

Distribution of *Rhaphuma gracilipes* (FALDERMANN, 1835) (Coleoptera: Cerambycidae) in Europe

JACEK KURZAWA

ul. Sterlinga 2/10, PL 97-200 Tomaszów Mazowiecki, e-mail: jk@entomo.pl

ABSTRACT. *Rozmieszczenie Rhaphuma gracilipes* (FALDERMANN, 1835) (Coleoptera: Cerambycidae) w Europie.

New records of *Rhaphuma gracilipes* from Poland and Russia are given. Literature and new data from European area have been verified and summarized.

KEY WORDS: Coleoptera, Cerambycidae, *Rhaphuma*, *Chlorophorus*, Poland, Europe, Russia, distribution, new record.

Rhaphuma gracilipes (FALDERMANN, 1835)

Clytus gracilipes FALDERMANN, 1835, Mem. Acad. St. Petersb., 2: 436.

Clytus angusticollis MULSANT, 1851: 123

Clytus tenuicornis FAIRMAIRE, 1888

Clytanthus sachalinensis MATSUMURA, 1911

Rhaphuma gracilipes (FALDERMANN, 1835) is a Palaearctic species widely distributed in Eastern Europe (Poland, Belarus, Russia), in Kazakhstan (KOSTIN 1973), Siberia (including Sakhalin and Kunashir Island), northern Mongolia to northern China, Korean Peninsula and Japan. In Europe it was reported from Poland (GUTOWSKI 1992), Belarus (ZAWADZKI 1937) and European Russia (PLAVILSTSHIKOV 1940). *Rh. gracilipes* is not recorded from Kirgizia, Uzbekistan, Tadzhikistan, Turkmenia (Republics of Central Asia), Caucasus (Republics of Transcaucasia and territories of North Caucasus from Krasnodar Region to Daghestan) and from Crimea Peninsula. The report from Turkey (ÖZDIKIMEN 2011: "Hatay prov.: Akbez (FAIRMAIRE 1884)") must be surely connected with other species. *Rh. gracilipes* was mistakenly listed from Spain (GANGLBAUER 1881, AURIVILLIUS 1912), based on the wrong interpretation of name "Galicia" (PLAVILSTSHIKOV 1940).

That species is common in the eastern part of its distribution area, increasing in number eastward from the Ural Mountains to Ussuri region. In the western part of its distribution area, in Poland, Belarus, and European Russia, the species is reported mainly on the base of old records from 19th and beginning of 20th century. This species in Europe is poorly known and very rare, reported by infrequent records and collected in a small numbers.

In present papers all records of *Rh. gracilipes* from Europe are listed with original citation and they were verified and discussed.

The following abbreviations have been used:

USMB Upper Silesian Museum, Bytom

ISEA collection of Institute of Systematics and Evolution of Animals, Pol. Acad. Sci. (Kraków) (Polish abb. ISEZ PAN)

MIZ collection of Museum and Institute of Zoology, Pol. Acad. Sci. (Polish abb. MIIZ PAN)

Poland: Polonia mer., Przemyśl vic., leg. T. Trella, 1 ex. [ISEA], determined as *Chlorophorus figuratus* (GUTOWSKI, pers. comm. 2013); Halicia or., Przemyśl-Zasanie, 1878; B. Kotula, 1 ex.; [ISEA] "...z notatek zbieracza dotyczących tego numeru wynika, iż odłowiono go w 1878 roku w miejscowości Zasanie, pod mostem kolejowym na rzece San. ... " (GUTOWSKI 1992); Polonia m., distr. Jarosław [FA24], leg. Stobiecki, 30 VI 1888, 763, 1 ex. [ISEA] (GUTOWSKI 1992); Zatwarnica (Bieszczady Mts.), UTM 34N EV86, (49.30 N 22.22 E), 25.07.1971, 2 females, leg M. Bielewicz, [USMB] 5960/71521, 5960/71529.

During the visit collection in USMB in 2002 I found there two specimens of *Rh. gracilipes*, in collection of lepidopterologist and conservator in Upper Silesian Museum – M. Bielewicz, wrongly determined as *Chlorophorus figuratus*. Specimens were originally prepared and labeled.

Marian Bielewicz labeled many specimens generally as "Otryt, powiat Ustrzyki Dolne" but we know that M. Bielewicz in period 18–25.07.1971 was providing scientific exploration near Zatwarnica village (49.30 N 22.22 E), according to private notes of author and also from data collection of many others insect in this time, deposited in USMB. Moreover, he had his temporary residence there. This record is confirmation of present occurrence of this species in Poland. Zatwarnica (Bieszczady Mts.) is on west border of the whole area of this Palaearctic species. New for Bieszczady region in Poland.

Belarus: The species was reported from Belarus by ZAWADZKI (1937) from Barowo. Specimens were collected in a high numbers in 1934.

Barowo [N 53° 49' 51" E 25° 57' 13"] 20 VI – 10 VII 1934 on flowers on *Spiraea*, and sometimes on Apiaceae (Umbelliferae) on the border of mixed forest and wet meadow in tens several specimens daily (ZAWADZKI 1937).

Occurrence of *Rh. gracilipes* in Belarus was repeated by SALUK, PISANENKO (1991) after ZAWADZKI (1937). Authors had never had any possibility seeing *Rh. gracilipes* from Belarus and they pointed the need of determination confirmation, and thus the occurrence of this species in Belarus. Nowadays, a part of these specimens can be found in other private collections: Barowo 27.06.1934, on *Spiraea*, leg. Zawadzki (1 ex in coll J.Kurzawa, 1 ex, in coll. J.Gutowski).

Lithuania: GUTOWSKI (1992) mentioned that he had found one specimens in coll. E. Wróblewski ISEA with label "Litwa" (Lithuania) without exact location.

European Russia: *Rhaphuma gracilipes* was known from the European part of Russia only from two localities according to old data (PLAVILSTSHIKOV 1940, LINDEMAN 1963): near Kozielsk (54°1'49"N 35°51'36"E, ca. 200 km SW Moskva), 15–30 VII 1915, leg. A. Il'inskiy (PLAVILSTSHIKOV 1930, 1940); Tellermanovskiy Les (180 km EES Voronezh) (LINDEMAN 1963). Recently, the species was reported frequently from Russia by DEDYUKHIN (2005), ERMOLAEV (2006, 2009), SHAPOVALOV (2010) and many others (DANILEVSKY, pers.comm., 2012). A part of them is listed below:

– Chuvashia, Alatyrski reg., 4 km Artat, kvartal 51 gosudarstvennogo prirodnogo zapovednika "Prisurskiy" 54°59'14"N 46°36'10"E, 23.07.2002, on flowers of *Angelica sylvestris*, 1 ex; Alatyrski reg., near Artat, kvartal 25 gosudarstvennogo prirodnogo zapovednika "Prisurskiy", 55°00'33"N, 46°46'30"E, 25.07.2002, on *Filipendula ulmaria* (L.) MAXIM., 1 ex., leg. Egorov;



Ryc. 1–3. *Rhaphuma gracilipes* (PL, Zatwarnica, 25.07.1971, leg. M. Bielewicz) and original labels are shown.
 Fig. 1–3. *Rhaphuma gracilipes* (PL, Zatwarnica, 25.07.1971, leg. M. Bielewicz) i oryginalne etykiety okazów.

– Chuvashia, Shemurshinski reg., National Park, Chavash Varmane, 16 km SWW Shemursha near Mulinaya ~ 54°50'53"N 47°14'25"E, 07.1992, 1 ex., leg. Egorov (EGOROV, pers. comm. 2012; data are connected with EGOROV, 1994, 1997, in this papers species is reported without exact data).

Rhaphuma gracilipes is reported from Republic Chuvashia only from massive mixed forest in south part of republic 55°20' N – 54°50', 46°35' – 47°30' E (EGOROV, pers. comm. 2012).;

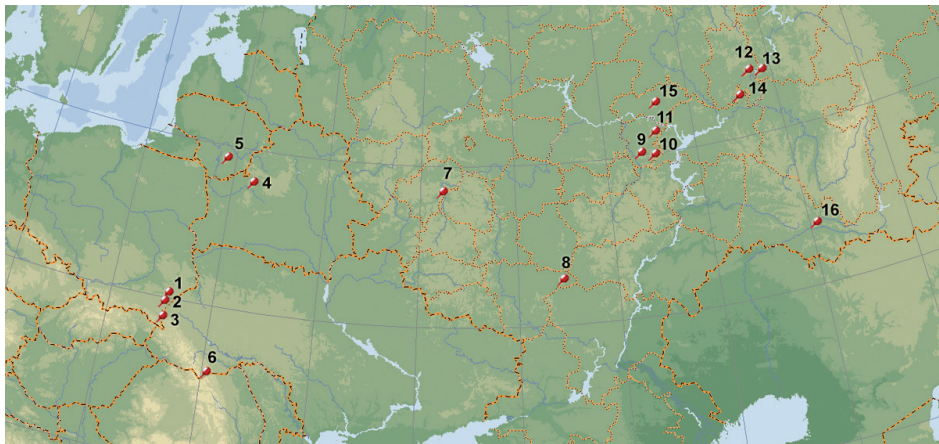
– 1 km N Starozhilsk W Yoshkar-Ola, Mari El reg., 56°31'45.27"N, 47°34'28.39"E, 05.07.2002 leg. et. coll. M. Tsurikov (pers. comm. 2012).

Ukraine and Romania (HEYDEN et al. 1906) – **uncertain area**. Old labels records with use of historical names are difficult to conclude to which area they are really related. HEYDEN et al. (1906) reported *Chlorophorus gracilipes* from "Bukovina". GUTOWSKI (1992) connected this record with SW Ukraine. In 1918, the historical Bukovine region



Ryc. 4. *Rhaphuma gracilipes* (Belarus, Barowo, 27.06.1934, leg. Zawadzki, coll. J. Kurzawa).

Fig. 4. *Rhaphuma gracilipes* (Białoruś, Barowo, 27.06.1934, leg. Zawadzki, coll. J. Kurzawa).



Map 1. Distribution map of *Rhaphuma gracilipes* (FALD.) in Europe.

Legend: [date collection of specimen(s)]; * – new data.

Mapa 1. Rozmieszczenie *Rhaphuma gracilipes* (FALD.) w Europie.

Legenda: [data zbioru okazu w nawiasie kwadratowym]; * – nowe dane.

1 – PL, Przemyśl, Trella; Przemyśl, Kotula, [1878]; 2 – PL, Jarosław, Stobiecki, [1888]; *3 – PL, Zatwarnica, Bielewicz, [1971]; 4 – BY, Barowo, Zawadzki, [1934–1935]; 5 – LA, coll. Wróblewski [ISEA]; 6 – UK, RO, Bukovine (HEYDEN et al. 1906); 7 – RU, Kozielsk, Il'inskiy [1915]; 8 – RU, Tellermanovskiy Les (LINDEMAN 1963); 9 – RU, Chuvashia, Egorov [2007]; *10 – RU, Chuvashia, Egorov [1992]; 11 – RU, Chuvashia, Egorov [2002]; *12 – RU, Udmurtia, Georgi [2009]; 13 – RU, Udmurtia, (ERMOLAEV 2006); 14 – RU, Udmurtia, Alnashki (DEDYUKHIN 2005); *15 – RU, Mari El, Tsurikov [2002]; 16 – RU, Orenburg, Shapovalov [2004].

was divided into two Ukrainian and Romanian councils. Till that time the Bukovina region to Ukraine and Romania in parts. There is no possibility to connect this record to any country and it needs to be left till the time of confirmation with new records from these states.

Systematic position

Systematic position of this species is unclear. Described as a member of genus *Clytus*, placed in genus *Clytanthus*, later in *Chlorophorus* by many authors. Finally, it was moved to genus *Rhaphuma* on the basis of characters of long segments of antennae (MATSHUSHITA 1933). This position is questioned because that oriental genus *Rhaphuma* has more characteristic distinguishable features not corresponding with this species (PLAVILSTSHIKOV 1940). Moreover, many authors listed *Rh. gracilipes* as a member of genus *Chlorophorus* (GUTOWSKI 1992, CHEREPANOV & CHEREPANOVA 1972, MAMAEV & DANILEVSKY 1975, LOBANOV et al. 1982), but recently this species has moved once again to genus *Rhaphuma* on the basis of the same features questioned by PLAVILSTSHIKOV (1940) (third antennal joint longer than first) (ALTHOFF & DANILEVSKY 1997, SAMA 2002, HUA 2002). This position was stated in "Catalogue of Palearctic Coleoptera" (SAMA et al. 2010). The examination of genital structures of the species placed in the genera *Chlorophorus* and *Rhaphuma*, and analysis of the other morphological structures is necessary to resolve taxonomic problems of *Rh. gracilipes*.

Acknowledgements. I am very grateful to Adam Larysz (USMB) for photos of specimens and L. V. Egorov (Cheboksary, Russia) for a new data.

REFERENCES

- ALTHOFF J., DANILEVSKY M. L. 1997. Seznam kozličev (Coleoptera, Cerambycoidea) Evrope / A check-list of Longicorn Beetles (Coleoptera: Cerambycoidea) of Europe. Slovensko entomološko društvo Štefana Michielija, Ljubljana: 64 pp.
- AURIVILLIUS C. 1912. Cerambycidae: Cerambycinae (Pars 39). [In:] SCHENKLING S. (Ed.). Coleopterorum Catalogus. Vol. 22. Cerambycidae 1. Junk, Berlin: 574 pp.
- CHEREPANOV A. I., CHEREPANOVA N. E. 1975. Zhuki-drovoseki ivovych lesov Sibiri. Nauka, Moskva: 207 pp.
- DEDYUKHIN S. V. 2005. Zhuki-usachi (Coleoptera, Cerambycidae) natsional'nogo parka "Nechkinskiy" (s obzorom fauny dannogo semeystva v Udmutrii). *Vest. udmutr. Univ. (Ser. Biol.)* 10: 81–96.
- DIMITRIEV A. B., OLIGER A. I., EGOROV L. V., LASTUKHIN A. A., UTEMOVA L. D., PETROVA E. A. 2008. Prikladnye ekologicheskie issledovaniya na ychastke proektiruemy avtodorogi Kozhevennoe–Starokamennoe–Krasnoglukhovo (Chuvashskaya Respublika). *Nauch. Trudŷ gos. prir. Zapov. "Prisurskiy"* 19: 90–119.
- EGOROV L. V. 1994. K faune zhukov-usachey (Coleoptera, Cerambycidae) Chuvashskogo Gosudarstvennogo prirodnogo natsional'nogo parka "Chävash värmanë". [In:] VORONOV G. A. (Ed.). Okhranyaemye prirodnye territorii. Problemy vyavleniya, issledovaniya, organizatsii sistem. Tezisy dokladov mezhdunarodnoy nauchnoy konferentsii Perm, noyabr' 1994. Ch. 2. Permskiy gosudarstvennyy universitet, Perm: 47–49.
- EGOROV L. V. 1997. Materialy k faune zhestokrylykh (Insecta, Coleoptera) nacional'nogo parka "Chävash värmanë" (Chuvashskaya Respublika). Soobshshenie I. [In:] Fauna i ekologiya zhivotnykh nacional'nogo parka "Chävash värmanë" (Chuvashskaya Respublika). Vyp. I. Cheboksary: 38–58.
- EGOROV L. V. 2009. Zhestokrylye (Insecta, Coleoptera) gosudarstvennogo prirodnogo zapovednika "Prisurskiy" i yego okhrannoy zony. Sovremennoe sostoyanie izuchennosti. *Nauch. Trudŷ gos. prir. Zapov. "Prisurskiy"* 22: 12–33.
- ERMOLAEV I. V. 2006. First results of studying of fauna of Long-horned Beetles (Coleoptera, Cerambycidae) of the Netchkinsky National Park. Biodiversity and bioresources of the Urals and adjacent territories. Proceedings of III International Conference. Print-service, Orenburg: 178–179.
- ERMOLAEV I. V. 2009. *Rhaphuma gracilipes* (FALDERMANN, 1835). [In:] Zhuki-usachi (Cerambycidae) Udmutrii. [Online:] http://beetle-boris.narod.ru/index2/Rhaphuma_gracilipes.html (20.11.2009).

- GANGLBAUER L. 1882. Bestimmungs-Tabellen der europäischen Coleopteren. VII. Cerambycidae. *Verh. k. k. zool.-bot. Ges. Wien* 31: 681–758.
- GUTOWSKI J. M. 1992. *Chlorophorus gracilipes* (FALDERMANN, 1835) – nowy dla fauny Polski przedstawiciel kózkowatych (Coleoptera, Cerambycidae). *Wiad. ent.* 11(2): 81–88.
- HEYDEN L., REITTER E., WEISE J. 1906. *Catalogus Coleopterorum Europae, Caucasi et Armeniae rossicae*. 2 Aufl. R. Friedländer & Sohn, E. Reitter, Berlin–Paskau–Caen: VII, 775 pp.
- HUA L. 2002. *List of Chinese Insects*. Vol. 2. Zhongshan Yat-sen University Press, Guangzhou: 612pp.
- LINDEMAN G. V. 1963. Ob’’ ekologii i razprostraneniі nekotorykh maloizuchennykh nasekomykh lesostepnoy zony. (On ecology and distribution of some little known insects of forest-steppe zone). *Zool. Zh.* 42(9): 1363–1369.
- KOSTIN I. A. 1973. The dendrophagus beetles of Kazakhstan (Buprestidae, Cerambycidae, Ipidae). Academy of Sciences of the Kazakh SSR, Institute of Zoology, Nauka, Alma-Ata: 288 pp. (figs 74–91).
- LOBANOV A. L., DANILEVSKY M. L., MURZIN S. V. 1982. Systematic list of Longicorn Beetles (Coleoptera, Cerambycidae) of the USSR. II. *Ent. Obozr.* 61: 252–277.
- MAMAEV B. M., DANILEVSKY M. L. 1975. *Lichinki zhukov-drovosekov / Larvae of timber beetles*. Nauka, Moskva: 282 pp.
- MATSUSHITA M. 1933. Beitrag zur Kenntnis der Cerambyciden des japanischen Reichs. *J. Fac. Agron. Hokkaido imp. Univ.* 34 C (2): I–IX, 157–445, 5 pls.
- PLAVILSTSHIKOV N. N. 1930. Beitrag zur Verbreitung der paläarktischen Cerambyciden I. *Ent. NachrBl., Troppau* 4(2): 48–55.
- PLAVILSTSHIKOV N. N. 1940. Fauna SSSR. Nasekomye zhestokrylye. Zhuki-drovoseki (Ch. 2). *Fauna SSSR* 22: 1–784.
- SALUK S. V., PISANENKO A. D. 1991. Faunisticheskiy spisok zhukov-drevosekov (Coleoptera, Cerambycidae) Belorussii. [In:] *Fauna i ekologiya zhestokrylykh Belorussii*. Nauka i Tekhnika, Minsk: 221–225.
- SAMA G. 2002. Atlas of the Cerambycidae of Europe and the Mediterranean Area. I: Northern, Western, Central and Eastern Europe. British Isles and Continental Europe from France (excl. Corsica) to Scandinavia and Urals. *Kabourek, Zlín*: 173 pp., 36 col. pls.
- SAMA G., LÖBL I., ADLBAUER K., HUBWEBER L., MORATI J., RAPUZZI P., WEIGEL A. 2010. Subfamily Lepturinae to Lamiinae [without Apatophyseinae and Dorcadionini]. [In:] LÖBL I., SMETANA A. (Eds). *Catalogue of Palaearctic Coleoptera*. Vol. 6: Chrysomeloidea. Apollo Books, Stenstrup: 95–241, 264–334.
- SHAPOVALOV A. M. 2010. Annotirovannyi spisok zhukov-usachey (Coleoptera: Cerambycidae) Orenburgskoy oblasti. [In:] SHAPOVALOV A. M. (Ed.). *Zhuki-usachi (Cerambycidae, Coleoptera) Urala i sopredel’nykh territoriy*. [Online:] <http://www.cerambycidae.ru/content-view-4.html> (20.12.2012).
- ÖZDIKMEN H. 2011. The Longicorn Beetles of Turkey (Coleoptera: Cerambycidae). Part IV. Mediterranean Region. *Munis Ent. Zool.* 6(1): 6–140.
- ZAWADZKI Ż. 1937. Kózki ziemi Wileńskiey. Spozrżezenia i notaty. *Polskie Pismo ent.* 14–15: 281–305.

STRESZCZENIE

Rozmieszczenie *Rhaphuma gracilipes* (FALDERMANN, 1835) (Coleoptera: Cerambycidae) w Europie

Rhaphuma gracilipes (FALD.) znany z Europy dotąd na podstawie znalezisk sprzed ponad kilkudziesięciu lat (PLAVILSTSHIKOV 1940, GUTOWSKI 1992), został stwierdzony współcześnie w Polsce w 1971 w Bieszczadach, na podstawie okazów przechowywanych w zbiorach USMB w Bytomiu. Najbliższe współczesne stanowiska tego gatunku znajdują się ponad 1000 km na wschód od stanowiska w Bieszczadach. Przeanalizowano dane literaturowe i uzupełniono dane o występowaniu tego gatunku w Europie. Gatunek jest możliwy do znalezienia na Litwie, Ukrainie, w Rumunii oraz na Słowacji.