

From the ANNALS AND MAGAZINE OF NATURAL HISTORY,  
Ser. 10, vol. xvii. p. 558, May 1936.

*New Parasitic Hymenoptera from Africa (Proctotrupoidea, Subfam. Telenominæ). By G. E. J. NIXON, B.A., Department of Entomology, British Museum (Natural History).*

MICROPHANURUS Kieffer.

*Microphanurus lemoleæ*, sp. n.

In my revision of the African Telenominæ\*, I unfortunately recorded this species as *Telenomus thestor* Nixon.

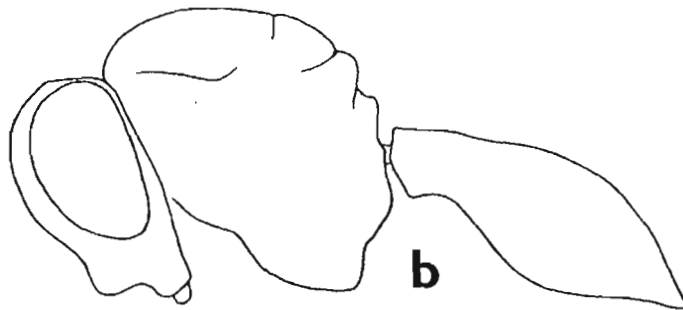
In the small series of 3 ♀♀ and 3 ♂♂, from which I now describe it, I can see no trace of hairs on the eyes and therefore place it in *Microphanurus*, although in size and sculpture it much resembles *Telenomus*. The insect is minute, about half a millimetre in length, much smaller than any African species of *Microphanurus* with which I am acquainted, and, on the strength of its size alone, is very characteristic, if the absence of hairs on the eyes is truly a constant feature.

♂♀.—Black. Legs dirty brownish yellow with the tarsi and articulations paler. Antennæ of the ♀ are much the same colour as the darker parts of the legs.

\* Trans. Roy. Ent. Soc. 1935, p. 79.

♀.—*Head* strongly transverse, clearly wider than the thorax, and, seen along a line perpendicular to a line between the posterior ocelli, slightly more than twice and a half as wide as its greatest length. Frons almost everywhere entirely smooth and shining; surface immediately in front, and to the sides of, the anterior ocellus, moderately shining, with vague scratches and rugulosities and distinct, but not at all sharply defined, scattered punctures. Vertex rather sharply angled between the posterior ocelli. Between the posterior ocelli

Fig. 1.



a, *Microphanurus lemoleæ*, sp. n. ; b, *Telenomus demodoci*, sp. n.

there is some indication of a fine raised line separating the anterior part of the vertex from the posterior (declivous) part. Eyes completely bare and, seen from above, occupying the entire lateral surface of the head. Antennæ: radicle hardly one-fourth the length of the scape; pedicel thicker than funicle 1 and a little shorter than funicles 1 and 2 together; funicle 1 very slightly longer than wide; 5 not strongly transverse; club not sharply differentiated, feebly 5-segmented.

*Thorax* somewhat flattened above (fig. 1 a, p. 559). Mesonotum feebly shining, its sculpture very weak and quite indefinite; there is a tendency towards fine scaly reticulation on anterior part, and posteriorly, where the sculpture becomes more vague, there are indications of minute ill-defined punctures; pubescence of this sclerite so indistinct as to be virtually absent (magnification  $\times 60$ ). Scutellum flattened and completely smooth over its greater medial part. Postscutellar swelling slightly overlapping the propodeum. The entire thorax lies more or less in the same plane as the abdomen, an unusual feature in *Microphanurus*. Fore wings greyish, the venation likewise greyish and not very sharply defined; hind wing very narrow, the fringe fully three-fourths as long as the greatest width of the wing.

*Abdomen* but little longer than its greatest width, small in comparison with the size of the thorax; tergite 2 striate only at extreme base.

♂.—Antennæ brownish, the more apical segments of the funicle more or less spherical; otherwise like the ♀. Genitalia (fig. 2 a).

*Length*, ♂♀, .55 mm. approx.

UGANDA: Bukalasa (*H. Hargreaves*): series of 3 ♀♀, 3 ♂♂, bred ii. 1932 from eggs of a *Lycænid* butterfly, ? *Spalgis lemolea* H. H. Druce, on coffee berries.

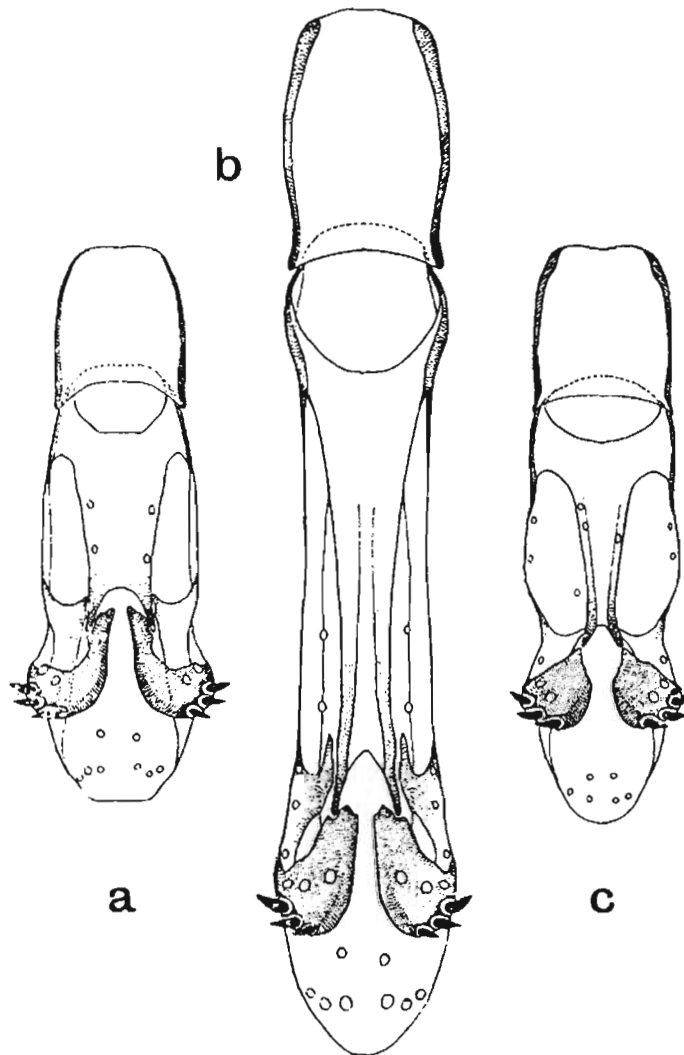
This species is largely characterized by a subtle distinctiveness in facies, produced probably by the condition of thorax and abdomen lying more or less in the same plane. It is not to be confused with any African species of *Microphanurus* known to me. Its sculpture, colour of wings and of venation, and shape of hind wing are strongly reminiscent of *Telenomus*, from which I separate it on account of absence of hairs on eyes. Absence or presence of hairs on the eyes constitutes the only character which I regard as valid for separating the numerous species of the *Microphanurus-Telenomus* complex.

#### TELENOMUS Haliday.

In my key to African *Telenomus* \*, the two following species run to *thestor* Nixon and *procas* Nixon, two forms the females of which I coupled together in the table

\* Trans. Roy. Ent. Soc. 1935, p. 75.

Fig. 2.



Male genitalia of : a, *Microphanurus lemoleæ*, sp. n. ; b, *Telenomus demodoci*, sp. n. ; c, *Telenomus ullyetti*, sp. n.

for lack of any good characters to separate them. The males of *thetor* and *procas* have very different genitalia from each other, and also from those of the two species which I am introducing here as new. The problem is thus: we have a complex of at least four species, the females of which are almost impossible to separate by means of the criteria hitherto used for separating the species of the genus, while the males can be distinguished easily by the form of the genitalia. All four species have been bred from eggs of known species of Lepidoptera. Except in the case of *procas*, where two series were bred from the same host, *Deiopeia pulchella*, only one series of each species of parasite is available, so that it is impossible to say yet how far the host of each is specific.

The four species of *Telenomus* discussed above have the following characters in common:—

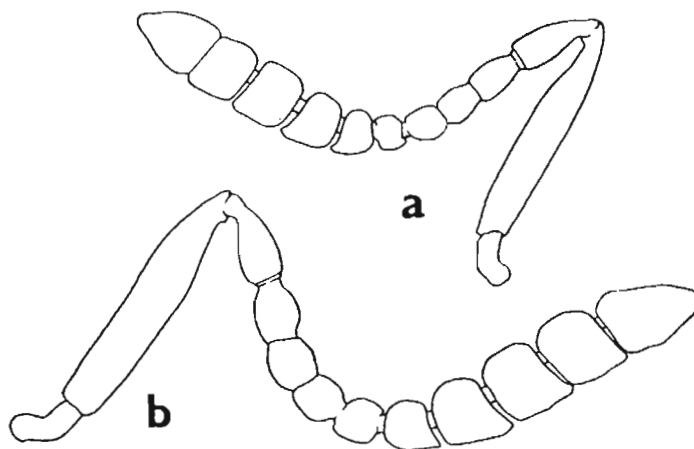
Small species, at most .8 mm. in length. *Colour*: black; antennæ blackish throughout; legs obscure yellowish brown. *Head* seen along a line perpendicular to a line between the posterior ocelli more than twice as wide as its greatest length, markedly wider than the thorax. Vertex rather sharply angled between the posterior ocelli. Eyes occupying the entire lateral surface of the head. When the head is seen from above, its sides between the postorbital margin and the occipital margin quite straight and almost parallel to the transverse axis of the head. *Frons* everywhere, right across to the inner margin of the eye, entirely smooth and shining. *Antennæ*: radicle not more than one-fourth the length of the scape; funicle 2 but little longer than wide; club of funicle not clearly differentiated. *Thorax* evenly convex, raised high above the level of the abdomen; mesonotum feebly shining and with only a very fine, vague, indeterminate sculpture; sometimes it is possible to make out excessively minute, but never sharp punctures, interconnected by a fine scratched surface-sculpture; anteriorly the mesonotum tends to show minute granulations. *Wings* slightly smoky grey, the venation likewise greyish and, comparatively, not sharply defined; hind wing narrow, its fringe two-thirds as long as greatest width of wing in *demodoci*, sp. n., fully as long in the others. *Abdomen* not,

or hardly, longer than thorax and not more than about once and a half as long as its greatest width; striations of tergite 2 reduced, more or less, to a costate furrow at extreme base of the segment.

*Telenomus ullyetti*, sp. n.

♂♀.—This species differs very slightly in venation from *thestor* Nixon in that the stigmatis at apex is better defined. From *procas* Nixon it differs in having the hind wings very slightly narrower, more or less parallel-sided. Antennæ (fig. 3 a).

Fig. 3.



Female antenna of : a, *Telenomus ullyetti*, sp. n. ;  
b, *Telenomus demodoci*, sp. n.

♂.—Funicle dark brown, segments 7-11 more or less spherical. Genitalia (fig. 2 c) roughly similar to those of *thestor* with regard to the relation of length to breadth, but very different in detail, as a comparison of the figures will at once show.

Length, ♂♀, .5-6 mm. Size equal to that of *procas* and *thestor*.

S. AFRICA: E. Transvaal, Tonetti (*G. C. Ulyett*): series of 2 ♀♀, 10 ♂♂, bred Sept. 1930, and 3 ♀♀, 6 ♂♂, bred Dec. 1930, from eggs of *Heliothis obsoleta* Fab., on beans.

*Telenomus demodoci*, sp. n.

♂♀.—A slightly larger insect than the three species discussed above, about .8 mm. (fig. 1 *b*).

*Head*: vertex not so sharply angled between the posterior ocelli as in *ullyetti*. *Antennæ* (fig. 3 *b*). *Thorax*: mesonotum slightly less shining, and its sculpture more definite, than in *ullyetti*. Hind wing by no means parallel-sided, its fringe only about two-thirds to three-fourths the greatest width of the wing.

♂.—*Antennæ* yellowish brown; segments 7–11 of the funicle slightly transverse. *Genitalia* (fig. 2 *b*) very distinctive, longer and narrower than in *ullyetti* and *thektor*, besides differing in details.

UGANDA: Kampala (*H. Hargreaves*): 5 ♀♀, 2 ♂♂, bred from eggs of *Papilio demodocus* on various dates in October and November 1929.