UDC 595.771(477)

CORYNOPTERA MEMBRANIGERA (KIEFFER, 1903) – NEW SCIARID SPECIES (DIPTERA, SCIARIDAE) FOR ENTOMOFAUNA OF UKRAINE

Babytskiy A.I.¹, Zuieva O.A.², Bezsmertna O.O.^{3,4}

¹National University of Life and Environmental Sciences of Ukraine

E-mail: andriybabytskiy@gmail.com

²BioLabTech, Ltd

E-mail: <u>o.a.zuieva@gmail.com</u>

³Taras Shevchenko National University of Kyiv ⁴Tsumanska Pushcha Kivertsi National Nature Park

Corynoptera membranigera (Kieffer, 1903) was described firstly as Sciara membranigera Kieffer, 1903. In 1909, J.J. Kieffer, based on his previous description of this species, divided Sciara Meigen, 1803 genera into two and described a new one – *Psilosciara* Kieffer, 1909. Later, R. Tuomikoski described the same species as *Corynoptera trispina* Tuomikoski, 1960. F. Menzel and W. Mohrig within their revision of Palearctic Sciaridae synonymized both species as *C. membranigera* [3].

The Palearctic spreading of *C. membranigera* is wide and includes next regions: Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Ireland, Italy, Latvia, Luxembourg, Romania, Russia (Altay region, Karelia and Moscow region), Slovakia, Sweden, Switzerland [2].

We have investigated the ecological and chorological features of sciarids in Ukraine since 2013. Within this work, we have found some new localities for *C. membranigera* in our country and collected some data on its biotopic distribution. Sciarid imagos were collected using non-accounted mowing with entomological net and placed into 5 ml vials with 70 % ethanol. Fixed material was dehydrated initially in 96 % and then in absolute ethanol, and mounted on slides in Euparal [1].

The list of studied material: № 49, Ukraine, Ternopil reg., between Lucka and Volya villages, "Zapust" tract [N 49.40572, E 025.61362], altitude ca. 340 m, hornbeam-oak forest, sweeping on

the wet ravine, between the hills overgrown with Carpinus betulus L., 1 ♂, 03.07.2015, leg. A. Babytskiy; № 53, 54, Ukraine, Ternopil reg., between Luchka and Volya villages, "Zapust" tract [N 49.40546, E 025.61394], altitude ca. 340 m, hornbeam-oak forest, on the fruit body of Neoboletus luridiformis (Rostk.) Gelardi, Simonini & Vizzini 2014, 2 ♂, 06.07.2015, leg. A. Babytskiy; № 92, Ukraine, Ivano-Frankivsk reg., between Nezvesko and Luka villages, left bank of Dniester river [N 48.78383, E 025.25209], altitude ca. 170 m, meadow near the forest, between field road and tallgrass formed by Urtica dioica L., Aegopodium podagraria L. with adding of Plantago latifolia L., Taraxacum oficinale L. and other, hortobium, sweeping and with exhauster, 1 \circlearrowleft , 10.08.2016, leg. A. Babytskiy; $N \in \mathbb{N}$ 106-107, Ukraine, Ternopil reg., between Lucka and Volva villages, "Zapust" tract [N 49.40593, E 025.61580], altitude ca. 170 m, hornbeam-oak forest, on the fruit body of *Russula* sp., with exhauster, $2 \stackrel{?}{\circ}$, $1 \stackrel{?}{\circ}$, 03.07.2015 (Babytskiy); №№ 43, 44, 108, 109, Ukraine, Ternopil reg., between Lucka and Volya villages, "Zapust" tract [N 49.40591, E 025.61581], altitude ca. 340 m, hornbeam-oak forest, on the fruit body of Fuligo septica (L.) F.H.Wigg (1780) f. flava, which developed on the leaf litter, with exhauster, 9 ∂, 03.07.2015, leg. A. Babytskiy; № 206, Ukraine, Volyn reg., outskirts of Klubochyn village, Partyzantske forestry, National Natural Park "Tsumanska puscha" [N 50.96522, E 025.77657], altitude ca. 212 m, birch-hornbeam forest, sweeping above the overgrowth of *Vinca minor* L., 1 $\stackrel{?}{\circ}$, 27.06.2017, leg. A. Babytskiy; №№ 223, 224, Ukraine, Volyn reg., outskirts of Sokyrychi village, Sokyrychivske forestry, National Natural Park "Tsumanska puscha", [N 50.87516, E 025.51393], altitude ca 210 m, hornbeam forest with an admixture of pine and age-old larches, hortobium (populations of Pteridium sp., Dryopteris sp. and Aegopodium podagraria L.) and herpetobium (rotten trunks and branches), 3 ♂, 28.06.2017, leg. A. Babytskiy; № 200, Ukraine, Volyn reg., outskirts of Klubochyn village, Partyzantske forestry, National Natural Park "Tsumanska puscha" [N 50.96447, E 025.77727], altitude ca. 210 m, hornbeam forest with birch admixture, area with three *Betula obscura* Kotula trees, sweeping on hortobium, 1 β , 27.06.2017, leg. A. Babytskiy; № 243, Ukraine, Volyn reg., outskirts of Zhabka village, National Natural Park "Tsumanska puscha" [N

50.81466, E 025.42506], altitude ca. 230 m, broadleaved-coniferous forest, sweeping on the forest road, 1 \circlearrowleft , 29.06.2017, leg. A. Babytskiy. All of the studied material is kept in Andriy Babytskiy's Private Collection, Kyiv (PABK).

Thus, *C. membranigera* is registered in three regions of Ukraine – Ternopil, Ivano-Frankivsk and Volyn regions. Also, this species is indicated in four types of biotopes – hornbeam, hornbeam-oak, hornbeam-birch and broadleaved-coniferous forests and in the forestry meadow. *C. membranigera* imagoes tend to the wet areas as ravines, tall or dense grasses, and distribute on hortobium (grass level), dendrobium (trees and shrubs level) and herpetobium (leaves litter, fruit bodies and rotten woods level), where their larvae evidently develop. Some specimens were collected on the fungus (*N. luridiformis*, *Russula* sp.) and Mycetozoa (*F. septica*) fruit bodies that can imply possible existence of trophic links between *C. membranigera* larvae and specified organisms.

Acknowledgements. We consider our pleasant obligation to express sincere gratitude to DSc, Prof. Valery O. Korneyev for his ongoing help, scientific guidance, and valuable advices, also to DSc, Prof. Vasyl P. Heluta, who support our work with helping in fungi species identification.

References

- 1. Бабицький А.І. Методика виготовлення мікропрепаратів комарів родини Sciaridae (Mycetophiloidea, Diptera) // Ентомологічні читання пам'яті видатного вченогоентомолога проф. М.П. Дядечка: матер. Всеукр. наук.-практ. конф., 10–12 грудня 2014 р., м. Київ. К.: НУБіПУ, 2014. С. 40–41.
- 2. *Hippa H.*, Vilkamaa P., Heller K. Review of the Holarctic Corynoptera Winnertz, 1867, s. str. (Diptera, Sciaridae) // Zootaxa. 2010. 2695. P. 1–197.
- 3. *Menzel F.*, Mohrig W. Revision der palaarktischen Trauermucken (Diptera: Sciaridae) // Studia dipterologica. 2000. 6. P. 1–761.