

Outline of Western Palaearctic Issidae (Hemiptera: Auchenorrhyncha: Fulgoroidea)

Vladimir M. Gnezdilov¹, Michael R. Wilson² and Werner E. Holzinger³

¹ Zoological Institute, Russian Academy of Sciences, Universitetskaya nab. 1, 199034 St. Petersburg, Russia; vmgnezdilov@mail.ru

² National Museum of Wales, Cathays Park, Cardiff CF10 3NP, United Kingdom; michael.wilson@museumwales.ac.uk

³ Ökoteam – Institut für Faunistik und Tierökologie, Bergmannsgasse 22, A-8010 Graz, Austria; holzinger@oekoteam.at

The Western Palaearctic fauna of the family Issidae Spinola has been comparatively well studied over the last hundred years. Thanks mainly to the works by Melichar, de Bergevin, Dlabola, Logvinenko, Linnavuori, Mitjaev, and Emeljanov the Western Palaearctic issid fauna is one of the best known Auchenorrhyncha regional faunas, but has not been monographed. The present work is a part of the international project dealing with the provision of an illustrated check-list of Western Palaearctic Issidae. The primary aim of the project has been to study the taxonomy of Western Palaearctic issid species so as to bring together the scattered taxonomic information on this group of insects and provide an authoritative account.

We have defined the area of Western Palaearctic Region following Emeljanov (1974). The eastern limits of Western Palaearctic are Yenisei River, Altai Mountains, Tarbagatai Mountains, Central Tan'-Shan' Mountains, Western Pamir Mountains, Ind River. The southern limit of Western Palaearctic is Tropic of Cancer.

In the Western Palaearctic only the tribe Issini of the family Issidae is represented. It comprises three subtribes: Issina Spinola, 1839, Hysteropterina Melichar, 1906, and Agalmatiina Gnezdilov, 2002. The total Western Palaearctic issid fauna comprises around 48 genera with around 410 species and subspecies, which is more than one third of known world issid fauna. Very few species are widespread [e.g. *Issus coleoptratus* (Fabricius, 1781) and *Agalmatium bilobum* (Fieber, 1877)], with the majority of species endemic to a small area.

The main subtribe Hysteropterina includes 41 genera, the subtribes Agalmatiina and Issina – five and two genera accordingly. There are six genera – *Mycterodus* Spinola, *Tshurtshurnella* Kusnezov, *Issus* Fabricius, *Celyphoma* Emeljanov, *Kervillea* Bergevin, and *Bubastia* Emeljanov which include 20 and more species each and totalling 218 species which is more than half of the fauna. The largest genus *Mycterodus* includes 81 species. Fourteen genera are monotypic and 28 genera include from two to thirteen species.

Western Palaearctic issid fauna consists of three main faunal elements with about equal number of species – Western Mediterranean, Eastern Mediterranean, and Irano-Turanian.

The study was financially supported by the Royal Society (London) and the Russian Foundation for Basic Research (08-04-00134).