

Brief Report

Trogus lapidator (Fabricius) ssp. *panzeri* Carlson (Hymenoptera, Ichneumonidae) in Finland: new rearing records and comments on its distribution

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Two new rearing records of *Trogus lapidator* (Fabricius, 1787) ssp. *panzeri* Carlson, 1975 (Hymenoptera, Ichneumonidae) are reported. In the light of these data we question the hypothesis according to which *Trogus lapidator* became extinct in Finland in the early 1960s and colonized the country again in the 1970s from the east.

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Species of the genus *Trogus* Panzer are parasitoids of *Papilio* Linnaeus butterflies (Heinrich 1960). *Trogus lapidator* is a solitary parasitoid of *Papilio machaon* Linnaeus, 1758 (Shaw 1978). Though there are some rearing records also from a few other large butterfly species (Meier 1933, Townes *et al.* 1965), it is certainly dependent on *P. machaon* for its survival in Britain (Shaw 1978). In Europe, there are two subspecies of *T. lapidator*: the typical subspecies *lapidator* (Fabricius, 1787) and subsp. *panzeri* Carlson, 1975; the former has wings evenly and deeply infuscate, while the latter has fore wings deeply infuscated only on the apical margin. In Europe, *T. l. lapidator* has a clearly southern distribution (Schmiedeknecht 1902, Perkins 1959), while *T. l. panzeri* is the usual North European form (Shaw 1978). We are convinced that the Finnish populations of *T. lapidator* belong to subsp. *panzeri* and are monophagous solitary parasitoids of *P. machaon*.

T. l. panzeri has been frequently referred to as subsp. *coerulator* (Fabricius, 1804) (Perkins 1959, Townes *et al.* 1965, Shaw 1978). However, the name is a junior homonym of *Ichneumon coerulator* Fabricius, 1796 (Carlson 1975), and it has been replaced by *Trogus lapidator panzeri*

Carlson, *nomen novum* (ibid.). The name has been cited in the right form in Rasnitsyn and Siitan (1981) and Vikberg (1996).

Ranta (1996) has reviewed the status of *T. lapidator* in Finland. He collected all the Finnish records of the parasitoid into a distribution map, which shows that all the recent records (i.e. after 1970) are located in the eastern part of the country. He suggested that, after an abundant period, *T. lapidator* became extinct in the 1960s and colonized the country again in the 1970s from the east. We report here two new rearing records of *Trogus lapidator panzeri* (host: *P. machaon*), both from the 1990s and the western part of the country: EH: Valkeakoski (6804: 340), host larva on *Angelica sylvestris* L. in VIII.1991, parasitoid emerged in IV.1992 (specimen lost), leg. J. Heino, det. G. Várkonyi (on the basis of (1) the host pupa having the emergence hole chewed in the wing case, (2) a detailed description of the hatched parasitoid by J. Heino, and (3) a comparison made with museum specimens of *T. l. panzeri* and the superficially resembling *Pimpla* spp., together with J. Heino); PP: Oulunsalo, Akionsaari (7211: 419), host larva on *Peucedanum palustre* (L.) Moench in VIII.1996, parasitoid

emerged at the end of IX.1996 (rearing indoors), 1 female, leg. A. Pyörmälä, det. G. Várkonyi, now in the collections of the Zoological Museum, University of Oulu. After adding our new records to the map, the distribution of *T. l. panzeri* is still sporadic. The parasitoid seems to be now very rare throughout the distribution area of *P. machaon*. The most abundant populations of *P. machaon* live in the eastern and southeastern parts of Finland (Marttila et al. 1990), and therefore it is not surprising that the majority of the recent rearing records of *T. l. panzeri* are from that area.

One can notice a common pattern between Britain and Finland in the case of *T. l. panzeri*: it was abundant in the first half of the century, and then became rare (Shaw 1978, Ranta 1996). There are some data from England (see Shaw 1978) according to which *P. machaon* became extinct locally in one area where *T. l. panzeri* used to exist. In Finland, however, *P. machaon* is widely distributed, and despite the normal fluctuations has remained abundant. Because of this, and the recent rearing records from the west of the country, we suggest that *T. l. panzeri* did not become extinct in Finland but only became rare, for some reason that remains poorly understood.

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