Short Communication

Apotomis fraterculana Krogerus, 1946, a northern tortricid moth in central Europe (Tortricidae)

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Apotomis fraterculana Krogerus, 1946 is a rare cold adapted species distributed in subarctic, northern boreal, and subalpine regions of Fennoscandia and Russia. The populations are mostly associated with open birch forests (Krogerus 1946, 1972; Opheim 1970; Kuznetzov 1978; Linnaluoto & Koponen 1980; Kozlov et al. 2000). The record from Romania (Razowski 1996) is an error corrected by Razowski (2003) himself. The larvae probably feed on *Betula* species (Krogerus 1946).

On May, 28, 2003 *A. fraterculana* was discovered in the Šumava Mts. (Böhmerwald), Czech Republic, central Europe. Two males were collected at light by Jaroš & Spitzer in the valley peat bog called Velká Niva, near Lenora (750 m alt., 48°50' N, 13°50' E). Velká Niva covers 120 ha and is situated in the peatland "archipelago" of the Vltavský Luh Reserve. The most famous locality within Vltavský Luh is Mrtvý Luh near Volary (see e.g. Spitzer et al. 2003, with bibliography). Velká Niva seems to be a similar bog type like Mrtvý Luh, but the lagg is forested by the waterlogged spruce forest. The central parts are covered by open forest of *Pinus rotundata* (=*P. mugo* s. lat.) with *Betula pubescens*. The flora and lepidopteran fauna associated with Velká Niva seem to be similar to those of Mrtvý Luh (Spitzer & Jaroš 2001 and unpublished records). The biogeography of the peat bog Lepidoptera (the tyrphobiontic taxa) in central Europe and their relationships to those of northern Europe are summarised by Mikkola & Spitzer (1983). Our record of *A. fraterculana* conforms to the idea of a pattern of relictual refuges of cold adapted species associated with isolated montane peat bogs in central Europe. It is interesting that the Fennoscandian populations of *A. fraterculana* are known from northern open birch forests ("forest-tundra") in subarctic and boreal lowlands and Scandinavian mountains only (e.g. southern Norway – Aarvik et al. 2000; Aarvik pers. comm.), but are not safely recorded from northern peatlands.

Diagnoses of *A. fraterculana* are given by Krogerus (1946), Opheim (1970), Kuznetzov (1978), and Razowski (2003). Our specimens of *A. fraterculana* from the Šumava Mts. conform to the taxonomical characteristics of Scandinavian specimens given by these authors. *A. fraterculana* is similar to *A. sororculana* (Zetterstedt, 1839) and *A. sauciana* (Frölich, 1828), and the most important distinguishing characteristics of *A. fraterculana* are as follows: (1) male genitalia: the spiny lobe of the sacculus has more than 60 spines and the cornutus of the aedeagus is long and curved; (2) in the forewings the outer edge of the dark median fascia is weakly angled inwards

to middle (also in *A. sauciana*) while the outer edge of the dark median fascia is slightly indented and angled outwards, or nearly straight in *A. sororculana*, in the hindwings the underside in *A. fraterculana* is lighter compared with that of *A. sauciana*. The three species occur together in the Velká Niva bog, but *A. sororculana* and *A. sauciana* are also widely distributed in central and northern Europe. Another similarly cold adapted species of the genus *Apotomis*, *A. demissana* (Kennel, 1900), is recorded from northern Europe only.

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