

A New Central European *Gnophos* Subspecies, *Gnophos ambiguata tatrensis* n. ssp. (Lepidoptera, Geometridae)

By

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In working up the *Gnophos* species occurring in Hungary (VOJNITS, 1967, 1968 *a, b*), I have studied several European populations of the species in question. I found out, for instance, that specimens of *G. ambiguata* DUP., originating from the Western Transdanubia in Hungary, belong to the nominate subspecies. On the other hand, exemplars deriving from the area of the High Tatra appear to be different from that. More thorough examinations revealed that the population of the Tatra differs in several constant features from both the nominate and all other hitherto described forms. In my opinion, we have to deal with a well circumscribed and distinct geographical subspecies, to be described hereinafter as *Gnophos ambiguata tatrensis* n. ssp. as follows:

Gnophos ambiguata tatrensis n. ssp.

Alar expanse (average): males 28 mm, females 30 mm.

Color and pattern: The basic color of both the fore and hind wings is brownish grey. Owing to the irregular spacing of the lighter and darker groups of scales, the wing surface appears to be rather roughly granulous. The absence or obsolescence of the design elements is very characteristic. The discal spot is very weak on the fore wing, and hardly discernible or even missing on the hind wing. The postmedian line is indistinct on the fore wing, and almost wholly absent on the hind wing. The antemedian line is present only on the fore wing, and even there it is quite evanescent.

The underside of the wings is rather uniformly colored; the discal spot and the postmedian line are just visible in the yellowish grey basic color, of the fore wing, the same as the postmedian line on the hind wing.

Genitalia: The basic structure of the male genitalia agrees with that of the nominate form, excepting the aedoeagus which shows profound differences (Fig. 1, *a, b*). The length of the aedoeagus of the new form is but two-thirds

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of that of the nominate form, whereas the large-sized and characteristic cornutus is slightly larger than, or at least as large as, that of the nominate subspecies. Thus the comparative length of the cornutus, as related to that of the aedoeagus, is essentially greater than the respective value of the nominate form. The difference in shape of the cornutus is also characteristic: that of the new subspecies is evenly arcuate, whereas the cornutus of the nominate form is more or less straight and bends rather sharply only below its apex.

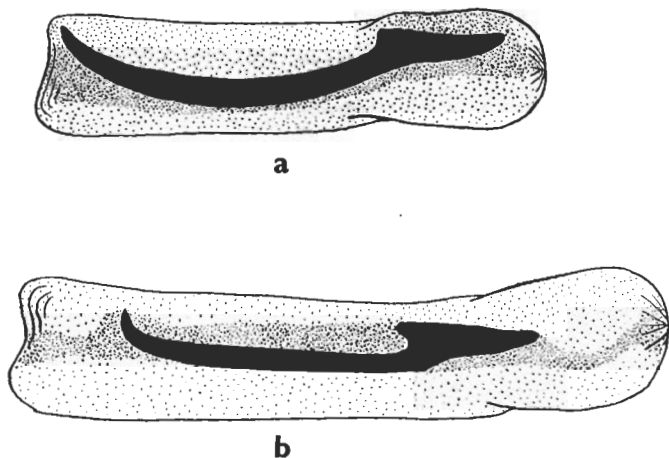


Fig. 1. Aedoeaguses of *Gnophos ambiguata* DUP. a: *G. ambiguata tatrensis* n. subsp. (Prep. No. 253); b: *G. ambiguata ambiguata* DUP. (Prep. No. 249)

Phenological data: According to the available data, the imagos are on the wing in the second half of June and in July.

Distribution: The exemplars of the present study, originating from the Slovakian region of the High Tatra, proved to belong to the new subspecies. Those occurring on the Polish side of the range will probably also be assignable to this form. This seems to be corroborated by the fact that the figure of the male genitalia of *G. ambiguata* DUP., published by BLESZYŃSKI (1966), agrees with that of the new form. The occurrence in the mountains to the south and at lower elevations in the north of the new subspecies is also not precluded; to decide this, however, a more extensive material is needed.

Holotype male: "Tátraszéplak, leg. SCHMIDT (gen. prep. VOJNITS, No. 253)".

Paratype female: "Új-Tátrafüred, 1911. VI. 24, leg. SCHMIDT."

Both type-specimens are deposited in the Zoological Department of the Hungarian Natural History Museum, Budapest.

ZUSAMMENFASSUNG

Eine neue mitteleuropäische *Gnophos*-Unterart: *Gnophos ambiguata tatrensis* n. ssp. (Lepidoptera, Geometridae)

Der Verfasser beschreibt in seinem Aufsatz eine neue Form von *Gnophos ambiguata* DUP., die im Bereich der Hohen Tatra gesammelt wurde. Die von hier stammenden Exemplare weichen in der Färbung, der Zeichnung und dem Aufbau der männlichen Geschlechtsorgane gleichfalls

von der Stammform ab. Besonders bedeutend sind die sich im Aufbau der Aedoeagen zeigenden Unterschiede. Aufgrund all dieser hält der Verfasser die fragliche Form für die selbständige und gut abgrenzbare geographische Unterart von *Gnophos ambiguata* DUP. und führt sie mit der Benennung *Gnophos ambiguata tatrensis* n. ssp. in das Fachschrifttum ein.

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