

Kontyû, Tokyo, 54 (4): 618-623. December 25, 1986

A New Galleriine Moth of *Ethopia* (Lepidoptera, Pyralidae) from Palawan, the Philippines¹⁾

Mamoru OWADA

Department of Zoology, National Science Museum,
Shinjuku, Tokyo, 160 Japan

Abstract A second member of *Ethopia*, *E. gigantea*, is described from Palawan Island, the Philippines. Though resembling *E. roseilinea* WALKER [1865], this species is distinguished from it by the wing venation.

In the summer of 1985, I had an opportunity to participate in a zoological expedition to the Philippine Islands made by the National Science Museum, Tokyo. In cooperation with the National Museum of the Philippines, Manila, I was fortunate to collect a large number of moths in the Benguet and Mountain Provinces of Luzon, South Cotabato and Mt. Apo of Mindanao, and northern and central Palawan.

In a forest of Matalangao, northern Palawan, I got a large curious moth. At first glance, it looks like a hypsid moth with elongate yellow wings, but has too short antennae and downwardly extending labial palpi. By checking its tympanal organ, I found, to my surprise, that it belongs to the Pyralidae. In the following collecting at the foot of the Victoria Peaks, central Palawan, I was able to capture further specimens, though they were all females, unfortunately.

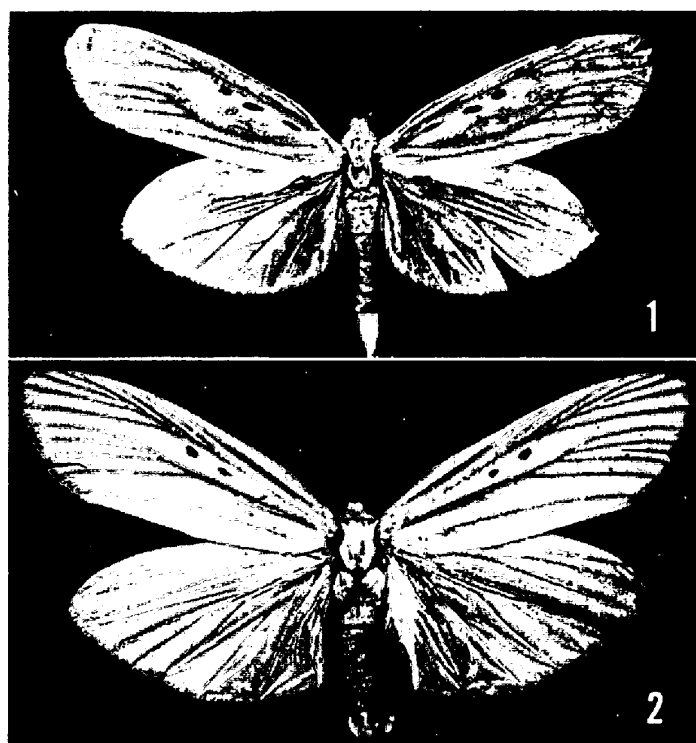
After returning from the expedition, I was able to identify this large beautiful species from an illustration by LAITHWAITE *et al.*, 1975. This is a member of the galleriine genus *Ethopia* WALKER, [1865], which is monotypic based upon *E. roseilinea* WALKER, [1865], and is distributed in New Guinea and some of the neighbouring islands. The female specimens from Palawan have slightly different markings in the forewing cell. In the spring of 1986, Mr. Y. KISHIDA kindly picked up a male specimen from a Palawan lot of an insect dealer, Mr. Y. NISHIYAMA, Tokyo. After a careful examination of these specimens, I have come to the conclusion that the Palawan form is specifically different from New Guinean *E. roseilinea*, and am going to describe it in the following lines.

Ethopia gigantea sp. nov.

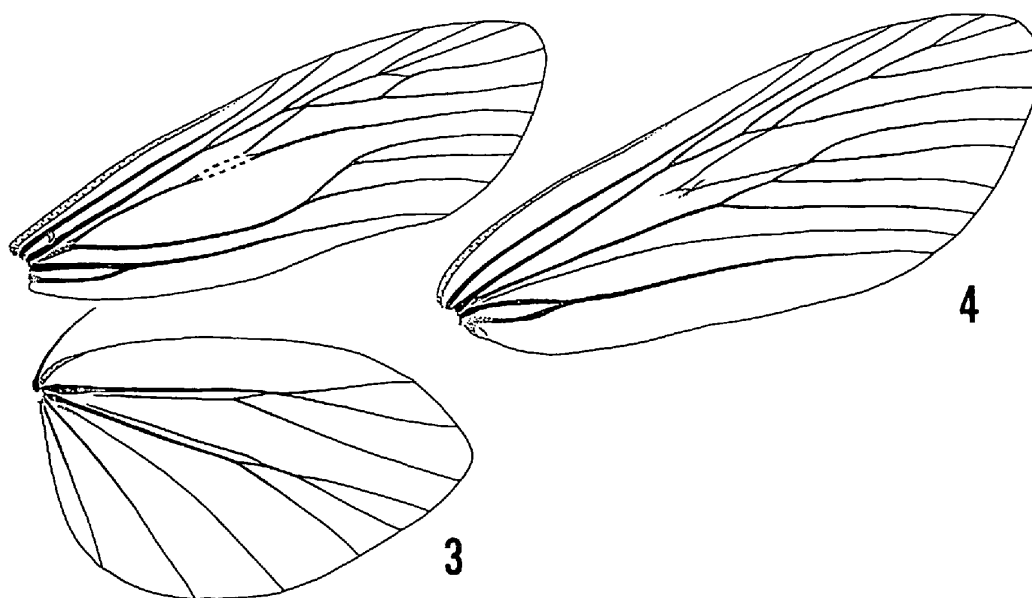
(Figs. 1-8)

Male. Antenna simple, short, less than a half of forewing costa, basal segment markedly large; palpi missing. Forewing (Fig. 3) long, narrow; R₁ and R₂ free,

1) This study is supported by the Grants-in-aid for Overseas Scientific Survey Nos. 60041078 and 61043074 from the Ministry of Education, Science and Culture, Japan.



Figs. 1-2. *Ethopia gigantea* sp. nov. 1. Holotype ♂. 2. Paratype ♀.



Figs. 3-4. Wing venation of *Ethopia gigantea* sp. nov. 3. Male. 4. Female.

R_3-R_4 and R_5-M_1 stalked respectively; R_4 and R_5 connected by a secondary vein, forming an areole in the right wing of holotype; M_1 and M_2 separated at middle, stalk of $M_3+CuA_1+CuA_2$ markedly curved; CuP absent; underside of cell covered with silky short hairs. Hindwing rather broad, apex slightly projecting; $Sc+R_1$ anastomosing with R_s for a short distance, M_{2+3} anastomosing with CuA_1 , CuP well developed; a tuft of long hairs arising from basal portion of costa on upperside.

Length of forewing: 35 mm.

Female. Antenna almost same as in male. Palpus long, extending obliquely downwards. In forewing (Fig. 4), R_3 , R_4 and R_5 stalked, R_5 separated first from the stalk of R_{3+4+5} ; discocellular vein present, markedly angulate inwards, stalk of $M_3+CuA_1+CuA_2$ straight, CuP present; hindwing venation as in male.

Length of forewing: 40-41 mm.

Coloration. Antenna dark brown, basal segment yellow. Head, thorax and abdomen golden yellow. Upperside of forewing pale creamy yellow, veins stained with pink, three black dots present on the stalk of M_1+M_2 in male, two in female, cilia golden yellow; hindwing golden yellow, veins and cilia slightly darker. Underside of wings darker than upperside.

Male genitalia (Fig. 5). Uncus broad, apex rounded, slightly constricted at middle, dorsally with a series of fine spines. Tegumen rather narrow. Vinculum

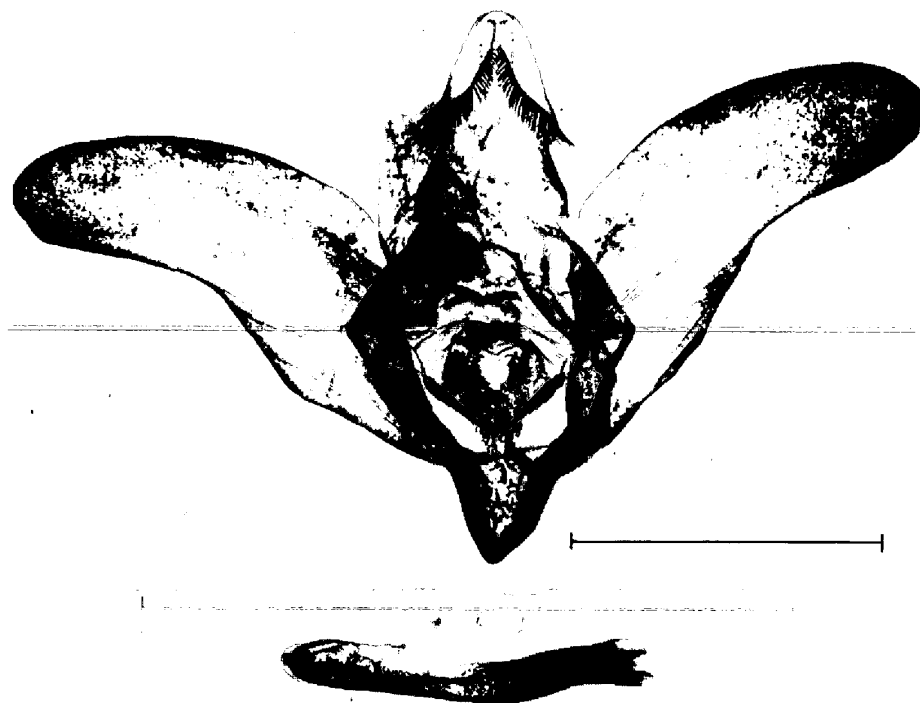
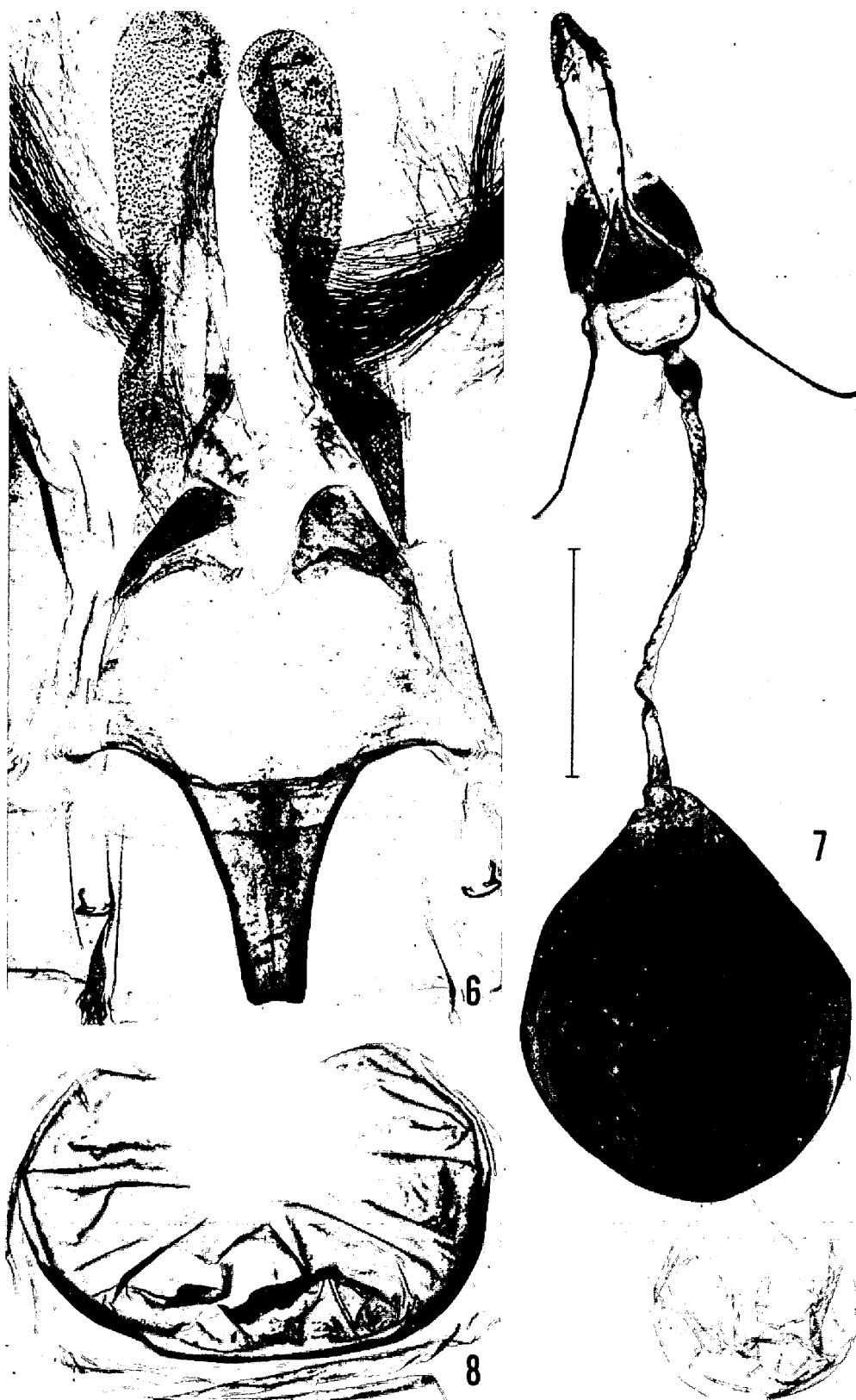


Fig. 5. Male genitalia of *Ethopia gigantea* sp. nov. Scale: 3.0 mm.



Figs. 6-8. *Ethopia gigantea* sp. nov. 6. Male 8th sternite with coremata. 7. Female genitalia. 8. Female 7th sternite. Scale: 3.0 mm.

well developed, V-shaped. Valva rather broad, simple, moderately arcuate. Juxta broad, rounded. Aedeagus straight, cylindrical, well sclerotized, without cornutus. Eighth sternite (Fig. 6) markedly modified: anterior margin invaginate, extending to the anterior margin of 7th sternite, middle of posterior margin exceedingly concave, distally with a pair of large coremata.

Female genitalia (Fig. 7). Papillae anales rather small, flat; 8th sternite tri-angulate, with a Λ -shaped ridge at middle; 8th tergite with a wide H-shaped ridge anteriorly; ostium bursae wide, U-shaped; ductus bursae long, slender; corpus bursae round, rather thick, granulated, with a thin membranous appendix bursae. Seventh sternite (Fig. 8) ovate, posterior margin concave at middle, covered densely with whitish hairs which cover an egg mass during oviposition.

Type series. Holotype ♂, labeled "Philippines, Palawan, 1985, ex Y. NISHIYAMA/Genitalia Slide No. NSMT 1997", preserved in the National Science Museum (Nat. Hist.), Tokyo. Paratypes: 1 ♀, North Palawan, Matalangao 150 m, 28–30. VIII. 1985 (M. OWADA), to be donated to the National Museum of the Philippines, Manila; 1 ♀, Central Palawan, Victoria Peaks, Trident Mines 500 m (near Narra), 3–5. IX. 1985 (M. OWADA), in NSMT.

Remarks. In his revisional work of the Galleriinae, HAMPSON (1917) included Mindanao, the Philippines, in the distribution of *E. roseilinea*. However, WHALLEY (1963) and LAITHWAITE *et al.* (1975) have never recorded the Philippines in the distributional range.

The wing maculation of this species is very similar to that of *E. roseilinea*, figured by SWINHOE (1900) and LAITHWAITE *et al.* (1975). In *E. gigantea*, the pink veins of forewing are paler, and the markings in the cell of forewing are black, three in male and two in female, while in *E. roseilinea* they are red and two in male. In addition to these, a broad red straight stria is present in the cell from the base to the diverging point of M_{2+3} in *roseilinea*, and such a stria is absent in *gigantea*.

In the male forewing venation, these species can be decisively separated by the following characters: in *gigantea*, R_5 and M_1 are long stalked or R_4 and R_5 are connected and form an areole, while in *roseilinea*, M_1 is free, R_3 , R_4 and R_5 are stalked.

The genus *Ethopia* is a member of the tribe Tirathabini WHALLEY, 1964. HAMPSON (1917) situated this genus between *Metarphia* HAMPSON, 1901, from Borneo and *Tirathaba* WALKER, 1864, distributed in the Indo-Australian tropics. Judging from the genitalic characters, however, this genus seems to have a close affinity with *Thalamorrhyncha* MEYRICK, 1933, from Ceylon, New Guinea and Fiji, having the broad uncus with a series of fine spines dorsally and the simple small aedeagus without cornutus.

Acknowledgements

I wish to express my hearty thanks to the authorities of the Bureau of Forest Development, Ministry of Natural Resources, the Philippines, for permission to

collect specimens, and to the staff of the National Museum of the Philippines, Manila, for their kind aid to make the expedition. I am also deeply indebted to Dr. Hiroshi INOUE, Otsuma Women's University, Iruma, Mr. Shigero SUGI and Mr. Yasunori KISHIDA, Tokyo, for their kind assistance in many ways during the course of this study, and to Dr. Shun-Ichi UÉNO, National Science Museum (Nat. Hist.), Tokyo, and Dr. Yutaka YOSHIYASU, Kyoto Prefectural University, Kyoto, for reading and criticizing the manuscript. Last but not least, I have also to thank all the members of the expedition for their kind aid and encouragement in the field.

References

- HAMPSON, G. F., 1901. Monographie des Phycitinae et des Galleriinae. *In* Romanoff, N. M. (ed.), *Mém. Lépid.*, **8**. xiv+602 pp., pls. 24-57.
- 1917. A classification of the Pyralidae, subfamily Galleriinae. *Novit. zool.*, **24**: 17-58.
- LAITHWAITE, E., A. WATSON & P. E. S. WHALLEY, 1975. The Dictionary of Butterflies & Moths in Colour. xlv+296 pp. Michael Joseph, London.
- MEYRICK, E., 1933. *Exotic Microlepid.*, **4**: 353-448.
- SWINHOE, G. F., 1900. Catalogue of Eastern and Australian Lepidoptera Heterocera in the Collection of the Oxford University Museum, **2**. viii+630 pp., 8 pls. Oxford.
- WALKER, F., 1864. *List Specimens lepid. Ins. Coll. Br. Mus.*, **30**: 837-1096.
- [1865] for 1864. *Ibid.*, **31**: 1-321.
- WHALLEY, P. E. S., 1963. Catalogue of the Galleriinae (Lepidoptera, Pyralidae) with description of new genera and species. *Acta zool. cracov.*, **9**: 561-618, pls. 14-44.