A note on the status of *Gonatocerus cicadellae* Nikolskaja, 1951 (Hymenoptera: Mymaridae)

Заметка о статусе *Gonatocerus cicadellae* Nikolskaja, 1951 (Hymenoptera: Mymaridae)

Serguei V. Triapitsyn C.B. Тряпицын

Department of Entomology, University of California, Riverside, California 92521 USA.

KEY WORDS: Hymenoptera, Mymaridae, *Gonatocerus longicornis*, synonymy. КЛЮЧЕВЫЕ СЛОВА: Hymenoptera, Mymaridae, *Gonatocerus longicornis*, синонимика.

ABSTRACT. The name of mymarid wasp *Gonatocerus cicadellae* Nikolskaja, 1951 is synonymized under *G. longicornis* Nees, 1834 based on examination of the material recently collected in northern Kyrgyzstan, from where *G. cicadellae* was described. New data about the distribution of this species, an egg parasitoid of the leafhopper *Cicadella viridis* (Linnaeus, 1758), are given.

РЕЗЮМЕ. Название наездника *Gonatocerus* cicadellae Nikolskaja, 1951 сведено в синонимы к на основе изучения материала, собранного недавно в северном Киргизстане, откуда был описан *G.* cicadellae. Приведены овые данные о распространении этого вида — паразита яиц зелёной цикадки Cicadella viridis (Linnaeus, 1758).

The mymarid wasp species *Gonatocerus cicadellae* Nikolskaja, 1951 was described from a series of 30 females and 10 males, reared from the eggs of the leafhopper *Cicadella viridis* (Linnaeus, 1758) by N.Ya. Sokolenko during 1947–1949 in Kyzyl-Asker district, Bishkek (then Frunze) region of Kyrgyzstan (then Kyrgyz SSR) [Nikolskaja, 1951]. This leafhopper, known in the Russian scientific literature under the common name "green leafhopper", was reported as a pest of soybeans and rice in the Russian Far East as well as of young fruit trees in Kyrgyzstan where, in 1949, 20.1% of its eggs in the first generation on raspberries were parasitized by *G. cicadellae* [Sokolenko, 1956] (as *G. cicadella* [sic] Nicolskaja).

Recently, many authors who have studied the Mymaridae suspected, based on the original description and drawings, that *G. cicadellae* might be conspecific with the better known species *Gonatocerus longicornis* Nees, 1834 [Graham, 1982; Matthews, 1986; Viggiani & Jesu, 1988 (as *Lymaenon cicadelle* [sic] Nikolskaya); Zeya & Hayat, 1995], but all of them came short of formally synonymizing the former under the latter. The main reason for that was the unavailability of the type material of *G. cicadellae* for study.

The original material of *G. cicadellae*, including the "type" (all specimens probably preserved in alcohol), was deposited in the collection of the Zoological Institute, Academy of Sciences of the USSR [Nikolskaja, 1951], but recently it could not be found [V.A. Trjapitzin, personal communication]. However, I have been fortunate to obtain a series of freshly collected specimens of G. longicornis from northern Kyrgyzstan. A thorough comparison of these specimens with Nikolskaja's description and her drawing of the female G. cicadellae leaves no doubt in my mind that these two nominal species are the same. The proposed new synonymy of G. cicadellae under G. longicornis is also justified by a comparison of the specimens from Kyrgyzstan with other material of this species from France and Russia; all identifications are mine following Matthews [1986].

Acronyms for depositories of specimens are as follows: INHS, Illinois Natural History Survey, Champaign, Illinois, USA; UCRC, Entomology Research Museum, University of California at Riverside, California, USA; ZIN, Zoological Institute, Russian Academy of Sciences, St. Petersburg, Russia.

Gonatocerus longicornis Nees, 1834

Gonatocerus longicornis Nees, 1834: 192. Gonatocerus cicadellae Nikolskaja, 1951: 575–576, **syn. n.** Gonatocerus cicadellae Nikolskaya; Sahad & Hirashima, 1984: 30–34.

Gonatocerus longicornis Nees; Matthews, 1986: 218.

Material. FRANCE, DÉPARTEMENT GIRONDE, Sainte Colombe, 44°54'N, 00°02'W, 14.IX.2000, M. van Helden, 1 ♀ [UCRC]. KYRGYZSTAN, TALAS REGION, near Boo-Terek, 42° 35′15″N, 71°45′49″E, 1000 m, 15.VI.1999, C.H. Dietrich, 10 ♀♀ [INHS, UCRC]. RUSSIA, PRIMORSKIY KRAY, Ussuriysk district, Gornotayozhnoye, VII−VIII.1999, M.V. Michailovskaya, numerous ♀♀, ♂♂ [UCRC, ZIN].

DISTRIBUTION AND HOSTS. This species is known from Austria, Czech Republic, Finland, France (new record), Germany, Greece, India, Italy, Japan, Korea, Kyrgyzstan, Romania, Russia, Slovakia, and United Kingdom (England, Wales).

Gonatocerus longicornis is likely to be widely distributed in the Palaearctic region and also in parts of the Oriental region throughout the range of its principal host, C. viridis. Additional leafhopper hosts in India are indicated by Zeya & Hayat [1995]. In Russia, this species was reported by Hellén [1974] from Leningrad region as Gonatocerus terebrator (Förster, 1847), another junior synonym of G. longicornis. It is reported here for the first time from southern Primorskiy kray, where it appears to be very common.

REMARKS. Because the type material of G. longicornis (from Germany) had been lost, and considering its status as the type species of the genus *Gonatocerus* Nees, 1834, a neotype was designated by Boucek & Graham [1972] from the female collected in Italy. Good, illustrated redescriptions of this species are available [Boucek & Graham, 1972; Sahad & Hirashima, 1984; Matthews, 1986; Zeya & Hayat, 1995]. It is a member of the sulphuripes species-group as defined by Matthews [1986], who revised and keyed the British species of *Gonatocerus*. Lists of other synonyms of G. longicornis were provided by Matthews [1986] and Zeya & Hayat [1995].

ACKNOWLEDGMENTS. I thank Prof. Vladimir A. Trjapitzin (ZIN) for searching for the type series of *G. cicadellae* and helping with Russian literature, Drs. Christopher H. Dietrich (INHS), Maarten van Helden (ENITA of Bordeaux, Gradignan, France) and Marina V. Michailovskaya (Mountain-Taiga Station, Far Eastern Branch of the Russian Academy of Sciences, Gornotayozhnoye, Primorskiy kray, Russia) for making available the material of Mymaridae from Kyrgyzstan, France, and the Russian Far East, respectively. Mr. Vladimir V. Berezovskiy (UCRC) is acknowledged for mounting the specimens; Mr. Saul I. Frommer (UCRC) reviewed the manuscript.

References

- Boucek Z., Graham M.W.R. de V. 1972. The identity of the typespecies of *Gonatocerus* Nees (Hymenoptera: Mymaridae) // Journal of Entomology. Ser.B (Taxonomy). Vol.41. No.2. P.125–130
- Graham M.W.R. de V. 1982. The Haliday collection of Mymaridae (Insecta, Hymenoptera, Chalcidoidea) with taxonomic notes on some material in other collections // Proceedings of the Royal Irish Academy. Sect.B. Vol.82. No.12. P.189–243.
- Hellén W. 1974. Die Mymariden Finnlands (Hymenoptera: Chalcidoidea) // Fauna Fennica. Vol.25. P. 1–31. Matthews MJ. 1986. The British species of *Gonatocerus* Nees
- Matthews M.J. 1986. The British species of Gonatocerus Nees (Hymenoptera: Mymaridae), egg parasitoids of Homoptera // Systematic Entomology. Vol.11. P.213–229.
- Nees ab Esenbeck C.G. 1834. Hymenopterorum Ichneumonibus affinium monographiae, genera europaea et species illustrantes, Vol.2 // Stuttgart & Tübingen. 448 p.
- Nikolskaja M.N. 1951. [A new species of *Gonatocerus* (Hymenoptera, Mymaridae) from eggs of the leafhopper *Cicadella viridis* L.] // Entomologicheskoe Obozrenie. Vol.31. No.3—4. P.575—576 [in Russian].
- Sahad K.A. & Hirashima, Y. 1984. Taxonomic studies on the genera *Gonatocerus* Nees and *Anagrus* Haliday of Japan and adjacent regions, with notes on their biology (Hymenoptera, Mymaridae) // Bulletin of the Institute of Tropical Agriculture, Kyushu University. Vol.7. P.1–78.
- Sokolenko N.Ya. 1956. [14. The green leafhopper *Cicadella (Tettigonia) viridis* L and the measures to control it] // [Bulletin of the Scientific-Technical Information on Plant Protection], VIZR, Leningrad. No.1. P.23–24 [in Russian].
- Viggiani G., Jesu R. 1988. Considerazioni sui Mimaridi italiani ed i loro ospiti // Atti [XV] Congresso Nazionale Italiano di Entomologia [L'Aquila]. Vol.15. P.1019–1029.
- Zeya S.B., Hayat M. 1995. A revision of the Indian species of *Gonatocerus* Nees (Hymenoptera: Chalcidoidea: Mymaridae) // Oriental Insects. Vol.29. P.47–160.