

***Gaurax flavomaculatus* (Duda, 1933) (Diptera, Chloropidae) found in Norway – with data on distribution and the mode of life of the species**

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Nartshuk E.P. 2008. *Gaurax flavomaculatus* (Duda, 1933) (Diptera, Chloropidae) found in Norway – with data on distribution and the mode of life of the species. *Norw. J. Entomol.* 55, 233–234.

Gaurax flavomaculatus (Duda, 1933) is reported new to Norway. Five females were found in a Malaise trap in the extreme South of Norway (AAY) in August–September 2004. New data on distribution of the species in Europe and the mode of life of the larvae are given.

Key words: Diptera, Chloropidae, *Gaurax flavomaculatus*, distribution, biology, *Gaurax polonicus*.

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INTRODUCTION

G. flavomaculatus was described by Duda in 1933 from Germany (type locality Tholey Kr. Sankt Wendel, Saargebiet) in the genus *Goniopsita* Duda, 1930. The species was listed in the genus *Fiebrigella* Duda, 1921 in the Catalogue of Palaearctic Diptera (Nartshuk 1984) and in the genus *Lasiambia* Sabrosky, 1941 in the checklist of Diptera of Germany (Wendt 1999). Later *Gaurax britannicus* Deeming, 1980 was described from England: Hertfordshire, Potters Bar (Deeming 1980), and Ismay (1994) found a second specimen of the species in Oxfordshire (England). Ismay who investigated Duda's type in the Museum für Naturkunde der Humboldt Universität zu Berlin transferred the species to the genus *Gaurax* Loew, 1963 and found that *G. britannicus* is a junior synonym of *G. flavomaculatus* Duda, 1933 (Merz, Ismay, Schulten & Dely-Draskovits 2005; Ismay & Schulten 2006).

MATERIAL

The Chloropid fly *Gaurax flavomaculatus* (Duda,

1933) is recorded for the first time from Norway. The specimen was found in the collection of the Natural History Museum, University of Oslo. Five females were sorted out from Malaise trapped material labeled "EIS 28 AAY Lillesand: Lillesand Furulia, S faced slope, August–September 2004 UTMwGS8432V623656, Leg. Gunnar Wiig."

DISCUSSION

Gaurax flavomaculatus is a rather rare European species associated with broad-leaved forests. In this paper *G. flavomaculatus* is reported from Norway (from the south of the country) for the first time. In connection to this study some additional specimens of this species were examined in the collection of the Zoological Institute, Russian Academy of Sciences, St. Petersburg. These specimens clarify the geographical distribution of *G. flavomaculatus* in Eastern Europe. Further, some of these specimens were reared from wood and bark samples, and therefore provide additional information on the bionomics of the larvae.

The following specimens have been examined:



Figure 1. Distribution of *Gaurax flavomaculatus* (Duda, 1933).

Male: Russia, Moscow Province, Malinki near Krasnaya Pakhra, 30.V.–23.VI.1975 (V. Kovalev); adult emerged from under bark of English Oak (*Quercus robur*) on 30.V.1975 (the original bark sample collected on 23.VI.1975) where the empty puparium was subsequently found. Two females: Ukraine, Zakarpatskaya Province, Uzhgorod, botanical garden, 20.V.1969 (Giritz); adults emerged from under bark of *Armeniaca vulgaris*; the empty puparia were subsequently found under the bark a gallery of *Scolytus mali* (Berstein, 1805) (Scolytidae).

Larvae of *G. flavomaculatus* develop like larvae of other Palaearctic species of the genus that live under bark or in cones of trees together with other insects. Probably they feed on frass of other inhabitants or on dead insects. Two specimens (1 male, 1 female) of another species, *G. polonicus* Nartshuk, 1980, were reared from the same bark sample from Malinki, as the male of *G. flavomaculatus* listed above. The specimens of *G. polonicus* differ from *G. flavomaculatus* in having the first flagellomere yellow with dark apex, the palpi yellow; the pleura yellow, each with single black mark on anepisternum; legs yellow except the single black band on metatibia. In *G. flavomaculatus* the palpi and the first flagellomere are black, the pleura are black with single yellow

mark each, mesofemora are yellow with black apex, metafemora yellow with black base, meso- and metatibiae are brownish yellow.

Acknowledgements. I am very grateful to Dr. V. Gusarov for possibility to work with Chloropidae in the collection of Natural History Museum, University of Oslo and for language corrections, Dr. M. Mandelstam for determination Scolitidae, and L. Greve-Jensen for valuable remarks. Financial support from the Russian Foundation for Basic Research (08-04-00186a, 08.04. 10032k), grant of the President of the Russian Federation of support of the leading scientific schools (N Sh 2329. 2008.4), Programmes of the Presidium of the Russian Academy of Sciences “Origin and Evolution of Biosphere”. Collection of the Zoological Institute RAS (UFL ZIN № 2-2.20, Rosnauka № 02.518.11.7086) was used.

REFERENCES

- Deeming J.C., 1980. A new *Gaurax* Loew. (Dipt., Chloropidae) from England. *Entomologist's Monthly Magazine*. 116, 93–94.
- Duda, O. 1933. Chloropidae. In: E.Lindner (Ed.). *Die Fliegen der palaearktischen Region*. 6(1), 49–248.
- Ismay, J. W. 1994. A second specimen of *Gaurax britannicus* Deeming (Dipt., Chloropidae) from Oxfordshire. *Entomologist's Monthly Magazine*. 130, 136.
- Ismay, J.W., Schulten, B. 2006. A note on the synonymy of *Gaurax britannicus* Deeming, 1980 (Diptera, Chloropidae). *Dipterist Digest*. Second Serie. 2005. 12(2), 171.
- Merz, B., Ismay, J.W., Schulten, B., Dely-Draskovits, A. 2005. Neue und selten gesammelte Chloropidae (Diptera) der Schweiz. *Mitteilungen der Entomologischen Gesellschaft Basel*. 55(3), 74–87.
- Nartshuk, E.P. 1984. Family Chloropidae. Pp. 222–298. In: Soos, A. and Papp, L. (Eds.) *Catalogue of Palaearctic Diptera*. 10. Clusiidae–Chloropidae. Akadémia kiadó. Budapest.
- Wendt, H. 1999. Chloropidae. Pp. 140–143. In: Schuman, H., Bahrmann, R. and Stark, A. (Eds.). *Checklist der Dipteren Deutschlands*. *Stidia dipterologica*. Supplement 2.

Received: 17 September 2008

Accepted: 13 October 2008