadion aethiops (Scopoli, 1763)

Material examined: 2 females 15.V.2009 Muzhieve vlg. surr., Trancarpathian reg., Ukraine, coll. Yuriy Heriak.

This is the first after 49 years record in Ukrainian Carpathians. Here *D. aethiops* is known in few localities near Berehove twn. and Vynohradiv twn. (Zahaykevych, 1961). In Ukraine *D. aethiops* is found only in Transcarpathia and in low basin of Dnister river (Odessa reg.) (Barteney, 2004).

D. aethiops is distributed only in Central and South-Eastern Europe including Switzerland (Ozdikmen, 2008), Southern Germany, Austria, Czech Republic, Slovakia (Althoff and Danilevsky, 1997), Ukraine (Zahaykevych, 1961, 1991, Bartenev, 2004), Hungary (Kovács and al, 2001), Moldova (Baban, 2006), Romania (Rozner, 2007), Serbia (Pil, 2005), Slovenia (Brelih and al, 2006), Bulgaria, Croatia, Bosnia and Herzegovina, Macedonia, Albany, Greece (Althoff and Danilevsky, 1997), and European part of Turkey (Ozdikmen, 2008).

Tribe Agapanthiini Mulsant, 1839

Agapanthia intermedia Ganglbauer, 1883

Material examined: 1 male, 18.V.2009, loc. "Kasova Hora", Halych National Park, Burshtyn twn. surr., Halych dstr., Ivano-Frankivsk reg., Ukraine, col. Andriy Zamoroka, by butterfly net; 1 male, 13.VI.2009, loc. "Kamin", Halych National Park, Mezhyhirtsi vlg. surr., Halych dstr., Ivano-Frankivsk reg., Ukraine, col. Andrew Zamoroka, collected in soil trap.

This is new species for Carpathian region of Ukraine. Distribution of *A. intermedia* in Ukraine is unclear. It is known from Ukrainian long horn beetles review of O. Bartenev (2004), unfortunately, these studies do not describe the precise location of the species.

In Europe *A. intermedia* is widely distributed with exception of the northern part. It is found in Netherlands, Germany, France (Brustel and al, 2002, Brelih and al, 2006), Switzerland, Austria (Adlbauer, 2001, Steiner, 1999, Brelih and al, 2006), Czech republic, Slovakia (Brelih and al, 2006), Poland, Ukraine (Bartenev, 2004), Hungary (Kovács and Hegyessy, 1997), Italy, Slovenia (Brelih and al, 2006), Romania, Moldova, Byelorussia, Lithuania, and Russia (Althoff and Danilevsky, 1997).

Tribe Saperdini Mulsant, 1839

Phytoecia tigrina Mulsant, 1851

Material examined: 3 females, 2 males, 07.V.2009, 1female, 1 male, 18.V.2009, loc. "Kasova Hora", Halych National Park, Burshtyn twn. surr., Halych dstr., Ivano-Frankivsk reg., Ukraine, col. Andrew Zamoroka, collected on stems of *Anchusa* L.

Our findings represent the first reliable record of $Ph.\ tigrina$ in Western Podillya and Carpathians regions after 80 and 41 years, respectively. There are two known localities of $Ph.\ tigrina$ in Ukraine. The first locality "Chorna Hora" is near Vynohradiv town in Transcarpathian (Zahaykevych, 1961). The second locality "Kasova Hora" is situated in Western Podillya near Burshtyn town in Ivano-Frankivsk region. The two specimens collected in 1929 in "Kasova Hora" are now deposited in funds of SMNH collection (Lviv). Their authenticity, however, was doubted and they were never published. Now we confirm distribution $Ph.\ tigrina$ in Western Podillya and Pre-Carpathians. In our opinion, the locality "Kasova Hora" is the most northern point of the distribution of $Ph.\ tigrina$ in Europe (49°13 \square northern latitude and 24°41 \square eastern longitude).

Ph. tigrina is found in Europe including Hungary, Slovakia (Holzshuh, 1984), Ukraine (Zahaykevych, 1961), Romania, Bulgaria, Balkans (Holzshuh, 1984); Asia Minor: western Turkey (Ozdikmen, 2004, 2008); Near East (Ozdikmen, 2008) and Caucasus (Bartenev, 2004, Ozdikmen, 2008). The presence of *Ph. tigrina* in Southern France is not clear (Brustel and al, 2002).

ACKNOWLEDGEMENTS

We wish to thank Yuriy Heriak, Volodymyr Tretiak and Volodymyr Buchko for helping to collect material in the field. Especially thanks to Dr. Alexander Boyko for text correcting.

LITERATURE CITED

Adlbauer, K. & Holzer, E. 2002. Vadonia unipunctata (F.) und Trichoferus pallidus (Ol.) – zwei für die Steiermark neue Bockkäfer (Coleoptera, Cerambycidae). Joannea Zool., 4: 83-85.

Adlbauer, K. 2001. Nachtrag zur Bockkäferfauna der Steiermark unter dem Aspekt der Artenbedrohung (Coleoptera, Cerambycidae). Joannea Zool., 3: 83–104.

Akimov, A. I. (eds.) 2009. Red book of Ukraine. Animals. Kyiv. 624 pp.

Althoff, J. & Danilevsky, M. L. 1997. Acheck-list of longicorn beetles (Coleoptera, Cerambycoidae) of Europe. Slovensko entomolosko drustvo Stefana Michielija, Ljubljana, 164.

Baban, E. 2006. Diversitatea coleopterelor (Coleoptera: Carabidae, Silphidae, Scarabaeidae, Cerambycidae) din ecosistemele forestiere ale podișului Moldovei centrale. Teză de doctor în biologie, 03.00.09, 136 pp.

Baláž, D., Marhold, K. & Urban, P. (eds) 2001. Červený zoznam rastlín a živočíchov Slovenska. Ochrana prírody, 20, Suplement: 1–160.

Barteney, A. F. 2003. Review of longhorned beetles (Coleoptera, Cerambyciae) of Ukraine. News of Kharkiv Entomological Society, 11, 1-2: 24-43 (in Russian lang.).

Bense, U. 1995. Longhorn beetles. Illustrated key to the Cerambycidae and Vesperidae of Europe. Margraf Verlag, Weikersheim, 512 pp.

Brelih, S., Drovenik, B. & Pirnat, A. 2006. Gradivo za favno hroščev (Coleoptera) Slovenije, 2. prispevek, Polyphaga: Chrysomeloidea (= Phytophaga): Cerambycidae. Scopolia, 58: 1-351.

Brustel, **H.**, **Berger**, **P.** & **Cocquempot**, **C.** 2002. Catalogue des Vesperidae et des Cerambycidae de la faune de France (Coleoptera). Ann. Soc. entomol. Fr.(n.s.), 38 (4): 443-461.

Csóka, G. & Kovács, T. 1999. Xilofág rovarok – Xylophagous insects. Erdészeti Turományos Intézet, Agroinform Kiadó, 189 pp.

Dezhkin, V. V. (ed.) 2001. Red book of Russian Federation: Animals. 862 p. (in Russian lang.).

Dutto, M. 2005. Nuove interessanti osservazioni di *Rosalia alpina* (linnaeus, 1758) nelle Alpi Occidentali (Coleoptera, Cerambycidae). Riv. piem. st. nat., 26: 283-284.

Freude, **H.**, **Harde**, **K. W.** & **Lohse**, **G. A.** 1966. Die Käfer Mitteleuropas. Band 9. Cerambycidae, Chrysomelidae. Krefeld: Goecke & Evers, 296 pp.

Gärdenfors, U. (ed.) 2005. Rödlistade arter i Sverige. Uppsala, SE, 496 pp.

Grebennikov, V. V. & Gill, B. D. 2010. *Trichoferus campestris* (Faldermann) (Coleoptera: Cerambycidae), an Asian wood-boring beetle recorded in North America. The Coleopterists Bulletin, 64 (1): 13–20.

Grosso-Silva, J. M. 2007. New and interesting beetle (Coleoptera) records from Portugal (5-th note). Boletín Sociedad Entomológica Aragonesa, 1 40: 471–472.

Gutowski, J. M. 1986. Trichoferus pallidus (Olivier, 1790) (Col., Cerambycidae) w Polsce. Przegl. zool., 30, 3: 313-317.

Holecova, M. & Zach, P. 1996. Prehľad fauny chrobákov (Coleoptera) žijúcich na duboch na území Slovenska. Folia Faunistica Slovaca, 1: 39-52.

Holzshuh, C. 1984. Beschreibung neuer arten aus der unmittelbaren verwandtschaft von *Phytoecia* (*Pilemia*) *tigrina* (Cerambycidae, Col.). Koleopterologische Rundschau, 57: 167-175.

Jendek, **B. & Jendek**, **E.** 2006. Analýza druhovej ochrany Coleoptera na Slovensku na základe modelovej skupiny fuzáče (Coleoptera, Cerambycidae). Folia faunistica Slovaca, 11 (4): 15-28.

Jurc, M., Ogris, N., Pavlin, R. & Borkovic, D. 2008. Forest as a habitat of saproxylic beetles on Natura 2000 sites in Slovenia. Rev. Écol. (Terre Vie), 63: 53-66.

Kovács, T., Hegyessy, G. & Borsos, S. 2001. Checklist of the longhorn beetle fauna of Somogy county (Coleoptera: Cerambycidae). Natura Somogyiensis. Kaposvár, 1: 213-220.

Kovács, T. & Hegyessy, G. 1997. A Mátra cincérfaunája (Coleoptera, Cerambycidae). Foliahistorico Naturaliamusei Matraensis, 22: 203–222.

Lobanov, A. L., Danilevsky, M. L. & Murzin, S. V. 1982. A systematic list of long horn beetles (Coleoptera, Cerambycidae) of Soviet Union. II. Entomologycal review., LXI, part 2: 252-276.

Lomnicki, M. 1875. Chrzaszcze zebrane w okolicy Stanislawowa. Sprawozdanie komisyi fizyjograficznej, T. 20: 154-184.

Mamontov, S. N. 2009. Xylophylic coleoptera of forest botanic-geographical district of Tula region. Ph. d. in boil. scien. thesis: 22.

Ozdikmen, H. 2007. The longicorn beetles of Turkey (Coleoptera: Cerambycidae) part I – Black Sea region. Mun. Ent. Zool., 2 (2): 179-387.

Ozdikmen, H. 2008. The longicorn beetles of Turkey (Coleoptera: Cerambycidae) part II – Marmara region. Mun. Ent. Zool., 3 (1): 7-152.

Ozdikmen, H. 2008. The longicorn beetles of Turkey (Coleoptera: Cerambycidae) part III – Aegean region. Mun. Ent. Zool., 3 (1): 355-436.

Ozdikmen, H. & Hasbenli, A. 2004. Contribution to the Knowledge of Longhorned Beetles (Coleoptera, Cerambycidae) from Turkey, Subfamily Lamiinae. J. Ent. Res. Soc., 6 (2): 25-49.

Pawłowski, J., Kubisz, D. & Mazur, M. 2002. Coleoptera Chrząszcze. In Z. Głowaciński (red.), Czerwona lista zwierząt ginących i zagrożonych w Polsce. Instytut Ochrony Przyrody. PAN: 155.

Pena, G. C. F., Vives i Noguera, E. & Zuzarte, A. J. S. 2007. Nuevo catálogo de los Cerambycidae (Coleoptera) de la Península Ibérica, islas Baleares e islas atlanticas: Cana-rias, Açores y Madeira. Monografias S.E.A., 12: 211.

Pena, G. C. F., Vives i Noguera E. & Zuzarte, A. J. S. 2007. Addenda et corrigenda al nuevo catálogo de los Cerambycidae (Coleoptera) de la Península Ibérica, islas Baleares e islas atlanticas: Canarias, Açores y Madeira (Monografías S.E.A., vol. 12, 2007). Boletín Sociedad Entomológica Aragonesa, n1 40: 595–596.

Pena, G. C. F. 2002. Catálogo de los Cerambycidae (Coleoptera) de Aragón. Cat. entomofauna aragon., N^0 27: 2–44.

Pil, N. 2005. Checklist of longhorn beetles (Coleoptera: Cerambycidae) from mt. Fruska Gora. Acta entomologica Serbica, 9/10 (1/2): 105-110.

Rejzek, M. 2004. Check-list of Cerambycidae (Col.) of the British Isles. Entomologist's Monthly Magazine, 140: 51-57.

Rizun, B. V., Konovalova, I. B. & Yanytsky, T. P. 2000. Rare and vanishing insects in collection of State Museum of Natural History. Lviv. 71 pp.

de la Rosa, J. J. 2003. Aportaciones al conocimiento de la fauna de cerambicidos (Coleoptera: Cerambycidae) de la comunidad de Madrid y territorios limitrofes, Bol. S.E.A., N_2 33: 285-287.

Rozner, I. 2007. Data to the Longicorn Beetle Fauna of Transylvania and the Banat (Coleoptera: Cerambycidae). Acta Siculica: 133–141.

Sama, **G.**, **Ringenbach**, **J.-C. & Rejzek**, **M.** 2005. A preliminary survey of the Cerambycidae of Libia (Coleoptera). Ann. Soc. entomol. Fr., 110 (4/5): 439-454.

Sama, G., Buse, J., Orbach, E., Friedman, A.-L.-L., Rittner, O. & Chikatunov, V. 2010. A new catalogue of the Cerambycidae (Coleoptera) of Israel with notes on their distribution and host plants. Mun. Ent. Zool., 5 (1): 1-51.

Serafim, R. 2006. The catalogue of the palaearctic species of lepturinae (Coleoptera: Cerambycidae) from the patrimony of "Grigore Antipa" National museum of Natural history (Bucharest) (part II). Travaux du Muséum National d'Histoire Naturelle "Grigore Antipa", Vol. XLIX.: 203–238.

Sláma, M. E. F. 1998. Tesaříkovití - Cerambycidae České republiky a Slovenské republiky (Brouci – Coleoptera). Vyd. M. Slama, Tisk Tercie, Krhanice: 383 pp.

Steiner, **S.** 1999. Rote Liste der Bockkäfer Kärntens (Coleoptera, Cerambycidae), In Holzinger, W.E., Mildner, P., Rottenburg, T., Wieser, C. (Hrsg.): Rote Listen gefährdeter Tiere Kärntens. Klagenfurt, Naturschutz in Kärnten 15: 269-286.

Szopa, R. 2002. Contribution to the knowledge of the longhorned beetles (Coleoptera: Cerambycidae) of the Jablunkovská brázda valley and its close environs. Klapalekiana, 38: 63-83.

Terekhova, V. V. & Bartenev, A. F. 2007. New data for distribution and biology of *Trichoferus campestris* (Faldermann, 1835) (Coleoptera: Cerambycidae) in Ukraine. News of Kharkiv Entomological Society, XIV, 1-2.: 67-68.

Tymochko, V. B. & Kyselyuk, A. I. 2005. Recent state of rare species of insects in Carpathian National Park. Conference report. Kyiv: 108-110.

Vitali, F. 1999. Nuovi dati corologici per alcune specie di Cerambicidi Italiani. (Coleoptera, Cerambicidae). Annali del Museo civico di storia naturale "G. Doria", vol. VII, № 315: 1-6.

Zahaykevych, **I. K.** 1961. Contribution to knowledge of longhorned beetles (Coleoptera, Cerambyciae) of Ukraine. Proc. of the State Nat. Hist. Museum., 9: 52-59.

Zahaykevych, I. K. 1974. The Longhorn beetles. The agricaltural and forest pests, 2: pp. 24-49.

Zahaykevych, I. K. 1991. Taxonomy and ecology of longhorned beetles. Kyiv, 420 pp.

Zamoroka, A. M. 2005. Influence of urbanization to long horn beetles' fauna (Coleoptera: Cerambycidae) in city of Ivano-Frankivsk. Zoocenosis, 2: 270-271.

Zamoroka, A. M. 2007. Long horn beetles (Coleoptera: Cerambycidae) of Ivano-Frankivsk region. Proc. of Precarpathian national university. Biology, 7: 131-132.

Zamoroka, A. M. 2009. A new record of longhorned beetle *Trichoferus campestris* (Faldermann, 1835) (Coleoptera: Cerambycidae) in Ukraine. Proc. of the State Nat. Hist. Museum, 25: 195-206.

Zamoroka, A. M. 2009. Ecological features of long horn beetles entomocomplexes (Coleoptera: Cerambycidae) in the forest ecosystems of the north-eastern macroslope of the Ukrainian Carpathians. Ph. d. thesis. Dnipropetrovsk National University, 20 pp.