

*Clepsis mehli* (OPHEIM, 1964)  
a distinct species  
(Lepidoptera Tortricidae)

Leif AARVIK and Knud LARSEN

L. Aarvik, Tårnveien 6, N-1430 Ås, Norway ;  
K. Larsen, Niels Frederiksensalle 21, DK-2700 Brønshøj, Denmark.

**Summary**

On the basis of several ♂ and ♀ specimens collected by the authors in northern Norway in 1982 it is stated that *Clepsis mehli* (OPHEIM, 1964) is a separate and valid species. In 1964 OPHEIM described *mehli* on the basis of a single specimen from northern Norway, but later RAZOWSKI (1979) changed its status to subspecies rank of the Japanese species *Clepsis insignata* OKU, 1963.

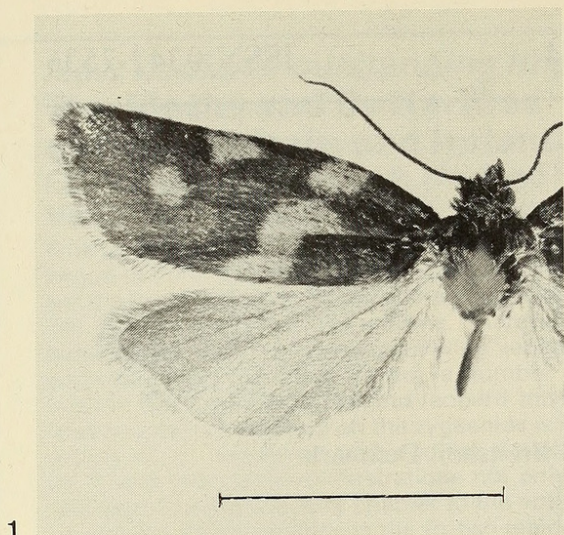
Imago and genitalia of both sexes of the *Clepsis* species most related to *mehli* namely *C. tannuolana* KOSTJUK, 1973 and *C. insignata* are figured and compared. *C. mehli* is more closely related to *tannuolana* than to *insignata*. Remarks on the variation and habitat of *mehli* are given.

The description of *Clepsis mehli* (OPHEIM, 1964) was based on a single male from northern Norway : Fn : Vardø, 20.vii.1962 (R. MEHL, coll. Zoological Museum, Oslo). It was described in the genus *Epagoge* HB. (OPHEIM, 1964). The second specimen of *mehli*, also a male, was found in northern Norway as well : Fi : Rafsnes, primo.vii.1979 (J. ITÄMIES) (OPHEIM, 1980).

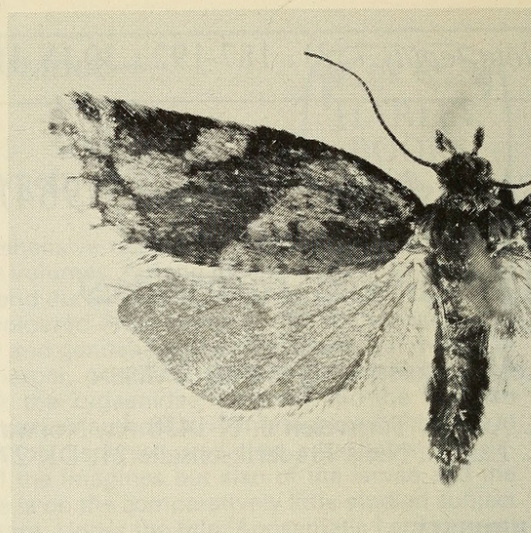
RAZOWSKI (1979), when revising the genus *Clepsis* GUENÉE, transferred *mehli* to *Clepsis* and included it in his *unicolorana* group. He also provisionally synonymized it with the Japanese species, *C. insignata* OKU, 1963, giving it status as a subspecies of *insignata*.

In 1982 the authors collected a large series of *mehli* both males and the hitherto unknown female in a few localities near Alta in northern Norway : Fi : Rafsnes and Kvenvik and Fv : Kviby and Laukvik. This gave us an opportunity to study the taxonomic relationship between *mehli* and its relatives.

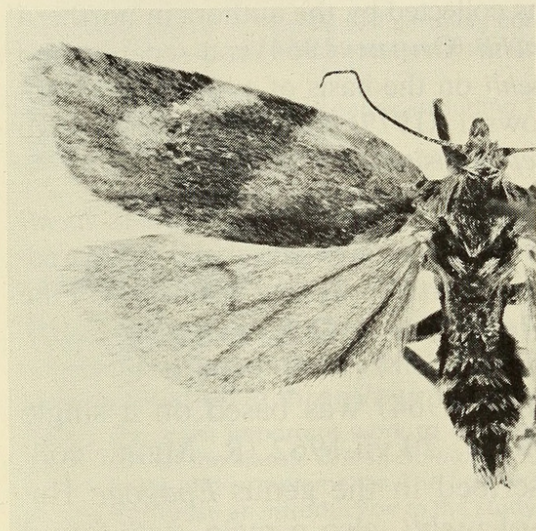
The species in the *unicolorana* group are all very similar with respect to the morphology of the male genitalia (RAZOWSKI, 1979). The female genitalia usually offer more useful characters. Examination of the female



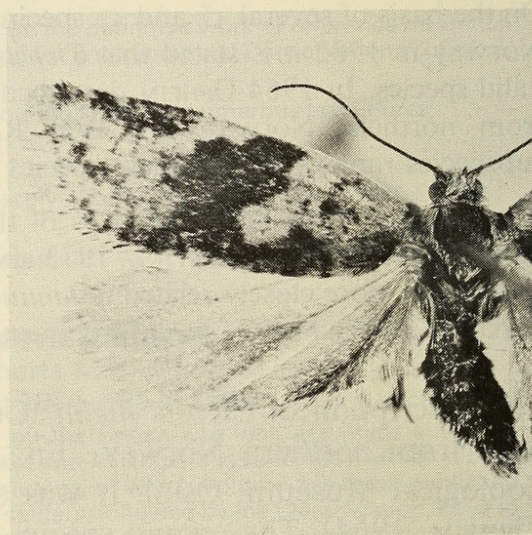
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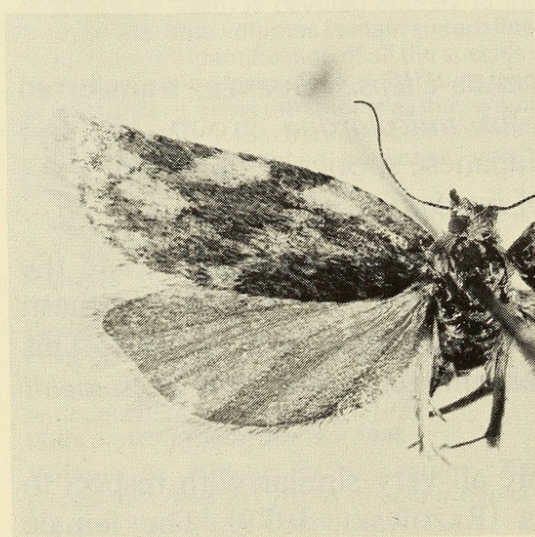
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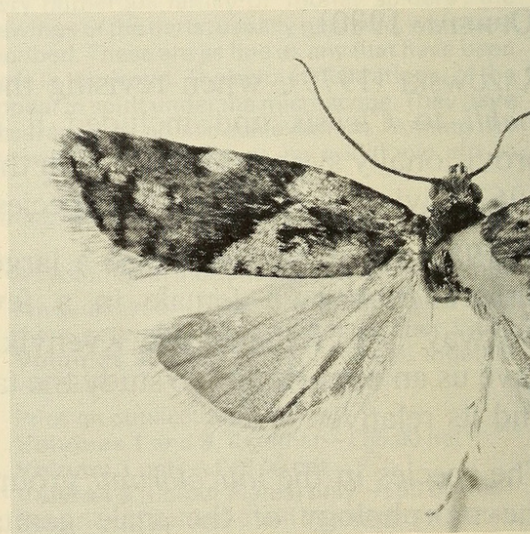
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Fig. 1-4. *Clepsipis mehli* (OPHEIM), Norway. Fig. 1-2. ♂. Fig. 3-4. ♀.

Fig. 5. *Clepsipis tannuolana* KOSTJUK, USSR. ♀.

Fig. 6. *Clepsipis insignata* OKU, Japan. ♂.

Fig. 1-6. Scale 5 mm.

genitalia of *mehli* (fig. 10) and *insignata* (fig. 12) revealed differences which are too great to justify the synonymy suggested by RAZOWSKI. In *insignata* ductus bursa, antrum and sterigma are distinctly narrower than in *mehli*, and ductus bursa is longer in *insignata*. The male genitalia (fig. 7 & 9) also show some differences, especially in the shape of the costa of the valva and the spined part of pulvinus (labis). Furthermore the uncus is narrower in *insignata* than in *mehli*. Examined specimens of *mehli* have 4-6 cornuti and in *insignata* there are about 12 (OKU, 1963).

Externally *insignata* (fig. 6) may be separated from *mehli* (fig. 1-4) by its narrower forewings and by the more strongly reticulated pattern in the terminal part of the forewing. Most specimens of *insignata* have the sub-basal fascia edged outwardly and the median fascia edged inwardly with brownish black. This edging is always absent in *mehli*.

Comparison of *mehli* with the Siberian species *C. tannuolana* KOSTJUK, 1973, only known from the Tannuola mountains, showed that *mehli* is more closely related to this species than to *insignata*. There are no differences in the external characters (fig. 5). In the male genitalia (fig. 8) *tannuolana* has a more convex costa of the valva. In the female genitalia (fig. 11) ductus bursa is much longer and antrum is broader than in *mehli*.

The differences between the three species are of the same dimensions as the differences between other species in the group. On the basis of the above mentioned results we consider *mehli*, *tannuolana* and *insignata* as distinct and valid species.

Presently *mehli* is known only from coastal areas in northern Norway, *tannuolana* from the Tannuola mountains in central Siberia (RAZOWSKI, 1979), and *insignata* from the mountain Mt. Daisetsu on Hokkaido in Japan (KAWABE, 1965). The distance between these populations is enormous, but further collecting may bridge the gap between these populations and make a further revision of the species necessary.

#### Remarks on *mehli* (OPHEIM, 1964)

The external characters of the holotype of *mehli* are described by OPHEIM (1964) and RAZOWSKI (1979). As the external variation in the species is rather great, some additional data are given here (fig. 1-4). The ground colour of the forewing varies from greyish-white to light yellow-grey. The pattern may be reddish-brown, reddish-brown with a yellow tinge or olive brown. The pattern is more or less developed in the terminal half of the wing, and in some specimens only a few spots of the ground colour remain. The females tend to have more narrow and tapering wings than the males. They are usually lighter, and the pattern does not tend to reach

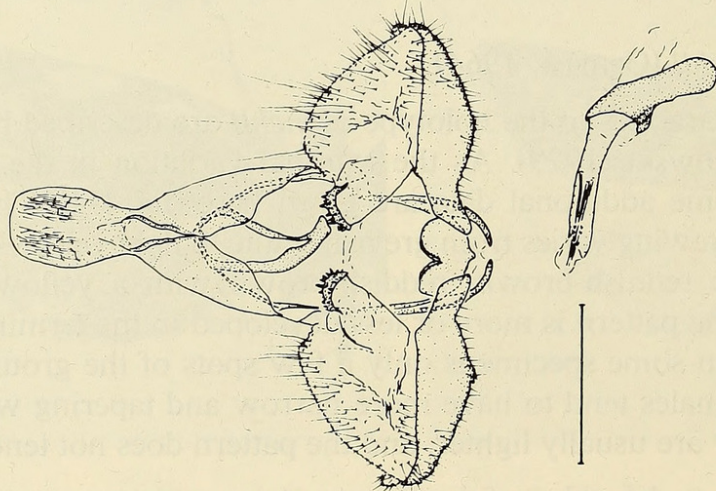


Fig. 7. *Clepsius mehli* (OPHEIM), ♂-genitalia. G. slide 1081, L. AARVIK. Norway : Fv : Alta, Kviby, 30.vi.1982 (L. AARVIK).

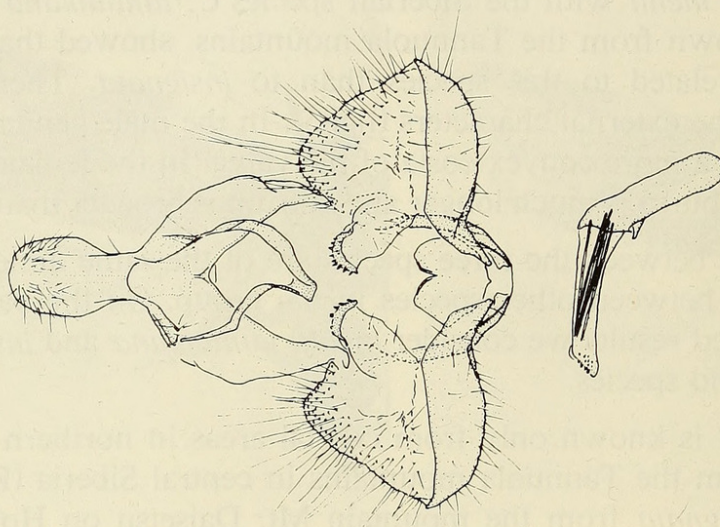


Fig. 8. *Clepsius tannuolana* KOSTJUK, ♂-genitalia. G. slide BMNH, 15490 ♂. Paratype. USSR : Tuva Mongun-Taiga.

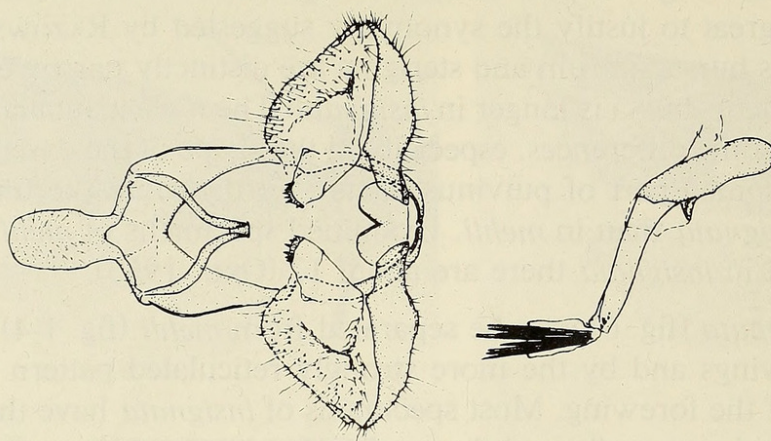


Fig. 9. *Clepsius insignata* OKU, ♂-genitalia. G. slide B1983, L. AARVIK. Japan : Hokkaido : Mt. Daisetsu, 23.vii.1959 (M. SUZUKI, coll. K. LARSEN).

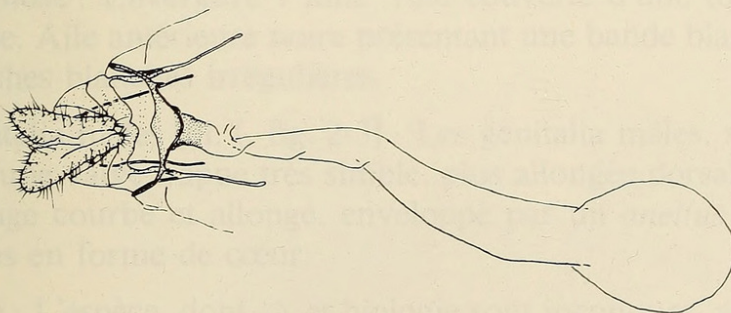


Fig. 10. *Clepsius mehli* (OPHEIM), ♀-genitalia. G. slide 1084, L. AARVIK. Norway : Fi : Alta, Kvenvik, 1.vii.1982 (L. AARVIK).

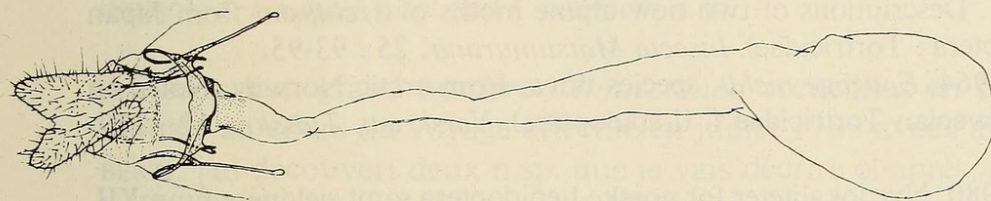


Fig. 11. *Clepsius tannuolana* KOSTJUK, ♀-genitalia. G. slide A1983, L. AARVIK. USSR : Sapadn. Tannu-Ola, Tuva Verkhovja rekv Ulug-Khondergej : pe-reval Khundurgun, 1900 m, gorn. tunnel, 9.vii.1969 (KOSTJUK, coll. Zoological Museum Oulu, Finland).

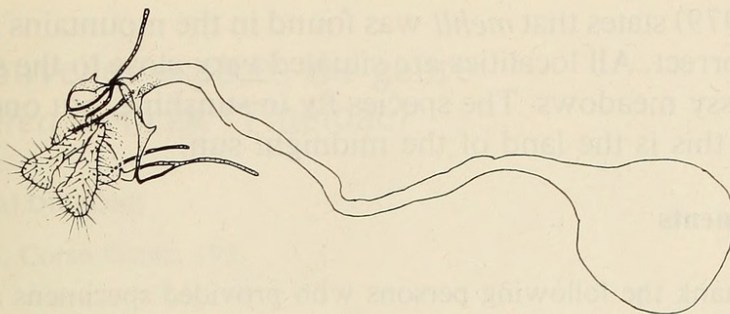


Fig. 12. *Clepsius insignata* OKU, ♀-genitalia. G. slide 1310, KAWABE. Japan : Hokkaido : Mt. Daisetsu, 3.viii.1957.

Fig. 7-12. Scale 0.5 mm

such a strong development terminally as in the males. Wingspan both sexes : 15-17 mm.

RAZOWSKI (1979) states that *mehli* was found in the mountains in Norway. This is not correct. All localities are situated very close to the sea, and the habitat is grassy meadows. The species fly in sunshine, but one must bear in mind that this is the land of the midnight sun.

### Acknowledgements

We wish to thank the following persons who provided specimens and slides of *tannuolana* and *insignata* : Mr. ATSUSHI KAWABE, Otsugaoka, Japan ; Mr. JORMA KYRKI, Zoological museum Oulu, Finland and Mr. KEVIN TUCK, British Museum (Natural History), London, England. We also wish to thank Mr. G. BROVAD, Zoological Museum Copenhagen, for taking the photographs.

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