

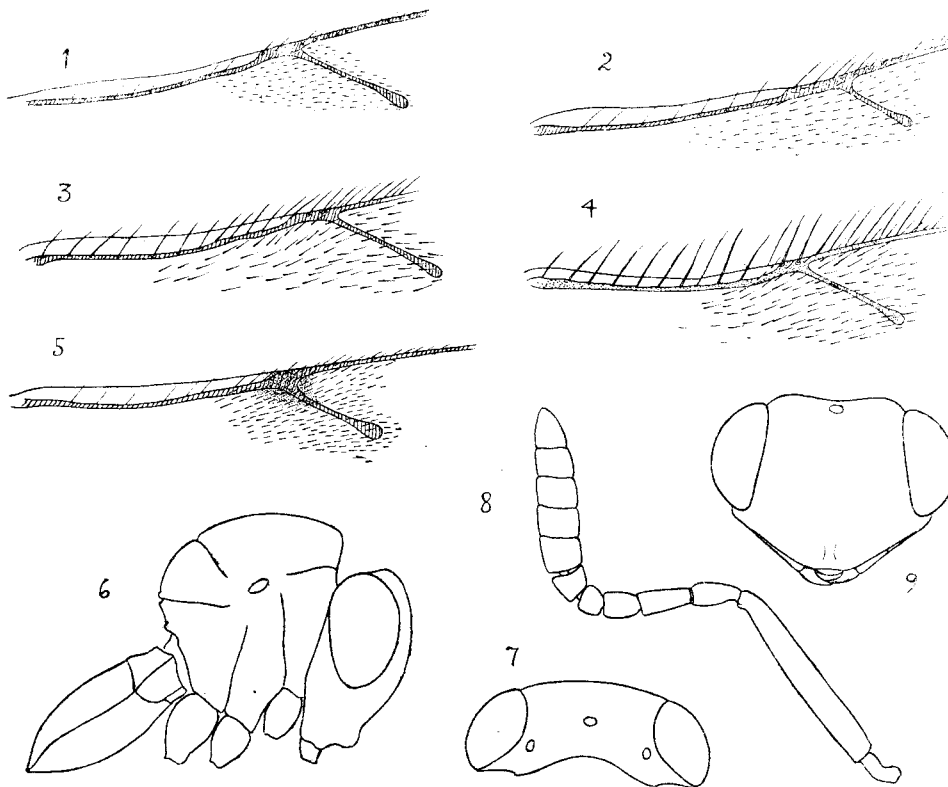
A SYNOPSIS OF THE ETHIOPIAN AND INDO-MALAYAN SPECIES OF  
*MICROPHANURUS* (SERPHOIDEA, SCHELIONIDAE).

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This paper brings together all the species of *Microphanurus* from the Ethiopian and Indo-Malayan regions that I have written about during the last eight years. I have found that the fauna of neither region could be studied in isolation if a proper understanding of the taxonomic relationships and host-preferences of the genus were aimed at.

The key contains all the species from the regions concerned of which the types or at least authentically named specimens are in the British Museum. Two new African species are described.

For the identification of the Hemipteron, *Atelocera stictica*, Westwood, and for other information I am much indebted to Mr. W. E. China.



Figs. 1-9. 1. *Microphanurus encladus*, Nixon, part of fore wing, ♀; 2. *M. striaticeps*, Dodd, part of fore wing, ♀; 3. *M. maro*, Nixon, part of fore wing, ♀; 4. *M. seychellensis*, Kieffer, part of fore wing, ♀; 5. *M. larides*, sp. n., part of fore wing, ♀; 6. Same, body, lateral, ♀; 7. Same, head, from above, ♀; 8. Same, antenna, ♀; 9. Same, head, from in front, ♀.

## SUBFAMILY TELENOMINAE.

Genus *Microphanurus*, Kieffer.

*Microphanurus* merges gradually into *Telenomus*, Haliday, though as a rule it is not difficult to place a species in one or the other genus. I have accepted the presence or absence of hairs on the eyes as the determinative factor for separating the two genera, *Telenomus* having hairy eyes. This is not, however, always a reliable criterion, for some of the smaller species of *Microphanurus*, such as *crotius*, Nixon (see No. 23), have the eyes feebly hairy. The differences between the two genera will be found summed up in my revision of the African TELENOMINAE (1935, p. 75). So far as is known, *Microphanurus* is essentially parasitic on the eggs of Hemiptera, while *Telenomus* chiefly attacks those of Lepidoptera.

The hosts of about half of the 24 species listed are known. Some of them are important economic pests, such as *Nezara viridula*, L., which is attacked by three species of *Microphanurus*: *basalis*, Woll. (= *megacephalus*, Ashm.), *sipius*, Nixon, and *aloyisii-sabaudiae*, Fouts. It is probable that *M. striaticeps*, Dodd, is also a parasite of the same insect.

*M. mahensis*, Kieffer, from the Seychelles is not mentioned below, since in my opinion it is a true *Telenomus* in which genus Kieffer originally described it.

## Key to the Species (♀♀).

1. Front and middle coxae contiguous, there being no free surface between them. (Upper horizontal surface of frons with a few strong ridges on each side on a shining, smooth ground; mesonotum everywhere with small very even raised reticulations; tergite 2 very characteristically striate-reticulate, the striate element fading out towards apex; stigmalis short (fig. 2)).....  
(1) *striaticeps*, Dodd
- Front and middle coxae not contiguous, there being a free, though often narrow, surface of mesosternum between them.....2
2. Mesonotum posteriorly with sharply defined parapsidal furrows, somewhat indistinct in those species which show a considerable amount of longitudinal rugosity posteriorly on mesonotum. (Spp. with the frons somewhat bulging between the lowest point of the eye and the antennal insertions).....3
- Mesonotum posteriorly without a trace of parapsidal furrows.....8
3. Posterior half of mesonotum strongly shining and more or less unsculptured; rugose-punctate on anterior half. (Vertex with an almost completely differentiated ridge, there being traces of micro-sculpture along its actual edge)....  
(4) *trophonius*, Nixon
- Mesonotum sculptured all over.....4
4. Margin bounding the eyes behind continued right across the vertex as a completely differentiated, sharp, smooth ridge. (Spp. with the hairs of the subcostalis long, projecting well beyond the edge of the wing (fig. 3)).....5
- This margin at least between the posterior ocelli not completely differentiated, the vertex here being sharply angled or roundly angled.....7
5. Mesonotum with a predominating sculpture of fine scaly-reticulation (shagreened). (Segments 1-3 of the flagellum predominantly brownish).....  
(5) *maro*, Nixon
- Mesonotum with strong rugosities which posteriorly become longitudinal.....6

6. Striation of tergite 2 fine, somewhat weak, the intervals smooth and the general surface very shining..... (6) *menecles*, Nixon  
 Striation of tergite 2 slightly less fine, the intervals broken and discontinuous so that the sculpture is almost reticulate-striation ; general surface dull..... (7) *biblis*, sp. n.
7. Mesonotum, more especially posteriorly, with indications of longitudinal rugosity ; hairs of the subcostalis pale and thin and projecting only slightly beyond the edge of the wing (fig. 1). (Mandible large and wide)..... (8) *enceladus*, Nixon  
 Mesonotum without a trace of longitudinal rugosity, the sculpture consisting of even scaly-reticulation with feebly indicated, very indistinct punctures ; hairs of the subcostalis dark brown, moderately thick and projecting well beyond the edge of the wing. (Mandible small and narrow)..... (9) *vindicus*, Nixon
8. Segments 2-4 of the flagellum extremely short and strongly transverse, the apex of each closely embracing the base of the next ; segment 1 of the hind tarsus as long as the following segments together. (Antennal club sharply tapering to apex, the apical segment very small).....(3) *mopsus*, Nixon  
 These segments much longer and at least 2 not at all transverse ; the segments not thus closely articulated ; segment 1 of the hind tarsus distinctly shorter than the following segments together.....9
9. Radicle of the scape at least  $\frac{1}{3}$  as long as the scape. (Spp. with the radicle black ; oblique depression of the mesopleura bounded in front by a strong ridge which extends as far as the middle coxa ; hairs of the subcostalis projecting well beyond the edge of the wing) .....10  
 Radical of the scape considerably less than  $\frac{1}{3}$  the length of the scape.....11
10. Radicle  $\frac{1}{2}$  as long as the scape ; surface on each side of the anterior ocellus with strongly raised rugosities on which is superimposed fine scaly-reticulation..... (10) *carinifrons*, Cameron  
 Radicle  $\frac{1}{3}$  as long as the scape ; surface here covered with fine, even scaly-reticulation.....(11) *aloyisii-sabaudiae*, Fouts
11. Scape in a lateral view of the head very distinctly over-reaching the top of the vertex. (Head from in front strongly transverse, elliptical ; flagellum brown throughout, evenly and rather feebly thickened to apex, without a differentiated club ; mesonotum and scutellum strongly flattened and with a fine shagreened sculpture which on the mesonotum is dullest medially ; segment 3 of the hind tarsus only about half as long as 5).....(2) *sipius*, Nixon  
 Scape, thus seen, not overreaching the top of the vertex .....12
12. Vertex with a completely or almost completely differentiated margin forming a continuation of the postorbital carina.....13  
 Vertex without such a carina, at most very sharply angled.....15
13. Frons in greater part smooth and shining ; tergite 2 very slightly longer than wide. (Frons strongly bulging between the lowest point of the eye and the antennal insertions, delicately scaly-reticulate, more especially below, against eye-margin ; on each side of the anterior ocellus a longitudinal row of about 6 sharply defined but very small punctures ; segment 4 of the flagellum almost spherical, clearly nearer in size to 3 than to 5 so that the club is fairly sharply differentiated as 5-segmented ; hairs of the subcostalis very long (fig. 4))..... (24) *seychellensis*, Kieffer  
 Frons sculptured all over.....14

14. Frons not bulging between the lowest point of the eye and the antennal insertions; sculpture of frons anterior to median ocellus consisting of subscaly-reticulation with a well-marked transverse tendency; oblique depression of the mesopleura margined in front as far as the middle coxa; segment 1 of the flagellum only about twice as long as wide at apex. (Vertex unusually sharply cut away behind the not quite completely differentiated margin, fitting closely on to the thorax like a cap).....(13) *stoicus*, Nixon  
 Frons bulging here, its sculpture anterior to the median ocellus consisting of strong rugae; oblique depression of the mesopleura not margined; segment 1 of the flagellum nearly 4 times as long as apically wide.....  
 (12) *barrowi*, Dodd
15. Upper edge of the posterior wall of the middle part of the postscutellum so closely approximated to the posterior margin of the scutellum that the postscutellum bears no transverse or subtriangular rugose area medially; marginalis and base of stigmalis enveloped in a faint cloud.....(14) *larides*, sp. n.  
 Structure of the postscutellum different medially, always showing here a transverse or subtriangular, strongly rugose area; marginalis and base of stigmalis without such a cloud.....16
16. Sculpture of mesonotum very fine, consisting of even scaly-reticulation with or without feebly indicated punctures. (Spp. with segment 2 of the hind tarsus not longer than 5; hairs of the subcostalis projecting far beyond the edge of the wing).....group of *suranus*, Nixon. 17  
 Sculpture of mesonotum different, at its finest consisting of minute raised points anteriorly and posteriorly with distinct indication of longitudinal rugosity but more usually describable as coarsely rugose or reticulate-rugose.....18
17. Segments 1-4 of the flagellum blackish; segment 2 of the hind tarsus distinctly shorter than 5; tergite 2 with strong striation covering most of its surface.....  
 (16) *sulmo*, Nixon  
 Segments 1-4 of the flagellum yellowish; segment 2 of the hind tarsus as long as 5; tergite 2 with only the merest trace of striation mid-basally.....  
 (15) *suranus*, Nixon
18. Oblique depression of the mesopleura not bounded in front by a carina; sculpture of the mesonotum fine, over most of its anterior surface consisting of minute raised points which posteriorly give way to fine striation; small spp. not more than 1 mm. (Hairs of the subcostalis projecting far beyond the edge of the wing).....19  
 Oblique depression of the mesopleura bounded in front by a carina; sculpture of the mesonotum much coarser but posteriorly sometimes showing coarse longitudinal rugosity; size larger, at least 1.2 mm.....20
19. Eyes with minute hairs. (Sp. having much of the facies of *Telenomus*).....  
 (23) *crotius*, Nixon  
 Eyes without hairs. (Sp. of stouter build than *crotius* and with the head more transverse).....(22) *basalis*, Wollaston
20. Mandible rather small; sculpture of mesonotum very evenly and not particularly coarsely rugose; hind tarsus 2 about twice as long as 5. (No trace of an extra carina on the cheek; hairs of the mesonotum so short and fine that although very numerous they are not at first sight readily visible) .....  
 (17) *danaus*, Nixon  
 Mandible decidedly large, with three teeth as in *danaus* but these long, conspicuous, sharply pointed; mesonotum coarsely rugose; hind tarsus 2 very distinctly less than twice 5. (Usually a well defined carina between that bordering the genal sulcus and the oral margin).....21

21. Mesonotum coarsely rugose-reticulate and with no obvious longitudinal element posteriorly ; hairs of the mesonotum whitish, long, semidecumbent, almost setiform and very conspicuous everywhere ; scutellum somewhat flattened, without a trace of a division into an anterior and posterior area ; mandibles in the closed position forming a mass like two clasped hands and projecting well away from the head (radicle of scape black).....(18) *painei*, Ferrière
- Mesonotum coarsely rugose but without an obvious reticulate element and posteriorly with strong longitudinal rugosity ; hairs of the mesonotum fine, brown, and though numerous not visible everywhere in a dorsal view of the sclerite ; scutellum not at all flattened and with an ill-defined, transverse crest (hardly defined in typical *orontes*) dividing it into an anterior and posterior area ; mandibles in the closed position not presenting the exaggerated appearance of *painei*, though approaching it.....group of *orontes*, Nixon. 22
22. Frons between the anterior and posterior ocellus finely sculptured, without raised rugosity ..... 23
- Frons here with some strong raised rugosities in addition to the fine sculpture. (Crest of the scutellum well developed, though very irregular, the division into two areas well marked ; radicle of the scape yellow)...(21) *priapus*, Nixon
23. Radicle of the scape blackish ; scutellum with hardly a trace of a crest and hence without differentiation into two differently sculptured areas..... (19) *orontes*, Nixon
- Radicle of the scape yellow ; scutellar crest hardly less well developed than in *priapus*.....(20) *orontes*, var. A

1. **Microphanurus striaticeps**, Dodd.

*Telenomus striaticeps*, Dodd, 1919, Trans. ent. Soc. Lond., **1919**, p. 355.

*Microphanurus carinifrons*, Fouts, 1934, Mem. Soc. ent. ital., (13) **1**, p. 105, ♂.

(Syn. nov.)

*Microphanurus striaticeps*, Dodd, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 160.

*Microphanurus striaticeps*, Dodd, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 125.

AFRICA : Brit. Sudan, *ex* eggs of *Acanthomia brevirostris*, Stål (Coreidae) and *Agonoscelis versicolor*, F. (Pent.) ; Italian Somaliland (*carinifrons*), *ex* eggs of *Nezara* sp., and also from branch of cotton infested with eggs of *Nezara* ; Nyasaland ; Cape Province. INDIA : Punjab (Nixon, 1938).

Fouts' description is very careful and makes it fairly certain that his species is identical with *striaticeps*, Dodd.

2. **Microphanurus sipius**, Nixon.

*Microphanurus sipius*, Nixon, 1936, Proc. R. ent. Soc. Lond., (B) **5**, p. 133.

AFRICA : Kenya Colony, *ex* eggs of *Nezara viridula*, L.

This is an aberrant species and is only provisionally placed in *Microphanurus*. Its curious flattened appearance and long scape together with the very slender flagellum make it an outstanding species.

3. **Microphanurus mopsus**, Nixon.

*Microphanurus mopsus*, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 97.

AFRICA : Cape Province ; Abyssinia. Host unknown.

A species having the facies of typical *Microphanurus*, but isolated and most distinctive on account of the structure of the antenna.

4. **Microphanurus trophonius**, Nixon.

*Microphanurus trophonius*, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 127.

SUMATRA: Asahan, ex eggs of Hemipteron, probably REDUVIDAE, on *Uncaria Gambir*, Roxb.

By comparison with the other species dealt with in this paper, this is a most distinctive species owing to the absence of sculpture on the posterior half of the mesonotum.

5. **Microphanurus maro**, Nixon.

*Microphanurus maro*, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, 99.

AFRICA: Cape Province; Natal. Host unknown.

6. **Microphanurus menecles**, Nixon.

*Microphanurus menecles*, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 98.

AFRICA: Cape Province; Natal. Host unknown.

7. **Microphanurus biblis**, sp. n.

*Microphanurus menecles*, Nixon, *loc. cit.* (*partim*).

This species, which I now describe as new, was formerly recorded by me as *menecles*; it differs from *menecles* as follows:—

♀. Head less transverse and less sharply cut away behind the eyes (in *menecles* it is cut away almost at right angles to the long axis of the body). Mandible much larger and wider, without clearly defined teeth (in *menecles*, the mandible is weakly tridentate). For other differences, see key.

Size larger, 2 mm., approx.

AFRICA: Natal, Kloof, 1,500 ft., ix.1926, 1 ♀, the type (*R. E. Turner*); Cape Province, Ceres, iii.1925, 1 ♀ (*R. E. Turner*).

Type in the British Museum.

With its large mandibles, this species is extremely like *enceladus*, Nixon. It differs from this species in having a more or less completely differentiated vertical margin and the pubescence of the wing longer.

8. **Microphanurus enceladus**, Nixon.

*Microphanurus enceladus*, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 99.

AFRICA: Cape Province. Host unknown.

9. **Microphanurus vindicius**, Nixon.

*Microphanurus vindicius*, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 128.

JAVA: Mt. Salak; Wonogiri Dist., ex eggs of *Dasyneus manihotis*, Blöte (Coreidae).

10. **Microphanurus carinifrons**, Cameron.

*Immsia carinifrons*, Cameron, 1913, Ind. For. Rec., **4**, p. 105.

*Telenomus carinifrons*, Cameron, Dodd, 1920, Trans. R. ent. Soc. Lond., **1920**, p. 355.

*Microphanurus carinifrons*, Cameron, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 138.

INDIA: Dehra Dun. Host unknown.

11. **Microphanurus aloysii-sabaudiae**, Fouts.

*Microphanurus aloysii-sabaudiae*, Fouts, 1930, Boll. Soc. ent. ital., **62**, p. 118.

*Microphanurus aloysii-sabaudiae*, Fouts, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 102.

*Microphanurus artabazus*, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 131.  
(Syn. nov.)

AFRICA : Italian Somaliland, ex eggs of *Nezara viridula*, L., and *Acrosternum pallidoconspersa*, Stål ; Uganda ; Cape Province ; Belgian Congo. MALAYA : Setapak (*artabazus*), ex eggs of *Scotinophara* sp. (Pentatomidae) ; Serdang (*artabazus*).

11a. **Microphanurus artabazus**, Nixon.

I have already sunk this species above under *alloysii-sabaudiae*. A careful examination of all the material in the British Museum collections has convinced me that the differences I pointed out in 1938 are not valid. The less convex appearance of the mesonotum of *artabazus* is probably due to mechanical agency and is not equally apparent in all specimens. The more sharply angled vertex of *artabazus* seems at first sight to be significant but I have seen individuals of *alloysii-sabaudiae* in which the angulation is hardly less well defined.

The wide range of *alloysii-sabaudiae* as now defined is perhaps disconcerting, but I do not think that locality alone can be accepted as a criterion for specific distinction.

12. **Microphanurus barrowi**, Dodd.

*Telenomus barrowi*, Dodd, 1920, Trans. ent. Soc. Lond., **1920**, p. 356.

*Microphanurus barrowi*, Dodd, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 137.

INDIA : bred apparently from egg of hawk-moth (Sphingidae).

Only the type female is known. It should not be overlooked that what was taken for the egg of a moth may have been in reality that of a bug.

13. **Microphanurus stoicus**, Nixon.

*Microphanurus stoicus*, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 135.

MALAYA : Pahang, ex eggs of Hemipteron.

14. **Microphanurus larides**, sp. n.

♀. Black. Radicle, scape, pedicel and first 4 segments of the flagellum pale brownish yellow. Legs, except the coxae, yellowish.

*Head*, from in front, triangular (fig. 9). Mandible small, feebly tridentate. Frons over most of its medial part with raised though not strong rugosity, having well marked transverse elements ; towards the median ocellus and to the sides of this the surface is finely and evenly scaly-reticulate, without a trace of punctures ; no trace of a bulge between the lower, inner margin of the eye and the antennal insertions, the head very strongly transverse as seen from above (fig. 7). Vertex very sharply angled between the posterior ocelli but no trace of a differentiated margin here. Antenna (fig. 8) ; radicle very short. *Thorax* very strongly convex, raised high above the level of the abdomen and giving the insect a very dumpy appearance (fig. 6). Mesonotum with very fine, close, uneven striation on about posterior half ; anteriorly this breaks up into minute raised rugosities ; parapsidal furrows absent. Scutellum shining, feebly scaly-reticulate. Postscutellum medially with a transverse, shining, plate, which is vertically placed and the upper edge of which is closely approximated to the posterior margin of the scutellum. Oblique shining area of the mesopleura virtually flat, separated from the anterior narrow, feebly rugose area by a weak ridge.

Wings: hairs of the subcostalis thin, inconspicuous, hardly projecting beyond the edge of the wing; stigmalis rather short with a faint cloud enveloping its base; hairs of the wing surface extremely short (fig. 5). Segment 2 of the hind tarsus about  $1\frac{1}{2}$  times as long as 5. *Abdomen* slightly wider than its medial length, 5:4. Tergite 1 in greater part smooth and shining; 2 with about 8-12 fine ridges mid-basally extending to about middle; this striation forms a patch which is more or less as long as wide; surface of tergite 2 otherwise smooth, shining; remaining tergites completely hidden beneath 2.

♂. Flagellum pale brownish yellow, rather thick, its pubescence extremely short; segments 4-10 more or less square in outline. Otherwise like the female.

Length: ♂♀, 1 mm., approx.

W. AFRICA: Senegal, Bambey, 4 ♀♀, 1 ♂, bred 31.v.1939 from eggs of *Acrosternum pranasis*, Dallas (Pentatomidae), (*J. Risbec*).

Type in the British Museum.

This is a most distinctive little species, and it seems to have no close allies among the other forms dealt with in this paper. Particularly characteristic of it is the form of the postscutellum by which alone it differs from all the other members of the genus known to me. Other important diagnostic features are the faint cloud at the base of the rather short stigma and the virtual concealment of tergites 3-7 beneath 2.

15. **Microphanurus suranus**, Nixon.

*Microphanurus suranus*, Nixon, 1936, Proc. R. ent. Soc. Lond., (B) 5, p. 132.

AFRICA: Uganda, ex eggs of *Antestia lineaticollis*, Stål.

16. **Microphanurus sulmo**, Nixon.

*Microphanurus sulmo*, Nixon, 1938, Ann. Mag. nat. Hist., (11) 2, p. 126.

CEYLON: Talawakelle, ex eggs of *Cantheconidea robusta*, Dist. (Pentatomidae).

This species is extremely closely related to *suranus* but I am satisfied that it is distinct from it on the characters given in the key.

17. **Microphanurus danaus**, Nixon.

*Microphanurus danaus*, Nixon, 1935, Trans. R. ent. Soc. Lond., 83, p. 103.

AFRICA: Cape Province. Host unknown.

18. **Microphanurus painei**, Ferrière.

*Microphanurus painei*, Ferrière, 1933, Stylops, 2, p. 108.

*Microphanurus painei*, F., Nixon, 1938, Ann. Mag. nat. Hist., (11) 2, p. 135.

SOLOMONS: ex eggs of *Axiagastus cambelli*, Dist. (Pentatomidae).

See Lever, 1934, for notes on the biology of this species.

19. **Microphanurus orontes**, Nixon.

*Microphanurus orontes*, Nixon, 1935, Trans. R. ent. Soc. Lond., 83, p. 102.

AFRICA: Cape Province., Host unknown.

20. **Microphanurus orontes**, Nixon, var. A.

AFRICA: Tanganyika Territory, Dar-es-Salaam, a series bred from the eggs of *Atlocera stictica*, Westw. (Pentatomidae), (*W. A. Lamborn*).



This series of specimens, now recorded for the first time, bridges the gulf between typical *orontes* and *priapus*, Nixon (No. 21) and calls into question the specific validity of the latter. The structure of the scutellum is more or less intermediate between that of *orontes* and that of *priapus*. More material and further study are needed in order to decide whether we are dealing with a single variable species or with a number of subspecies.

21. **Microphanurus priapus**, Nixon.

*Microphanurus priapus*, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 133.

JAVA: Buitenzorg, ex eggs of *Chrysocoris atricapillus*, Guér. (Pentatomidae); Wonogiri Dist., ex eggs of *Dasyneus manihotis*, Blöte (Coreidae).

Mention of this species has already been made under Number 20.

22. **Microphanurus basalis**, Wollaston.

*Telenomus basalis*, Woll., 1858, Ann. Mag. nat. Hist., (3) **1**, p. 25.

*Telenomus maderensis*, Woll., 1858, Ann. Mag. nat. Hist., (3) **1**, p. 25.

*Telenomus megacephalus*, Ashmead, 1894, J. linn. Soc. Lond., **25**, p. 212.

*Liophanurus megacephalus*, Ashm., Kieffer, 1926, Das Tierreich, **48**, p. 76.

*Telenomus piceipes*, Dodd, 1919, Trans. ent. Soc. Lond., **1919**, p. 354.

*Microphanurus piceipes*, Dodd, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 100.

U.S.A. W. INDIES. MADEIRA. AFRICA: Egypt, ex eggs of *Nezara viridula*, L.; Sudan, ex eggs of *Agonoscelis versicolor*, F. (Pentatomidae); Transvaal, ex eggs of *Nezara viridula*, L.; Cape Province.

See Priesner (1931) for notes on this species and Kamal (1937) for a very full account of its biology.

23. **Microphanurus crotius**, Nixon.

*Microphanurus crotius*, Nixon, 1936, Proc. R. ent. Soc. Lond., (B) **5**, p. 131.

AFRICA: Uganda, ex egg of Hemipteron, probably COREIDAE.

24. **Microphanurus seychellensis**, Kieffer.

*Telenomus seychellensis*, Kieffer, 1910, Bull. Soc. ent. France, **1910**, p. 294.

*Telenomus truncativentris*, Dodd, 1919, Trans. ent. Soc. Lond., **1919**, p. 353.

*Microphanurus seychellensis*, Kieffer, Nixon, 1935, Trans. R. ent. Soc. Lond., **83**, p. 97.

*Microphanurus seychellensis*, Kieffer, Nixon, 1938, Ann. Mag. nat. Hist., (11) **2**, p. 125.

SEYCHELLES. AFRICA: Abyssinia; Brit. E. Africa, ex eggs of *Antestia variegata*, Thnb. (Pentatomidae); Tanganyika Terr., ex eggs of *Antestia lineaticollis*, Stål; Uganda, ex eggs of *A. lineaticollis* and *Agonoscelis versicolor*, F. (Pent.); Cape Province. CEYLON: Passara, ex eggs of *Canthecomidea robusta*, Dist. (Pent.).

25. **Microphanurus lemoleae**, Nixon.

*Microphanurus lemoleae*, Nixon, 1936, Ann. Mag. nat. Hist., (10) **17**, p. 558.

AFRICA: Uganda, ex eggs of Lycaenid butterfly, ? *Spalgis lemolea*, H. H. Druce.

I placed this species originally in *Microphanurus* because of the absence of hairs on the eyes. But taking into account its very small size—55  $\mu$ m., much smaller than any *Microphanurus* I know—and that it is parasitic on Lepidopterous eggs, I propose to transfer it to *Telenomus* and shall henceforth refer to it as *Telenomus lemoleae*.

*Species Unknown to the Writer.*26. **Microphanurus africanus**, Fouts.

*Microphanurus africanus*, Fouts, 1934, Mem. Soc. ent. ital., **13** (1), p. 106, ♂♀.

AFRICA: Italian Somaliland, 1♂, 1♀, "reared from Lepidopterous eggs."

From the description given, this species is certainly correctly placed within *Microphanurus*. The order to which the host-eggs belong may well be questioned.

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