

Polymixis rufocincta isolata ssp. n. (Lepidoptera, Noctuidae)
from Hungary

By

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Abstract: Description of a new isolated subspecies of *P. rufocincta* Hbn. - G. with some remarks on phenologic and ethologic characteristics.

Polymixis flavicincta Denis & Schiffermüller 1775, has been reported as new to the Hungarian fauna by UHERKOVICH (1976). It was also referred to under the same in a later review-like faunistic publication (GYULAI et al., 1979). It was found, however, by the study of the material collected by UHERKOVICH in 1980 and 1981, that the specimens do not belong to the species *flavicincta*, but represent a new subspecies of *Polymixis rufocincta* Hübner-Geyer, 1828. On the basis of the series of specimens it can be observed that the population in question consistently differs from other populations of *rufocincta* in both pattern and genital characters. (Comparisons were made with materials originating from Asia Minor, Crete, the Balkan, the Southern Carpathians, Fruska Gora and Western Europe.)

Polymixis rufocincta isolata ssp. n.

Holotype: 1 ♂, Hung. Merid., Villányi hg., Szársomlyó, 1. 11. 1981, leg. Á. UHERKOVICH; in coll. Hung. Nat. Hist. Mus., Budapest. Paratypes: 59 ♂, 26 ♀ from the same locality; in coll. Hung. Nat. Hist. Mus., Budapest, Janus Pannonius Mus., Pécs, also in coll. Z. VARGA, Cs. SZABÓKY & G. RONKAY.

In its appearance it is closest to "ab. *mucida* Guenée" * but it differs from it in several characters (Table 1.). The fore wing is light bluish-grey, with a very strong dark grey irroration, which often wholly covers the basic colour. The median lines are usually dim, their place is shown only by colour contrast, and they are more or less undulating. The outer margin of the inner area is dark, similarly to the characteristically narrow median area, which is almost

* ab. *mucida* does not have an area of its own, so it can not be regarded as a geographical subspecies. It is in all probability a form with a light basic colour in specimens occurring on limestone.

blackish grey, unicolourous, the small orbicular is often lost in it. The reniform is more sharp at its edge facing the inner area, on its edge backing the postmedial line there is a dim light patch; the lightest part of the wing. On the wings the yellow colouring characteristic to the species is almost wholly missing, signs of it can be observed only in some specimens at the outer edge of the reniform and at the base of the cilia. The colouration of the wings of males and females hardly differs, the medial area in the female narrows even more, sometimes it does not even reach the inner margin. The hind wing of the male is light whitish grey, under illumination from the side a clayish-yellow shine can be observed, with a more or less grey irroration. The median line is well contoured, the marginal area is strongly darkened. The hind wing of the female is very dark, brownish grey, on the marginal area a shade darker, the median line can hardly be seen. Perhaps the most outstanding character of the new subspecies (on the basis of which it can be separated from other forms of *rufocincta*) is the very dark colouring of the underside of the fore wings. In the case of the male it is a deep dark grey, only the part of the costal margin extending from the inner area to the reniform and the inner angle of the inner area are light ochreous grey. The postmedian line fades into the dark basic colour which is the darkest in the median area, the bordering lines of which come from the pattern on the upper side. The dark irroration spreads also to the apical zone and the outer part of the median area, but its subterminal line can be readily seen. In females, the backside of the wings is uniformly dark brownish grey from the inner area to the cilia; there is some ochreous yellow irroration only at the upper edge of the reniform and at the base of the cilia. The colouring of the underside of the hind wing is also darker than usual, the discoidal lunule is small in both sexes, the median line is dark, in the female becoming a wide band. The marginal area is dark, in the female with a very strong dark greyish irroration.

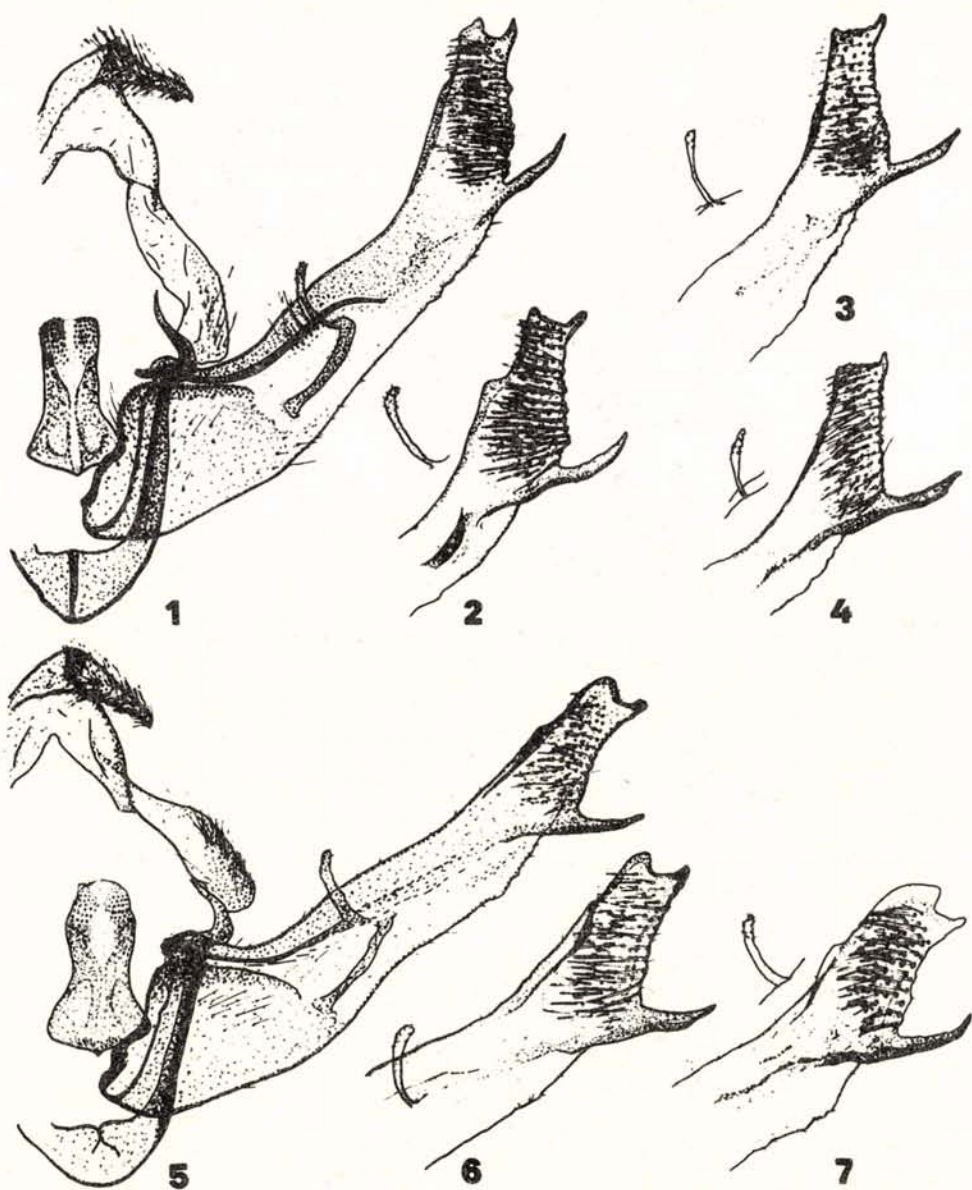
There are well defined differences also in the structure of the male genitalia. The most outstanding of them is the form of the valva and the configuration of its distal end (Figs 1-4). The valva in the new subspecies is more slender, strongly bent in the vicinity of the pollex and strongly narrowed, while in the nominate subspecies (genitalia of *rufocincta* specimens originating from different localities are generally consistent) the valva is wider, its distal end narrowing to a lesser extent, and its curvature is only very slight (Figs 5-7). In ssp. *isolata* the margin above the pollex is strongly undulating, almost dentate, while in the nominate subspecies it is sinuous to a lesser extent. The ampulla in the new subspecies is long and slender, while in the other forms of *rufocincta* shorter and thicker. The other constituents and the aedeagus are more or less similar. For comparison, the male genitalia of *flavicincta* is shown on Fig. 8, it can be distinguished clearly from both abovementioned ones, and here the structure of the cornuti of the aedeagus is also different.

It seems that this population of the highly variable species, occurring mainly in the Mediterranean, is found at the northern border of the distribution area; it became considerably homogenous and certain characters - which can be found also in other populations - had grown deeper to a large extent while others became almost (wholly) absent.

The ssp. *isolata* is known to date only from the swards of Mt. Szársomlyó near Nagyharsány (South Hungary); the first specimens were captured by the light trap operating in the village. Later it was collected by Á. UHERKOVICH on several occasions.

Collecting data: 14. 11. 1974 (1 spec.), 2. 12. 1974 (1 spec.), 24. 10. - 5. 11. 1975 (8 spec.) by light trap; 16. 11. 1980, (11 spec.), 25. 11. 1980 (5 spec.), 20. 10. 1981 (7 spec.), 1. 11. 1981 (53 spec.), leg. Á. UHERKOVICH. On the basis of data it is on the wing in the second half of October, its flight peaks at the beginning of November, but one can find specimens even on the first days of December. The first and last dates vary according to weather conditions. In the first half of November it can be dominant in the material attracted by light. Flight begins comparatively early, before nightfall. Specimens attracted to the light usually pass over the sheet, owing to the strong wind usually blowing at the collection site during this period, and drop into the grass and then settle on the backside of the sheet. At windstill they are attracted directly to the illuminated side and soon settle; the specimens attracted to the light-source usually do not fly away on their own.

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Figs 1-4: male genitalia of *Polymixis rufocincta isolata* ssp. n. (without aedeagus, left valva removed) 1. No. 295, 2. No. 319, 3. No. 318, 4. No. 294, Gen. prep. L. RONKAY, paratypes.-
 Figs 5-7: male genitalia of *Polymixis rufocincta* Hbn.-G. (without aedeagus, left valva removed) 5. No. 291, Dalmatia; 6. No. 293, Baile Herculane (Romania), 7. No. 316, Baile Herculane, Gen. prep. L. RONKAY

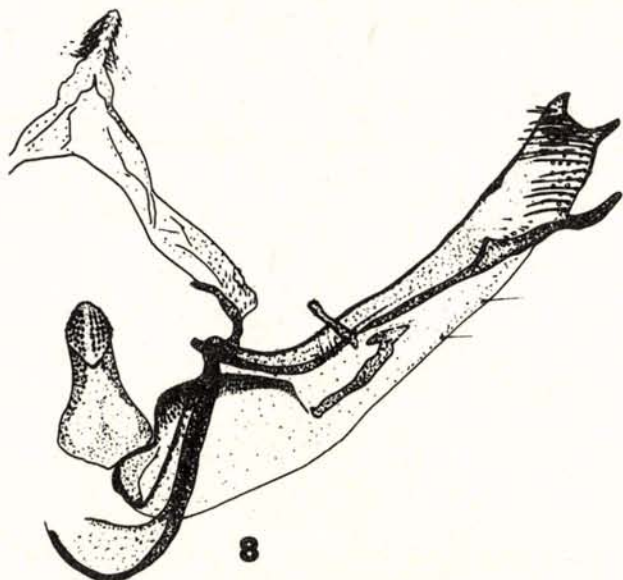


Fig. 8: male genitalia of *Polymixis flavicincta* Den. & Schiff. (without aedeagus, left valva removed)
No. 314, Thuringia, Gen. prep. L. RONKAY.

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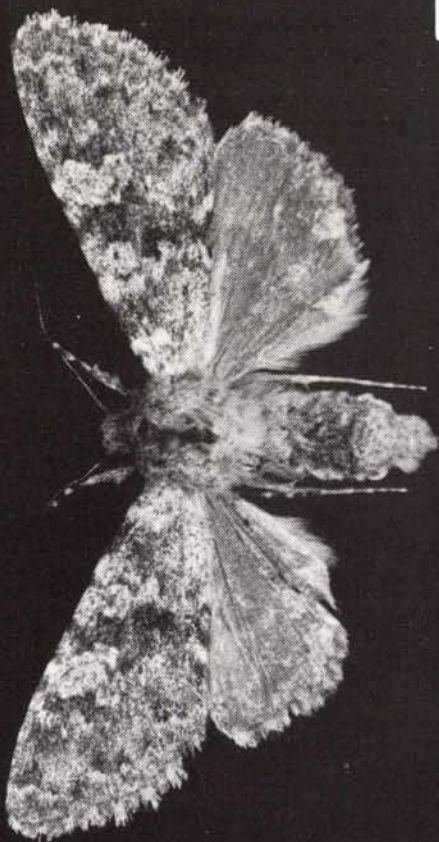
and Dr. Á. UHERKOVICH
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Plate 1: A. *Polymixis rufocincta* ♂, Baile Herculane - B. *Polymixis rufocincta* ♀, Dalmatia -
C. *Polymixis rufocincta isolata* ♂, Holotype, S. Hungary - D. *Polymixis rufocincta isolata* ♀,
paratype, S. Hungary.

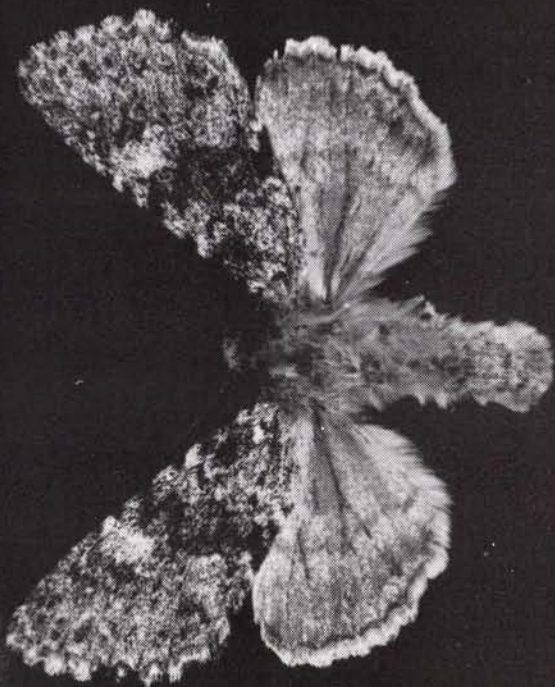
D



B



C



A

