

*The African Species of Teleasinæ (Hym., Proctotru-
poidea, Fam. Scelionidæ).* By G. E. J. NIXON, B.A.,
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THE bulk of the material forming the subject of the present paper was obtained by Mr. R. E. Turner in South Africa.

The types of all species brought forward as new are contained in the collections of the British Museum, except where otherwise stated.

The material available for study has certainly been scanty, and in several cases new species have been erected on single specimens. This will involve the exercise of a certain degree of caution in interpreting descriptions. The members of the Teleasinæ evidently show a considerable amount of sculptural variation, so that the description of a single individual is not likely, by a long way, to encompass the whole range of variation possible within the species to which it belongs. Nevertheless, by including these single individuals, I have been able to form, by necessarily closer analysis, a more accurate opinion of the characters used for the separation of the species, and, in consequence, my treatment of the subfamily approximates probably to a more worthwhile study than might otherwise have been achieved.

The Teleasinæ form among the Proctotrupeoidea, in so far as my experience permits me to express an opinion, a very compact group, the fully winged members of which are easily recognizable by the venation. This latter is characteristic by reason of the long marginal vein, which is apparently never, or but rarely a little, less than three times the length of the stigmal vein; the stigmal vein is itself very short, thereby heightening a contrast in comparative lengths, which in the closely allied subfamily Scelioninæ is either never present or, if it occurs at all, is the product of a comparison between a very short marginal and a relatively long stigmal vein. The correct placing of species with rudimentary wings is less easy by means of absolute characters. The most reliable criteria are to be found in a combination of the shape of the abdomen, in which the third tergite

is by far the longest *, and that of the clypeus; this is prominent and has acute lateral angles.

A few words are necessary concerning certain details of structure of which some use has been made. The sculpture of the mesopleura sometimes provides useful characters for the separation of groups of species. The mesopleurum is always provided with a longitudinal depression for the reception of the intermediate femora, which is situated roughly parallel to the posterior margin of the sclerite. This depression may or may not be delimited in front by a ridge, the presence or absence of which is evidently constant within a species. The convex surface beneath, and more or less anterior to, the depression may be either smooth or, more generally, rugose.

It will be seen from my table for males of *Hoplogryon* that I have divided them into two groups according to the position of the antennal insertion and the structure of the hair-like sensillae of the funicle. The distinction works out in practice for the African species, but I would hesitate to assert that it would be tenable if a universal application of it were attempted. The minor classification of the Proctotrupoidea is still in a chaotic condition. It will be only when the vast and bewildering conglomeration of species, arbitrarily conceived and superficially described, has been conscientiously worked through, after comparison with the types, that the happy state will be reached when it will be possible not only to formulate new ideas of classification, but also to realize the possibility of giving them practical effect.

The outline figures have been prepared by myself, with much labour. As a warning to students who may be rashly tempted to deduce anatomical principles from them, I would point out that they are diagrammatic and serve no other purpose than to assist in the identification of species.

Subfamily TELEASINÆ.

Key to the Genera.

1. Parapsidal furrows narrow, sharply defined, and complete throughout. (Species with the mesonotum in greater part markedly

* The exception which Kieffer makes here with *Gryon* Haliday is based on an error; the genotype of *Gryon*, *G. misellum* Haliday, is a true Scelionine belonging to the genus *Hadronotus*.

- smooth and shining or both sexes with vestigial wings.) *Trimorus* Först. [(Africa).
 Parapsidal furrows wanting or at most present posteriorly and then extending hardly beyond the middle of the mesonotum, or their imaginary course represented by two or three fine raised lines .. 2.
 2. Scutellum unarmed; small to moderate-sized insects, at most 2.4 mm. long. *Hoplogryon* Ashm. (including *Allogryon* Kieffer and *Teleas* Latr.).
 Scutellum armed with a large tooth at each antero-lateral corner; very large insects never less than 4.8 mm. *Macrogyron*, gen. nov.

TRIMORUS Först.

1. Fore wings vestigial in both sexes, extending hardly beyond apex of tergite 1. (Small black sp., 1 mm. approx., with the antennæ of somewhat exaggerated form in ♀, the club being very strongly thickened and funicle 1 and 2 hardly longer than wide; tergite 3 not at all transverse.) *iphias*, sp. n.
 Wings fully developed 2.
 2. Front, declivous part of the mesonotum crowded with large, coarse, more or less confluent punctures; tergite 3 without regular basal striations *nephele*, sp. n.
 Front, declivous part of the mesonotum at most finely rugulose; tergite 3 with very short, very well-defined striations along its entire basal margin, the segment otherwise smooth. *atys*, sp. n.

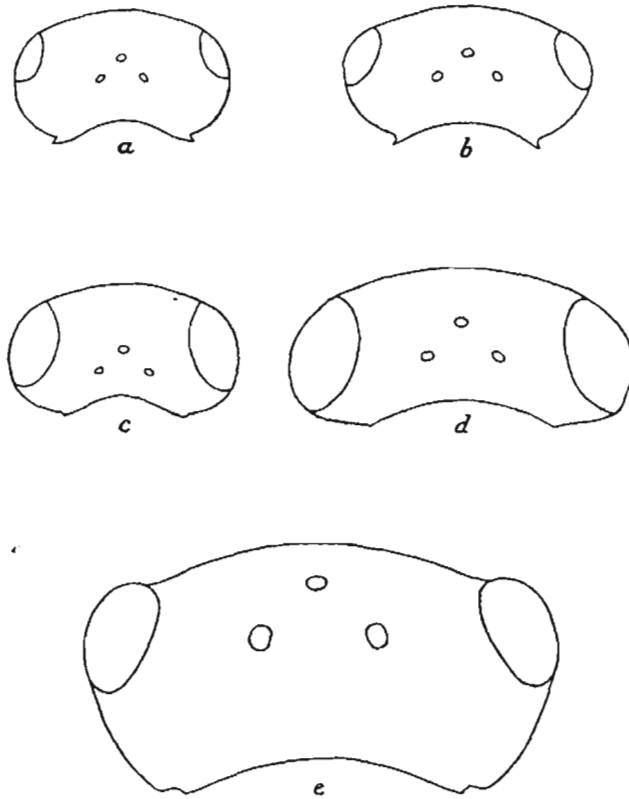
Trimorus iphias, sp. n.

♀.—Brownish black. Antennæ and legs brownish yellow. Tergite 1 and base of 2 markedly reddish.

Head less transverse than usual and, seen along a line perpendicular to a line between the posterior ocelli, a little less than twice as wide as its greatest length, 17:9 (fig. 1 a). Eyes clothed sparsely with very short, inconspicuous hairs, very small, by no means occupying the entire lateral surface of the head when this is seen from above; malar space about as long as the eye. Frons almost everywhere entirely smooth and shining. Towards the anterior ocellus, *i. e.*, on the brow, there are scattered, minute, ill-defined punctures. A fine ridge, obliterated to some extent medially, extends from the anterior ocellus to the antennal insertions. Posterior (declivous) part of the vertex more or less smooth and shining. Antennæ short (fig. 6 a); scape, when the head is seen from the side, not reaching to the level of the

vertex; funicle 1 and 2 more or less spherical; 3 and 4 very small, not much more than half the width of 1; 5 very strongly transverse, saucer-shaped; club very thick and short, about $2\frac{1}{2}$ times as long as wide. Anterior ocellus situated at the posterior edge of a small pit.

Fig. 1.



Head of: *a*, *Trimorus iphias*, sp. n., ♀; *b*, *T. nephele*, sp. n., ♀; *c*, *Hoplogryon amphiaraus*, sp. n., ♀; *d*, *H. schæneus*, sp. n., ♀; *e*, *Macrogyron pluto*, sp. n., ♂.

Thorax markedly narrower than the head and somewhat flattened above. Mesonotum about twice as wide as long (this measurement excludes the tegulæ), very shining, and predominately smooth. Complete parapsidal furrows present; these tend to be slightly widened

posteriorly. Scutellum strongly transverse. Postscutellar process more or less wanting, represented only by a very small, inconspicuous tooth. Propodeal teeth prominent, but small.

Posterior face of the propodeum completely obscured by the 1st abdominal tergite. Mesopleural depression deep, without pits or punctures, completely unsculptured, the ridge bordering it anteriorly sharply defined; metapleura smooth and shining. Fore wings vestigial, extending hardly beyond the apex of tergite 1.

Abdomen less than twice as long as wide, about 19 : 11, strongly and more or less evenly convex, conspicuously wider than the thorax; tergite 1 fully $2\frac{1}{2}$ times as wide apically as long medially, somewhat swollen transversely, its striations more or less obliterated over its greater medial surface, so that it appears almost smooth and unsculptured; 2 with the usual striations; 3 very large, almost exactly as long as wide and in this respect characteristic; this tergite is without a trace of striation, is very shining, and is sparsely covered with very small, ill-defined punctures, from each of which a tiny hair arises; the surface everywhere between the punctures is very polished.

Length 1 mm. approx.

♂.—Much more typical of the genus than the ♀, from which it differs as follows:—

Antennæ about as long as the body; the funicular segments relatively short, with exception of the last, all about $1\frac{1}{2}$ times as long as wide; the vestiture consists of rough curled hairs, which are not longer than the segments are wide. Frontal ridge sharper than in the ♀.

Abdomen: Tergite 1 not obviously swollen transversely, and striated all over, though the striæ tend to be weaker in the middle of the segment; 3 a little wider than long, 6 : 5, very distinctly striated over its basal half; these striæ are very irregular, beyond them the segment has sparse minute punctures as in the ♀.

Length .8-1 mm.

CAPE PROVINCE (Port St. John), Jan., Feb., 4 ♂♂, 2 ♀♀.

This little species, in which both sexes possess vestigial wings, is very distinctive in the ♀ on account of the form of the antennæ and of the abdomen. The ♂ is much less characteristic, but is easily separated from the

males of other species described in this paper by the presence of parapsidal furrows and rudimentary wings. The fact that the ♂ has striations on the third abdominal tergite and the ♀ is without them might give rise to a doubt that they both belong to the same species. There is, however, such a close agreement in other, far more constant, characters that I do not feel in the least uncertain that the sexes are correctly associated. It is more than probable that if enough females were available for study some would show striations on the third tergite.

Trimorus iphias has very little in common with the following two species, with which I have been obliged to place it because of its complete parapsidal furrows. At this stage, I am not able to say that the species has any good characters which would warrant the erection of a new genus.

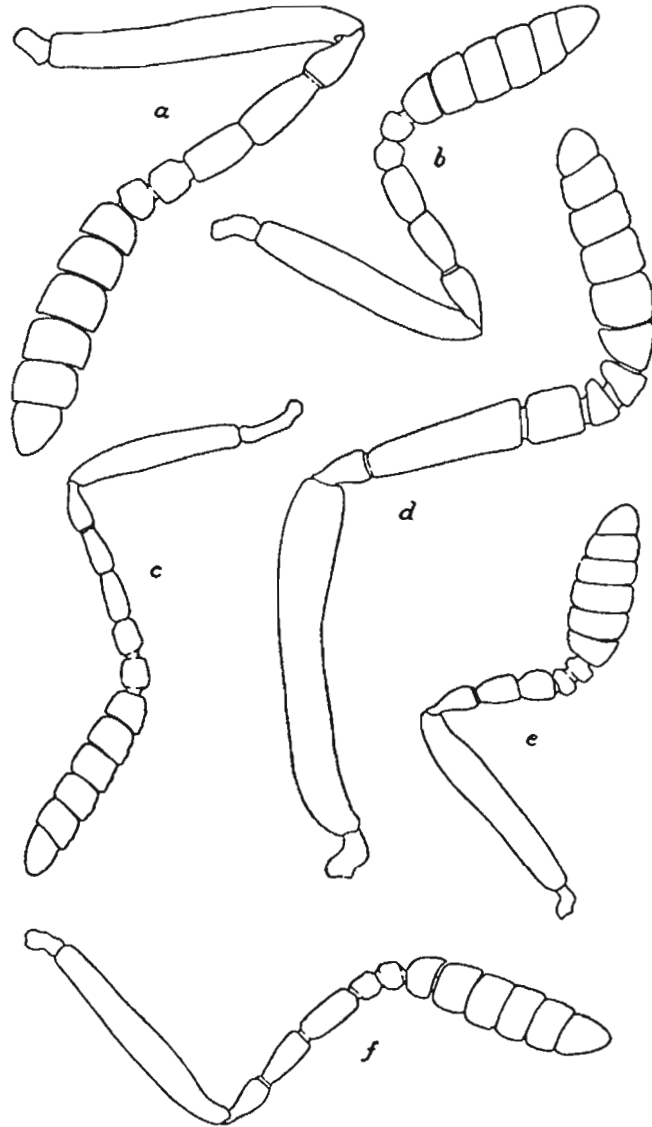
Trimorus nephele, sp. n.

♀.—Black. Legs brown or brownish yellow. Tergite 1 sometimes obscurely reddish. This is a very smooth, shining species.

Head less narrowed behind the eyes than is usual, hence appearing less transverse; seen from above, along a line perpendicular to a line between the posterior ocelli, less than twice as wide as long, about 15:8 (fig. 1 b). Occipital ridge prominent. Frons in far greater part, and the vertex everywhere very smooth and shining. Eyes small, clothed sparsely with short, but quite distinct hairs. Posterior ocelli separated from the eye-margin by a distance nearly $1\frac{1}{2}$ times as great as that between them. Antennæ long (fig. 2 a); scape, when the head is seen from the side, extending by fully a quarter of its own length above the vertex; funicle 1 about twice as long as wide; 2 a little shorter; 3 as long as wide; club of ordinary form. Apical width of the clypeus about as great as the distance between its mid-apical point and the base of the antennal prominence.

Thorax: Mesonotum right in front, *i. e.*, within the angle formed by the posterior margin of the pronotum, smooth and shining; this smooth space is subtriangular and evidently corresponds to the specialized area seen in certain Scelionine genera (see Nixon, "A further Contribution to the Study of S. African Scelionidæ," *Ann. & Mag. Nat. Hist.* vol. xii. p. 289); behind this

Fig. 2.



Female antennæ of : a, *Trimorus nephele*, sp. n. ; b, *Hoplogryon magnes*, sp. n. ; c, *H. amphiarus*, sp. n. ; d, *Macrogyron cælebs*, sp. n. ; e, *Hoplogryon schœneus*, sp. n. ; f, *Trimorus atys*, sp. n.

area the brow of the mesonotum is crowded with large, coarse, more or less confluent punctures; the area occupied by this distinctive sculpture is transverse and extends right across the mesonotum; mesonotum otherwise, and in far greater part, entirely smooth and shining. Sharply defined, narrow parapsidal furrows present; these are very nearly parallel. Scutellum entirely smooth. Postscutellar spine somewhat short, but narrow, about half as long as the scutellum. Lateral areas of the propodeum without hairs and with some irregular, longitudinal rugæ. Mesopleural ridge well defined, the surface beneath it rather coarsely rugose-punctate.

Abdomen strongly narrowed basally; tergite 1 with its apical width not much greater than its medial length; 2 with well-marked radiating striations which reach the apex of the tergite; 3 rather strongly convex, at first sight quite smooth, but on close examination showing very superficial striations which are sometimes indicated to as far as the apex of the segment; these feeble striations do not appear to be stronger at the base of the tergite than elsewhere; 5 and 6 smooth, unsculptured.

Length 1.3–1.7 mm.

CAPE PROVINCE (Port St. John), April, May, July, 4 ♀♀.

This insect is very distinct on account of its smooth shining facies and the characteristic sculpture of the anterior part of the mesonotum. The sculpture of the mesonotum and of tergite 3 will readily separate it from the following species.

Trimorus atys, sp. n.

This species may be compared with *Hoplogryon amphiaraus*, sp. n., as follows:—

♀.—Scape of the antennæ brownish yellow; pedicel a little paler than the four following segments, but in colour not contrasting sharply with them.

Head: Eyes a little less large and clothed with minute hairs, but not thickly. Antennæ (fig. 2 f) thicker, more powerful; radicle very short and inconspicuous, many times shorter than the scape; funicle 4 small, bead-like, hardly thicker than 1, so that the club is clearly differentiated; 2 distinctly longer than 1 as in *H. amphiaraus*.

Thorax: Mesonotum very shining; in one ♀ (Port St. John) it is in greater part virtually unsculptured, with only a few granular rugulosities in front; in the other ♀ (Katberg) there are indications of very sparse, minute granulations all over, but in front the surface becomes finely rugose. Parapsidal furrows present, narrow, but very distinct and sharply defined. Scutellum, as in *H. amphiaraus*, entirely smooth and shining. Post-scutellar spine very short and sharp. Lateral areas of the propodeum with sparse fine hairs, which in no way obscure their more or less smooth surface. Mesopleural ridge sharply defined, the surface in contact with it above—only the lower half of the ridge is considered—quite smooth, but margined below with a row of sharply defined pits; surface otherwise, below the ridge, smooth and shining.

Abdomen as in *Hoplogryon amphiaraus*.

♂.—Legs more or less honey-yellow. Scape of the antennæ brownish yellow. Abdomen not so dark, so that there is a less sharp contrast between the reddish colour of tergites 1 and 2 and the following segments. Antennæ about $1\frac{1}{2}$ times as long as the body; funicle 2 a little shorter than the scape; entire funicle clothed with semi-erect fine hairs, which are about as long as the segments are wide.

Thorax: Mesonotum more or less smooth and polished all over.

Length 1.3 mm. approx.

CAPE PROVINCE (Port St. John), April, 1 ♀; E. CAPE PROVINCE (Katberg, 4000 ft.), Oct., 1 ♀, Dec., 1 ♂.

I associate the male with the above-described females on account of similar sculpture, presence of parapsidal furrows, and, especially, on account of a similar lack of punctures margining the mesopleural ridge above. The parapsidal furrows and the short striations of tergite 3 will readily separate this male from that of any other species described in this paper.

It is noteworthy that the female of this species shares with the female of *Hoplogryon amphiaraus* the peculiarity of having the second segment of the funicle longer than the first.

This species seems to have a close affinity with *Hoplogryon amphiaraus* and *H. paris*, sp. n., and its

inclusion in a separate genus is perhaps unnecessarily artificial. When I have had the opportunity of studying the Teleasinæ more extensively, I shall be able better to decide whether the retention of *Hoplogryon* as well as *Trimorus* is of practical value.

HOPLOGRYON (sensu lato) Ashm.

♀♀.

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|--|----------------------------|
| 1. Wings undeveloped, not reaching beyond the middle of tergite 2..... | 2. |
| Wings fully developed. (Species with tergite 3 closely and strongly sculptured all over, the sculpture being predominately reticulate-punctate or perhaps punctate.) | 4. |
| 2. Funicle 1 and 2 pale yellow, clothed with adpressed silvery hairs; tergite 3 apparently without striations, even at its extreme base | 1. <i>lollius</i> , sp. n. |
| Funicle 1 and 2 not pale yellow (being black or at least blackish) and not clothed with silvery hairs; tergite 3 clearly, but not always conspicuously, striated at its extreme base | 3. |
| 3. Entire body, except the eyes and part of the antennæ, bright brownish yellow or honey-yellow | 2. <i>orion</i> , sp. n. |
| At least the head entirely, and the abdomen in far greater part, black | 3. <i>marsyas</i> , sp. n. |
| 4. Tergite 3 entirely unsculptured, smooth and shining | 5. |
| Tergite 3 striated, or otherwise sculptured, at least in places..... | 9. |
| 5. Funicle 1 and 2 conspicuously clothed with adpressed silvery hairs; fore wings markedly smoky, hyaline at the base, and with a transverse hyaline band in the neighbourhood of the stigmatalis | 6. |
| Funicle 1 and 2 clothed only with the usual brownish adpressed hairs; fore wings unicolorous, even if smoky | 7. |
| 6. Head and thorax above clothed conspicuously with adpressed, <i>bright golden</i> hairs. (A very distinct species on account of the pubescence.) | 4. <i>ninus</i> , sp. n. |
| Head and thorax above clothed only with extremely minute, reddish-brown hairs, appearing almost glabrous. (Species with funicle 1 and 2 pale brownish yellow and contrasting with the following black segments.) | 5. <i>nomius</i> , sp. n. |
| 7. Clypeus considerably wider at apex (almost twice as wide) than the distance between its mid-apical point and the base of the antennal prominence. (Species with the mesonotum shining between its | |

- punctures and rugulosities, conspicuously striated on its posterior third.) 22. *cyclops*, sp. n.
- Clypeus hardly wider at its apex than the distance between its mid-apical point and the base of the antennal prominence. 8.
8. Mesopleural ridge margined on both sides by a row of sharply defined, costæ-like punctures; scutellum virtually smooth all over; striations of tergite 2 radiating in the usual way, the middle ones reaching the apex of the tergite, the lateral ones not much shorter than the middle ones 7. *æcleus*, sp. n.
- Mesopleural ridge not margined on both sides by costæ-like punctures, at least the surface beneath (anterior to) the ridge being rugose-punctate; scutellum strongly sculptured all over in large examples; in small examples, 1.2 mm. approx., it tends to be smooth posteriorly; striations of tergite 2 very strong, not nearly reaching the apex of the segment, parallel, the lateral ones much shorter than the middle ones, so that altogether the striations occupy a more or less semicircular area 6. *magnes*, sp. n.
9. Tergite 3 extremely vaguely and superficially reticulated all over. (Small species, 1.1 mm. approx., with the frons entirely smooth and shining, and the mesonotum feebly shining and very finely and indefinitely sculptured; the scutellum is often entirely polished.) 21. *laius*, sp. n.
- Tergite 3 striated at least in part, or with a strong punctate element in its sculpture 10.
10. Tergite 3 with very short (none longer than tergite 1), very well defined striations along its entire basal margin, the segment otherwise quite smooth. (Small species 1.2 mm. approx., with the postscutellar spine very short, the abdomen strongly narrowed basally, tergite 1 and base of 2 conspicuously reddish or yellowish.) 11.
- Tergite 3 otherwise sculptured 12.
11. Radicle of the antennæ hardly less than one-third the length of the scape; mesonotum virtually smooth all over 19. *amphiarauus*, sp. n.
- Radicle of the antennæ much less than one-third the length of the scape; mesonotum finely rugulose more or less all over 20. *paris*, sp. n.
12. Tergite 3 with a predominately punctate element in its sculpture, which sculpture is strong and covers virtually the whole segment. (Species with the frons in greater part strongly shining and with minute, not close, vague punctures; postscutellar spine long and strong.) 8. *scepsis*, sp. n.

- Tergite 3 without a conspicuous punctate element, predominately striated. 13.
13. Clypeus much wider at apex (nearly three times as wide) than the distance between its mid-apical point and the base of the antennal prominence. (Species with the middle of the mesonotum irregularly—and in small examples somewhat delicately—reticulated on a more or less even surface; hind femora much swollen.) 24. (*Teleas* ?) *incertus*, [sp. n.]
- Clypeus hardly twice as wide at its apex as the distance between its mid-apical point and the antennal prominence. Hind femora not at all swollen 14.
14. Funicle 2 hardly longer than wide. (Species with the frons above somewhat shining and with clear indications of minute punctures.) 9. *schæneus*, sp. n.
- Funicle 2 marked longer than wide 15.
15. Frons above quite dull, with a more or less even sculpture, consisting of minute raised rugulosities. 10. *codrus*, sp. n.
- Frons above predominately shining and smooth, with only very superficial and feeble indications of longitudinal rugulosities. 11. *pylus*, sp. n.

♂♂.

1. Apical width of the clypeus clearly greater than the distance between its mid-apical point and the base of the antennal prominence (fig. 14). (Species with the antennæ thick, not, or hardly, longer than the body, the funicular segments not more than three times as long as wide; the hairs of the funicle are quite inconspicuous and much shorter than the segments are wide; under a high magnification ($\times 220$) these hairs are seen to consist of sensillæ of two sharply differentiated types:—(1) short, thick, curved, and more or less blunt structures, and (2) very fine, pale, hair-like setæ, which alone make up the more obvious clothing of the funicle when this is seen under a low magnification ($\times 30$) (fig. 12 d).) 2.
- Apical width of the clypeus by no means clearly greater—usually shorter—than the distance between its mid-apical point and the base of the antennal prominence (fig. 14). (Species with the antennæ slender, considerably longer than the body, the funicular segments usually considerably more than three times as long as wide; the hairs of the funicle are sufficiently upstanding and

- long to be conspicuous and on the whole are not less than half the width of the segments—usually much longer; under a high magnification ($\times 220$) these hairs can hardly be said to consist of two clearly differentiated types of sensillæ; if two types are obvious, the thicker ones are setiform and taper sharply to a point (fig. 12 b.) 4.
2. Middle of mesonotum irregularly (and in small examples somewhat delicately) reticulated on a more or less even surface; hind femora somewhat swollen; tergite 3 striated over its greater basal part (Teleas ?) incertus, [sp. n.]
- Middle of mesonotum not thus reticulated; hind femora not swollen; tergite 3 not thus striated 3.
3. Middle of mesonotum more or less distinctly punctured and very shining between the punctures; tergite 3 almost always entirely unsculptured, smooth and shining; if striations occur, as in some varieties, they are very superficial and feeble and are not deepened towards the base of the segment 22. *cyclops*, sp. n.
- Middle of mesonotum conspicuously smooth and unsculptured; tergite 3 with a row of extremely short, puncture-like striations along its entire basal margin 23. *sejus*, sp. n.
4. Postscutellar spine forked at its apex 18. *carus*, sp. n.
- Postscutellar spine simple 5.
5. Wings undeveloped, not extending beyond the apex of tergite 1 6.
- Wings fully developed 7.
6. Entire body except the eyes and funicle bright brownish yellow or honey-yellow; frons rugulose all over; tergite 3 strongly sculptured all over 2. *orion*, sp. n.
- Entire body black; frons entirely smooth and shining; tergite 3 with only a faint, superficial, reticulate sculpture 21. *laius*, sp. n.
7. Entire thorax honey-brown, contrasting very sharply with the black head and abdomen. (Slender species with very long antennæ, the segments hardly, or not at all, shorter than the scape; postscutellar spine long and strong; tergite 3 strongly sculptured all over and with a predominately punctate-reticulate element.) 13. *sperches*, sp. n.
- Thorax black or pitchy black, at the most faintly suffused with reddish at the sides. 8.
8. Mesonotum, at least on its basal half, entirely or virtually smooth and shining. (Species with no trace of parapsidal furrows and with the funicle very slender, the hairs of the funicle slightly to considerably longer than the width of the

- segments and each one standing out more or less separately; tergite 1 conspicuously reddish.) 12. *tityrus*, sp. n.
- Mesonotum everywhere sculptured 9.
9. Tergite 3 more or less quadrate. (Species with the antennæ thicker than usual, considerably longer than the body; hairs of the funicle dense, by no means obviously longer than the width of the segments themselves; mesonotum with fairly large, close punctures, the surface between them strongly shining.) 15. *thoas*, sp. n.
- Tergite 3 strongly transverse 10.
10. Mesonotum shallowly and somewhat confusedly punctate, the surface between the punctures strongly shining 14. *uranus*, sp. n.
- Mesonotum not as above 11.
11. Sculpture of the mesonotum somewhat fine, that is, very finely, superficially, and indeterminately punctate-reticulate, or, at first sight, finely rugose; parapsidal furrows distinct on posterior two-thirds or half of mesonotum, showing as sharp narrow grooves. (Species with the funicle not much longer than the body; tergite 3 regularly striated all over, or, at any rate, without a coarse punctate-reticulate element.) 17. *tiresias*, sp. n.
- Sculpture of mesonotum strong, very closely and determinately wrinkly-punctate; no trace of parapsidal furrows. (Species with tergite 3 strongly sculptured all over and with a coarse, punctate-reticulate element; funicle very long and slender, much longer than the body.) 16. *fons*, sp. n.

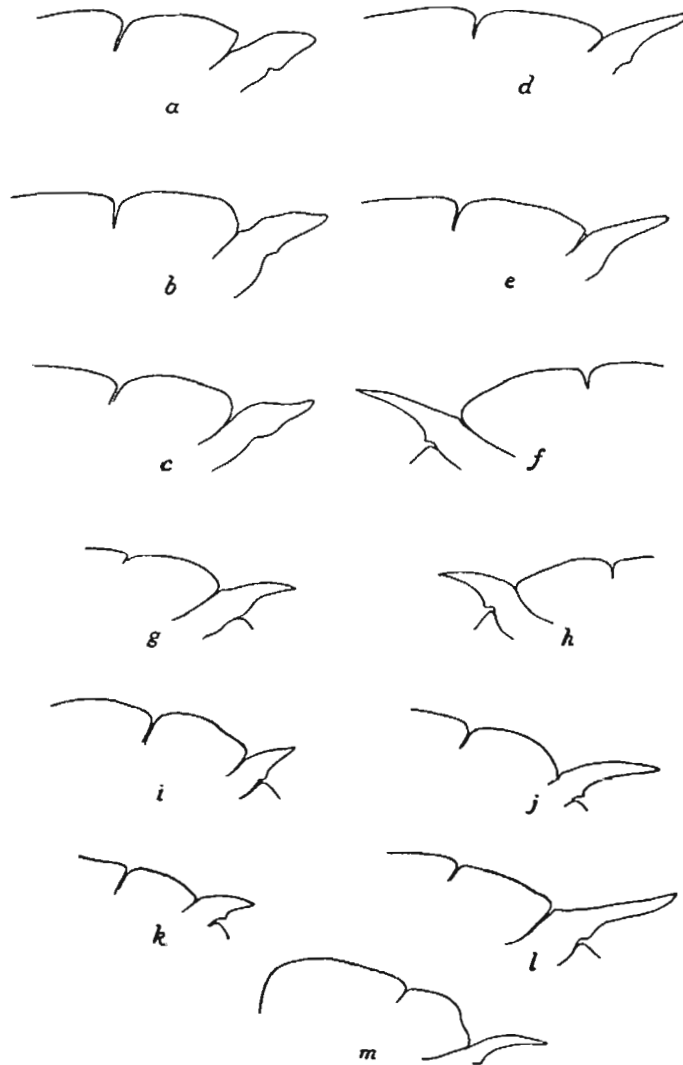
All species have the lateral teeth of the propodeum sharp and well developed, except where the contrary is stated.

1. *Hoplogryon lollius*, sp. n.

♀.—Black with a brownish tinge (often very marked). First and second segments of the funicle conspicuously yellowish white; rest of the antenna nearly black or sometimes markedly brown. Legs yellowish brown, the coxæ and the trochanters in far greater part, or everywhere, paler than the femora.

Head conspicuously wider than the thorax, about 6:5. A fine sharp ridge extends from the anterior ocellus to the antennal insertions. Some of the genal striations extend upwards along the inner orbit of the eye to a level with the top of the eye. Upper half of the frons very shining, more or less punctured all over, but

Fig. 3.



Scutellum and postscutellar process (lateral) of: a, b, c, *Macrogyron pluto*, sp. n., ♂; d, e, *M. echion*, sp. n., ♂; f, *Hoplogryon fons*, sp. n., ♂; g, *H. codrus*, sp. n., ♀; h, *H. uranus*, sp. n., ♂; i, *H. magnes*, sp. n., ♀; j, *H. scepsis*, sp. n., ♀; k, *H. schæneus*, sp. n., ♀; l, *H. thoas*, sp. n., ♂; m, *H. nomius*, sp. n., ♀.

the punctures usually very shallow and ill-defined; towards the ocelli they sometimes give way to delicate wrinkles, and, again, in some individuals a wrinkled condition of the sculpture tends to displace the punctures on upper third of frons. Posterior (declivous) part of the vertex with a variable amount of fine sculpture, the shininess of the surface varying inversely with the intensity of the sculpture. Eyes large, bare, the shortest distance between them to their width, the head being seen from above, as 4 : 3; the malar space is less than one-third the length of the eye. Antennæ long and powerful (fig. 6 e); when the head is seen from the side the scape extends conspicuously above the level of the vertex; funicle 1 and 2 subequal in length, both a little longer and thicker than the pedicel; funicle 1 is fully twice as long as its apical width; 1 and 2 are clothed with short silvery-white hairs; 4 is hardly wider than long; the entire funicle is gradually thickened from base to apex, so that the club is not clearly differentiated.

Thorax: Mesonotum less than twice as wide as long, about 21 : 14 (this measurement excludes the tegulæ), dull, evenly and as closely as possible, wrinkly-punctate all over; in small examples the sculpture is less coarse and the surface less dull. Scutellum sculptured all over like the mesonotum. Postscutellar spine long, narrow, sharply pointed, about $\frac{3}{4}$ the length of the scutellum. Lateral areas of the propodeum bare except for a few hairs towards the sides, and with some costæ and coarse reticulations. Wings shortened, hardly extending beyond the apex of tergite 1. Mesopleurum below the sharply defined and even ridge more or less coarsely rugose-punctate.

Abdomen conspicuously longer than wide, about 21 : 14; tergite 1 swollen at the base, showing indications of a hump, which tends to be smooth at the base; 2 rugose-punctate, apart from the strong basal costæ; 3 sub-quadrangle, hardly wider than long, dull and strongly punctate-rugose all over; there are no basal striæ on this tergite; 4 rugose more or less all over.

Length 1.8–2.5 mm.

CAPE PROVINCE (PortSt. John), Nov., 1 ♀; Jan.–Feb., 8 ♀♀.

This is a very distinct species, and is easily recognized by the colour of the first and second segments of the funicle.

2. *Hoplogryon orion*, sp. n.

♀.—Colour: bright honey-yellow, except the eyes and the ocelli which are black and the funicle which is blackish brown.

Head wider than the thorax, 26 : 21 (this measurement includes the tegulæ), much sculptured, and, seen along a line perpendicular to a line between the posterior ocelli, almost exactly twice as wide as long (fig. 7 b); in one small example it is a little less transverse than this. Frons very markedly convex with a smooth space immediately above the antennal insertions; its upper half, and the vertex above, more or less rugose-punctate, but the sculpture is difficult to make out, owing to light refractions produced by the pale colour of the insect. Antennæ thick and powerful for the size of the insect; seen from the side the scape very slightly overreaches the vertex; funicle 1 about $1\frac{1}{2}$ times as long as wide; 2 very slightly shorter than 1; 3 and 4 small, bead-like; club clearly 6-segmented and markedly thick. Eyes small, not much longer than the malar space, about 6:5, and with extremely short, sparse hairs.

Thorax: Mesonotum (measurement excludes tegulæ) about twice as wide as long, evenly and rather strongly—for the size of the insect—sculptured all over; the sculpture is more or less the same as occurs on the frons. Scutellum sculptured like the mesonotum. Postscutellar spine short and sharp, hardly more than half the length of the scutellum. Fore wings short, not reaching beyond apex of tergite 1 and with a dorsal fringe of short bristles. Mesopleural ridge more or less sharply defined.

Abdomen a little wider than the thorax, not much longer than wide, about 24 : 19; tergite 1 about 6 times as wide apically as its medial length; 2 punctate-rugose all over except for the short basal costæ; 3 evenly punctate-rugose all over with only extremely short costæ at base.

Length .8–1.3 mm.

♂.—Differs from the ♀ as follows:—

Antennæ: scape and pedicel honey-yellow like the body; funicle more or less black, fully as long as the body, clothed unevenly with semi-erect, brownish hairs, many of which are curved and which are hardly shorter than the width of the segments; funicle 3 has a well-

developed, keel-like projection beneath; 6 fully three times as long as wide. Eyes slightly smaller, hardly longer than the malar space. In two individuals, the mesonotum shows distinct traces of parapsidal furrows.

Length 1.2 mm.

CAPE PROVINCE (Port St. John), Jan.-Feb., 4 ♂♂, 3 ♀♀.

This species is conspicuously distinct from the other species described in this paper, on account of its bright colour combined with vestigial wings and small eyes.

3. *Hoplogryon marsyas*, sp. n.

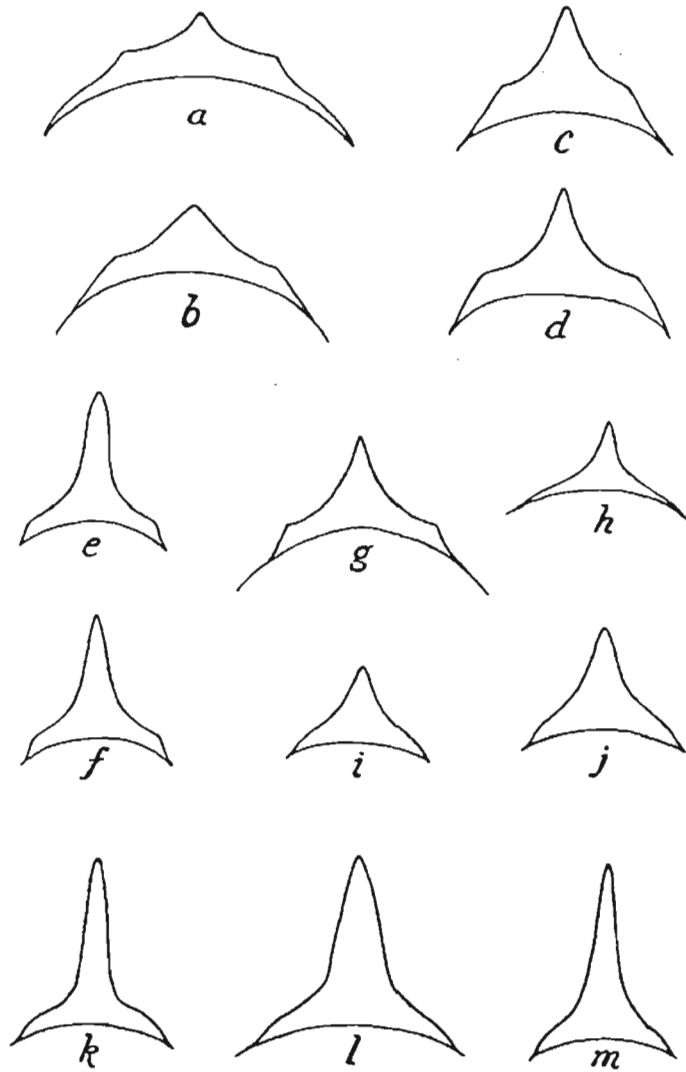
♀.—Black, with the thorax conspicuously reddish. Legs entirely reddish yellow. Abdomen less black than the head and with tergite 1 and the base of tergite 2 much the same colour as the thorax.

Head: Upper half of the frons as well as the vertex between, and to the sides of, the ocelli, finely, evenly, and closely sculptured, the sculpture consisting of tiny ripple-like rugulosities which show a feeble tendency to form themselves into weak longitudinal wrinkles. A fine sharp ridge extends from the anterior ocellus to the antennal insertions. Posterior (declivous) part of the vertex irregularly aciculated. Eyes clothed with microscopic hairs; length of eye to malar space as 4:3. Antennae thick and powerful; funicle 1 nearly twice as long as wide; 2 a little shorter than 1; 3 very slightly transverse; 4 more transverse, but nearer in size to 3 than to 5, so that the club is 6-segmented.

Thorax: Mesonotum a little more than twice as wide as long, 20:9, feebly shining, punctured evenly and as closely as possible all over, the punctures of moderate size but ill defined. Scutellum punctured like the mesonotum, but a little less strongly. Postscutellar spine sharp, but not narrow, and about two-thirds as long as the scutellum (fig. 4g). Wings vestigial, in attitude of repose, not reaching beyond the apex of tergite 1. Lateral areas of the propodeum costate. Mesopleural ridge sharply defined.

Abdomen conspicuously wider than the thorax, 9:7, not much longer than wide, 11:9; tergite 1 very strongly widened from base to apex, about 6 times as wide apically as its medial length; tergite 2 strongly rugulose all over the sides, and also to a greater or less degree right

Fig. 4.



Postscutellar process (dorsal) of: *a*, *Hoplogryon incertus*, sp. n., ♂; *b*, *Hoplogryon incertus*, sp. n., ♀; *c*, *d*, *Hoplogryon cyclops*, sp. n., ♂♂; *e*, *f*, *H. uranus*, sp. n., ♂♂; *g*, *H. marsyas*, sp. n., ♀; *h*, *H. magnes*, sp. n., ♀; *i*, *H. schæneus*, sp. n., ♀; *j*, *H. codrus*, sp. n., ♀; *k*, *H. sperches*, sp. n., ♂; *l*, *H. ecepsis*, sp. n., ♀; *m*, *H. thoas*, sp. n., ♂.

its apical margin ; its medial striations are comparatively short and weak ; 3 strongly transverse, 3 : 2, strongly sculptured all over, the sculpture even, but so indeterminate as best to be described as rugose ; it is striate along its extreme basal margin ; 4 finely rugose all over.

Length 1.6 mm. approx.

E. CAPE PROVINCE (Katberg), Nov., 2 ♀♀.

A very distinct species, easily recognized by its sculptured head, colour, and rudimentary wings.

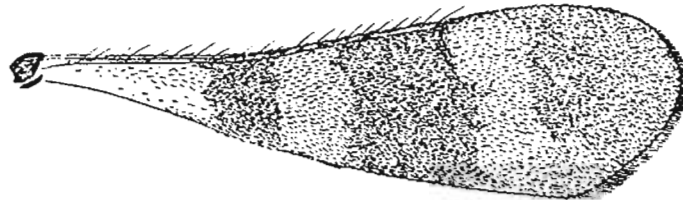
4. *Hoplogryon ninus*, sp. n.

♀.—Black, with the upper half of the head and most of the thorax clothed very conspicuously with short, adpressed, setiform, golden hairs ; on the lower half of the frons the hairs tend to be silvery. First three segments of the funicle clothed with adpressed silvery hairs, which are conspicuous when the segments are viewed at an angle and from the proximal end. Mandibles yellowish with the tips reddish. Femora brownish yellow with a dark apical patch ; tibiae in greater part brown with only the base yellow ; tarsi pale brownish yellow.

Head seen from in front exactly as wide as long, and in this respect characteristic (fig. 7 *d*). Clypeus a little more than twice as wide as the distance between its mid-point and the antennal insertions. Owing to the adpressed hairs, the sculpture of the head is difficult to make out, but the frons is evidently finely longitudinally striated all over. Posterior (declivous) part of the vertex with fine, not very close, aciculations, which extend between the posterior ocelli and the temples. Antennae long and rather slender (fig. 6 *d*) ; when the head is seen from the side, the scape does not extend, by a considerable distance, to a level with the vertex ; funicle 1 about $2\frac{1}{2}$ times as long as its apical width ; 2 about $1\frac{1}{2}$ times as long as wide ; 3 almost square in outline ; 4 hardly shorter than 3 ; the funicle is gradually thickened from base to apex ; the club is hence not clearly differentiated, rather slender, hardly more than $1\frac{1}{4}$ times as wide as 3. Eyes bare, the shortest distance between them on the frons not much greater than their width, as measured from above, about 14 : 11 ; malar space nearly two-thirds the length of the eye.

Thorax: Sculpture of the mesonotum difficult to make out, owing to the adpressed hairs, but evidently consisting largely of delicate, somewhat broken, longitudinal striations. Scutellum with vague longitudinal striations, which are more or less obscured by the hairs. Post-scutellar spine very short. Propodeum everywhere clothed densely with adpressed, more or less silvery-golden pubescence; lateral teeth wanting; sculpturation of the mesopleura is reduced to a row of oval punctures (reduced costæ) along the posterior margin; there is no mesopleural ridge. Fore wings smoky-grey; they are hyaline at the base and have a broad transverse hyaline band in the neighbourhood of the stigmalis and another at the origin of the marginalis (fig. 5).

Fig. 5.

*Hoplogryon ninus*, sp. n., ♀, fore wing.

Abdomen almost petiolate, nearly twice as long as wide, about 23 : 13. Tergite 1 about as long as its apical width; 2 very evenly striated over its basal third; 3 strongly transverse, 13 : 9, entirely smooth and shining. Length 1.75 mm. approx.

ORANGE FREE STATE (Harrismith), Mar., 1 ♀.

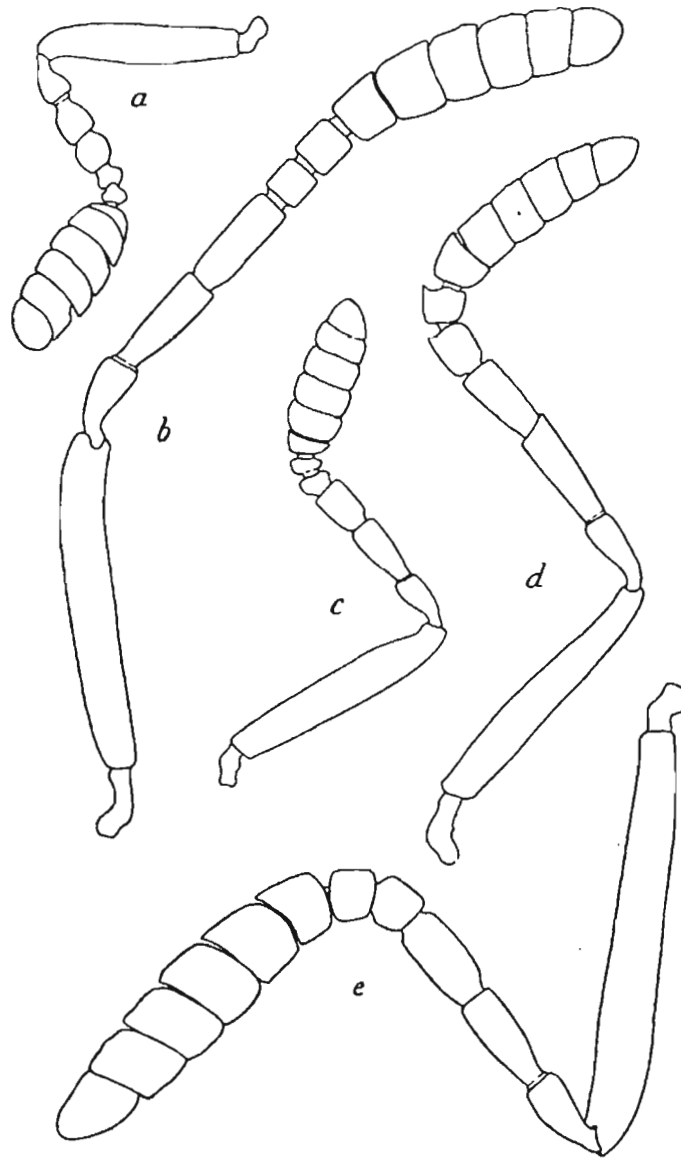
A very beautiful and distinct species, easily recognized by its golden hairs, by the shape of the head as seen from in front, by the pubescence of the first 3 segments of the funicle, and by the smoothness of the third tergite.

5. *Hoplogryon nomius*.

♀.—Black, but not intensely black (this applies chiefly to the thorax). First and second segments of the funicle pale brownish yellow. Legs brownish yellow with the femora and the tibiæ infuscated.

Head (fig. 7 g): Frons dull, sculptured everywhere, more or less finely rugose-punctate with a trace of short longitudinal wrinkles in front of the posterior ocelli.

Fig. 6.



Female antennæ of: *a*, *Trimorus iphias*, sp. n.; *b*, *Hoplogryon nomius*, sp. n.; *c*, *H. incertus*, sp. n.; *d*, *H. ninus*, sp. n.; *e*, *H. lollius*.

Vertex across the ocelli sharply angled, so that the anterior ocellus and the frons are almost in one plane. Antennæ long and slender (fig. 6 *b*); scape (when the head is seen from the side) extending by about one-third of its length above the vertex, and in this respect characteristic (cf. *ninus*); funicle 1 and 2 clothed with silvery-white hairs, which are very conspicuous in certain aspects; rest of the funicle clothed as usual with excessively short black hairs; funicle 1 about three times as long as its apical width; 2 about as long as 1, but slightly thicker; 3 hardly transverse; 4 roughly square in outline; the whole funicle is gradually thickened from base to apex, so that there is no clearly differentiated club; the club is thicker than in *ninus*. Eyes bare.

Thorax: Mesonotum very strongly arched in front, dull, sculptured all over and clothed with extremely short, adpressed, inconspicuous, reddish-brown hairs; the surface is finely and evenly punctate-reticulate all over. Scutellum feebly transversely arched across its apical third; the surface anterior to the arch is slightly duller and slightly more closely sculptured than the mesonotum; posterior to the arch it tends to become entirely smooth and shining; the smooth surface shows as a fairly well-defined band along the apical margin of the scutellum. Postscutellar spine long, strong, and narrow, fully two-thirds as long as the scutellum (fig. 3 *m*). Lateral areas of the propodeum clothed quite conspicuously with silky whitish hairs; these hairs are certainly sparser towards the posterior margin and are always best seen when the insect is viewed directly from above. Surface below the sharply defined mesopleural ridge dull and more or less rugose-punctate. Fore wings conspicuously smoky, with an ill-defined, transverse, more or less hyaline band in the neighbourhood of the stigmalis.

Abdomen nearly twice as long as wide, 12:7, strongly narrowed towards the base; tergite 1 not much wider apically than its medial length, about 3:2; 2, apart from the rather short, strong striations at base, entirely smooth and shining; 3 transverse, about 6:5; this tergite is fairly densely pubescent laterally, the pubescence short; following segments more or less smooth and shining.

Length 1.7 mm. approx. Type in the Paris Museum.

KENYA (Mt. Elgon), 2400 ft., Mission de l'Omo, R. Jeannel.

This is a very distinct species, quite unlike the more usual forms of *Hoplogryon*. The long antennæ with the two pale proximal segments of the funicle and their clothing of silvery hairs are characteristic.

6. *Hoplogryon magnes*, sp. n.

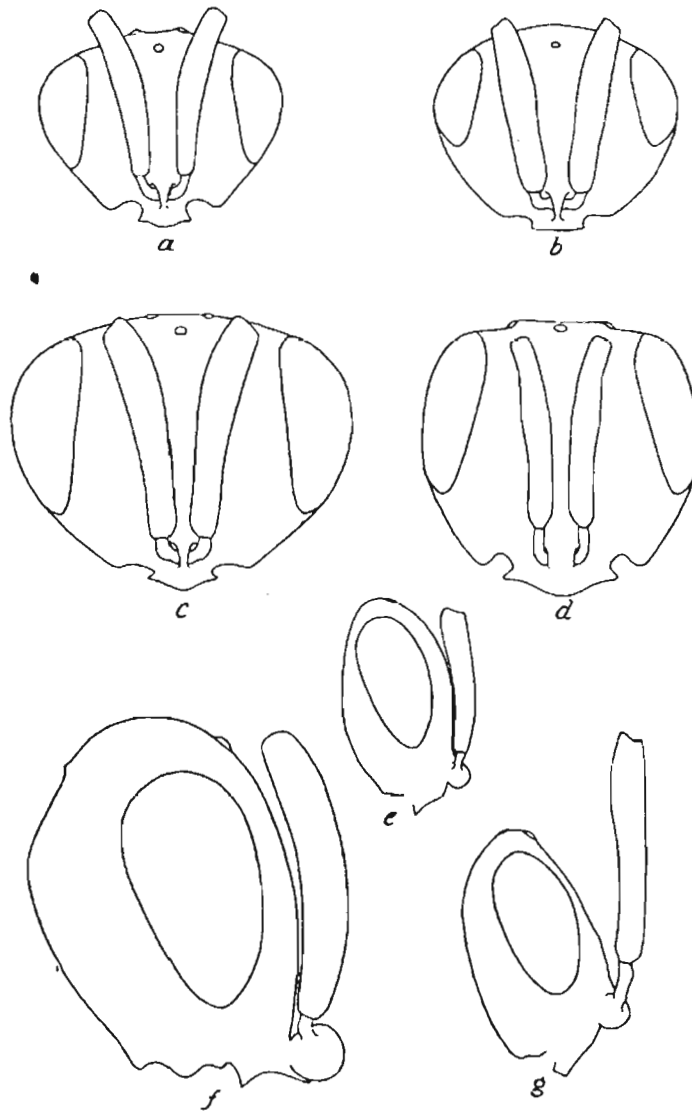
♀.—Black. Legs brownish black, the tarsi paler.

Head (fig. 7 a): Upper half of the frons virtually unsculptured and smooth. Ridge between the anterior ocellus and the antennal insertions entirely wanting, except quite close to the antennal insertions themselves. Posterior (declivous) part of the vertex with fine, more or less aciculate rugulosities. Eyes distinctly clothed with scattered minute hairs. Antennæ (fig. 2 b): funicle 1 and 2 covered with faintly golden-brownish hairs, while the clothing of the following segments consists of brownish-black (virtually black) hairs; funicle 1 fully twice as long as wide apically; 2 hardly shorter than 1; 3 more or less bead-like; 4 distinctly transverse; 4 a little nearer in size to 3 than to 5, so that the club is more or less 6-segmented.

Thorax: Mesonotum quite dull, punctured as closely as possible all over, the punctures not at all sharp, the entire surface having a more or less crinkly appearance (punctate-reticulate). Scutellum dull, punctured all over like the mesonotum. Postscutellar spine very short, not much more than one-third the length of the scutellum (figs. 3 i, 4 h). Lateral areas of the propodeum in greater part entirely smooth and shining; lateral teeth very small. Mesopleural ridge distinct, the surface beneath it more or less rugose-punctate.

Abdomen: Tergite 1 transverse, about twice as wide apically as long medially (fig. 8 c); tergite 2 very characteristic on account of the arrangement of its striations; these are very deep, short, and parallel, the middle ones the longest, but not extending much beyond the middle of the segment; the whole area covered by the striations forms a semicircle, of which the bounding diameter is the basal margin of the segment itself; tergite 2 is otherwise completely smooth and shining; 3 strongly transverse, 8:5, entirely smooth and shining except

Fig. 7.



Female heads of: *a*, *Hoplogryon magnes*, sp. n.; *b*, *H. orion*, sp. n.;
c, *H. scepis*, sp. n.; *d*, *H. nixus*, sp. n.; *e*, *H. schœneus*, sp. n.;
f, *Macrogyron caelebs*, sp. n.; *g*, *Hoplogryon nomius*, sp. n.

for the tiny patch of rugulose sculpture towards each apical lateral corner; this patch is very easily overlooked, and is best seen if the insect is viewed slightly from behind; 4 virtually smooth and shining all over.

Length 1.8 mm. approx.

CAPE PROVINCE (Ceres), Nov., 2 ♀♀, *type* and *paratype*; (Somerset East), Nov., 2 ♀♀.

The two females from Somerset East are considerably smaller than those from Ceres, being only 1.2 mm. approx. in length, and the thoracic sculpture is generally less strong. At first I was inclined to regard them as a separate species, but on carefully examining them I was led to conclude that they were only small varieties. In both, the frons is very slightly more convex than in the Ceres material, but as this is a type of structural variation which I have met with in small examples of other species I do not attach much importance to it.

The species is evidently characterised by the dull, even sculpture of the mesonotum and of the scutellum, by the short postscutellar spine, and especially by the arrangement of the striations of tergite 2.

7. *Hoplogryon æcleus*, sp. n.

This species may be compared with *H. magnes* as follows:—

♀.—Size smaller, equal to that of smaller examples of *magnes*. Tergite 1 sometimes obscurely reddish.

Head: Posterior (declivous) part of the vertex with only a very feeble, indeterminate surface-sculpture. *Antennæ*: scape, when the head is seen from the side, projecting very slightly above the level of the vertex; funicle 1 about $1\frac{1}{2}$ times as long as wide or a little shorter; 5 small, bead-like; club quite distinctly 6-segmented.

Thorax: Mesonotum feebly shining, finely rugose; on its posterior quarter clearly striated longitudinally. Scutellum smooth and shining more or less all over. Postscutellar process short, more distinctly triangular, as seen from above, than in *magnes*. Mesopleural ridge sharply defined, margined on both sides by a row of costæ-like punctures. Lateral areas of the propodeum bare.

Abdomen: Tergite 2 with normal radiating striations, which more or less cover it; near the apex of the segment there are indications of short, fine, extra ridges between

the striations (a usual condition with this type of striation, cf. carefully *magnes*); tergite 3 entirely smooth as in *magnes*.

Length 1.2 mm. approx.

CAPE PROVINCE (Somerset East), Sept., 1 ♀, Jan., 1 ♀; NATAL (Van Reenen), Nov., 1 ♀; ORANGE FREE STATE (Harrismith), Mar., 1 ♀.

8. *Hoplogryon scepasis*, sp. n.

♀.—Black. Extreme base of scape, radicle, mandibles, and legs honey-brown.

Head wider than the thorax (measured across the tegulæ), 9:8 (fig. 7 c). Upper half of the frons, as well as the vertex above, minutely and very feebly punctured, the punctures tending to be arranged in rows; a striate-punctate condition is to be expected within the degrees of sculptural variation of the frons. A very fine ridge extends from the anterior ocellus to the antennal insertions; on either side of this ridge the frons is quite evenly convex. Eyes of normal size, clothed sparsely with excessively short, not readily visible hairs. Antennæ long and stout; funicle densely clothed with excessively short, brownish-black (virtually black) hairs; the funicle, hence, appears entirely and evenly dull, and its sculpture is completely obscured; funicle 1 nearly twice as long as its apical width; 2 hardly shorter than 1, but distinctly thicker; 3 and 4 strongly transverse, not bead-like; the whole funicle is gradually thickened from base to apex, so that there is no clearly differentiated club. Posterior (declivous) part of the vertex finely rugulose.

Thorax: Mesonotum dull, as closely punctured as possible all over, the punctures fairly small but not sharp; there is only a very feeble striate element posteriorly. Scutellum punctured all over like the mesonotum, but with a tendency for the punctures to become less crowded medially on the basal half, so that here it is a little shining. Postscutellar spine long and narrow, fully as long as the scutellum (figs. 3 j, 4 l). Lateral areas of the propodeum bare except for a few hairs towards the sides, more or less smooth in the middle, but costate along the anterior margin. Mesopleural ridge sharply defined, the surface beneath it dull and somewhat finely rugose-punctate.

Abdomen: Tergite 1 with its apical width about twice its medial length; tergite 3 strongly transverse, 22:15, striate-punctate all over, the punctate element predominating over the middle part, but the striations distinct along the entire basal margin; 4 finely rugulose all over.

Length 1.9 mm. approx.

NATAL (Van Reenen), Oct., 1 ♀.

This species is, to a large extent, characterized by the vestiture of the funicle, though this is a difficult point to appreciate. The strong sculpture of tergite 3 is also distinctive.

[To be continued.]

*The African Species of Teleas'næ (Hym., Proctotru-
poidea, Fam. Scelionidæ). B. G. E. J. NIXON, B.A.,
Department of Entomology, British Museum (Natural
History).*

[Concluded from p. 141.]

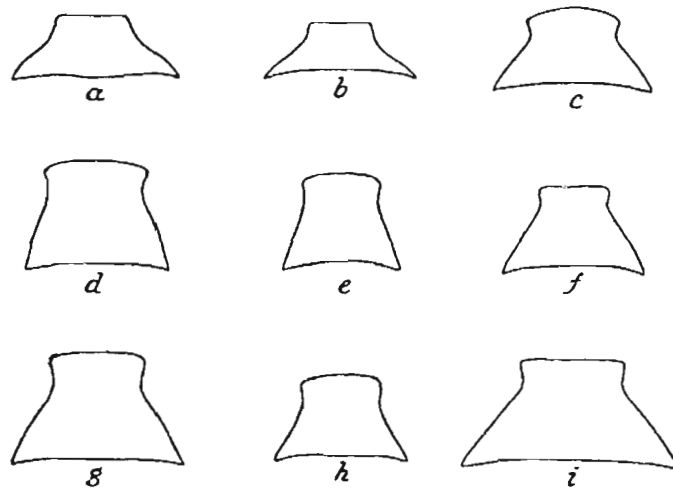
9. *Hoplogryon schæneus*, sp. n.

♀.—Black, with the legs reddish brown. A stout medium-sized species.

Head a little, but quite obviously, wider than the thorax, about 21 : 20 (figs. 1 *d*, 7 *e*). There is no trace of a ridge between the anterior ocellus and the antennal insertions. Frons in greater part entirely smooth and shining; immediately in front of, and to the sides of, the anterior ocellus, the surface becomes finely punctate, the punctures close, not sharp, and the surface between them finely alutaceous. Vertex between the ocelli as closely punctured as possible, but the surface appearing dull. Posterior (declivous) part of the vertex more or less finely rugulose with a tendency towards an aciculate condition. Eyes bare. Antennæ (fig. 2 *e*): when the head is seen from the side, the scape does not reach by a considerable distance to the level of the top of the eye; funicle 1 about $1\frac{1}{3}$ times longer than wide; 2 hardly longer than wide; 3 and 4 strongly transverse; club clearly 6-segmented.

Thorax: Mesonotum exactly twice as wide as long (this measurement excludes the tegulæ), shining, shallowly and closely punctate, the surface between the punctures finely sculptured; the punctures are, on the whole, ill defined and very superficial. Scutellum sculptured more or less like the mesonotum, but becoming smooth and shining on its mid-basal part. Postscutellar spine very sharp, not narrow, and about two-thirds the length of the scutellum (figs. 3 *k*, 4 *i*). Lateral areas of the propodeum bare, costate, but the costæ obliterated medially. Area beneath the well-defined mesopleural ridge in greater part rugose.

Fig. 8.



First abdominal tergite of: *a*, *Hoplogryon codrus*, sp. n., ♀; *b*, *H. schœneus*, sp. n., ♀; *c*, *H. magnes*, sp. n., ♀; *d*, *e*, *H. cyclops*, sp. n., ♂♂; *f*, *H. sperches*, sp. n., ♂; *g*, *h*, *H. incertus*, sp. n., ♂♂; *i*, *H. sejus*, sp. n., ♂.

Abdomen but little longer than wide, about 9:7; tergite 1 nearly 3 times as wide apically as its medial length (fig. 8 *b*); 3 strongly transverse, 7:4, striated over its greater medial part; the striæ are somewhat wrinkled and feeble beyond the basal third of the segment; 4 finely sculptured over most of its basal half.

Length 1.4 mm.

E. CAPE PROVINCE (Katberg), Oct., 1 ♀.

This species is perhaps characterized by the rather short antennæ and by the strong punctate element in the sculpture of the frons and of the vertex. The shortness of the second funicular segment appears to be distinctive, but some allowance should be made for individual variation.

10. *Hoplogryon codrus*, sp. n.

♀.—Black, with the mandibles and the legs yellowish brown.

Head, seen along a line perpendicular to an imaginary line drawn between the posterior ocelli, strongly transverse, very slightly more than twice as wide as its greatest length, 17 : 8. Entire frons (except for a small smooth space above the antennal insertions) and vertex between and to the sides of the ocelli finely and evenly sculptured, the sculpture consisting of tiny ripple-like rugulosity which show a marked tendency (on the frons) to form themselves into feeble longitudinal wrinkles. Posterior (declivous) part of the vertex more or less transversely aciculated. Eyes sparsely covered with minute hairs; shortest distance between the eyes to their width (head seen from above) as 5 : 3. A fine sharp ridge extends from the anterior ocellus to the antennal insertions. Antennæ: when the head is seen from the side the scape does not project above the vertex; funicle 1 about $1\frac{3}{4}$ times as long as wide; 2 a little shorter than 1; 3 and 4 small, transverse; 4 a little nearer in size to 3 than to 5, so that the club is more or less 6-segmented.

Thorax: Mesonotum evenly dull, as closely punctured as possible all over, the punctures moderately large but not sharp; their interstices appear somewhat raised, so that the sculpture could also be described as closely punctate-reticulate. Scutellum punctured all over like the mesonotum, but the sculpture generally closer. Postscutellar spine sharply pointed, but not narrow, about two-thirds as long as the scutellum (figs. 3 g, 4 j). Lateral areas of the propodeum bare except for a few hairs at the sides, costate, but the costæ, as is usual in the species-group, obliterated in the middle. Mesopleura more or less coarsely rugose-punctate beneath the sharply defined and even ridge.

Abdomen: Tergite 1 fully $2\frac{1}{2}$ times as wide apically as its medial length (fig. 8 a); 3 nearly twice as wide as long, 5 : 3, predominately striated all over; 4 rugulose almost all over.

Length 1.6 mm. approx.

CAPE PROVINCE (Aliwal North), Dec., 1 ♀.

This species is largely characterized by the sculptured frons and the dull, even sculpture of the mesonotum.

11. *Hoplogryon pylus*, sp. n.

In general facies closely resembling *codrus*, and in spite of a marked sculptural difference, which could, however, be interpreted as one of degree, perhaps only a local form of that species. It differs as follows:—

♀.—The frons, instead of being conspicuously sculptured as in *codrus*, is predominately smooth and shining, with only very superficial and feeble indications of longitudinal rugulosity on its upper half. The mesonotum is a little less dull. The striations of tergite 3 are less marked, and laterally and medially the segment tends to become completely smooth.

CAPE PROVINCE (Cape Town, Milnerton), Feb., 1 ♀.

12. *Hoplogryon tityrus*, sp. n.

♂.—Black. Basal half of scape, radicle, mandibles, and legs bright honey-brown; the hind tibiae and all the tarsi are slightly infuscated. Abdominal tergite 1 is very nearly of same colour as the legs.

Head: Entire frons, apart from the more lateral of the genal striations, which extend upwards along the inner orbit to the mid-point of the eye, very smooth and shining. Posterior (declivous) part of the vertex, immediately behind the ocelli, smooth and shining. Temples with a greater or less indication of delicate aciculations. Eyes completely bare. Frons with a very distinct, fine, sharp ridge extending from the anterior ocellus to the antennal insertions. Antennæ considerably longer than the body, very slender (fig. 12 g); funicle 2 distinctly longer than the scape; entire funicle conspicuously clothed with more or less upstanding, slightly curved, or more or less straight hairs, which are clearly longer than the segments are wide; in one example from Durban they are nearly twice as wide; segment 1 fully five times as long as wide.

Thorax: Mesonotum in greater part virtually smooth, shining, and unsculptured; in front (anterior third or quarter) the surface becomes finely rugulose; there is no trace of sculpture whatsoever on the posterior part of this sclerite; it is margined in front (except at its extreme anterior point) and antero-laterally, as well as postero-laterally, by a deep crenulate furrow. Scutellum entirely smooth and shining. Postscutellar spine sharp, narrow, fairly long, but not so long as the scutellum. Lateral areas of the propodeum evenly and thickly covered all over with whitish hairs. Lower convex part of mesopleura entirely smooth and shining; no trace of a ridge margining the depression below. Hind wing: (fig. 13 c).

Abdomen: Tergite 1 hardly $1\frac{1}{2}$ times as wide apically as its medial length; 3 very finely and closely striate-reticulate all over and somewhat dull on account of this close sculpture; in one of the two specimens from Van Reenen, the reticulate element of this tergite is not obvious, but the grooves are very shallow and not open throughout, so that they appear punctate.

Length 1.7 mm. approx.

NATAL (Van Reenen), Jan., 2 ♂♂; (Durban, Sydenham), L. Bevis, March, 2 ♂♂.

The sculpture of the mesonotum affords probably one of the best characters for the determination of the species. It is likely that the vestiture of the propodeum is peculiar to a species-group, although in the case of the limited material dealt with in this paper it is a valuable aid to the recognition of the species itself.

One male from Durban has the first abdominal tergite and the base of the second markedly honey-yellow; a good deal of variation in the degree of the pale coloration of these two tergites is to be expected.

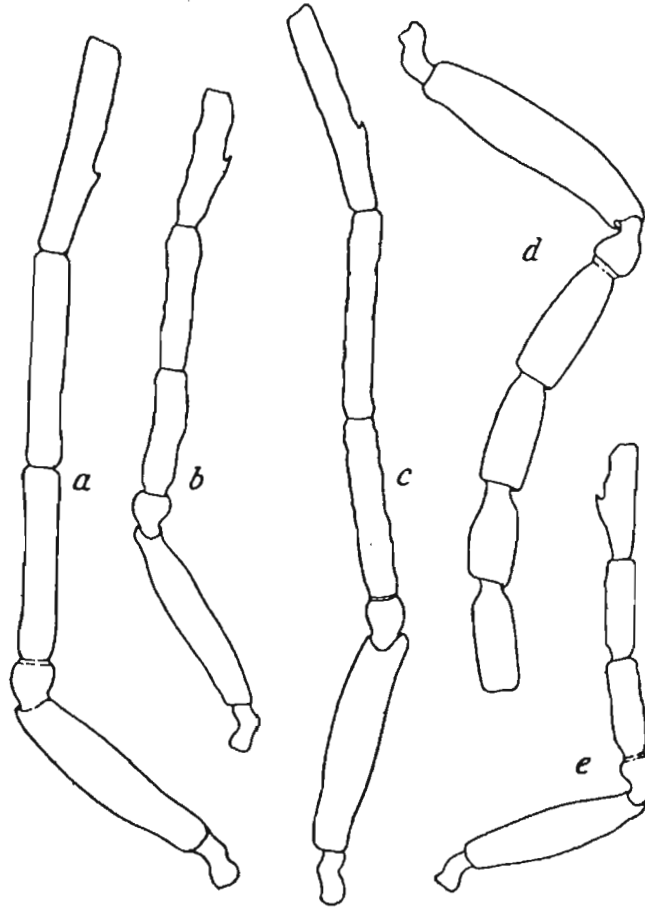
13. *Hoplogryon sperches*, sp. n.

♂.—Head (excluding mandibles and antennal scapes, both of which are yellowish) and abdomen entirely black. Entire thorax and legs honey-yellow.

Head (fig. 10 a): Frons with a fine ridge extending from the anterior ocellus to the antennal insertions; otherwise above the antennal insertions it is entirely, or at least predominately, smooth, with indications of

extremely feeble punctures and, nearer the orbit especially, with indications of very superficial striations; these latter striations represent the upward prolonging

Fig. 9.



Male basal antennal segments of: *a*, *Hoplogryon thoas*, sp. n.; *b*, *H. uranus*, sp. n.; *c*, *H. sperches*, sp. n.; *d*, *H. incertus*, sp. n.; *e*, *H. tiresias*, sp. n.

of the normal genal striæ. Vertex between and behind the ocelli feebly sculptured, the sculpture consisting chiefly of feeble aciculations. Malar space about half

as long as the eye; the latter somewhat large and in two individuals with microscopic hairs. Interocular distance to scape as 2:2 (roughly). Antennæ long and slender (fig. 9 c), a little longer than the body; funicle clothed throughout with rough, more or less upstanding hairs, which on the more apical segments are fully as long as the segments are wide (fig. 12 a); segment 2 of the funicle fully as long as the scape and about six times as long as wide; 3 provided with a conspicuous wedge-shaped keel on basal half beneath. Clypeus: (fig. 14 b).

Thorax: Mesonotum a little shining and somewhat coarsely punctured all over, virtually without striations posteriorly, except for the merest trace of them at the imaginary posterior origin of the parapsidal furrows. Scutellum punctured all over like the mesonotum. Postscutellar spine long and narrow, its total length fully equal to that of scutellum (fig. 4 k). Lateral areas of the propodeum virtually glabrous and more or less strongly costate. Legs long and slender. Mesopleural ridge more or less sharply defined, the surface beneath, and contiguous with, it rugose-punctate.

Abdomen: Tergite 1 about $\frac{3}{4}$ as long as its apical width (fig. 8 f); 3 not markedly transverse, 4:3 (roughly); this tergite is predominately punctate all over, the punctures as close as possible; towards the sides at the base there is a tendency for the sculpture to become decidedly punctate-reticulate; following segments more or less rugulose all over.

Length 1.7 mm. approx.

CAPE PROVINCE (Port St. John), Jan., 2 ♂♂; May, 1 ♂.

This species is very conspicuous on account of its coloration.

14. *Hoplogryon uranus*, sp. n.

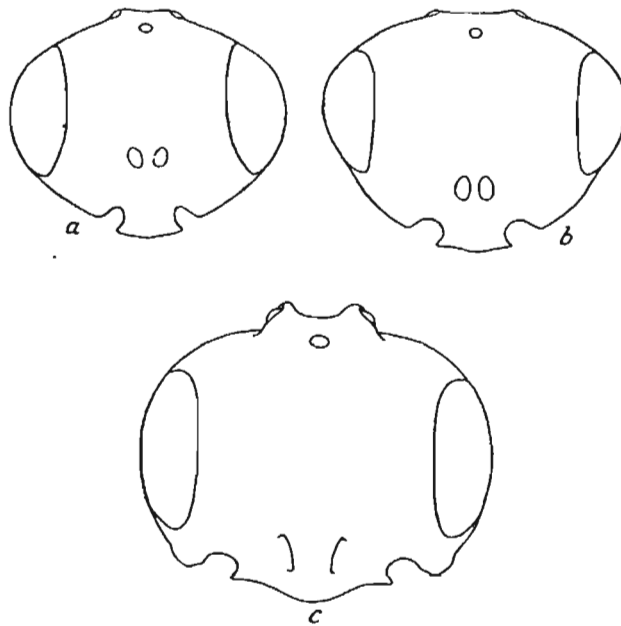
♂.—Very dark brownish black, with prosternum, tergite 1, and base of tergite 2 showing a marked reddish-brown tinge. Legs entirely reddish brown, paler or darker in individuals.

Apart from the colour-differences, this species may be compared with *Hoplogryon sperches*, sp. n., as follows:—

Head (fig. 10 b): Except for the upward prolonging of the genal striations along the inner orbits to about the mid-point of the eye, the frons and the vertex between

and behind the ocelli are entirely smooth and shining; only at the temples is there some indication of aciculations. Ridge between the anterior ocellus and the antennal insertions hardly indicated. Eyes less large than in *sperches* and evidently quite bare. Interocular distance greater, compared with the length of the scape as 3:2. Antennæ a little shorter and with sparser vestiture

Fig. 10.



Male head of: a, *Hopterygion sperches*, sp. n.; b, *H. uranus*, sp. n.; c, *Macrogyron pluto*, sp. n.

than in *sperches* (figs. 9 b, 12 e), but funicular segments smoother and more shining; in one individual out of the three the segments are markedly smooth.

Thorax: Mesonotum very shining, more transverse than in *sperches* and allied species, exactly twice as wide as long; in one individual the posterior two-thirds of the mesonotum are markedly shining, with shallow ill-defined punctures, and with no trace of median striations at the base; in the other two examples the

sculpture is coarser, that is, the punctures are closer and posteriorly confused with irregular wrinkles which occupy the basal third of the sclerite. Parapsidal furrows represented by sharp narrow grooves which extend from the basal margin to about the middle, or a little beyond the middle, of the mesonotum. Scutellum entirely smooth on its posterior half, but anteriorly punctate, in two individuals the punctures somewhat coarse and confluent, in the third vague and shallow; every intermediate condition is to be expected. Post-scutellar spine a little stouter than in *sperches* (figs. 3 *h*, 4 *e*, *f*). Lateral areas of the propodeum glabrous and costate, the costæ more or less obliterated medially. Mesopleural ridge sharply defined, the surface beneath it dull and rugose.

Abdomen (fig. 11 *a*): Tergite 1 more transverse than in *sperches*, fully $2\frac{1}{2}$ times as wide apically as its medial length; tergite 3 strongly transverse, 9:5, strongly striated over its basal half; beyond the basal half the striations break up into a broken sculpture of vague reticulations and fine rugulosity. The general sculpture of tergite 3 is much less strong than in *sperches*. Tergite 4 with a band of rugulose sculpture.

Length 1.9 mm. approx.

CAPE PROVINCE (Somerset East), Oct., 2 ♂♂, Dec., 1 ♂.

It is the male taken in December which shows the reduced sculpturation. The species is largely characterized by the comparative shininess of the mesonotum. The funicular vestiture and more transverse shape of tergite 3 distinguish it from the following species.

15. *Hoplogryon thoas*, sp. n.

A more slenderly built species than *uranus*, sp. n., with which it may be compared as follows:—

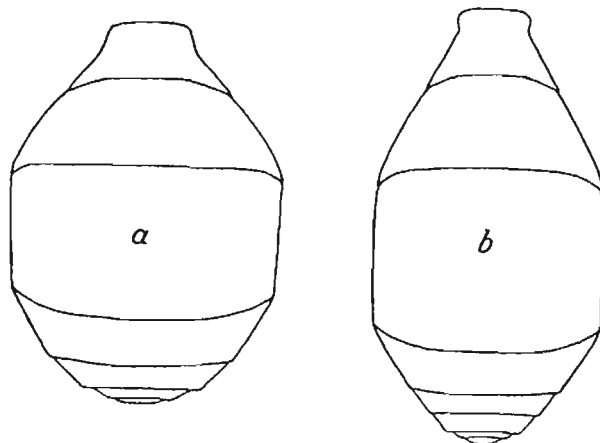
♂.—More or less black, with tergite 1 not at all reddish, except at extreme base. Sides of thorax markedly reddish.

Head: A sharp and well-marked ridge extends from the anterior ocellus to the antennal insertions. Frons somewhat depressed on either side of the central ridge, clothed rather conspicuously with short adpressed hairs; lower half of frons smooth and shining; upper half minutely punctulate. Posterior (declivous) part of the

vertex minutely sculptured and with traces of aciculations towards the temples. Eyes thickly clothed with extremely short hairs. Antennæ considerably longer than the body (figs. 9 *a*, 12 *c*), the hairs of the funicle denser, less rough, and shorter than in *uranus* and *sperches*, the funicular segments are also slightly thicker than in either of these two species.

Thorax: Mesonotum less transverse than in *uranus*, about 10:7, a little less shining and more decidedly punctured. No trace of striations at middle of base. No parapsidal furrows, though their imaginary course

Fig. 11.



Male abdomen of : *a*, *Hoplogryon uranus*, sp. n. ;
b, *H. thoas*, sp. n.

is indicated posteriorly by one or two fine raised lines. Scutellum more heavily and decidedly punctured than in *uranus*. Postscutellar spine longer than in *uranus* and more narrowed (figs. 3 *l*, 4 *m*); it is hardly different from that of *sperches*. Hind wing: (fig. 15 *a*). Lateral areas of the propodeum 4- instead of 3-sided, owing to the two carinæ being very abruptly angled where they turn forwards to meet the mid-posterior point of the post-scutellum; the lateral areas are otherwise sculptured as in *uranus*, but are slightly hairy towards the sides. Mesopleural ridge more or less sharply defined, though

becoming somewhat indistinct posteriorly; surface beneath it as in *uranus*.

Abdomen (fig. 11 *b*): more elongate than in *uranus*; tergite 3 less transverse than in *uranus*, 11:9; this tergite is predominately punctate; only towards the sides does the sculpture become punctate-reticulate; on the disc of the segment the surface is very smooth and flat between the punctures; tergite 4 punctured in the middle and with fine rugulose sculpture towards the sides.

Length 2.2 mm.

NATAL (Van Reenen), Jan., 1 ♂.

The species is characterized chiefly by the shortness of the hairs of the funicle as compared with their usual length within the species-group, and also by the shape of tergite 3.

16. *Hoplogryon fons*, sp. n.

A species closely related to *thoas* and *uranus*, spp. n.

♂.—Black, but not deep black, with the sides of the thorax somewhat reddish. Legs (excluding tibiae and tarsi, which are darker) dirty greenish yellow.

Head: Frons normally convex, not flattened on either side of the central ridge as in *thoas*. Sculpture of the head similar to that of *thoas*, but a little stronger. Eyes evidently with microscopic hairs, but these are much less in evidence than in *thoas*. Antennæ considerably longer than the body, more slender than in *thoas*; on the more apical segments of the funicle, the hairs are fully as long as the segments are wide.

Thorax: Mesonotum dull, strongly and as closely punctured as possible all over, the interstices not strongly shining as in the two preceding species. There is no trace of parapsidal furrows, nor of fine lines indicating their imaginary course. Scutellum punctured all over, the puncturation similar to that of the mesonotum. Postscutellar spine similar to that of *thoas* (fig. 3 *f*). Lateral areas of the propodeum more or less costate, bare. Mesopleural ridge sharply defined, the surface beneath it as in *uranus*.

Abdomen: Tergite 1 nearly $2\frac{1}{2}$ times as wide apically as its medial length; tergite 3 strongly transverse, 8:5, strongly sculptured all over; the surface is very irregularly striate-punctate medially, becoming reticulate-

punctate or merely punctate towards the sides ; tergite 4 more or less rugulose all over.

Length 2 mm. approx.

CAPE PROVINCE (Port St. John), Dec., 1 ♂.

This species could be confused only with *thoas*, from which it is distinguished by longer funicular vestiture (not a very obvious character), less shining mesonotum, and more transverse second tergite.

17. *Hoplogryon tiresias*, sp. n.

A species similar in build to *H. uranus*, sp. n., with which it may be compared as follows :—

♂.—Distribution of lighter and darker areas much as in *uranus*, but colour on the whole darker.

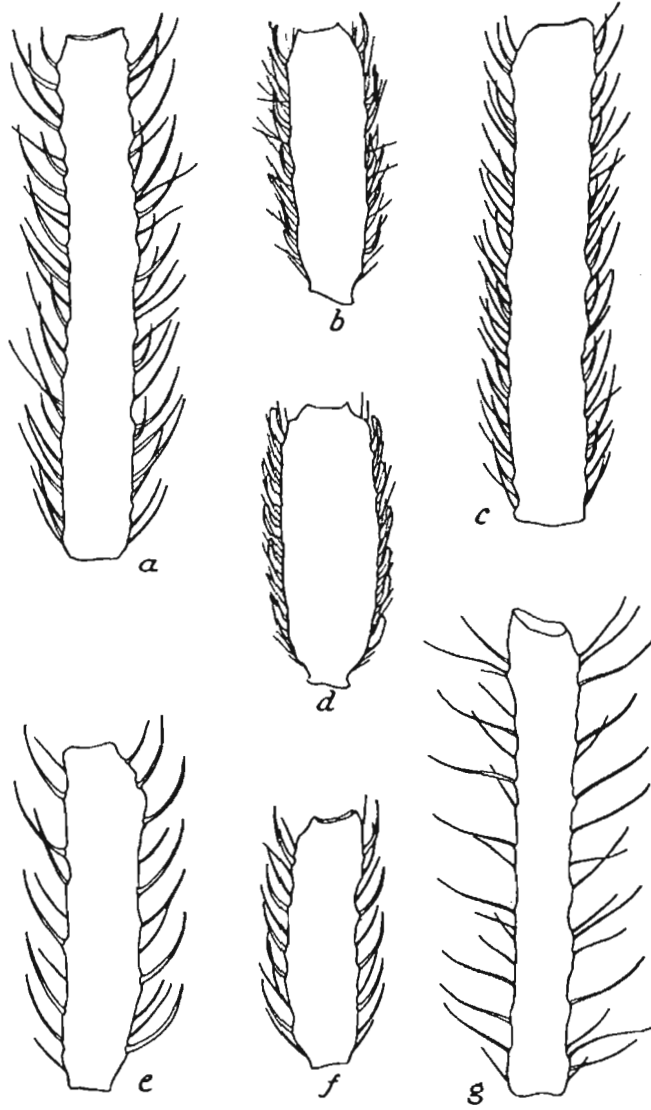
Head: Lower half of the frons smooth and shining ; upper half shining, but minutely punctulate in two of the individuals ; in the third the genal striations continue upwards, along the inner orbit, as a broad band of sculpture to the vertex ; this striate sculpture breaks up in proportion as it approaches the vertex. Vertex between and to the sides of the posterior ocelli quite dull and very finely rugose. Ridge between the anterior ocellus and the antennal insertions more or less sharply indicated. So far the sculpture of the head is very similar to that of *sperches*, but that species has much larger eyes among other characters. Eyes clothed with excessively minute, by no means readily visible, hairs. Antennæ more or less similar in length and vestiture to those of *uranus* (figs. 9 e, 12 f).

Thorax: Mesonotum, at least on anterior two-thirds, markedly dull ; the surface is very finely, superficially, and indeterminately punctate-reticulate, almost finely rugose. Parapsidal furrows showing as more or less shallow grooves on posterior half of mesonotum. Scutellum finely, but more or less confusedly, punctate on its greater basal part, but the sculpture duller than in *uranus*. Postscutellar spine shorter, less narrow, and more triangularly dilated at base than in *uranus*. Mesopleura as in *uranus*.

Lateral propodeal areas with some fine hairs and with its longitudinal sulci not at all, or hardly, obliterated medially ; lateral teeth somewhat short and blunt.

Abdomen: Tergite 3 more shining than in *uranus*,

Fig. 12.



Male fourth funicular segment ($\times 220$) of: a, *Hoplogryon sperches*, sp. n.; b, *H. sejus*, sp. n.; c, *H. thoas*, sp. n.; d, *H. incertus*, sp. n.; e, *H. uranus*, sp. n.; f, *H. tiresias*, sp. n.; g, *H. tityrus*, sp. n.

its striations finer and more even; general sculpture of this tergite much less coarse.

Length 1.6 mm. approx.

CAPE PROVINCE (Mossel Bay), June, Sept., 2 ♂♂;
E. CAPE PROVINCE (Katberg, 4000 ft.), Oct., 1 ♂.

18. *Hoplogryon carus*, sp. n.

♂.—Colour: Blackish brown; the pronotum especially, and the metapleura, markedly reddish brown.

Scape reddish yellow, darkened towards the apex. Legs, tergite 1 and base of 2 conspicuously reddish yellow; the legs are brighter and more yellowish than the pale parts of the abdomen.

Head, seen along a line perpendicular to a line between the posterior ocelli, almost exactly twice as wide as long, and, except for the normal genal striations which extend a little above the antennal insertions and a few of which extend upwards along the inner orbit to a level with the top of the eye, entirely and very conspicuously smooth and shining everywhere; the merest trace of transverse striations is to be seen on each side of the posterior ocelli. An extremely fine (above, more or less obliterated) line extends from the antennal insertions to the anterior ocellus. Eyes bare, the shortest distance between them about twice as great as their width (as seen from above), about 13:6. Antennæ very long and slender, fully $1\frac{1}{2}$ times as long as the body; funicle 2 considerably longer than the scape; 3 a little shorter than 2, with a well-marked keel extending along its basal half; the entire funicle is clothed with semi-erect hairs, which are clearly shorter than the width of the stouter, more basal segments, but fully as long as, or even longer than, the more apical segments; most of these hairs are slightly curved.

Thorax: Mesonotum shining, closely and shallowly punctured, the punctures fairly small, oblique, and, for the most part, ill defined; anteriorly (and this is the usual condition) the punctures are confused, so that the surface is more or less rugulose; posteriorly they become sparser and much more sharply defined. Scutellum in greater part smooth and shining; on its mid-basal part there is a crowding together of punctures, and around this area of dense puncturation there are scattered

punctures. Postscutellum, apart from the lateral basal expansions of the medial process, deeply hollowed out (this condition showing as a channel on each side) and not at all markedly costate as is usual in the genus; the costæ are reduced to a row of inconspicuous crenulations along the centre of the channel; the lateral basal expansions of the medial process are flattened and polished, and extend over about one-third of the half-width of the postscutellum; seen from the side, the central projection stands up almost at right angles to the long axis of the thorax; it is about $\frac{3}{4}$ the length of the scutellum, fairly thick and *forked* at its apex; the prongs are short and diverge from each other at an angle of about 120° , as seen from above. Lateral areas of the propodeum covered with sparse hairs, which do not obscure the sculpture; this consists of vague feeble rugosities with indications of more regular costæ along the margins. Mesopleura below the sharply-defined ridge more or less rugose-punctate.

Abdomen nearly twice as long as wide, 13:7, strongly narrowed basally; tergite 1 but little longer medially than its apical width, very unevenly striated, the ridges sparse and very much confluent, so that a reticulate condition is suggested; the sculpture of this tergite is somewhat characteristic, but, as I am dealing with a single individual, it is impossible to say to what extent it is specific; tergite 3 strongly transverse, 14:9, entirely smooth and shining; this and the following tergites are clothed only with rather long, very sparse hairs.

Length 2.3 mm. approx.

NATAL (Kloof), *L. Bevis*, March, 1 ♂.

With regard to the description of mesonotal and scutellar sculpture, it is important to emphasize that only one individual has been described. Full allowance must be made for sculptural variation; this applies especially to the scutellum, where the somewhat peculiar arrangement of punctures is hardly likely to appear in every individual of the species.

Hoplogryon carus, sp. n., is at once characterized by the forked spine of the postscutellum, if this feature has only specific value. More material might show it to be a structure peculiar to a species-group, though its actual form is probably specific.

19. *Hoplogryon amphiaraus*, sp. n.

♀.—Black. Radicle of the antennæ, scape, pedicel, mandibles, legs entirely, tergite 1, and basal half of tergite 2 honey-yellow. The honey-yellow pedicel contrasts sharply with the brownish-black funicle.

Head, seen along a line perpendicular to a line drawn between the posterior ocelli, not quite twice as wide as long, 15:8 (fig. 1 c). Entire frons evenly convex, entirely smooth and shining; there is no trace of a ridge between the anterior ocellus and the antennal insertions. Vertex everywhere likewise smooth and shining. Eyes markedly large, apparently bare, the shortest distance between them to their width (the head being viewed from above) as 4:3. Antennæ long and powerful (fig. 2 c); radicle unusually long, fully one-third the length of the scape; scape, when the head is seen from the side, projecting above the vertex by about two-fifths of its own length; funicle 1 hardly twice as long as wide; 2 distinctly longer than 1, fully twice as long as wide; 3 very slightly longer than wide; 4 as long as wide, markedly thicker than 1 and 2; the whole funicle is gradually thickened from base to apex, so that there is no clearly differentiated club.

Thorax: Mesonotum conspicuously smooth and shining all over, covered sparsely with rather long, adpressed hairs; some of these hairs arise from a microscopic puncture. Scutellum smooth and shining. Postscutellar spine short and somewhat blunt. Lateral areas of the propodeum bare, striate along the posterior half; lateral teeth absent. No trace of a mesopleural ridge, the surface beneath the depression in far greater part smooth and shining. Hind wing: (fig. 13 a).

Abdomen: Tergite 1 hardly twice as wide apically as long medially; 3 transverse, with sharp, strong, well-defined costæ-like striations along its posterior margin; the longest of these are not much more than one-third the length of tergite 2; 3 is otherwise entirely smooth and shining.

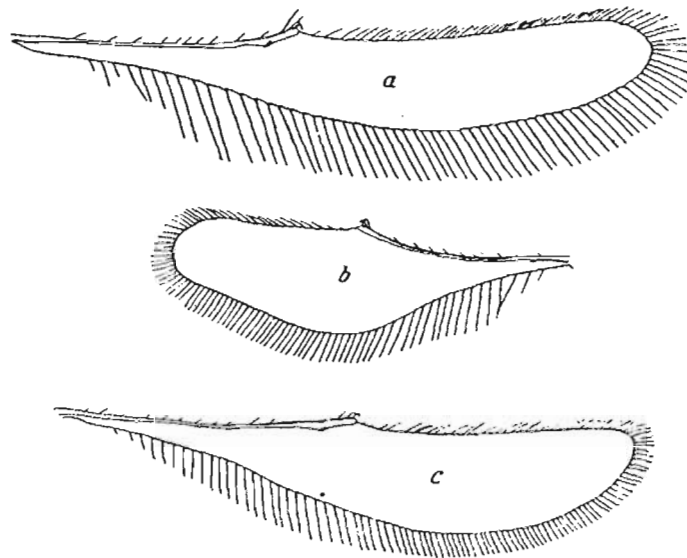
Length 1.1 mm. approx.

CAPE PROVINCE (Port St. John), July, 1 ♀.

This species is largely characterized by its smooth shining mesonotum as well as by the form of the antenna with their comparatively long radicle.

The shape of the hind wing and the general smoothness of the head and of the mesonotum point to a relationship with *tityrus*, of which, unfortunately, only the male is known.

Fig. 13.



Hind wing of: a, *Hoplogryon amphiaraus*, sp. n., ♀; b, *H. laius*, sp. n., ♀; c, *H. tityrus*, sp. n., ♂.

20. *Hoplogryon paris*, sp. n.

A small species, 1.1 mm. approx., in the form and sculpture of the abdomen resembling *H. amphiaraus*, sp. n., from which, however, it differs in important details; it is much more typical of *Hoplogryon* in a narrow sense than that species.

♀.—Very dark brownish black. Legs reddish brown. Tergite 1 and the base of 2 markedly reddish.

Head: Frons evenly convex, virtually smooth and shining, but with indications of excessively minute punctures. Posterior (declivous) part of the vertex likewise smooth and shining. Antennæ fairly long and powerful; radicle very short and inconspicuous, many times shorter than the scape—this character alone readily separates it from *amphiaraus*; scape, when the head is

seen from the side, clearly projecting above the level of the vertex; funicle 2 about $1\frac{1}{4}$ times as long as wide, shorter than 1; 3 and 4 small, bead-like. Eyes much less large than in *amphiaraus*, covered with minute hairs.

Thorax: Mesonotum very finely rugose. Scutellum with a varying degree of sculpturation similar to that of the mesonotum. Postscutellar spine short and sharp. Mesopleural ridge sharply defined, margined on both sides by a row of costæ-like punctures. Lateral areas of the propodeum sparsely clothed with hairs.

Abdomen not much longer than wide, 22:15; tergite 1 fully twice as wide apically as its medial length; sculpture of abdomen as described for *amphiaraus*.

Length 1.1 mm. approx.

CAPE PROVINCE (Somerset East), Sept., Oct., Jan., 3 ♀♀.

21. *Hoplogryon laius*, sp. n.

♂♀.—Black. Legs brown or more usually nearly black.

♀.—*Head* very slightly narrower than the thorax across the tegulæ, 32:33. Frons almost everywhere entirely smooth and shining, or at the most with indications of feeble punctures just in front of the posterior ocelli. The genal striæ extend hardly above the lowest point of the eye, so that the surface along the inner orbit is entirely smooth. Eyes covered with scattered, extremely minute hairs; greatest length of the eye hardly longer than the malar space. Posterior (declivous) part of the vertex with extremely fine, aciculate rugulosity, sometimes almost smooth. Antennæ: funicle 1 and 2 subequal in length, equal in thickness; 1 fully twice as long as wide; 2 a little shorter than 1; 3 and 4 small, bead-like; club very clearly 6-segmented.

Thorax: Mesonotum almost exactly twice as wide as long (this measurement excludes the tegulæ), slightly shining, its sculpture indeterminate, very feeble, and superficial, and showing a feeble falling off in intensity from anterior to posterior margin; this sculpture could be described as very finely alutaceous, with indications of microscopic punctures and microscopic raised rugulosity; sometimes it approaches a very fine, granulate condition. Scutellum more shining and more feebly

sculptured than the mesonotum, sometimes almost smooth. Postscutellar spine moderately long, sharp, more or less triangular, and about half the length of the scutellum. Surface below and anterior to the sharply defined mesopleural ridge conspicuously costate all over. Lateral triangular areas of the propodeum bare, costate, but the costæ obliterated medially. Hind wing: (fig. 13 b).

Abdomen: Tergite 1 strongly transverse, fully twice as wide apically as its medial length; 3 nearly twice as wide as long, covered everywhere with an extremely fine, very superficial scaly-reticulate sculpture; there is no trace whatever of striations at the base of the segment.

Length 1.15 mm. approx.

♂.—Differs from the ♀ as follows:—

Antennæ nearly $1\frac{1}{2}$ times as long as the body, very slender, the funicle clothed conspicuously with nearly erect, slightly curved hairs, which are very slightly longer than the width of the segments themselves. Wings vestigial, seen from the side extending to as far as the base of the postscutellar spine.

CAPE PROVINCE (Somerset East), Sept., Oct., Dec., 7 ♀♀; Jan., 3 ♂♂.

This small dark insect is readily recognized by the sculpture of the third tergite.

22. *Hoplogryon cyclops*, sp. n.

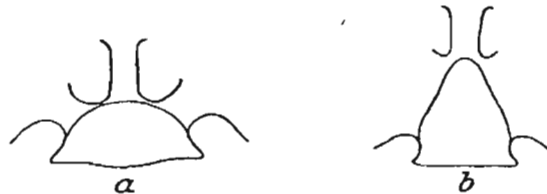
♂♀.—Black. Mandibles reddish brown. Legs much the same colour as the mandibles, except femora and sometimes the tibiæ which are darker.

♀.—*Head*: Upper part of the frons very shining, with scattered, vaguely impressed punctures of variable size; sometimes these punctures are virtually absent. At least one or two of the genal striations sometimes extend up along the inner orbit of the eye, almost to a level with the anterior ocellus. Vertex behind the ocelli markedly shining, often nearly unsculptured, but usually with some delicate striations (aciculations). Eyes with very short, but readily visible hairs. Antennæ: funicle 1 nearly twice as long as its apical width; 2 about three-quarters of the length of 1; 3 and 4 bead-like; club

very distinctly 6-segmented. Malar space about half as long as the eye.

Thorax: Mesonotum over its greater anterior part clearly punctured, the punctures strong, but on the whole not sharp; they are as close together as possible, and the spaces between them are strongly shining; on the posterior third of the mesonotum the punctures give way to strong, fairly even striations, which are often much longer along the imaginary course of the parapsidal furrows. Scutellum with a smooth shining space in the middle, but elsewhere with strong close punctures. Scutellar spine sharp, but triangularly dilated, about half as long as the scutellum (fig. 4 c, d). Lateral areas of the propodeum more or less punctate-reticulate. Legs slender, typical for the genus. Mesopleural ridge more or less sharply defined, the surface beneath it reticulate-punctate.

Fig. 14.



Male clypeus of: a, *Hoplogryon cyclops*, sp. n.;
b, *H. sperches*, sp. n.

Abdomen: Tergite 1 with its apical width not much greater than its medial length (fig. 8 d, e); 2 evenly striated all over; 3 at the most with very faint, superficial striations, but the more often entirely smooth and unsculptured, except for a tiny patch of scaly-reticulate (almost rugulose) sculpture close to each apical lateral angle; following tergites in greater part smooth, with only scattered, very small, vague punctures, but towards the sides there is some sculpture similar to that which occurs on tergite 3.

Length 1.3-2.2 mm. The smaller measurements seem to be exceptional.

♂.—*Head*: In general distribution of sculpture similar to the ♀. *Antennæ*: funicle 5 and 6 hardly less than

twice as long as wide; entire funicle clothed only with excessively short, adpressed hairs. Clypeus: (fig. 14 a). Hind wing: (fig. 15 b).

Abdomen: Tergite 3 nearly always entirely smooth and shining, except for the tiny patch of sculpture as described for the ♀.

Average length 2.2 mm., though examples of 1.2 mm. occur; such small individuals have the punctures of the mesonotum less close, smaller; the mesonotum is hence more shining than in typical examples; the posterior striations evidently remain constant in strength, but the scutellum is smooth and shining all over.

CAPE PROVINCE (Somerset East), Oct.–Jan., 27 ♂♂, 5 ♀♀; (Mossel Bay), Feb., Mar., May, Aug., 13 ♂♂, 1 ♀; (Queenstown), Feb., 1 ♂; (Port St. John), Sept., 1 ♀; (Ceres), April, 1 ♀; (Aliwal North), Dec.–Jan., 2 ♀♀; E. CAPE PROVINCE (Katberg), Oct., 1 ♂; NATAL (Van Reenen), Oct.–Nov., 3 ♂♂, 1 ♀; ORANGE FREE STATE (Harrismith), Feb.–Mar., 9 ♂♂.

The species is evidently characterized by the shining punctate surface of the anterior part of the mesonotum and by the presence of well-marked and conspicuous striations on its posterior part, and also by the smoothness of tergite 3.

23. *Hoplogryon sejus*, sp. n.

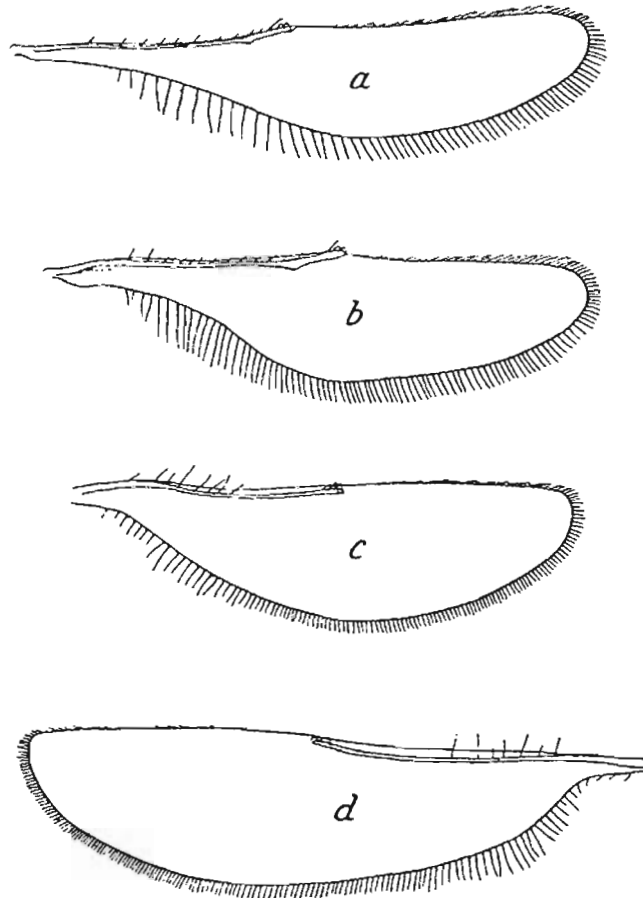
♂.—Black. Mandibles, scape of antennæ (more or less), legs, except coxæ which tend to be darker, tergites 1 and 2 and base of 3 yellowish red.

Head slightly more transverse than in *cyclops*. Sculpture of the head not essentially different from that of *cyclops*, except that the fine, somewhat superficial striations which extend upwards along the inner orbit converge sharply inwards at the vertex and meet the ocelli. Vertex behind the ocelli and the temples entirely smooth and shining. Antennæ a little less stout than in *cyclops*, and with the hairs of the funicle slightly more upstanding (fig. 12 b); funicular segments 4 and 5 fully three times as long as wide; 7–9 fully four times as long as wide. Eyes quite bare.

Thorax: Mesonotum in greater part smooth, very shining with small ill-defined punctures which are crowded on the extreme anterior margin of the sclerite,

but which over its greater part are separated by more than many times their diameter. Course of the parapsidal furrows indicated by two or three fine raised lines; along the posterior margin of the mesonotum more of

Fig. 15.



Male hind wing of : *a*, *Hoplogryon thoas*, sp. n. ; *b*, *H. cyclops*, sp. n. ;
c, *Macrogyron echion*, sp. n. ; *d*, *M. pluto*, sp. n.

these lines occur, so that there is an approach to the usual striate condition of this part as is seen in *cyclops*. Scutellum almost everywhere entirely smooth and shining ;

only towards the sides is there some fine sculpturation. Postscutellar spine less sharp than in *cyclops*, forming more or less an equilateral triangle. Mesopleural ridge more or less sharply defined, the surface beneath it somewhat strongly rugose-punctate.

Abdomen wider than in *cyclops*, and hence appearing more petiolate; tergite 1: (fig. 8 i); tergite 3 striate only at the extreme base, the striæ so short as to appear like a transverse row of oval punctures; this tergite is otherwise entirely smooth; in the one individual present, there are no small lateral apical patches of sculpture on tergite 3 as appear in *cyclops*; tergites 4 and 5 shining, with a few scattered punctures and inconspicuous lateral patches of sculpture.

Length 2.1 mm. approx.

CAPE PROVINCE (Port St. John), Sept., 1 ♂.

Evidently this species is chiefly characterized by the smoothness of the mesonotum, and perhaps by the colour of the first two tergites, together with the extremely short striations of tergite 3. This last character alone will at once separate it from the preceding species.

24. *Hoplogryon* (*Teleas* ?) *incertus*, sp. n.

♂♀.—Black, but not intensely black. Antennæ brownish. Mandibles obscure to bright reddish brown. Legs (except femora, which are darker) much the same colour as the mandibles, at least on the tarsi.

♀.—*Head*: Temples rather strongly produced backwards behind the eyes, so that these do not occupy nearly the whole lateral surface of the head. Frons above the antennal insertions entirely smooth and shining, but towards the anterior ocellus the surface becomes finely striate-punctate; in smallish examples the striate element tends to fade out, leaving small, vaguely impressed punctures. Vertex behind the ocelli shining and with vague rugulosity, which show a tendency to form transverse but quite superficial striations. Eyes clothed with scattered, extremely short hairs. Length of the eye to malar space as 5 : 3 (approx.). Antennæ (fig. 6 c): funicle 1 about $1\frac{3}{4}$ times as long as wide; 2 three-fourths as long as 1; 3 and 4 small, transverse; club clearly 6-segmented. Cheeks regularly striated.

Thorax: Middle of the mesonotum reticulated, the reticulations delicate and often broken; the largest of them could just about contain an ocellus; anteriorly these reticulations break up to form an irregular sculpture, in which small transverse rugulosity predominate; posteriorly they show a tendency to form widely separated raised lines, which are very irregularly arranged. Scutellum brokenly reticulated all over. Postscutellar process produced apically into a triangular rather than spinose projection (fig. 4 *a, b*). Lateral areas of the propodeum at least rugulose, often with some broken reticulations. Mesopleural ridge more or less sharply defined, the surface beneath it reticulate-punctate. Legs short, like those of a true *Teleas*; hind femora much swollen (fig. 16), in some aspects about 3 times as long as wide; hind tarsi shorter than their tibiae.

Fig. 16.

*Hoplogryon incertus*, sp. n., ♀, hind femur.

Abdomen: Tergite 1 about $1\frac{1}{2}$ times as wide apically as its medial length, often with distinct trace of a horn at base; 3 with a wide patch of striated sculpture covering roughly its medial basal half; the length of the striae is variable, the grooves between them, especially between the more lateral ones, often contain transverse rugulosity; the lateral striae also show a marked tendency to curve inwards at about their middle; tergite 3 is also very strongly transverse, about 5:3; following segments more or less smooth, with only a few scattered punctures.

Length 1.5–2 mm.

♂.—*Head*: Sometimes the strong genal ridges extend up higher on the frons than in the ♀, almost covering the smooth area above the antennal insertions, and the more lateral of them reaching the level of the anterior ocellus. Unlike the ♀, the frons, where it is contiguous

with the anterior ocellus, is often extensively smooth and almost impunctate. The sculpture of the vertex is always vague, delicate, and indeterminate, and much like that of the ♀. Eyes: hairs even less obvious than in the ♀. Antennæ nearly as long as the body (figs. 9 *d*, 12 *d*); funicle clothed with excessively short, adpressed hairs; segments 4 and 5 about $1\frac{1}{2}$ to $1\frac{3}{4}$ times as long as wide; 9 and 10 fully, or even a little more than, twice as long as wide; in small examples the segments are all a little shorter.

Thorax: Course of the parapsidal furrows sometimes indicated by one or two fine raised lines (forward extensions of the normal posterior striations), which, when there are two, lie close to each other; posterior striations are often more clearly defined than in the ♀. Legs with the femora less thickened than in the ♀. Tergite 1: (fig. 8 *g, h*).

Length 1.4–2.2 mm.

CAPE PROVINCE (Somerset East), Oct.–Jan., 7 ♂♂; (Aliwal North), Dec.–Jan., 4 ♀♀, 2 ♂♂; (Mossel Bay), Dec., Feb.–Mar., 1 ♀, 6 ♂♂; (Port St. John), April, 1 ♂; E. CAPE PROVINCE (Katberg), Oct., 1 ♂; NATAL (Van Reenen), Dec., 1 ♀; ORANGE FREE STATE (Harrismith), Feb.–Mar., 2 ♂♂.

The swollen femora of the hind legs are a less striking feature of the male than of the female, and in fact are but little thicker than the hind femora of many males of *Hoplogryon*, in which genus I prefer to place the species provisionally.

MACROGRYON, gen. nov.

Species of relatively very large size, not less than 4.8 mm. in length.

Head: Vertex not sharply angled across the posterior ocelli, so that its posterior (declivous) part does not fall at all perpendicularly away from these. Clypeus, seen from beneath, deeply hollowed out (channelled) across its whole apical width, so that it appears to have a double apical margin; further, the clypeus is very wide, fully as wide as the scape, feebly to fairly deeply bisinuate and with acutely produced lateral angles; distance between its mid-apical point and the antennal insertion, i. e., the lowest point of the antennal socket when the head

is seen from the side, very much less than the width of the clypeus; in the one available ♀ this comparison of lengths is not possible, for the antennal prominence is situated at the extreme apex of the clypeus, so that, seen from the side, the lowest point of the antennal socket and the apical margin of the clypeus coincide. Eyes clothed sparsely with fairly long hairs, large, fully 4 times as long as the very short malar space; in African species of *Hoplogryon* the eyes are at most $2\frac{1}{2}$ times as long as the malar space. Antennæ 12-segmented in both sexes; funicle of the ♂ without conspicuous upstanding hairs, about as long as the body; segment 3 with only a very feeble, inconspicuous keel on basal half beneath; funicle 1 in the ♀ very long, fully twice as long as the greatest length of 2.

Thorax: Mesonotum very coarsely sculptured and with a conspicuous longitudinal element in the sculpture. Scutellum coarsely sculptured all over, at each apical lateral corner, with a well-developed tooth (fig. 17). Postscutellum with a large, medial, spinose projection; fore wings typical of the subfamily. Mesopleural depression not margined by a ridge. Costa of hind wings at its apex not touching the edge of the wing. Lateral propodeal teeth short or blunt.

Abdomen: Tergite 1 not at all transverse, the entire abdomen very coarsely sculptured.

Type of the genus, the following species:—

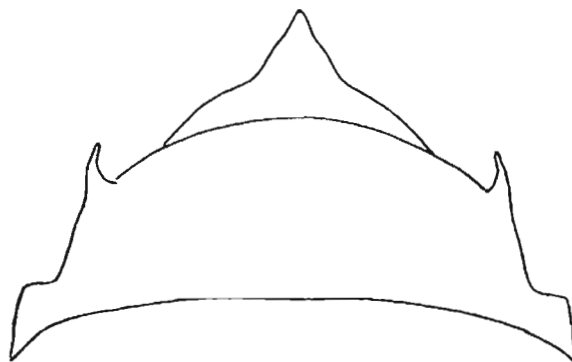
Macrogyron pluto, sp. n.

♂.—Colour: Black, with the mandibles and extremities of the segments of the legs reddish.

Head fairly thickly clothed with long pale hairs; the longest of these hairs, *i. e.*, the more erect ones on the vertex, are fully half as long as the scape. When the head is seen along a line perpendicular to a point equidistant from the posterior ocelli and the occipital margin it is fully twice as wide as its greatest length, 57:28 (figs. 1 e, 10 c). Frons somewhat flattened, its strong ridges wide apart, and, where they are widest, the space between them is often about as wide as the anterior ocellus; immediately above the antennal insertion the ridges fade out, leaving a subtriangular, more or less

smooth area; the ridges extend almost unbrokenly up to the anterior ocellus; the spaces between them are sometimes nearly smooth, sometimes with feeble interconnecting rugæ. Ocelli connected on their inner side by a more or less clearly defined, much raised, irregular, semicircular ridge; the ocelli give the impression of being embedded in a plexus of prominent, much raised rugosities; further, they are situated well in front of the crest of the vertex. Vertex behind the ocelli very coarsely reticulated to striate-reticulated. Eyes clothed sparsely with long pale hairs. Antennæ: seen from the side, the scape does not reach the anterior ocellus

Fig. 17.



Macrogyron pluto, sp. n., ♂, scutellum and postscutellum.

by about one-third of its own length; scape to funicle 1 as 4 : 3; funicle thick, fully as long as the body, entirely without outstanding hairs, except at the apex of the segments where very short, inconspicuous hairs project as a feeble fringe; the general clothing of the funicle consists of excessively minute adpressed hairs, so that it appears to be virtually glabrous; segment 1 fully three times as long as wide; 2 two-thirds as long as 1; following segments gradually increasing in length, 9 being about as long as 1.

Thorax above, and to some extent at the sides, clothed with long, more or less erect, brownish hairs,

which, on the whole, are fully half as long as the scape, especially those on the scutellum. Mesonotum very coarsely striate-reticulate, the striate element always predominating and sometimes very well marked. Parapsidal furrows often indicated as a broad, more or less smooth channel between two ridges on posterior half. Scutellum merely coarsely reticulated, at most with indications of a central ridge. Teeth of the scutellum about half as long as the postscutellar projection, curved slightly inwards and downwards. Postscutellar projection about half as long as the scutellum (fig. 3 *a, b, c*); seen from above, it appears as a very acutely pointed, triangular process (fig. 17); from the side it is thick, but variable in shape within narrow limits, and it does not project above the level of the disc of the scutellum; it is either strongly reticulated along each side and has then a well-marked central carina or else it tends to be reticulate all over. Each lateral area of the propodeum divided by 4 (sometimes the innermost one is obliterated) longitudinal carinæ into five areas; the three (or two) inner areas are entirely glabrous and smooth; the outer two and the actual sides of the propodeum are densely clothed with pale brownish pubescence; sometimes the pubescence of the fourth area encroaches on to the third; the glabrous areas themselves sometimes show traces of transverse rugæ. Metapleura strongly pubescent and with longer hairs mixed above. Mesopleura with the oblique depression glabrous and transversely ribbed; the lower convex surface hairy and reticulate-rugose. Legs with the femora and the tibiæ—especially the hind tibiæ—clothed, in addition to the normal pubescence, with long outstanding hairs similar to those of the thorax, but paler. Hind wing: (fig. 15 *d*).

Abdomen nearly twice as long as wide, 19 : 10; tergite 1 about as long as its apical width; 3 coarsely striate-reticulate with indications of punctures medially where the surface tends to become quite smooth; this tergite is about twice as wide as long, 23 : 12; 2 and 3 at the sides, rest more or less all over, clothed with long hairs; 4, 5, and 6 coarsely reticulate-punctate.

Length 4.9 mm. approx.

E. CAPE PROVINCE (Katberg), 4000 ft., Dec.-Feb., 25 ♂♂; TRANSKEI (Umtata), Feb.-Mar., 1 ♂; CAPE PROVINCE (Queenstown), 3500 ft., Feb.-Mar., 1 ♂.

Macrogyron cælebs, sp. n.

♀.—This species, doubtfully distinct from *Macrogyron pluto*, sp. n., may be compared with it as follows:—

Head (fig. 7 f): The frontal striations break up into fairly even reticulations just above the middle of the frons. The ocelli are not situated on a plexus of prominent raised rugosities, and there is no clear indication of a semicircular ridge connecting them inwardly as in *pluto*. The setting of the ocelli is thus inconspicuous by comparison with that of the ♂ of *pluto*. *Antennæ* (fig. 2 d): scape, when the head is seen from the side, reaching to the level of the top of the eye; pedicel

Fig. 18.



Macrogyron cælebs, sp. n., ♀, sixth abdominal tergite.

hardly one-third the length of funicle 1; funicle 1 extraordinarily elongated, fully $2\frac{1}{2}$ times the greatest length of 2; 2 almost square in outline, when measured along its shortest side; 3 and 4 transverse, with the ventral side twice as long as the dorsal; club not clearly differentiated, but little thicker than funicle 2. Six or so long hairs fringe the apical margin of the clypeus, and similar hairs occur on the mandibles beneath, but the insect lacks the characteristic hairiness of *pluto*.

Abdomen almost exactly twice as long as wide; 3 strongly transverse, 27:16, with a very strong, predominating, striate element over its greater medial part; towards the sides the tergite is more or less coarsely punctate; on each side of this tergite, near the apical margin and running parallel to it, is a fringe of excessively short hairs; this fringe marks the apical limit of a hairy patch on each side of the segment; further, it margins

an extremely narrow band of finely rugulose sculpture; this specialized modification is feebly indicated in the ♂ of *pluto* and of the following species, and corresponds possibly to the patch of sculpture seen in a similar position in species of *Hoplogryon*, such as *H. cyclops*, sp. n.; 4 very slightly more than half as long as 3, strongly striate-reticulate, but the sculpture tending to become obliterated medially as in the case of 3; 6 remarkably modified (fig. 18), entirely different from that of any other Teleasine with which I am acquainted; it is densely clothed with extremely short pubescence; instead of having its apical margin more or less straight it is deeply emarginate on each side; the apical corners of the segment appear, hence, as 2 short sharp horns, which, owing to their outer side being feebly rounded, are slightly curved inwards.

Length 6.6 mm. approx.

NYASALAND (Fort Johnston), *W. A. Lamborn*, Feb. 1922, 1 ♀, taken crawling on sand.

In spite of the general lack of long hairs—these may easily have been rubbed off—and slight differences in sculpture, this female agrees in all essential details with the male of *pluto*, and I am strongly inclined to accept it as the female of that species. But as it is easier to sink a name than to erect a new one, and as I have no males from Nyasaland nor females from Cape Province, I propose to regard this unique and in many respects remarkable Teleasine provisionally as a new species. There is no question of its being congeneric with *Macrogyron pluto* and the following species. The important features are length of first segment of the funicle and shape of the sixth tergite.

Macrogyron echion, sp. n.

This species may be compared with *M. pluto*, sp. n., as follows:—

♂.—*Head* more narrowed behind. Sculpture of frons not quite so strong, but more even. Ocelli not embedded in a plexus of prominent raised rugosities; no trace of a semicircular ridge connecting them inwardly. Antennæ: funicle slightly less thick and without the characteristic glabrous appearance of *pluto*; this is because the hairs are denser, and though excessively

short are semi-erect and can be seen projecting from the sides of the segments; these differences in funicular clothing are only of degree and difficult to appreciate unless both species are available for comparison.

Thorax without such conspicuous upstanding hairs as in *pluto*, the general clothing shorter, more brownish, and, whatever upstanding hairs are present, much sparser. Striations of the mesonotum less strong, but closer and more regular. Scutellum more closely reticulated; lateral teeth straight, but similar in size. Postscutellar spine longer, narrower, and more or less straight, not thick when seen from the side nor reticulated along its sides (fig. 3 *d, e*); it projects distinctly above the level of the disc of the scutellum in lateral aspect. Lateral areas of the propodeum without the clearly marked areas of *pluto*; there are three or four distinct longitudinal carinae on each side, but these are wrinkled and connected together by irregular transverse rugae; fine hairs occur in each division, but where they are thickest (towards the sides of the propodeum) they are not so dense as in *pluto*. Hind wings much less abruptly narrowed basally (fig. 15 *c*).

Abdomen slightly more elongate, 19:17, and less rounded apically.

Length 5 mm. approx.

CAPE PROVINCE (Port St. John), Nov.-Feb., 6 ♂♂.

Macrogryon echion is very distinct from *M. pluto*. The most determinative character for the separation of the two species is the shape and direction of the postscutellar spine.

The only other described Teleasinae from the Ethiopian region are apparently the two following species, with both of which I have refrained from dealing as they are known to me only from Kieffer's descriptions:—

- (1) *Hoplogryon kenyæ* Kieff., Das Tierreich, Lief. 48, Scelionidæ, p. 236, ♂.
- (2) *Paragryon antricola* Kieff., Das Tierreich, Lief. 48, Scelionidæ, p. 214, ♂♀.