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TRANSFER OF *XANTHOTHRIX STAGMATOGON* TO *ROLUA* AND NOTES ON THE GENUS

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A general resemblance in superficial characteristics between the holotypes of *Xanthothrix stagmatogon* Dyar, 1921 (Insecutor Incitiae Menstruus 9:64) and *Rolua monetifera* Dyar, 1915 (op. cit. 3:81 — type of genus by orthotypy and monotypy) in the United States National Museum was recently noted and brought to my attention by E. L. Tood.* I checked other specimens more closely and found these resemblances extended to structural characteristics. The similarities, particularly in the male and female genitalia, foretibia, and frontal protuberance, are considerable (compare figures 1 & 2) and, I believe, indicative of monophyly at the generic level. Therefore, I transfer *X. stagmatogon* to the genus *Rolua* and establish the NEW COMBINATION, *Rolua stagmatogon* (Dyar, 1921).

Rolua stagmatogon bears no close similarity to the genotype of *Xanthothrix (ranunculi* Edwards, 1878) although it has a superficial resemblance to the only other species in the genus, *neumoegani* Edwards, 1881. This similarity, and possibly common diurnal flight habits, and or reduced ("elliptoid") eyes, may have led Dyar to place them originally in the same genus. *Xanthothrix* belongs to the tribe Stiriini from which *Rolua* is presently excluded (Hogue, *in*

* Entomology Research Division, A. R. S., U.S. Department of Agriculture. I wish also to acknowledge Todd's assistance in criticizing this paper and for supplying the data on the specimens in the U.S. National Museum.

papers being prepared for separate publication). It is of interest to note that Dyar, in his original description of *Rolua*, implied a relationship to *Chalcopasta*, another sitiriine genus. The description states, "Characters of *Chalcopasta* Hampson, but the frontal process [frontal protuberance] has a central vertical plate instead of a round process and has no rim on the upper side." The main character states which probably caused Dyar to relate these forms in this manner are the common presences of a foretibial "claw" (terminal pointed process) and frontal protuberance. The "claw", however

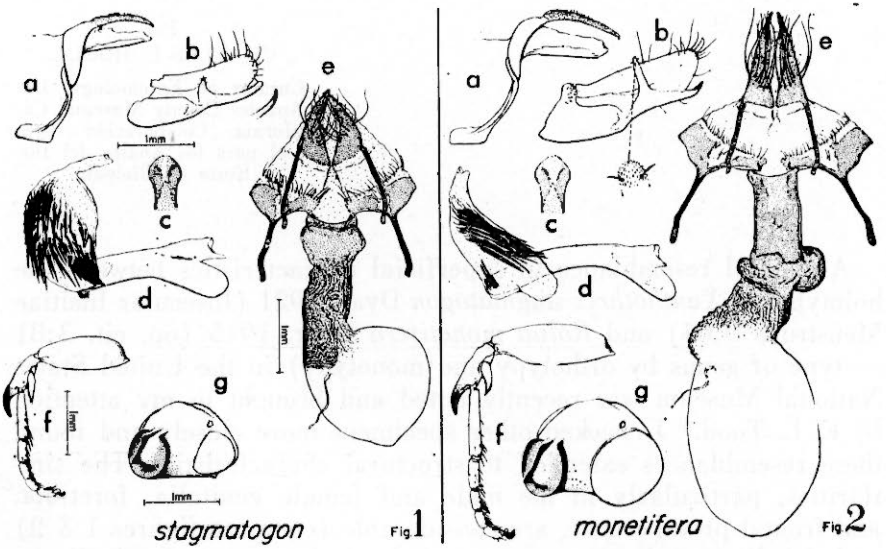

Fig. 1: *Rolua stagmatogon*. Fig. 2: *R. monetifera*.

Structures as follows: a—lateral view of left side of tegumen, vinculum, uncus, etc., of male genitalia; b—inner view of right valve of male genitalia; c—juxta of male genitalia; d—ventral view o phallus (vesica fully inflated) of male genitalia; e—ventral view of female genitalia (VIII and ovipositor lobes spread flat); f.—inner view of right foreleg; g—oblique, frontal view of denuded head showing frontal protuberance. Figures of corresponding structures to same scale (which see in fig. 1).

is seen under close inspection not to be of similar construction in the two cases and therefore not homologous, that of *Rolua* being morphologically a spine (figs. 1f & 2f) whereas that of *Chalcopasta* is a massive seta. With respect to the frontal protuberance, the presence or absence of this structure is often variable among close

species and furnishes a character of dubious significance in indicating relationships unless a basically similar construction is also evident, which is not so in the present case. Moreover, both male and female genitalia of the two genera and other microscopic structures which Dyar presumably had not seen are of distinctly dissimilar types, at least on a generic level.

Though *Rolua monetifera* and *stagmatogon* are fairly similar species, they are readily discrimintated as follows:

	monetifera	*stagmatogon*
General.	1. Size medium, expanse about 26-28 mm.	1. Size small, expanse about 16-17 mm.
	2. Eye globose, large (diameter about 1.25 times that of frontal protuberance).	2. Eye convex, but not globose, ("elliptoid"), small (diameter about equal to that of frontal protuberance).
	3. Upper surface of forewing with three silver maculae: 1. large, triangular and distal, 2. medium, oval and basal and 3. tiny, round and anterior to 1.	3. Upper surface of forewing with a single small, oval, silver macula
Male Genitalia	4. Basal division of the sacculus with a broad basal lobe.	4. Basal division of the sacculus without a lobe.
	5. Mesal lobe of valve extending dorsally past edge of valve.	5. Mesal lobe of valve not reaching dorsal edge of valve.
	6. Secondary group of cornuti at base of phallus vesica with elements long and slender and separate.	6. Secondary group of cornuti at base of phallus vesica with elements short and grouped on a common plate.
Female Genitalia	7. Ovipositor lobe fairly broad and short.	7. Ovipositor lobe attenuate.
	8. Corpus bursae spherical.	8. Corpus bursae ellipsoid.
	9. Ductus bursae heavily sclerotized and rigid.	9. Ductus bursae weakly sclerotized and flexible.

The small eye of *stagmatogon* suggests that it is a diurnal species while *monetifera*, with a large, normal eye, is probably nocturnal. Unfortunately, there is no collecting data to clarify this point, but such a correlation between activity and size of the eye is generally evident in different noctuid groups (compare diurnal "elliptoid-eyed" species of *Schinia* —Hardwick, 1958— with nocturnal, normal-eyed species).

The status of *Rolua coalescens* Draudt (1926, *in* Seitz. Macrolepidoptera World 7:308) remains unsettled even though it is gen-

erally considered nothing more than an individual variant or aberration of *monetifera* as originally designated by Draudt wherein the two larger silver maculae (1 & 2) of the upper surface of the forewing coalese. More specimens than are now available will be needed to verify or refute this opinion.

The data from the few specimens in the U. S. National Museum on which this paper is based indicate that the genus *Rolua* is restricted in distribution to Mexico. These data are as follows:

monetifera:

1 ♂ HOLOTYPE; Zacualpan, México; September 1914; (R. Müller, 4340); [U.S.N.M. Type No. 19347].

4 ♂ ♂ and 1 ♀ ; Zacualpan, México; October 1922; (R. Müller).

stagmatogon:

1 ♀ ; HOLOTYPE; Guerrero; November 1920; (8399); [U.S.N.M. Type No. 24085].

1 ♂ ; PARATYPE; same data; [U.S.N.M. Paratype No. 24085].

1 ♀ ; PARATYPE; same data; [U.S.N.M. Paratype No. 24085].

1 ♂ ; Cuautla, Morelos; October 30, 1922; (E. G. Smyth).

In addition there are 1 male and 1 female specimens without data.

LITERATURE CITED

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