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Redescription of *Eugorna vidua* HOLLAND, 1894 and transfer to the subfamily Catocalinae (Lepidoptera: Noctuidae)

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Abstract

Eugorna vidua HOLLAND, 1894 is redescribed, the male lectotype and the female paralectotype have been designated in LÖDL, 1994 b and are illustrated in detail. The genus *Eugorna* HOLLAND, 1894 is not a synonym of *Ametropalpis* MABILLE, 1884 and therefore not a synonym of *Dichromia* GUENÉE, 1854. It is transferred from the subfamily Hypeninae to the subfamily Catocalinae.

Zusammenfassung

Eugorna vidua HOLLAND, 1894 wird wiederbeschrieben, die männliche Lectotype und die weibliche Paralectotype wurden von LÖDL, 1994 b designiert und werden hier detailliert abgebildet. Die Gattung *Eugorna* HOLLAND, 1894 ist nicht synonym zu *Ametropalpis* MABILLE, 1884 und daher auch kein Synonym von *Dichromia* GUENÉE, 1854. *Eugorna* wird von der Unterfamilie Hypeninae zur Unterfamilie Catocalinae transferiert.

Introduction

The author is currently engaged in the revision of the afrotropical members of the genus *Hypena* SCHRANK, 1802 sensu lato. At the present the process of defining the subfamilies Herminiinae, Rivulinae, Hypenodinae, Hypeninae and the "mega-subfamily" Catocalinae (including Ophiderinae) has not come to a satisfying end (KITCHING 1984, MINET 1986). In the author's opinion the most striking characters of the above-mentioned subfamilies can be found in the herminiines, which, in contradistinction to other authors, should be treated as "real" noctuids. The Rivulinae and Catocalinae, most likely polytypic, will slope away and partly transfer to the Hypeninae. The hypenodines may subsequently transfer to the hypenines when the constitutive features of this subfamily are more clearly perceived and defined. Focus of the latter undoubtedly is the big, monophyletic bulk of species of the genus *Hypena* SCHRANK, 1802, which contains an estimated 500-600 species worldwide. Closely allied are the genera *Dichromia* GUENÉE, 1854, *Harita* MOORE, 1882 and *Xoria* POOLE, 1989 (LÖDL 1993 a, b, 1994 a, b). The separation of certain monophyletic groups among the huge subfamily Catocalinae (including Ophiderinae) turns out to be most difficult. These "far-end"-quadrifines (Herminiinae, Hypeninae s.l. and part of the present Catocalinae) are considered to be phylogenetic old groups and therefore treated as "starters" in most of the recent classifications.

The study of *Eugorna vidua* HOLLAND, 1894, is of importance for the further knowledge of the African species of *Hypena* sensu lato. This species turned out to be most likely a member of the subfamily Catocalinae. The species is redescribed and figured in this paper.

Eugorna vidua HOLLAND, 1894 (Figs. 1 - 12)

Type specimens. - Lectotype, ♂: *Eugorna vidua* HOLLAND ♂ type, Lödl Gen.Präp.Nr. 365 (CM) (designated in Lödl, 1994 b) (Fig. 1); Paralectotype, ♀: *Eugorna vidua* HOLL. ♀ type, Lödl Gen.Präp.Nr. 375 (CM) (designated in LÖDL, 1994 b) (Fig. 2). - Type locality most likely is "[Gabon], [Valley of the Ogooue River], valley of the Ogové" although some doubts remain. The data labels as well as the original description do not bear any locality specifications. POOLE, 1989, cited "Ogove" as the correct type locality, but it remains unclear what his assumption is based on. A possible solution might be the fact that HOLLAND cited "Ogové" as the collecting locality for the preceding species "*Gorna partita* WALKER" in his paper 1894:122. The original text in this description reads as follows: "This species, like the preceding, is found in the valley

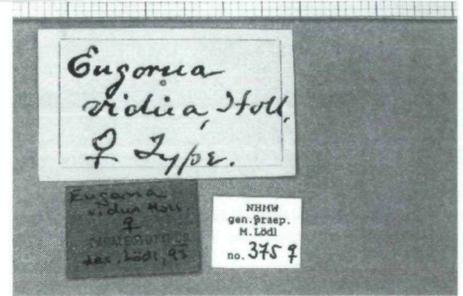
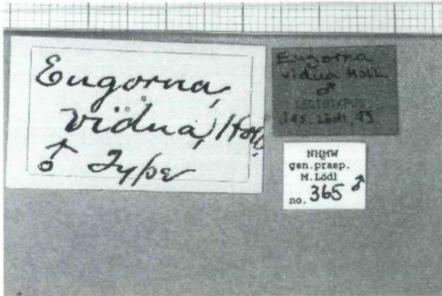
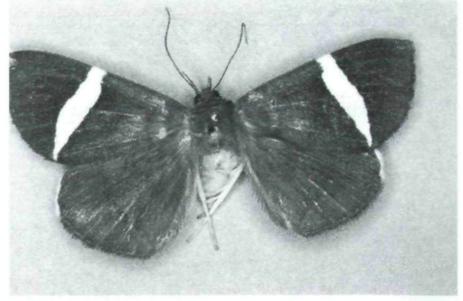
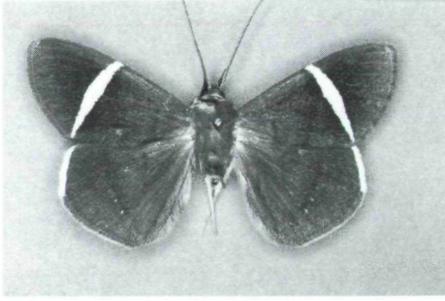


Fig. 1. *E. vidua* HOLLAND, 1894, ♂, lectotype.

Fig. 2. *E. vidua* HOLLAND, 1894, ♀, paralectotype.

of the Ogové." The "preceding" species to *Gorna partita* is "*Gorna apicata*" (described by HOLLAND in the same paper on page 121) with the habitat "Kangwé", so HOLLAND possibly did not mean the "preceding" but the following species which in fact was *Eugornia vidua*.

Further specimens (CM): 1 ♂, data missing or unreliable. - 1 ♂, Liberia, Harbel (Marshall Terr.), 10.VI.1955, R.M.Fox (This specimen exhibits broader white fascia and a blue shine on the forewing recto). - 1 ♀, Efulen, W.Africa (Good) (This specimen bears a narrower white fascia on the forewing recto than the paralectotype).

Description

Wingspan 49 mm (♂), 53 mm (♀).

Head (Fig. 3-4): Labial palpi curved upwards, densely covered with scales, dark brown, anterior margin of the second joint ochreous. Third joint pointed, relation of second to third joint is 1.6 - 1.9. Head dark brown, diameter of eyes: 1.7 mm. Antennae long, in the male heavily pectinated with pairs of long, strong ciliae and numerous fine hairs in between. Ciliae present almost throughout the length of the antennae. Antennae of the female simple, with fine hairs (Fig. 5-6). Thorax and Abdomen: Dark brown, underside whitish. Legs whitish. Forelegs of the male not modified, first and second pair of legs covered with fine long hairs, the last pair sparingly covered with short scales. Abdomen strong and heavily built, 8th abdominal segment (A8) broad and short, ventrally with posterior abdominal brush (Fig. 7).

Forewing: Dark brown, both sexes with a bright white band running from the middle of the costa to the outer angle. The band is sharply defined, more or less straight and is broader about the middle. The band is generally broader in the female. Inner transverse band delicate, dark, orbicular spot shaped as a dark dot.

Hindwing: Outer margin cornered in the middle, from this point with white fringe upwards. White fringe and corner more prominent in the male. Remaining fringes mainly dark brown, with some white hairs at the inner margin. Colour of hindwings dark brown, with a delicate, dark transverse band. This band is sparsely marked with small white dots. Venation of hindwing see fig. 8.

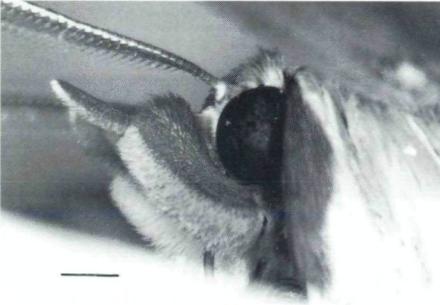


Fig. 3. *Eugorna vidua* HOLLAND, 1894, ♂, lectotype, head, lateral view. Scale = 1 mm.

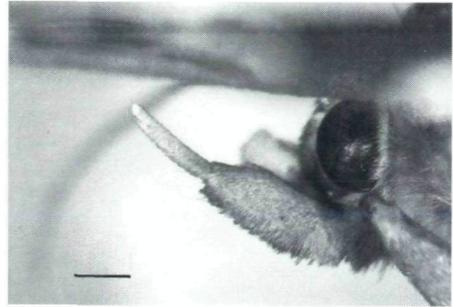


Fig. 4. *Eugorna vidua* HOLLAND, 1894, ♀, paralectotype, head, lateral view. Scale = 1 mm.

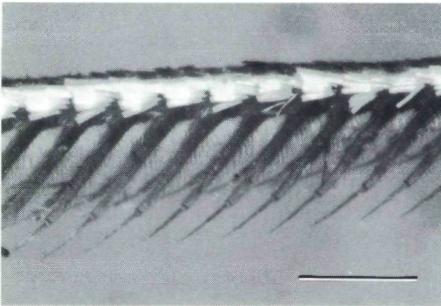


Fig. 5. *Eugorna vidua* HOLLAND, 1894, ♂, lectotype, detail of antenna. Scale = 0.5 mm.

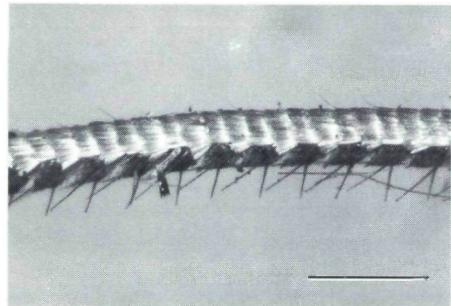
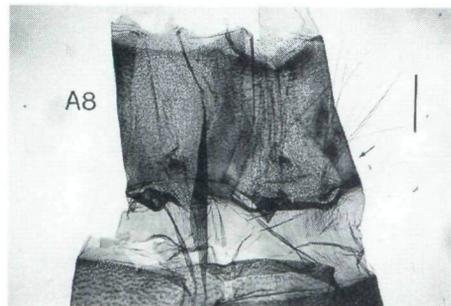


Fig. 6. *Eugorna vidua* HOLLAND, 1894, ♀, paralectotype, detail of antenna. Scale = 0.5 mm.

Fig. 7. *Eugorna vidua* HOLLAND, 1894, ♂, lectotype, 8th abdominal segment (A8) with posterior abdominal brush. Scale = 0.5 mm.



Male genitalia (Figs. 9-11): Valve spatulate, with a marked incision in the distal half of the valve, densely granulated (insertion of hair like scales). Valves without any processes and without a prominent sacculus area. Vinculum small, v-shaped with prominent knob-like saccus. Tegumen sclerotized, clasp-like. Uncus relatively slender and straight with a very small, fine pointed hook at its distal end (Fig. 10). Tuba analis ribbed with radial grooves and sclerotized at anus. Aedeagus cylindrical, stout. Coecum broad and rounded, very short proximal of mouth of ductus ejaculatorius. Distal end slightly narrowed, heavily sclerotized with small spines at the

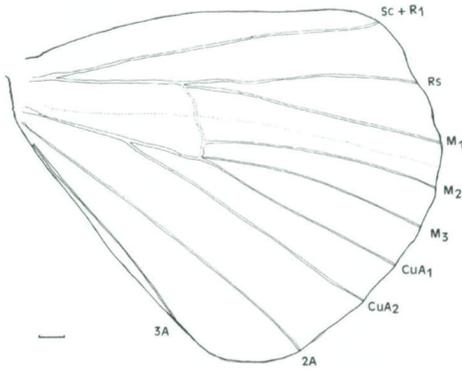
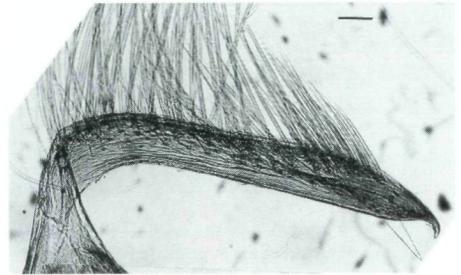
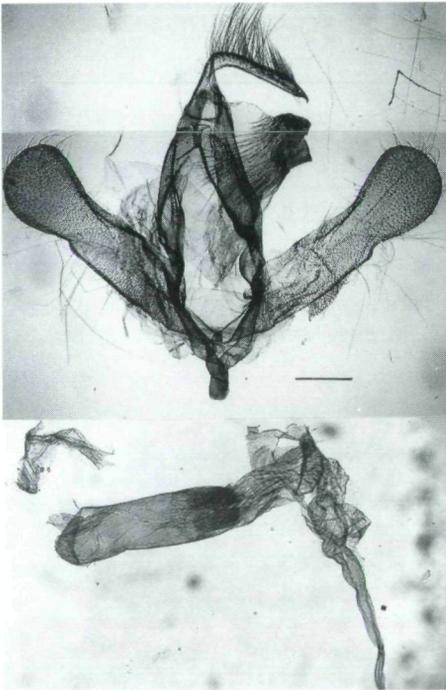


Fig. 8. *Eugorna vidua* HOLLAND, 1894, ♂, lectotype, hindwing venation. Scale = 1 mm.



Figs. 9-11. *Eugorna vidua* HOLLAND, 1894, lectotype, ♂-genitalia, Lödl Gen.Präp. Nr. 365: 9. Corpus and aedeagus. Scale = 0.5 mm; 10. Uncus, lateral view. Scale = 0.1 mm; 11. Distal end of aedeagus, vesica everted. Scale = 0.1 mm.

inner surface (Fig. 11). Vesica long and complicatedly folded, covered with a dense layer of small spines and teeth.

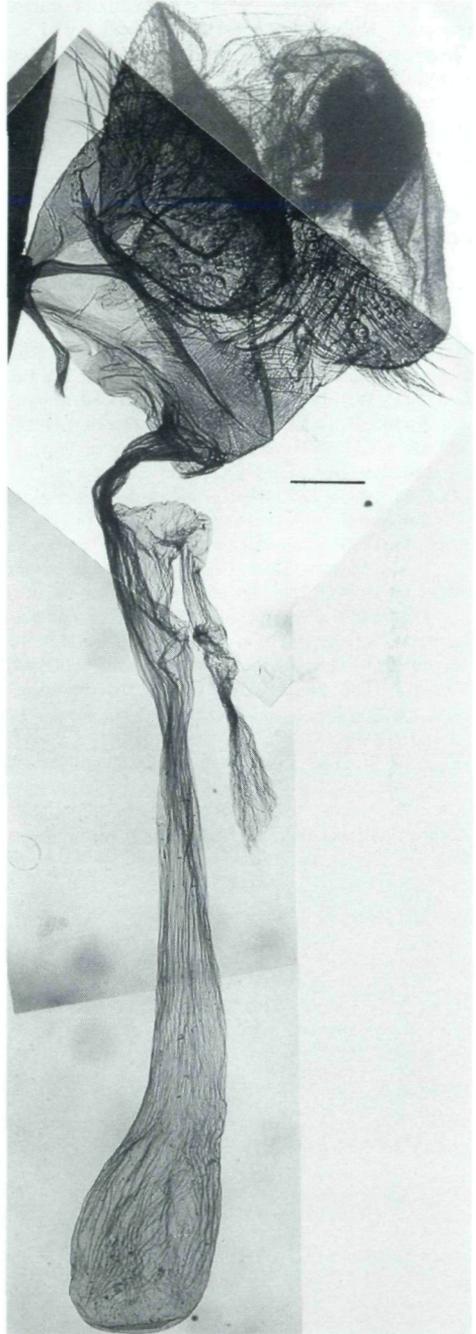
Female genitalia (Fig. 12): Long and very stout in the distal part. Total length (papillae included) 9.5 mm. Papillae anales very stout and broad, thick skinned and bloated with big

Fig. 12. *Eugorna vidua* HOLLAND, 1894, paralectotype, ♀-genitalia. Scale = 0.5 mm.

insertion marks of strong hairs. Ostium very small, leading into a narrow and soft skinned, grooved ductus bursae. Ductus seminalis relatively broad, soft skinned and speckled at its distal part, originating from a cervix bursae. Ductus bursae long and gradually expanded to bursa. Ductus bursae and bursa completely covered with grooves and very fine layers of very small teeth. No definite signum found.

Discussion

Eugorna vidua originally was described in the family Platydidae which followed GUENÉE's concept of dividing the "Division Deltoides" into three families: 1. Platydidae, 2. Hypenidae and 3. Herminidae. In the Platydidae HOLLAND (1894) grouped genera around *Platydia* GUENÉE, 1852 (the valid replacement name for this genus now is *Yidalpta* NYE, 1975) and *Gorua* WALKER, 1865 (= *Gorna* [sic] HOLLAND (1894)). *Eugorna* HOLLAND, 1894 was placed in the "Noctuinae" (interpreting the hypenines as belonging to the ophiderines) by GAEDE (1934-1940), later treated as an ophiderine moth by NYE (1975) and cited as a member of the subfamily Hypeninae by POOLE (1989). Due to its general appearance, the heavy and stout body and head as well as the hindwing venation *Eugorna* is provisionally transferred to the subfamily Catocalinae (including Ophiderinae).



The genus *Eugorna* was synonymized earlier with the genus *Ametropalpis* MABILLE, 1884 (POOLE, 1989). LÖDL (1993 b and 1994 a, b) synonymized *Ametropalpis* with the genus *Dichromia* GUENÉE mainly based on characters of the male genitalia but subsequently hesitated to synonymize with *Hypena*. *Ametropalpis* represents the "black and white" wing pattern type of *Dichromia*. The current study made obvious that *Eugorna* is not a synonym of the *Dichromia*-complex.

Acknowledgements

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