

A note on the recent distribution of *Aporia crataegi* (LINNAEUS, 1758) in the Czech Republic

(Lepidoptera, Pieridae)

by

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EITSCHBERGER & STEINIGER (2000), in their overview of records of *Aporia crataegi* in Germany, mentioned an interesting occurrence of this species in Wellertal, Silberbach and between Hohenberg, Fichtelgebirge and Dubina, closely to the German-Czech Republic border. The authors speculated that the individuals originated from Czech territory. To understand the context of their records, it is necessary to take into account the recent distribution of this species in the Czech Republic.

Approximately since the 1950s, this butterfly species had been declining and gradually disappeared from both Bohemia and Moravia (NOVÁK & LIŠKA, 1997; LAŠŤŮVKA, 1998; BĚLÍN, 1999), although there were occasional invasions followed by establishments of transient populations, such as near Příbram in the 1970s (ZELENÝ, 1977). Thus, there was no permanent population of this butterfly after 1980 in the Czech Republic, although records of some (probably vagrant) individuals were reported after 1982 from 12 grid map squares (KUDRNA, 1994)—Doupovské hory, Příbram, along the Elbe-river, Nový Jičín and the southernmost part of Moravia.

This year (2000), we discovered a large breeding population (breeding confirmed by finding of three larval nests on *Crataegus* spp. in April) of *A. crataegi* that inhabits shrubby successional habitats in post-mining landscapes near Sokolov (= Falkenau), Sokolovská Pánev Basin, western Bohemia (Svatý Jiří quarry, Lomnice, district Sokolov, 50°13'N, 12°39'E: hundreds of adults regularly observed in 2nd half of June). We suppose that the population was probably established by immigrants from southern Saxonia, since it is the geographically closest area where *A. crataegi* regularly occurs (REINHARDT & THUST, 1993). It is locally common there (personal observation by Z. FRIC) at sites similar to the Czech localities near Sokolov (fringes of open-cast mines, successional habitats in not-recultivated post-mining areas).

The Sokolov basin locality is only about 35 km SE from the localities reported by EITSCHBERGER & STEINIGER (2000) from the vicinity of Cheb (= Eger). Such a distance might be easily crossed by well-dispersing species such as *A. crataegi* (cf. BAGUETTE et al. 2000). Therefore, it is possible that the individuals encountered in Germany really originated in Czech Republic. However, the recent Czech populations were most likely established by southward immigration from Saxonian localities. If so, the butterfly should also be found in suitable habitats of Czech post-mining landscapes that are situated northeasterly from the Sokolov-Cheb region, i. e. in the Mostecká pánev Basin (near Most). The post-mining habitats near Most are much more spacious, have warmer climate and are closer to the Saxony localities than the localities near Sokolov. However, there are no recent records of *A. crataegi* from the Mostecká pánev Basin. This might be due to under-recording of barren industrial landscapes by lepidopterists, or (perhaps) by secretiveness of local collectors; detailed research in such landscapes is urgently needed. In any case, a butterfly that had been a widespread agricultural pest in the past and became almost extinct thereafter is finding its modern refuges within (seemingly) denatura-

lised (post)industrial landscapes. This fact, as well as the occurrence of other rare and endangered butterflies in such habitats (in the Sokolov Basin, e.g., *Euphydryas aurinia*, *Lycaena alciphron*, *Lycaena hippothoe*), open new areas for further research and stress the importance of such habitats for biodiversity conservation (see also SCHULZ & WIEGLEB, 2000).

Most recently (October 2000), Mr. PETR HUŠÁK reported to the Czech Společnost pro ochranu motýlů (= Society for butterfly conservation) his findings of *A. crataegi* near the settlements Fláje, Mackov and Osek, at the southern slopes of Krušné hory Mts. (= Erzgebirge) near Chomutov (= Komotau). This supports our hypothesis that this species is spreading to west-bohemian territory from NW, and highlights the possible importance of the Mostecká pánev mining areas for its establishment.

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