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The identity of *Chirosia cepelaki* TESCHNER, 1978 (Diptera: Anthomyiidae & Scathophagidae)

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ABSTRACT. An examination of the holotype of *Chirosia cepelaki* TESCHNER, 1978 revealed that this name should be transferred from Anthomyiidae to Scathophagidae. *Delina cepelaki* (TESCHNER, 1978), **comb. nov.**, is a valid name for a species of *Delina* ROBINEAU-DESVOIDY known from the Czech and Slovak Republics.

Key words: entomology, taxonomy, Diptera, Anthomyiidae, Scathophagidae, *Delina*, Europe.

INTRODUCTION

The anthomyiid genus *Chirosia* RONDANI is represented by 14 species in Europe according to MICHELSEN (2004). Most species are easy to identify, have known larval host associations with species of ferns, and are on record from several European countries. An exception to this is *C. cepelaki* TESCHNER, described from Czechoslovakia in 1978 based on a single male specimen collected by J. ČEPELÁK in Malá Fatra, now part of Slovakia. According to TESCHNER (1978) the holotype is deposited in the Zoologisches Museum, Hamburg and type registered as 'ZHM 4/75'.

The original description of *Chirosia cepelaki* by TESCHNER (1978) includes line drawings of the feminized male head, right fore tibia + tarsomere 1, left katapisternum with 1+2 strong setae and a small, poorly resolved photograph of the holotype in left lateral view. TESCHNER's description is not very good and tends to emphasize details of little taxonomic relevance. Yet, under the assumption that the species indeed belongs to Anthomyiidae, a placement in *Chirosia* certainly makes sense: dichoptic male head; thick haustellum; reduced lower calypter; slender, subcylindrical male abdomen; hind tibia with an apical postero-ventral seta. However, some other characters are difficult

to bring at terms with a placement in *Chirosia*: yellow trochanteres, tibiae and tarsi; chaetotaxy of hind tibia (only two postero-dorsal setae; two strikingly long setae at mid-length, one antero-dorsal and one postero-dorsal; a series of fine postero-ventral setae on distal half).

The dubious taxonomic status of *Chirosia cepelaki*, emphasized by the fact that no additional material has ever been reported, has for long convinced me that a re-examination of the holotype was required. Eventually, this was made possible and the results are presented in the following.

HOLOTYPE OF *CHIROSLA CEPELAKI* TESCHNER

CONDITION

Fairly good except that the head is presently missing (a search for it in the relevant drawer gave no result). As can be seen in TESCHER's original habitus photograph, the right mid leg is absent and the subdistal part of the abdomen has been pinched from the sides in order to expose the terminalia.

LABELS

♂; Stoh.[ove] pol'.[any] / M. Fatra / 20.6.1973 / Čepelák; TYPUS / D. Teschner; *CHIROSLA* / ČEPELÁKI / det. Teschner; Holotype [pink label].

IDENTITY

Examination of the headless male holotype of *Chirosia cepelaki* TESCHER revealed that it has been misplaced, not only to genus but even to family! Actually it belongs to the Scathophagidae. The bare proepisternum and fusion of tergite VI with syntergosternite VII+VIII further places it in the subfamily Delininae as delimited by COLLIN (1958). Otherwise, the holotype revealed a puzzling combination of characters, such as erect spinules on the postpronotal lobes, scutellum with only one strong (discal) pair of setae, and katepisternum with three strong setae. Accordingly, no convincing results were obtained when using the standard keys to European genera of Scathophagidae by HACKMANN (1956), COLLIN (1958), GORODKOV (1988) and DE JONG (2000). Only the key to the Palaearctic genera by ŠIFNER (2003) led without complications to the genus *Delina* ROBINEAU-DESVOIDY.

ŠIFNER (2003) treats in some detail the three species of *Delina* that are known from the Czech and Slovak Republics with a key and illustrated descriptions. By using his key and carefully comparing the exposed terminalia of the holotype with his illustrations I find it safe to conclude that *Chirosia cepelaki* TESCHER and *Delina nigrita* (FALLÉN) sensu ŠIFNER are identical species. Most decisive is the agreement in shape of the surstyli that in rear view are slender and apically hooked, very different from other species of *Delina*.

There is, however, one complication to all this. The Czech and Slovak species considered by ŠIFNER (2003) as *Delina nigrita* (FALLÉN) is evidently based on a misidentification. True *Delina nigrita* is a smaller species without spinules on the postpronotal lobes and with only two katepisternal setae and does not key out properly in ŠIFNER's

key to the Palaearctic genera of Scathophagidae. *Delina nigrita* differs further in having abundant whitish hairing on the lower parts of head, body and femora, and in the male sex by lacking postero-ventral spinules on the distal parts of fore and mid femur. Finally, the male terminalia are entirely different with surstyli shaped as a bird's head. Incidentally, ŠIFNER (2003), in his treatment of the Czech and Slovak species of *Delina*, did not make it clear that the presence of spinule rows disto-ventrally on fore- and mid femora is a male sexual character only.

Nomenclatorial and other implications of the above results are as follows:

1. The nominal species of Diptera, *Chirosia cepelaki* TESCHNER, 1978, is transferred from family Anthomyiidae to family Scathophagidae.

2. *Delina cepelaki* (TESCHNER, 1978), **comb. nov.**, is instated as a valid name for a species of *Delina* ROBINEAU-DESVOIDY (Scathophagidae) known so far from the Czech and Slovak Republics.

3. *Delina nigrita* (FALLÉN) sensu ŠIFNER (1997, 2003) are misidentifications of *D. cepelaki* (TESCHNER).

CONCLUDING REMARKS

The genus *Delina* includes one widespread, Holarctic species, *D. nigrita* (FALLÉN) that uses various Orchidaceae (*Aceras*, *Dactylorhiza*, *Goodyera*, *Orchis*, *Platanthera*) as host plants for the leaf-mining larva. Other valid species currently assigned to *Delina* are *D. anthrax* (SCHINER), *D. nigriceps* (BECKER) and *D. cepelaki* (TESCHNER), three species known only from upland areas of Central and South Europe, while their larvae appear to feed exclusively on false helleborine, *Veratrum* spp. (Liliaceae).

Interestingly, NEFF (1970) reported that a scathophagid of the Nearctic genus *Neochirosia* MALLOCH is also a leaf-miner of *Veratrum*. On top of this, VOCKEROTH'S (1987) key to Nearctic genera of Scathophagidae suggests that the European endemic species of *Delina* actually belong to *Neochirosia*. A closer comparison of these two taxa in order to reveal their relations would seem desirable.

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