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Historical records of seed bugs (Heteroptera: Lygaeidae) new to the Swiss fauna

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Four species of Lygaeidae are reported as Swiss for the first time: *Notochilus limbatus* Fieber, *Trapezonotus ullrichi* (Fieber), *Hyalochilus ovatulus* (Costa) and *Thaumastopus marginicollis* (Lucas). The known distributions are discussed briefly.

Key-words: Heteroptera, Lygaeidae, distribution, Switzerland.

INTRODUCTION

The Lygaeidae (known as seed bugs or ground bugs) is a large family, with some 1000 species in the Palaearctic region (Aukema & Rieger 2001). The majority of species for which the ecology is known are herbivores, specialising in seed predation, though some are at least partly predatory, and most are ground dwelling (McGavin 1993).

Studies of the Swiss Heteroptera fauna have a pedigree going back to the 19th Century, and, indeed, to the origins of this journal (see for example Frey-Gessner 1864-66). Coverage is patchy however, both in terms of taxonomic group and geography, and there is no monograph for Switzerland like those which exist for Britain (most recently, Southwood and Leston 1959 reissued on CD-ROM).

The identity and distribution of the Euro-Mediterranean seed bugs is covered by a recent monograph by Pericart (1998), and the national distributions are also summarised in the most recent Palaearctic checklist (Aukema & Rieger 2001).

MATERIAL EXAMINED

The Heteroptera collections of the Natural History Museum of Geneva (MHNG) include several small collections in which there is unidentified material, mainly from the Geneva area. As a preliminary to incorporating this material into the main, catalogued, collection, identification was required, and the availability of a recent taxonomic monograph made the seed bugs an obvious starting point. Because some of the existing identifications in the small collections proved to be erroneous, it was decided to determine all of the material before incorporation. Identifications were checked against reference material in the MHNG Eckerlein Collection.

RESULTS AND DISCUSSION

Amongst the seed bugs identified, two species previously unreported for the country are represented by Swiss specimens with full data:

A single specimen of *Notochilus limbatus* Fieber labelled: "Suisse, La Rippe, VD [canton of Vaud], 28.6.66, G. Heiniger". The ecology of this species is unknown, though an association with ants is suspected (Kirby 1992, Pericart 1998). It appears to be rare, and most of the records are old. The distribution is described as Atlantic

by Pericart (1998), though it is by no means coastal, and the new record is the most south-easterly known to date.

A single specimen of *Trapezonotus ullrichi* (Fieber) labelled: "Suisse, Verbois [canton of Geneva], 19.5.66, G. Heiniger". Another, apparently overlooked, specimen of this bug is present in the uncatalogued Regional Collection labelled: "Mategnin [canton of Geneva], 11.4.53 [leg. Simonet]". In contrast to the previous species, the main surprise is that this bug has not been recorded for Switzerland even though it has been found in all the neighbouring countries. The ecology of the species is not well known, but other members of the genus are seed feeders.

Two further species previously unreported for the country are represented by specimens with partial data:

Two specimens of *Hyalochilus ovatulus* (Costa) both labelled: "Chancy [canton of Geneva], 21.8". One also has the label: "*Deraeocoris cordiger* Hhn". This species is associated with plants of the genus *Parietaria* (Urticaceae), and has a Mediterranean distribution. It is perhaps surprising to find it in Geneva, but there is a record from as far north as Domodossola (Pericart 1998), and the host plant is certainly found here (Lauber & Wagner 2001).

Two specimens of *Thaumastopus marginicollis* (Lucas) both labelled: "Jussy [canton of Geneva], 22.5". One also labelled: "coll. Ch. Maerky". In the Regional Collection there are two more specimens, both without dates, one labelled: "Carouge, Geneve, Maerky", the other: "Peney, Geneve, Tournier". The ecology of this species is unknown. The distribution is Ponto-Mediterranean (Pericart 1998), and all the French records are old, perhaps suggesting a contraction in range.

The presence of Mediterranean species in the Geneva area is by no means impossible, but the provenance of the specimens without complete data may, perhaps, be considered more doubtful than the material with full data collected by Heiniger.

Although museum records offer limited information about habitat, ecology or behaviour of the species concerned, the information has value in defining the baseline checklist for the country, and adding to the knowledge of species distribution.

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