

New localities of two very rare hymenopterans in Poland: *Parnopes grandior* (PALLAS, 1771) and *Xylocopa valga* GERSTAECKER, 1872 (Aculeata: Chrysididae and Apidae)

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ABSTRACT. This article describes new localities of two extremely rare hymenopterans in Poland: *Parnopes grandior* (PALLAS, 1771) (Chrysididae) and *Xylocopa valga* GERSTAECKER, 1872 (Apidae), both classified as critically endangered (CR). *Parnopes grandior* was found in the Kozienice Forest (Słupica), while *Xylocopa valga* in the Bieszczady Mts (Polańczyk).

KEY WORDS: Hymenoptera, Chrysoidea, *Parnopes grandior*, Apoidea, *Xylocopa valga*, faunistic records, Poland.

A discovery of *Parnopes grandior* (PALLAS) (cuckoo wasps, Chrysididae) and *Xylocopa valga* GERSTAECKER (bees, Apidae) in Poland is still very exciting for researchers studying hymenopterans, because both species were always extremely rare here and reappeared after long time intervals. In the last decade, their single new records started to appear in the literature. It is noteworthy that both species are large in comparison to other cuckoo wasps and bees, so they could be easily noticed in the field earlier, even by less experienced entomologists.

1. The jewel wasp *Parnopes grandior* (PALLAS, 1771) in Poland is very rare, classified in the Polish Red Data Book as critically endangered (CR) (BANASZAK 2004a). It is a parasite of sand wasps (Bembicini) of the genus *Bembix* Fabr. [in Poland *B. rostrata* (L.)]. Like its host, it is thus associated with dry, sandy, and sunny sites. It emerges in June and flies till August. It is caught mostly on flowers of *Thymus* spp. and *Armeria* spp. Distributed in southern and central Palaearctic parts of Asia in North Africa, as well as central and southern Europe.

In Poland before 1950 it was reported from 21 localities in various parts of the country, so it was relatively easy to find (BANASZAK 2004a). SZULCZEWSKI (1917) wrote that near Bydgoszcz it was frequent in some years, but currently, in spite of intensive research, its presence has not been confirmed there, even though its host is very numerous. In 1975-2000 it was not reported from Poland at all. Only the last few years brought some information about reappearance of this large cuckoo wasp near Białowieża, where it was found by JAROSZEWICZ (2007), and soon after (2008) also in the Knyszyn Forest, in the Ciasne village near Białystok (TWERD in print).

New record

One male specimen was found on 2 July 2008, in the Słupica village in the Kozienice Forest (UTM: EB29; 51°24'N, 21°24'E) on flowers of *Knautia arvensis*. The cuckoo wasp was caught on an old field, partly covered with raspberry bushes, near a sandy road adjacent to a pine forest, on a sunny site (leg. Marek MIŁKOWSKI).

2. The carpenter bee *Xylocopa valga* GARSTAECKER 1872 is a rare Ponto-Mediterranean species, which reaches its northwestern limit in Poland. In the Polish Red Data Book of Animals, it is also classified as CR, and is protected by law (BANASZAK 2004b). In Lithuania, it is regarded as extinct (MONSEVICIUS 1992). All its records in Poland are scattered in the southeastern part of the country, and are associated with its continuous range of distribution outside the eastern border of Poland. For example, in the Podolia region (now Western Ukraine), *X. valga* was common in the past (Kuntze & NOSKIEWICZ 1938). In total, *X. valga* was recorded in Poland on 12 sites, and was always extremely rare here (BANASZAK 1979, 2004b; BANASZAK & PIOTROWSKI 2005).

New record

The new Polish record of *X. valga* comes from the Polańczyk village in the Bieszczady Mts, near the Soliński Reservoir (also known as the Solińskie Lake), at an altitude of 490 m. One female specimen was caught on a meadow, near a thicket, on 12 June 2007 (leg. K. MIKOŁAJCZAK).

It is disputable if the recent records of both species, are associated with the currently discussed global warming, or are due to some other causes. However, both species have

southern or southeastern ranges of distribution, so reports on global warming seem to be the simplest explanation of the new records of both species.

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Received: January 18, 2009

Accepted: March 02, 2009