

The following paper by Dr E. B. Edney is part of a projected monograph of the South African Chrysididae, which he will now, unfortunately, not be able to complete, having left the service of the Museum to enter another profession. Even in its truncated form it seems desirable to publish the work, since many new species are described and by a method which is far more accurate than any adopted by earlier authors.

The rest of the collections examined by Dr Edney, and comprising the *Holonychinae*, have been returned to the museums from which they were loaned, sorted into identified and new species, so that anyone who should work over the same material with a view to completing the monograph will find his task considerably lightened.

G. ARNOLD.

THE HETERONYCHINAE (FAMILY CHRYSIDIDAE) OF SOUTH AFRICA

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VERY little has been written on the African Chrysididae since the publication of Mocsary's *Monographia Chrysididarum Orbis Terrarum Universi* which appeared in 1889. Since that date about sixty new species have been described by a few authors, and that literature, small as it is, is distributed over a large number of scientific publications. Furthermore, large collections of South African origin have accumulated in the British and several South African Museums, and have remained undetermined, not only on account of the lack of specialists, but also by reason of the inadequacy of the descriptions of the earlier authors, which were based mainly on colour and sculpture.

In regard to colour, the variability of the Chrysididae is not only very great, but it is also affected by post-mortem conditions, to which reference will be made again in these pages. Concerning sculpture, attempts to determine unidentified species by reference to the descriptions have shown that even when the size of the insects is taken into account, such relative terms as "closely punctured", "coarsely punctured", etc., are quite inadequate in the absence of some fixed standard of comparison. In fact, many of Mocsary's specific descriptions would apply equally well to half a dozen or more species of the same genus.

In the following pages an attempt will therefore be made to treat the South African species of the family in a monographic form on more modern lines, beginning with the subfamily *Heteronychinae*, prefaced, however, with a chapter dealing with the characters of the whole family.

ACKNOWLEDGEMENTS

I am greatly indebted to Dr G. Arnold, Director of the National Museum of Southern Rhodesia, under whose guidance this work was done and without whose helpful criticism and advice it could not have been continued.

My thanks are also due to Capt. R. H. R. Stevenson of Bulawayo for the loan of his large collection and for assistance in many ways; to Mr R. B. Benson of the British Museum, Natural History Department for the loan of the collection of Chrysidids in that Museum; to Mr G. van Son and the Director of the Transvaal Museum, Pretoria, for the loan of a valuable collection containing many type specimens; to Dr J. Hewitt, Director of the Albany Museum, Grahamstown; to Mr A. L. Bevis and the Director of the Durban Museum and Art Gallery, and to Dr Maidl of the Natural History Museum, Vienna, for the loan of collections in their museums.

Family CHRYSIDIDAE Leach

CHARACTERS. The coloration is usually a bright metallic green or blue, though reds, purples and even yellows are not uncommon; the genus *Allocoelia* Mocsary is for the most part brown. The colour of a preserved specimen is often markedly different from that of the living insect, and depends to a certain extent on the humidity of the atmosphere in which it is kept. Insects which are light green in life often become darker and even bluish when preserved. The effect of moisture is strikingly demonstrated if a specimen is kept in the humid atmosphere of a relaxing tin for a few hours after which a number of reds and coppery shades appear.

The head from above is usually strongly transverse, the eyes are large and the ocelli distinct. The face is more or less strongly depressed, forming the facial cavity; the clypeus and cheeks are variable in length, but short in the great majority of Heteronychine species. The mouthparts are usually short but may be considerably elongated; the labial palps are 3-jointed and the maxillary palps 5-jointed except in the tribe *Parnopini* Aaron, where they are 2- and 3-jointed respectively. The mandibles are strong and more or less obtusely toothed on the inner margin. The antennae are 13-jointed in both sexes and set close together near the bottom of the face; they are filiform except in the American genus *Pleurocera* Guerin.

The structure of the thorax is considerably complicated by modification; indeed, the terminology used by the older authors is open to question. The subject deserves morphological study, but until that is done the terminology used in other hymenopterous families must be adapted and the principle of homology applied as far as possible. The system adopted in the present paper will be made clear by referring to Fig. 1 *a*, *b*, and *c*. There is little doubt that the "metathoracic teeth" of older authors are actually epinotal teeth; in front of these, however, is another pair of lateral projections which I have termed "metapleural teeth". They are more tooth-like in the subfamily Holonychinae Bischoff than in the Heteronychinae, but the term has been used in this paper for the

sake of consistency. The genera *Notozus* Forster, *Philoctetes* Abeille, *Holopyga* Mocsary and *Hedychrum* Latreille provide a series showing the development of a lateral dorsal expansion as in *Hedychrum* from a broad, flat metapleuron as in *Notozus*, and it is to this lateral expansion that the term "metapleural tooth" has been applied.

The mesopleura are well developed and frequently armed with one or more teeth and intricately sculptured; in the Heteronychinae, however, they are simple. The scutum of the mesonotum is divided, more or less distinctly, into three areas by two longitudinal furrows; the parapsidal sutures are often visible as well. The scutellum is normally flat and unarmed, but the metanotum (post-scutellum of some authors) is often

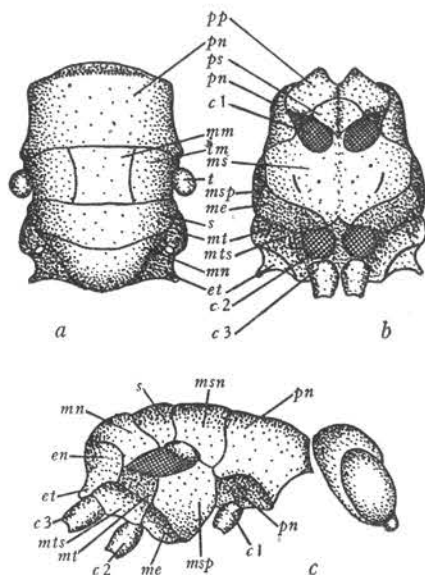


Fig. 1. Thorax of a typical Heteronychine Chrysid. *a*, dorsal view; *b*, ventral view; *c*, lateral view. *c*1, *c*2 and *c*3, 1st, 2nd and 3rd coxae; *en*, epinotum; *et*, epinotal teeth; *lm*, lateral area of the mesonotum; *me*, mesepisternum; *mm*, median area of the mesonotum; *mn*, metanotum; *ms*, mesosternum; *msn*, mesonotum; *msp*, mesopleuron; *mt*, metapleural teeth; *mts*, meta-sternum; *pn*, pronotum; *pp*, propleuron; *ps*, prosternum; *s*, scutellum; *t*, tegula.

strongly produced behind or armed with a mucron of various shapes. The position of the metathoracic stigmata is of taxonomic importance; they may be situated above or below the metapleural teeth.

The wings are well developed; their venation has been used considerably as a character for distinguishing genera, although in my experience it is an unreliable character. In particular, it has been used for distinguishing between the genera *Chrysidea* Bischoff and *Chrysis* Linnaeus: in the former the discoidal cell is open and indistinct, in the latter it is closed and distinct. A comparison of some of the species of these two genera will show, however, that the distinction is very unsatisfactory; indeed, it is probable that the species composing the genus

Chrysidea are not generically distinct from a part of that vast conglomeration *Chrysis*.

In general the medial, 1st and 2nd submedial, discoidal, cubital and radial cells of the forewing are present, the cubital is open; the discoidal and radial may be open or closed. In the Heteronychinae (Fig. 2) the venation is further reduced, only the medial and submedial cells being closed, the rest are indistinctly outlined. In the hindwings there are no closed cells, a short subcostal and anal are the only veins present.

The legs are fairly short, the anterior or posterior femora may be broadly expanded; the tarsal claws are unarmed in the Holonychinae and with a variable number of teeth in the Heteronychinae.

The number of visible abdominal segments is usually three in both sexes. This is true throughout the Heteronychinae, but in the Holonychinae the number is increased to four in the males of the tribe Parnopini and reduced to two in both sexes in the tribe Allocoeliini.

The shape and texture of the apical margin of the last visible tergite is of very great taxonomic value; it may be more or less translucent or

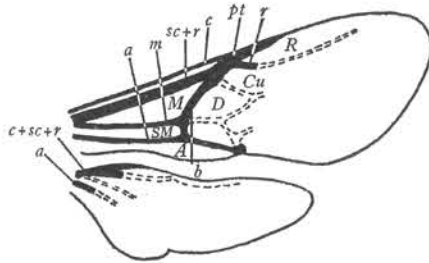


Fig. 2. Wings of a typical Heteronychine Chrysid. *A*, anal cell; *Cu*, cubital cell; *D*, discoidal cell; *M*, medial cell; *SM*, submedial cell; *R*, radial cell; *a*, anal vein; *b*, basal vein; *c*, costal vein; *m*, medial vein; *pt*, pterostigma; *r*, radial vein; *sc*, subcostal vein.

opaque, entire, impressed in the middle, angulate laterally or with a variable number of teeth of various shapes. The apical margin in the Heteronychinae is usually simpler than in the Holonychinae.

The male genitalia, though simpler than in the Sphegidae or Psammocharidae are nevertheless of considerable taxonomic value, and have been figured wherever possible in this paper.

Apart from the fact that the larvae are parasitic on those of other hymenopterous insects, usually bees, and very rarely on lepidopterous larvae, very little is known of the biology of this family. The hosts of some of the commoner species have been determined, but those of the majority of species have still to be discovered.

METHODS OF DESCRIPTION. Species already described of which I have been able to see the types or reliably determined specimens have been redescribed, but when this has not been the case, the original descriptions have been transcribed.

The most important taxonomic characters are the sculpture, the shape and texture of the apical margin of the last tergite, the shape of the epinotal teeth, and the proportions of the face and of the pronotum. In

describing the sculpture it will be necessary to speak of different kinds of puncturation, and these terms will now be defined. *Reticulate-punctate* refers to the closest type of puncturation where the average space between the punctures is less than one-fourth as wide as the punctures. *Subreticulate-punctate* refers to a condition where the *interspaces* are a little wider, about one-half as wide as the punctures. The *punctures* are said to be *punctulate* when there is one very small puncture in the middle of each large one. The size of punctures and interspaces will be indicated by comparison with the diameter of the anterior ocellus in each species. The rest of the terms used are self-explanatory. It will be realized that a small amount of variation must be allowed for in the application of these descriptive terms, especially as the sculpture itself varies to a certain extent among individuals of any one species.

In comparing the breadth of the face with its length, the first measurement has always been taken as the shortest distance between the eyes. The second measurement, however, is more difficult; in some genera it has been possible to measure the distance between the base of the clypeus and the facial fovea, but in others either the facial fovea is absent or the suture indicating the base of the clypeus is indistinct, and in those genera the length of the face has been taken as the distance from the top of the antennal sockets to the top of the facial cavity. It will be stated in each description which measurement has been used.

When comparing the length of the pronotum with its width behind, the insect is placed so that the line of vision is at right angles to the plane of the middle of the pronotum. The width behind is then easily measured and the length has been taken as the distance from the posterior margin to the middle of a line between the anterior shoulders; that is to say, the neck of the pronotum has not been included in the length, since it is often covered by the occipital region of the head.

The drawings of the male genitalia are dorsal views to show the shape of the stipites, those of the 3rd tergite are from directly above the middle of that tergite.

KEY TO THE SOUTH AFRICAN GENERA OF CHRYSIDIDAE

- (12) 1. Tarsal claws with one or more teeth, the abdomen in both sexes composed of three visible segments. Subfamily **Heteronychinae** Buysson
- (5) 2. Rather elongate to oval in shape, the 3rd abdominal segment tapering apically. The discoidal cell of the forewing absent. Usually with smooth polished areas. The apical margin of the 3rd tergite either with a vertical flat platform or broadly translucent and membranous and then more or less deeply excised. Tribe **Ellampini** Mocsary
- (4) 3. Metanotum produced behind into a broad, flat platform, the apical margin of the 3rd tergite not membranous. **Notozus** Forster
- (3) 4. Metanotum rounded behind, the apical margin of the 3rd tergite membranous and translucent. **Philoctetes** Abeille
- (2) 5. Broader in shape, the 3rd tergite broadly rounded apically. The discoidal cell of the forewing at least indistinctly outlined. Usually without large areas smooth and polished. The apical margin of the 3rd tergite not as in the **Ellampini**. Tribe **Hedychrini** Mocsary

- (7) 6. Claws with more than one tooth, apical margin of the 3rd tergite entire. Metathoracic stigmata above the metapleural teeth. **Holopyga** Mocsary
- (6) 7. Tarsal claws with one tooth. Metathoracic stigmata below the metapleural teeth.
- (9) 8. Apical margin of the 3rd tergite emarginate, tarsal claws do not appear forked near their apices. **Acrotoma** Mocsary
- (8) 9. Apical margin of the 3rd tergite entire or feebly angularly excised in the middle, but then the tarsal claws appear forked.
- (11) 10. One tooth near the middle of each tarsal claw, the apical margin of the 3rd tergite entire. **Hedychridium** Abeille
- (10) 11. Each tarsal claw with one tooth near its apex so that the claw appears forked, the apical margin of the 3rd tergite entire or feebly angularly excised in the middle. **Hedychrum** Latreille
- (1) 12. Claws unarmed, seldom with one median tooth, but then the abdomen composed of only two visible segments.
Subfamily **Holonychinae** Bischoff
- (16) 13. The abdomen in the male consisting of four visible segments, in the female of three, the apical margin of the last tergite with many small, irregularly arranged teeth. Metathoracic stigmata above the metapleural teeth. **Tribe Parnopini** Aaron
- (15) 14. Mouth parts strongly elongate. **Parnopes** Latreille
- (14) 15. Mouth parts normal. **Isadelphus** A. Semenov
- (13) 16. Abdomen composed of two or of three visible segments in both sexes, metathoracic stigmata below the metapleural teeth.
- (20) 17. Abdomen in both sexes composed of two visible segments, the tarsal claws toothed. **Tribe Allocoeliini** Mocsary
- (19) 18. Wing veins much reduced, mouthparts normal. **Parnopidea** Brauns
- (18) 19. Discoidal cell of the forewing open, the wing veins otherwise normal. Mouthparts elongate. **Allocoelia** Mocsary
- (17) 20. The abdomen in both sexes composed of three visible segments, the tarsal claws unarmed.
- (36) 21. Mouthparts more or less elongate. **Tribe Pseudochrysidini** Bischoff
- (23) 22. The apical margin of the 3rd tergite membranous and translucent. **Spintharis** Dahlbom
- (22) 23. The apical margin composed of the same material as the rest of the tergite.
- (25) 24. The apical margin of the 3rd tergite with many (more than six) somewhat irregular teeth. **Euchreous** Latreille
- (24) 25. The apical margin sinuate or with a few (not more than six) distinct, regular teeth.
- (27) 26. The metanotum with a well-developed mucron. **Stilbum** Bischoff
- (26) 27. The metanotum without a mucron.
- (31) 28. The apical margin of the 3rd tergite sinuate, or at least without strong angular teeth.
- (30) 29. The thorax strongly arched longitudinally, resembling that of *Hedychrum*. **Eurychrysis** Bischoff
- (29) 30. The thorax not as in 29, *Chrysis*-like. **Pseudogonochrysis** Bischoff
- (28) 31. The apical margin of the 3rd tergite with strong, angular teeth.
- (33) 32. The apical margin with two long pointed teeth and one more or less obtuse angle at each side.
Chrysidium Brauns = **Heterochrysis** Brauns

- (32) 33. The apical margin not as in 32.
- (35) 34. The apical margin of the 3rd tergite with four distinct teeth, the external pair removed from the lateral margin of the tergite.
Pseudotetrachrysis Bischoff
- (34) 35. Four teeth on the apical margin and one on each lateral margin of the 3rd tergite.
Pseudohexachrysis Bischoff
- (21) 36. Mouth parts normal. Tribe **Euchrysidini** Buysson
- (38) 37. The discoidal cell of the forewing open, or at least the veins poorly developed.
Chrysidea Bischoff
- (37) 38. The discoidal cell of the forewing closed, the veins well developed.
Chrysis Linnaeus

Genus **Notozus** Forster

Notozus Forster, *Verh. Nat. Ver. Pruss. Rheinl.* x, 331 (1853) (*ex parte*).
Omalus Dahlbom, *Hym. Europ.* II, 26, 38 (1854) (*ex parte*).
Ellanpus Spinola, *Ins. Ligur.* I, 10 (1806).

CHARACTERS. Small to medium-sized insects, the head well developed, the occiput and temples trenchant behind, the latter wide. The mandibles acute at the apex and with two short, blunt, subapical teeth on the inner margin; the mouthparts normal, not elongate. The pronotum transverse, wider behind than in front, the metanotum with a large flat posterior expansion, more or less broadly rounded at the apex. The mesopleura are large and the metapleura well developed, the latter contiguous with the posterior margin of the former. The epinotal teeth are usually small, the metathoracic stigmata situated dorso-laterally. The 3rd tergite is produced apically to form a broad tubercle which is more or less obliquely truncate, the truncate surface may be completely emarginate or feebly so on the inferior margin. The apical margin of this tergite is sinuate or feebly angulate at the sides. The anterior femora are broadly expanded below, the expansion being wider distally; the posterior femora are also expanded but more feebly so. The tarsal claws are armed with one or more teeth. In the forewing the stigma is large, the only closed cells are the medial and submedial, the radial vein is chitinized on its basal half but the rest of the veins are absent or not chitinized. In the hindwing, the subcostal and anal veins are rather feebly present, the rest of the veins absent.

DISTRIBUTION. The species are widely distributed, occurring in all regions except the Australian. Three species occur in the South African subregion.

Key to the species of Notozus

- (2) 1. The vertical surface at the apex of the tubercle on the 3rd tergite completely emarginate. **emarginatus** sp.n.
- (1) 2. Vertical surface present, emarginate or entire.
- (4) 3. The 2nd and 3rd tergites with a median carina. **crassus** sp.n.
- (3) 4. Tergites not carinate or only very feebly so on the apical half of the 3rd. **subtilis** sp.n.

***Notozus emarginatus* sp.n. (Fig. 3).**

♀♀ 6.0 mm. long. General colour rather dark metallic green, becoming purplish on the anterior margin of the mesonotum, the face paler with coppery reflexions, the lateral and apical margins of the 2nd and 3rd tergites much lighter to ochreous, sternites black at the sides, light metallic yellowish green medially. Femora and tibiae and the 1st joint of the tarsi above light metallic green, the rest of the tarsi dark reddish brown. Mandibles metallic green at the base, black apically, the clypeus

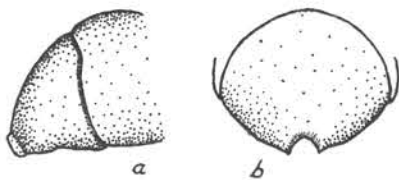


Fig. 3. *Notozus emarginatus* ♀, 3rd tergite, $\times 12$; a, lateral view; b, dorsal view.

with a narrow black apical margin. Scapes and the 1st joint of the flagellum bronze green, the rest of the antennae black. Wings fusco-hyaline, a little clearer near the base than apically. Pubescence dirty white, short and rather sparse on the legs, the apical margin of the 3rd tergite and the basal declivity of the 1st, absent elsewhere.

Clypeus finely and sparsely punctate, the median area feebly convex, its apical margin nearly straight. Facial cavity fairly shallow, triangular, with the apex above, with a few oblique striae on the basal half, smooth above; facial fovea feeble. The sides of the face below very finely reticulate-punctate; above, and the vertex in front of the posterior ocelli, coarsely and rather shallowly reticulate-punctate, the punctures usually punctulate and becoming smaller towards the top of the head. The head behind the posterior ocelli rather sparsely punctate, the punctures much smaller than those in front. Occiput and temples trenchant, the latter somewhat produced, behind. Pro- and mesonota rather sparsely punctate, the punctures about one-third as wide as the anterior ocellus and a little closer on the pronotum than on the mesonotum, becoming much closer to reticulate-punctate on the sides of the former. Pronotal furrow absent, the lateral excavations small and irregular. Scutellum with a smooth anterior median area, elsewhere coarsely and closely punctate, the punctures nearly as wide as the anterior ocellus medially but becoming smaller and closer laterally. Metanotum coarsely reticulate-punctate, the punctures as wide as the anterior ocellus; with a large, flat posterior expansion broadly rounded apically and very coarsely reticulate-punctate. Propleura and mesosternum very finely and closely punctate, mesopleura produced into a rounded tooth below, fairly coarsely punctate, the interspaces above wide and punctulate below, the punctures becoming closer to reticulate-punctate near the ventral margin; the episterna very shallowly coriaceous. Metasternum rugose, metapleura fairly large, similar in puncturation to the mesopleura, with the posterior margins of which they are contiguous. The epinotal teeth contiguous with the posterior margin of the metapleura except for a short distance apically.

Tergites finely and closely punctate except for a transverse area on the apical half of the second, where the punctures are sparser and a little coarser, and the apical margin itself, which is smooth. The punctures on

the 3rd tergite about the size of the largest on the 2nd but denser. A narrow apical margin on the 3rd hyaline except in the middle, where it is very strongly and deeply emarginate, the surface of the tergite being slightly produced near this emargination to form a short broad tubercle. The apical margin of the tergite feebly sinuate laterally. The 3rd tergite with a feeble subapical transverse depression.

The distance between the antennal sockets a little greater than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum one-fifth longer than the 1st, two-fifths longer than the 3rd and nearly twice as long as wide. Cheeks very short. The shortest distance across the face nearly twice the distance between the top of the facial cavity and the base of the clypeus. Eyes feebly divergent above and feebly sinuate on their inner margins. Pronotum four times wider behind than long in the middle, the sides divergent behind and strongly sinuate. Sides of the median area of the mesonotum feebly divergent behind. The anterior femora with a strong triangular expansion behind.

LOCALITY. Widenham, Natal, December 1914.

Described from two specimens. Type in Durban Museum.

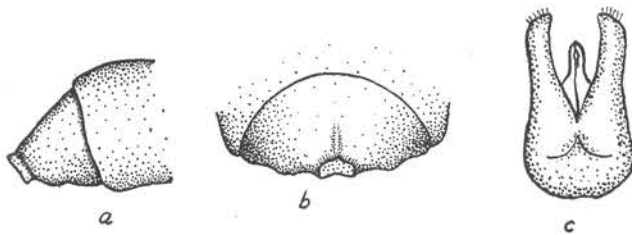


Fig. 4. *Notozus crassus* ♂. a, lateral view of 3rd tergite, $\times 12$; b, dorsal view, $\times 12$; c, genitalia, $\times 35$.

Notozus crassus sp.n. (Fig. 4).

♂ 6.5 mm. long. General colour dark or very dark metallic purple with reddish and greenish reflexions, becoming lighter on the face to metallic green, blue-green on the clypeus, lighter also on the anterior lateral regions of the pronotum, the mesopleura and the anterior lateral regions of the 1st tergite. Sternites metallic purplish green. The truncate surface of the tubercle on the 3rd tergite black. Femora and tibiae purple or purplish with green reflexions. Tarsi dark brown, the 1st joint feebly metallic on the upper surface. Mandibles brown in the middle, black elsewhere, the extreme base purplish green. Scapes and the 1st joint of the flagellum metallic purple or purplish with green reflexions, the rest of the antennae black. Tegulae dark shining brown. Wings fusco-hyaline, much clearer in the medial and submedial cells than elsewhere. Pubescence white, short and very sparse.

Clypeus finely, rather sparsely and irregularly punctate, very feebly convex in the middle, the apical margin nearly straight. The facial cavity wide, short and very shallow, smooth, the facial fovea absent. The sides of the face and the rest of the head in front of the posterior ocelli rather shallowly reticulate- or subreticulate-punctate, the punctures largest

near the top of the face where they are about one-third as wide as the anterior ocellus, becoming smaller and often punctulate above and sometimes smaller below. Behind the posterior ocelli the punctures are smaller and a little sparser. Temples and occiput trenchant behind. Dorsum of the thorax rather closely punctate, the punctures irregular in size and distribution, the largest on the metanotum which is reticulate-punctate, the largest punctures as wide as the anterior ocellus. The punctures considerably smaller and sparser than this elsewhere, the interspaces wider on the scutellum than elsewhere. The punctures becoming a little smaller and closer on the sides of the pro- and mesonota than in the middle. Pronotal furrow absent, the lateral excavations shallow. Metanotum with a large expansion behind, nearly flat above and broadly rounded apically. Propleura very finely and shallowly punctate, mesopleura similar in puncturation to the pronotum, mesosternum and episterna finely and fairly closely punctate, metasternum irregularly rugulose, metapleura similar in puncturation to the mesopleura and contiguous with them, epinotal teeth fairly large, coarsely reticulate-punctate above, acute at the apex, smooth below.

Tergites rather coarsely punctate, much more so than in *subtilis*, the punctures about one-fourth as wide as the anterior ocellus, separated by spaces up to five or six times their diameter on the 1st and on the disk of the 2nd tergites, the interspaces smaller than this elsewhere and much smaller on the 3rd where the puncturation is reticulate or subreticulate. The punctures considerably smaller near the apical margin of the 2nd and to a lesser extent, the 1st, than elsewhere. The basal declivity of the 1st with a shallow median depression. The surface of the 3rd tergite produced in the middle of the apical margin to form a broad tubercle which is obliquely truncate, the inferior margin of the truncate surface angularly and widely excised, the dorsal surface of the tergite with a median longitudinal carina ending at the upper margin of the tubercle. The 2nd tergite with a feeble median longitudinal carina, the lateral margin of the 3rd tergite with a feeble obtuse angle half-way between the median tubercle and the basal margin.

The distance between the antennal sockets equal to twice the width of the 1st joint of the flagellum, the 2nd joint of the flagellum two-thirds longer than the 1st and about half as long again as the 3rd. Cheeks one-third as long as the 1st joint of the flagellum. Eyes feebly divergent above. The shortest distance across the face nearly twice as great as the distance between the top of the facial cavity and the base of the clypeus. Pronotum nearly three times wider behind than long in the middle, the sides feebly sinuate and feebly divergent behind. Sides of the median area of the mesonotum very feebly divergent behind. The anterior femora expanded below, but not as strongly as in *emarginatus*.

LOCALITY. Montagu, Cape Province, October 1924.

Described from two specimens. Type in British Museum.

***Notozus subtilis* sp.n. (Fig. 5).**

♀ 7.0 mm. long. General colour metallic bottle green, the abdomen a little lighter than the thorax, the extreme apical margin of the 3rd tergite ochreous, the truncate surface of the median tubercle black. Mandibles

brown in the middle, black elsewhere, feebly metallic at the extreme base. Scapes metallic green, the rest of the antennae black. Femora and tibiae metallic green, the extreme apex of the latter and the tarsi ochreous. Wings hyaline. Pubescence dirty white, short and sparse.

Clypeus finely, irregularly and fairly sparsely punctate, the median area very feebly convex, its apical margin nearly straight. The facial cavity somewhat triangular in shape, very shallow and with a

short median longitudinal groove above, very finely coriaceous, becoming closely, shallowly and rather finely punctate on the sides of the face, the punctures becoming larger above as far as the anterior ocellus. Behind the anterior ocellus the punctures are smaller and sparser, with fairly wide, smooth areas near the posterior ocelli. The occiput and temples trenchant and the latter somewhat expanded behind. Pronotum rather shallowly and fairly closely punctate, the punctures on the rest of the dorsum of the thorax generally increasing in size, depth and density towards the metanotum, which is reticulate-punctate and where the punctures are as wide as the anterior ocellus. On the median area of the mesonotum the punctures are indistinct and small in front, becoming more distinct and larger behind up to the size of those on the metanotum. On the pronotum the punctures are deeper and denser laterally than on the disk, while near the anterior margin they are much smaller and relatively deeper. Pronotal furrow absent, the lateral excavations fairly deep. Metanotum with a large expansion behind, the latter very coarsely reticulate-punctate above and very broadly rounded at the apex. Mesopleura coarsely reticulate-punctate, mesosternum finely coriaceous laterally, shallowly and fairly closely punctate medially, episterna and metasternum coriaceous, metapleura and epinotal teeth reticulate-punctate above, smooth below, the former contiguous with the mesopleura, the latter long and acute at the apex, their anterior margins contiguous distally with the metapleura.

Tergites very finely and fairly closely punctate, the punctures about one-seventh as wide as the anterior ocellus, becoming considerably larger and open behind but remaining shallow towards the apical margin of the 3rd tergite; the surface of the 3rd tergite in the middle near the apical margin produced to form a broad tubercle which is rather obliquely truncate, the inferior margin of the truncate surface widely and angularly excised, the apical margin of the tergite on each side of the tubercle testaceous and feebly bisinuate. The basal declivity of the 1st tergite oblique and very shallowly depressed in the middle.

The antennal sockets separated by a distance a little greater than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum two-fifths longer than the 1st, the 1st and 3rd joints subequal. Cheeks very short. The shortest distance across the face nearly twice the distance from the top of the facial cavity to the base of the clypeus. The inner margins of the eyes nearly parallel, very feebly sinuate. Pronotum twice as wide behind as long in the middle. Sides of the median area of the

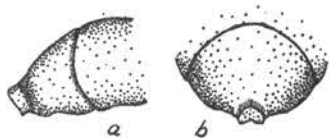


Fig. 5. *Notozus subtilis* ♀, × 12.
a, lateral view of 3rd tergite;
b, dorsal view.

mesonotum parallel but indistinct. The anterior femora expanded below near the base, not so strongly as in *emarginatus*.

LOCALITY. 90 miles west of Bulawayo, Southern Rhodesia.

Described from one specimen. Type in National Museum, Southern Rhodesia.

Genus *Philoctetes* Abeille

Abeille, *Ann. Soc. Ent. Lyon*, xxvi, 26 (1879).

CHARACTERS. Small insects, the head as wide as the pronotum, the occiput and temples trenchant behind, the latter not as wide as in *Notozus*. The mouthparts normal, the mandibles acute at the apex, with two short, obtuse, subapical teeth on the inner margin.

The pronotum transverse, strongly arched, fairly short, its posterior margin concave, the sides sinuate. The anterior margin of the scutellum more or less strongly sinuate, the metanotum usually gibbous, never very strongly produced behind as in *Notozus*. The mesopleura large, contiguous or nearly so in front with the pronotum; the metapleura well developed and contiguous with the mesopleura. The metathoracic stigmata situated dorso-laterally. The abdomen somewhat compressed laterally, the 3rd tergite with a broad hyaline apical margin which is entire or more or less strongly emarginate in the middle, the 2nd tergite with a narrower hyaline apical margin. In the males the posterior femora are expanded rather more than in the females. The tarsal claws are armed with one or more teeth, in the South African species there is never more than one. In the forewings, the medial and submedial cells are present, the radial vein is chitinized on its basal half, the rest of the veins are absent or not chitinized, the pterostigma is small. In the hind wings only vestiges of the subcostal and anal veins are present.

DISTRIBUTION. This genus is represented in the Mediterranean region, South America, Japan and South Africa. Three species occur in the South African subregion.

Key to the species of *Philoctetes*

- (2) 1. Mesonotum distinctly striate transversely. **striatus** sp.n.
- (1) 2. Mesonotum not distinctly striate, nearly smooth or very finely coriaceous.
- (4) 3. Apical margin of the 3rd tergite entire, narrowly rounded in the middle. **caffer** sp.n.
- (3) 4. Apical margin of the 3rd tergite feebly excised in the middle. **coriaceus** Dahlbom

Philoctetes striatus sp.n. (Fig. 6a).

♀♀ 3.5-4.5 mm. long. General colour metallic greenish or bluish purple with plum-red reflexions, the apical margin of the 3rd tergite hyaline or testaceous. Mandibles metallic greenish purple on the basal half, shining brown apically. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic purple, the rest of the antennae black. Femora and tibiae metallic purplish or

greenish, the tarsi brown to greyish brown. Wings hyaline, tegulae metallic purple. Pubescence as in *coriaceus*.

Clypeus very finely and fairly sparsely punctate, the median area convex transversely, its apical margin convex. The facial cavity rather shallow and transversely striate, the striae more distinct than in *coriaceus*. The sculpture of the rest of the head similar to that in *coriaceus* except that the transverse groove on the occiput is absent and the striation behind the posterior ocelli and on the temples is more distinct. Pro- and mesonota transversely striate, the striae becoming curved anteriorly at the sides, the pronotum also rather shallowly punctate, the punctures larger, closer and punctulate near the anterior margin, smaller and sparser behind. Scutellum and metanotum similar to those in *coriaceus* except that the former is distinctly longitudinally striate. The rest of the thorax similar to that in *coriaceus* except that the mesopleura are distinctly striate obliquely.

Tergites similarly punctate to those in *coriaceus*, the apical margin of the 3rd wide and very deeply emarginate in the middle, the shoulders of the emargination rounded.

The distance between the antennal sockets a little less than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum a little longer than the 3rd and about three-fourths as long as the 1st. The shortest distance across the face one-fifth to one-quarter greater than the distance between the top of the facial cavity and the base of the clypeus. Cheeks fairly long, a little longer than the 1st joint of the flagellum. Eyes divergent above and to a lesser extent below. Pronotum three times wider behind than long in the middle, the sides feebly sinuate. Sides of the median area of the mesonotum very feebly divergent behind. The anterior margin of the scutellum more or less strongly excised twice near the middle.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from 9 ♀♀. Type in coll. R. H. R. Stevenson.

Philoctetes caffer sp.n. (Fig. 6b).

♀ 4.5 mm. long. General colour metallic black, the apical margin of the 3rd tergite testaceous; tarsi and the apex of the tibiae dark ferruginous, the last joint of the tarsi darker than the rest. Mandibles and antennae black. Wings hyaline in the basal half, fusco-hyaline apically. Tegulae iridescent blackish brown.

Clypeus closely and very finely punctate in the middle, nearly smooth laterally, the median area convex transversely, feebly longitudinally carinate in the middle, its apical margin nearly straight. The puncturation of the face and head similar to that in *coriaceus*. The mesonotum and the posterior half more or less of the pronotum nearly smooth, the former microscopically reticulate, the latter very sparsely and finely

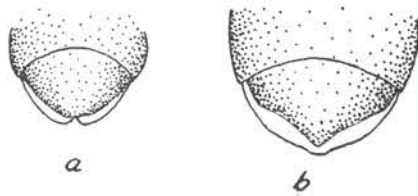


Fig. 6. a, *Philoctetes striatus* ♀, 3rd tergite; b, *P. caffer* ♀, 3rd tergite. × 17.

punctate; the rest of the pronotum and the mesonotum near its lateral margins, reticulate-punctate, the largest punctures, which occur on the sides of the pronotum, nearly half as wide as the anterior ocellus. A median area on the scutellum nearly smooth, the rest of the latter and the metanotum reticulate-punctate, the puncture punctulates, the largest, which are on the metanotum, about three-quarters as wide as the anterior ocellus, smaller than this on the scutellum. Propleura very sparsely and finely punctate, mesopleura ruguloso-punctate, the punctures feebly punctulate and the rugulae, nearly vertical above, becoming strongly curved backwards below. Mesosternum closely and finely punctate, episternum longitudinally striate. Metapleura, contiguous in front with the mesopleura, very coarsely and shallowly pitted, the spaces between the pits irregularly rugulose. Metasternum nearly smooth, rugulose laterally, epinotal teeth absent.

Tergites sparsely and very finely punctate, the punctures closer on the 3rd than on the 2nd, and on the 2nd than on the 1st, the interspaces smooth. The apical margin of the 3rd tergite entire, rounded at the apex but considerably more narrowly so than in *coriaceus* or *striatus*.

The distance between the antennal sockets equal to three-fifths of the length of the 1st joint of the flagellum, the 2nd joint of the flagellum about four-fifths as long as the 1st and one-quarter longer than the 3rd. Cheeks as long as the 1st joint of the flagellum. Eyes divergent above and, to a lesser extent, below. The shortest distance across the face one-seventh greater than the distance between the top of the facial cavity and the base of the clypeus. Pronotum about three and a half times wider behind than long in the middle and a little wider behind than in front, the sides rather feebly sinuate. Metanotum gibbous.

LOCALITY. Mount Selinda, Southern Rhodesia.

Described from one female. Type in coll. R. H. R. Stevenson.

Philoctetes coriaceus (Fig. 7).

Dahlbom, *Oefv. Vet.-Akad. Förh.* p. 105, no. 1 (1850).

♂♂ 3.5-3.7 mm. long. General colour metallic blackish purple with plum-red reflexions, the apical margin of the 3rd tergite hyaline. Mandibles black at the base, ferruginous on the apical two-thirds. Scapes, and to a lesser extent the upper surface of the 1st two joints of the flagellum, iridescent black, the rest of the antennae flat black. Femora and tibiae iridescent purplish black or very dark brown, except the tibiae apically and sometimes at the base, which together with the tarsi are ochreous or dark ochreous, the last joint of the tarsi darker than the rest. Wings hyaline, more or less lightly infumed near the apex. Tegulae iridescent purplish black or dark brown. Pubescence dirty white, short and sparse on the clypeus, legs and 3rd tergite, denser and longer on the sternites, absent elsewhere.

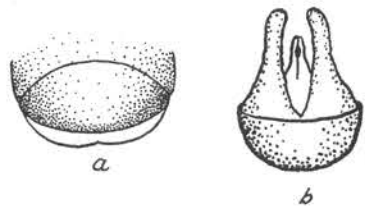


Fig. 7. *Philoctetes coriaceus* ♂. a, 3rd tergite, $\times 17$; b, genitalia, $\times 60$.

Clypeus very finely and fairly closely punctate, the median area convex transversely, its apical margin convex. The facial cavity rather shallow, transversely striate, more distinctly so in the middle than laterally, sometimes nearly smooth. The rest of the head shallowly and closely punctate, the punctures largest immediately above the facial cavity, where they are about one-third as wide as the anterior ocellus, becoming smaller and sparser behind. The occiput more or less distinctly, rather irregularly, transversely striate, the striae becoming more distinct on the temples. A more or less distinct transverse groove immediately behind the posterior ocelli, feebly angulate in the middle. The occiput and temples strongly trenchant behind. Pronotum nearly smooth or sparsely and very finely punctate, an apical transverse band, narrow in the middle and becoming wider laterally, closely, shallowly and fairly coarsely punctate, the punctures punctulate. Mesonotum and a larger or smaller apical area in the middle of the scutellum nearly smooth, the mesonotum often shallowly punctate near the lateral margins. The rest of the scutellum and the metanotum rather shallowly reticulate- or subreticulate-punctate, the largest punctures on the metanotum nearly as wide as the anterior ocellus, the punctures smaller than this on the scutellum. The metanotum gibbous. Mesopleura shallowly and fairly closely punctate, the punctures as wide as the largest on the pronotum, propleura and mesosternum closely punctulate, episterna shallowly and irregularly rugulose. Mesopleura contiguous in front with the pronotum and behind with the metapleura, the latter similar in puncturation to the mesopleura. Epinotal teeth absent.

Tergites finely and sparsely punctulate, the punctures becoming a little closer from the 1st to the 3rd, the interspaces smooth; the hyaline apical margin of the 3rd nearly smooth, fairly wide, and widely, feebly, angularly emarginate in the middle.

The distance between the antennal sockets a little less than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum as long as the 1st and half as long again as the 3rd. The shortest distance across the face about one-quarter greater than the distance between the top of the facial cavity and the base of the clypeus. Cheeks fairly long, equal to the 2nd joint of the flagellum. Eyes feebly divergent above and below. Pronotum about three times wider behind than long in the middle, the sides feebly sinuate. Sides of the median area of the mesonotum indistinct, feebly divergent in front and behind. The anterior margin of the scutellum more or less strongly excised twice near the middle.

♀♀ Like the ♂♂ except that the 3rd tergite is a little more narrowly rounded apically.

LOCALITY. Southern Rhodesia, Cape Province.

Genus *Holopyga* Dahlbom, Mocsary

Holopyga, Dahlbom, *Hym. Europ.* II, 47 (1854) (*ex parte*).

Hedychrum, Latreille, *Hist. Nat. Ins.* III, 317 (1802) (*ex parte*).

CHARACTERS. Medium-sized insects. The head a little narrower than the pronotum. The mouthparts normal, the mandibles acute at the apex with two strong blunt teeth near the apex on the inner margin.

The head with a short transverse groove immediately behind the posterior ocelli, the temples trenchant behind and somewhat produced into a very obtuse angle, the occiput subtrenchant behind. The thorax strong, the pronotum transverse and wider behind than in front, the sides strongly sinuate; the mesopleura large, the metapleura small and becoming more like metapleural teeth, episterna large and strongly marginate. The metathoracic stigmata are situated dorso-laterally. The 3rd tergite usually with a very narrow hyaline or testaceous border, entire or feebly sinuate at the sides, never emarginate in the middle. The anterior femora strongly expanded below at the base, the lower margin strongly carinate. In the forewings the medial and 1st and 2nd sub-medial cells are distinct, the radial and discoidal cells are open, the veins bounding the latter more or less feebly chitinized; in the hindwings only the subcostal and the base of the anal veins are present.

DISTRIBUTION. The genus is distributed throughout the world, only one, however, being known from Australia. Three species occur in the South African subregion, one of which, *janthina* Dahl., occurs in five varieties.

Key to the species of Holopyga

- (2) 1. Very dark blue or violet, the tergites black on the disk, paler at the sides. **capensis** sp.n.
- (1) 2. Tergites not as in 1.
- (8) 3. The punctures on the pronotum more or less homogeneous in size, distinct and separated by smooth or sparsely punctulate spaces.
- (5) 4. Very broad, the 2nd and 3rd tergites very sparsely punctate. **lata** sp.n.
- (4) 5. Not so broad, the 2nd and 3rd tergites more closely punctate.
- (7) 6. Larger, more than 6.0 mm. long, the sternites black. **janthina** var. **dispersepunctata** var.n.
- (6) 7. Smaller, less than 5.0 mm. long, the 2nd sternite with a metallic green area in the middle. **janthina** var. **minor** var.n.
- (3) 8. The punctures on the pronotum less distinct, denser, varying considerably in size and depth.
- (10) 9. The shortest distance across the face nearly half as great again as the distance from the top of the facial cavity to the base of the clypeus. **janthina** var. **latifrons** var.n.
- (9) 10. The face narrower relative to its length.
- (12) 11. The shortest distance across the face nearly one-third greater than the distance from the top of the facial cavity to the base of the clypeus, the tergites more densely punctate. **janthina** var. **densepunctata** var.n.
- (11) 12. The face narrower relative to its length, the tergites more sparsely punctate. **janthina** Dahlbom

Holopyga capensis sp.n. (Fig. 8).

♂♂ 7.0-8.0 mm. long. Head and thorax, femora and tibiae dark metallic green to dark purplish indigo and violet, the median area of the mesonotum darker, sometimes nearly black. Tergites black on the disk with purplish red reflexions, becoming lighter laterally to metallic indigo or green, sternites black with purplish or greenish reflexions. Tarsi and the apices of the tibiae dark ferruginous. Mandibles metallic purple or

green at the base, ochreous in the middle and dark ferruginous apically. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic purplish or greenish, the rest of the antennae black. Wings fusco-hyaline, tegulae dark iridescent brown. Pubescence rather dark, short and sparse.

Clypeus finely and very sparsely punctate, more densely so near the apical margin, the

median area convex transversely, its apical margin feebly concave. The facial cavity broad and rather shallow, strongly rugulose transversely, the rugulae becoming somewhat oblique above; a narrow median longitudinal groove expanding above into a broad more or less triangular area, smooth. The rest of the head more or less closely punctate, the punctures punctulate. In some specimens the puncturation in front of the posterior ocelli is reticulate, in all, the punctures are a little sparser behind the posterior ocelli. The punctures largest on the sides of and immediately above the face, where they are about one-third as wide as the anterior ocellus. The head with a well-defined sinuate groove immediately behind the posterior ocelli. The temples somewhat expanded and subtrenchant behind. Pronotum rather shallowly punctate, the punctures varying considerably in size and varying somewhat in density among different individuals, the punctures much smaller near the middle of the apical margin and on the basal margin. The rest of the dorsum of the thorax rather coarsely reticulate-punctate, the smallest punctures are on the lateral areas of the mesonotum and the largest on the metanotum where they are nearly as wide as the anterior ocellus. Propleura sparsely and shallowly punctate, prosternum smooth, mesopleura similar in puncturation to the mesonotum, mesosternum smooth laterally, becoming closely and finely punctate medially. Episterna closely, shallowly and rather finely punctate. Metapleura and the base of the epinotal teeth above coarsely reticulate-punctate, the latter finely so apically, smooth below. The epinotal teeth strong, rather short and subacute.

Tergites rather finely punctate, sparser on the disks than at the sides, the punctures approximately one-quarter as wide as the anterior ocellus, but varying slightly in size and becoming a little larger on the sides of the 1st and 2nd. The basal declivity of the 1st with a wide, shallow, V-shaped depression, the apical margin of the 3rd entire.

The distance between the antennal sockets a little greater than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum a little less than twice as long as the 1st, the 1st and 3rd joints subequal in length. Cheeks very short. Eyes divergent above and to a lesser extent below. The shortest distance across the face a little more than one-quarter greater than the distance between the top of the facial cavity and the base of the clypeus. Pronotum two and a third times wider behind than long in the middle, the sides strongly divergent behind and

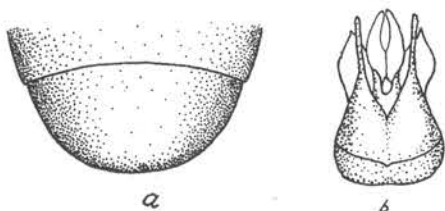


Fig. 8. *Holopyga capensis*. a, 3rd tergite of ♀, $\times 12$; b, male genitalia, $\times 23$.

sinuate. Sides of the median area of the mesonotum parallel. The anterior femora expanded and strongly carinate below, especially near the base.

♀♀ Like the ♂♂ except that the 3rd tergite is more narrowly rounded apically.

LOCALITY. Cape Province.

Described from three ♂♂ and three ♀♀. Types in the British Museum.

Holopyga lata sp.n. (Fig. 9).

♂ 8.0 mm. long. Light metallic green with coppery reflexions on the smooth areas, especially on the pronotum; the apical margins of the 2nd and 3rd tergites a little darker to metallic bluish green. Sternites brownish black with a narrow transverse area in each lateral half of the 1st and a large central area on the 2nd metallic green. Femora and tibiae metallic green, the apices of the latter and the tarsi dark ferruginous. Mandibles green at the base, dark brown apically. Scapes, and to a much lesser extent the 1st joint of the flagellum, metallic green, the rest of the antennae and a narrow apical margin on the clypeus very dark brown. Wings fusco-hyaline, tegulae dark iridescent brown. Pubescence very pale brown to whitish, short and sparse.

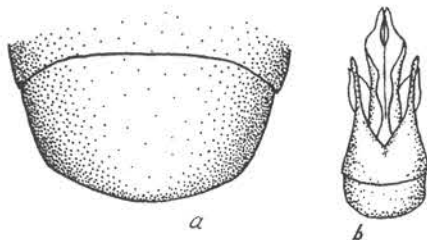


Fig. 9. *Holopyga lata* ♂. a, 3rd tergite, $\times 12$; b, genitalia, $\times 23$.

Clypeus very finely and sparsely punctate, the median area convex transversely, its apical margin rather shallowly concave. The facial cavity broad and rather shallow, strongly transversely rugulose, a very narrow median groove, widening to a small triangular area above, smooth. The sides of the face and the head in front of the posterior ocelli reticulate-punctate, the punctures more or less distinctly punctulate, largest and shallowest on the sides of the face where they are up to two-thirds as wide as the anterior ocellus, becoming smaller and deeper above and behind. Behind the posterior ocelli the punctures are a little smaller and, except on the back of the head, sparser. A strong transverse groove immediately behind the posterior ocelli and a small smooth area at each end. Temples trenchant and fairly strongly expanded behind. Pronotum rather shallowly punctate, the punctures frequently open behind, more or less distinctly punctulate and varying considerably in size. Pronotal furrow extremely feeble, the lateral excavations broad and shallow. The rest of the dorsum of the thorax coarsely reticulate punctate, the punctures feebly punctulate and increasing slightly in size from the meso- to the metanotum, the largest about as wide as the anterior ocellus. Mesopleura similar in puncturation to the mesonotum. Propleura closely and finely punctate, the punctures elongate, mesosternum smooth laterally, becoming finely and fairly closely punctate towards the middle. Episterna finely, closely and rather shallowly punctate. Metasternum rather coarsely rugose with a smooth area

towards the middle. Metapleura and the epinotal teeth above coarsely reticulate-punctate, smooth below, the latter strong, acute at the apex and somewhat uncinat.

Tergites very finely and sparsely punctate, the interspaces smooth, the punctures a little denser on the disk of the 1st than elsewhere, but a little coarser and sparser towards the sides, a narrow apical margin smooth. The apical margin of the 3rd tergite feebly sinuate at the sides.

The distance between the antennal sockets one-third greater than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum two-thirds longer than the 1st, the 3rd a little longer than the 1st. Cheeks very short, eyes divergent above and to a lesser extent below, the shortest distance across the face nearly one-third greater than the distance between the top of the facial cavity and the base of the clypeus. Pronotum rather more than two and a half times wider behind than long in the middle, the sides trenchant, divergent behind the feebly sinuate. The sides of the median area of the mesonotum parallel. The anterior femora expanded and strongly carinate below, particularly near the base.

LOCALITY. Omaruru, South-West Africa.

Described from one ♂. Type in British Museum.

Holopyga janthina (Fig. 10).

Dahlbom, *Hym. Europ.* 11, 50, n. 26 (1854).

♂♂ 5.5–6.5 mm. long. Metallic bluish green to dark blue, the anterior margin of the pronotum, the median area of the mesonotum, the scutellum and metanotum usually darker than elsewhere. Sternites black with a large metallic blue or green area on the middle of the 2nd. Femora and tibiae metallic green or greenish blue, the apices of the latter and the tarsi dark ferruginous. Mandibles metallic green or blue at the base, ochreous in the middle and dark brown apically. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic green or bluish green, the rest of the antennae dark brown or black. Wings fusco-hyaline, tegulae dark iridescent brown. Pubescence light, short and very sparse.

Clypeus finely and rather sparsely punctate, the median area feebly convex transversely, its apical margin feebly concave. The facial cavity broad and fairly deep, transversely rugulose, the rugulae curved downwards at the sides, with a very narrow median groove, a little wider above than below, smooth. The rest of the head in front of the posterior ocelli reticulate-punctate, the punctures punctulate and largest on the sides of, and immediately above, the face, where they are up to three-quarters as wide as the anterior ocellus, behind the posterior ocelli the punctures are a little sparser, except on the back of the head where they are smaller and very dense. The head with a distinct sinuate groove immediately behind the posterior ocelli. Occiput and temples trenchant, the latter somewhat produced, behind. Pronotum fairly densely punctate, the punctures usually punctulate, their size and the width of the



Fig. 10. *Holopyga janthina*, male genitalia, $\times 16$.

interspaces very irregular. Pronotal furrow absent. The rest of the dorsum of the thorax coarsely reticulate-punctate, the punctures punctulate, largest on the metanotum where they are often as wide as the anterior ocellus, smallest on the anterior half of the median area of the mesonotum. Propleura finely, shallowly and closely punctulate, meso- and metapleura similar in puncturation to the lateral areas of the mesonotum, the former strongly carinate on the anterior margins. Mesosternum closely and finely punctate, with a smooth area near each lateral margin, episterna very shallowly and finely reticulate-punctate, the margins strongly carinate, metasternum rather coarsely and irregularly rugulose, becoming smooth laterally. Epinotal teeth large, acute at the apex, reticulate-punctate above, coarsely so at the base and very finely apically, smooth below.

Tergites rather finely and fairly closely punctate, the punctures about one-eighth as wide as the anterior ocellus, becoming a little wider laterally, the punctures a little sparser on the 2nd and towards the apical margin of the 3rd, the latter entire.

The antennal sockets separated by a distance a little greater than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum two-fifths longer than the 1st and nearly three times longer than wide; the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above. The shortest distance across the face about one-tenth greater than the distance between the top of the facial cavity and the base of the clypeus. Pronotum slightly less than two and a half times wider behind than long in the middle, the sides divergent behind and sinuate in the middle. The sides of the median area of the mesonotum nearly parallel. The anterior femora strongly expanded and carinate below, especially near the base.

♀♀ like the ♂♂ except that the 3rd tergite is a little more narrowly rounded apically.

LOCALITY. Cape Province, Natal, South-West Africa, Orange Free State.

Holopyga janthina var. *minor* var.n. (Fig. 11).

♀ 4.6 mm. long. Differs from the type of the species in the following characters: Smaller size, the wings a little paler, more ochreous on the mandibles. The groove behind the posterior ocelli nearly straight. The punctures on the pronotum more distinct, sparser and more nearly homogeneous in size, those on the metanotum and scutellum much larger relative to the size of the insect, those on the tergites a little sparser. The shortest distance across the face one-sixth greater than the distance from the top of the facial cavity to the base of the clypeus.

LOCALITY. Tiger Kloof, Southern Rhodesia.

Described from one specimen. Type in National Museum, Southern Rhodesia.

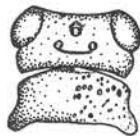


Fig. 11. *Holopyga janthina minor*, head and pronotum from above, right half of pronotum to show puncturation, $\times 12$.

Holopyga janthina var. **dispersepunctata** var.n. (Fig. 12).

7.0–8.0 mm. long. Differs from the type of the species in the following characters: Sternites black without the transverse metallic green area on the middle of the 2nd, the groove behind the posterior ocelli is nearly straight. The pronotum is more sparsely and distinctly punctate, the punctures are distinctly punctulate and the interspaces are often wide and sparsely punctulate. The tergites are a little more coarsely and closely punctate, the apical margin of the 3rd is very feebly sinuate at the sides. The

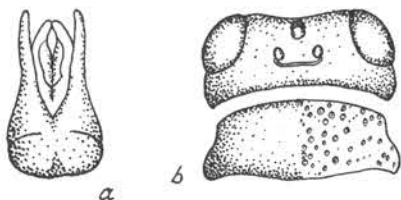


Fig. 12. *Holopyga janthina dispersepunctata*. a, male genitalia, $\times 23$; b, head and pronotum, $\times 12$, right half of pronotum to show puncturation.

pronotum is a little shorter relative to its width behind, about two and two-thirds times wider behind than long in the middle.

LOCALITY. Okahandya, South-West Africa, Aliwal North, Cape Province.

Described from four $\delta\delta$ and five ♀♀ . Types in British Museum.

Holopyga janthina var. **latifrons** var.n. (Fig. 13).

δ 7.0 mm. long. Differs from the type of the species in the following characters: Mandibles dark brown on the apical two-thirds without the middle ochreous region. Pubescence a little longer and denser. The transverse regulae on the face a little finer, and the punctures at the sides and above finer. The puncturation on the dorsum of the thorax finer, especially on the pronotum where the punctures are closer, the puncturation for the most part being reticulate. The tergites more densely punctate, the apical margin of the 3rd, very feebly sinuate laterally, the face considerably wider, the shortest distance across nearly half as great again as the distance from the top of the facial cavity to the base of the clypeus. The pronotum two and a quarter times wider behind than long in the middle.



Fig. 13. *Holopyga janthina latifrons*, δ , genitalia, $\times 23$.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from one δ . Type in National Museum, Southern Rhodesia.

Holopyga janthina var. **densepunctata** var.n. (Fig. 14).

7.5–8.0 mm. long. Differs from the type of the species in the following characters: The average length is greater, the face is relatively wider, the shortest distance across being nearly one-third greater than the distance from the top of the facial cavity to the base of the clypeus. The pronotum is a little longer relative to its width behind. The punctures on the tergites are denser.

LOCALITY. Bulawayo, Southern Rhodesia; Okahandya, South-West Africa.

Described from seven ♂♂ and five ♀♀. Types in National Museum, Southern Rhodesia.

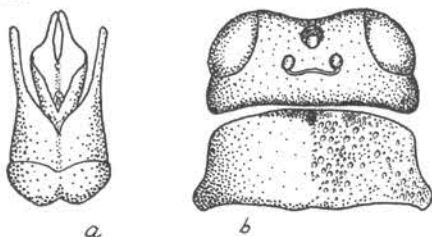


Fig. 14. *Holopyga janthina densepunctata* ♂. a, genitalia, $\times 23$; b, head and pronotum, $\times 12$, right half of pronotum to show puncturation.

Genus *Acrotoma* Mocsary

Mocsary, *Term. Fuzet.* xxv, 537 (1902).

Small to medium-sized insects, the head strong, often wider than the pronotum in front, the mouthparts more or less elongate, the mandibles strong, acute at the apex with two more or less acute, subapical teeth on the inner margin. The thorax transverse, the sides strongly divergent behind. The metathoracic stigmata are situated below the metapleural teeth. The tarsal claws are armed with a single median tooth, often rather indistinct. The apical margin of the 1st tergite usually with a narrow translucent border, always emarginate in the middle, the emargination bounded by two teeth which may be fairly long and acute, as in *Arnoldi*, or short and obtuse as in *Dybowskyi*, the sides of the apical margin more or less distinctly angulate or sinuate.

The genus *Buyssonina*, erected by Mocsary, *Term. Fuzet.* xxv, 536 (1902), to receive the species *Dybowskyi*, originally included by du Buysson under *Hedychridium*, does not appear to be distinct from *Acrotoma*, and accordingly the species *Dybowskyi* has been included in this genus.

DISTRIBUTION. The genus is restricted to the Ethiopian region; there are five species, four of which occur in the South African subregion.

Key to the species of *Acrotoma*

- (4) 1. 2nd and 3rd tergites with a strong median longitudinal carina.
- (3) 2. Head, thorax and abdomen above metallic green. **Arnoldi** sp.n.
- (2) 3. Head, thorax and abdomen above coppery red. **Braunsi** Mocsary
- (1) 4. 2nd and 3rd tergites acarinate, or only the 2nd very feebly so.
- (6) 5. Puncturation very fine, the punctures on the 3rd tergite one-sixth as wide as the anterior ocellus. **Dybowskyi** Buysson
- (5) 6. Puncturation coarser, the punctures on the 3rd tergite one-third as wide as the anterior ocellus.
- (8) 7. Dorsum of the thorax rather dark coppery red, becoming green or purplish below, sometimes entirely green or greenish blue, the puncturation of the 3rd tergite strong and deep. **discrepans** sp.n.
- (7) 8. More brightly coloured, bright reddish orange, never purplish below, the puncturation of the 3rd tergite less strong and deep, the interspaces often considerably wider. **discrepans** var. **candida** var.n.

Acrotoma Arnoldi sp.n. (Fig. 15).

♂♂ 5.2 mm. long. Bright metallic green, a little lighter to pale yellowish bronze at the top of the face and on the vertex, darker to metallic greenish blue near the apical margin of the 2nd tergite and on the whole of the 3rd. Apical margin of the 3rd with a narrow translucent border. Sternites metallic green or greenish blue, each with a wide black margin. Femora and tibiae metallic green, the apices of the latter and the tarsi ochreous. Mandibles green at the base, the rest dark shining brown with an ochreous area in the middle. Scapes metallic green or greenish copper, the upper surface of the 1st joint of the flagellum feebly metallic, the rest of the antennae very dark greyish brown. Wings hyaline, slightly tinged with fuscous, tegulae slightly darker than the rest of the thorax. Pubescence white, fairly short and sparse except on the face where it is much more dense.

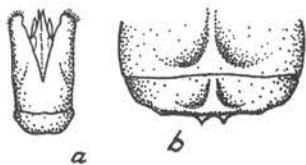


Fig. 15. *Acrotoma Arnoldi* ♂. a, genitalia, $\times 17$; b, 2nd and 3rd tergites, $\times 12$.

Clypeus finely and rather sparsely punctate, the punctures denser laterally, the median area very feebly convex transversely, its apical margin nearly straight. Facial cavity shallow, very closely and finely punctate, with a very fine, shallow, median longitudinal groove, deepening above into an elongate and rather indistinct facial fovea; a short but broad triangular area below the anterior carina and the carina itself much more coarsely and fairly sparsely punctate. The anterior carina strong, nearly reaching the eyes at the sides and rather irregularly bisinuate in the middle. The head above the face reticulate-punctate, the largest punctures between the posterior ocelli and the eyes, where they are about one-third as wide as the anterior ocellus, the punctures punctulate and a little shallower in front of the anterior ocellus than elsewhere. Pronotum and mesonotum reticulate-punctate, the punctures about three-quarters as wide as the anterior ocellus, punctulate, those in the middle of the pronotum deeper than the rest. The punctures on the scutellum are a little larger and the interspaces wider, than on the pronotum; metanotum coarsely and deeply reticulate-punctate, the punctures larger than elsewhere. Pronotal furrow absent, the lateral excavations fairly deep and transversely rugulose. Propleura and prosternum sparsely and finely punctate, mesopleura reticulate-punctate, the punctures large and rather shallow, mesosternum very finely and closely punctate in the middle, becoming smooth laterally, but very closely punctate near the lateral margins, episterna and metasternum finely and irregularly rugulose. Metapleural and epinotal teeth reticulate-punctate above, the latter more finely so apically than basally, both nearly smooth below. Metapleural teeth short, their apices contiguous with the epinotal teeth, the latter rather weak, acute at the apex and uncinat.

Tergites coarsely reticulate-punctate except on the disk of the 1st where the interspaces are a little wider than elsewhere, the punctures punctulate and about as wide as those on the scutellum. The basal declivity of the 1st with a very wide, shallow, V-shaped depression, rather more finely reticulate-punctate than the rest of the tergite, smooth

above. 2nd and 3rd tergites each with a strong median longitudinal carina nearly smooth, and with a strong transverse incassation on the apical margin of the 2nd and subapically on the 3rd. The apical and lateral margins of the 3rd with a narrow translucent border, the apical margin with two rather short subacute teeth in the middle, the emargination between them arcuate, the lateral margins sinuate or very obtusely angulate.

The distance between the antennal sockets equal to one-third of the width of the 1st joint of the flagellum, the 2nd joint of the flagellum one-fifth longer than the 1st, the 1st and 3rd joints equal. Clypeus fairly long, the mouthparts slightly elongate. The shortest distance across the face about one-seventh greater than the distance from the middle of the anterior carina to the base of the clypeus. Cheeks short, half as long as the 1st joint of the flagellum. Pronotum three times wider behind than long in the middle, the sides parallel in front, strongly divergent behind. The anterior femora expanded below at the base, their lower margins strongly carinate.

♀ like the ♂♂ except that the cheeks are a little shorter and the teeth on the apical margin of the 3rd tergite are broadly rounded projections.

LOCALITY. Matabeleland and Okahandya, South-West Africa.

Described from two ♂♂ and one ♀. Types in British Museum.

Acrotoma Braunsi (Fig. 16).

Mocsary, *Term. Fuzet.* xxv, 538, n. 4 (1902).

♂♂ 6.0-6.5 mm. long. Head and thorax, femora and tibiae light metallic yellowish green, becoming darker to red or coppery red on the mesonotum, the scutellum and sometimes the middle of the pronotum. Tarsi ochreous. Tergites coppery red to nearly cerise, always darker on the disk of the 2nd than elsewhere, the 3rd sometimes pale yellowish green. Sternites reddish or yellowish copper in the middle with wide black margins. Mandibles ochreous in the middle, dark shining brown elsewhere with a small metallic green area at the base. Clypeus with a very dark brown apical margin, fairly wide in the middle. Scapes, and to a much lesser extent the upper surface of the 1st joint of the flagellum, metallic yellowish green, the rest of the flagellum very dark greyish brown. Wings hyaline, very faintly tinged with fuscous, tegulae similar in colour to the mesonotum. Pubescence white, fairly long and sparse, much denser on the face.

The sculpture is similar to that in *Arnoldi* but a little coarser, the puncturation of the tergites is not reticulate as in *Arnoldi* although the punctures are very close, and the apical and subapical incassations on the 2nd and 3rd tergites respectively are considerably weaker, the lateral margins of the 3rd tergite are more distinctly angulate than in *Arnoldi*.

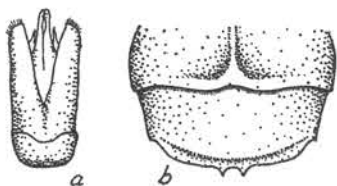


Fig. 16. *Acrotoma Braunsi* ♂. a, genitalia, $\times 17$; b, 2nd and 3rd tergites, $\times 12$.

The distance between the antennal sockets equal to half the width of the 1st joint of the flagellum, the 2nd joint of the flagellum one-fifth longer than the 1st, the 1st and 3rd joints equal in length. The other measurements similar to those in *Arnoldi*.

The ♀♀ like the ♂♂ except that the puncturation of the tergites is sometimes a little closer and coarser, in one specimen the disk of the 2nd tergite is darker than usual, being distinctly purplish. The incrassations on the 2nd and 3rd tergites are a little stronger than in the ♂♂, and the teeth in the middle of the apical margin of the 3rd are shorter and broader.

LOCALITY. Cape Province (Aliwal North, Willowmore) and South-West Africa (Aus).

The variation among the specimens I have studied is considerable, and it may become necessary when further material is obtained to subdivide this species.

Acrotoma Dybowskyi (Fig. 17).

Hedychridium Dybowskyi Buysson, *Ann. Soc. Ent. France*, LXVI, 520 (1897).

Buyssonina Dybowskyi Mocsary, *Term. Fuzet.* xxv, 536 (1902).

♂♂ 3.5-5.3 mm. long. General colour dark metallic green or greenish blue, darker than elsewhere on all or some of the following regions: the ocellar area of the head, the temples, the posterior half of the pronotum, the median area of the mesonotum and the tegulae; the lateral areas of the mesonotum sometimes pale bronze. The 1st tergite a little lighter than the rest, the 2nd sometimes nearly black on the disc. Sternites black with a large green or bronze-green area in the middle of the 1st and 2nd and much more feebly in the 3rd. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae very dark greyish brown. Mandibles green at the base, ferruginous apically, sometimes almost black at the apex. Clypeus with a narrow, very dark brown apical border. Wings hyaline, tinged with fuscous. Pubescence white, short and sparse, denser on the sides of the face.

Clypeus finely and sparsely punctate, the punctures closer laterally, the median area convex transversely, its apical margin very feebly concave. Facial cavity wide and shallow, very finely reticulate-punctate with a narrow ill-defined median area transversely rugulose, becoming nearly smooth above; the facial fovea elongate and indistinct. The rest of the head reticulate-punctate, the punctures feebly punctulate, the largest about one-third as wide as the anterior ocellus, but smaller than this on the ocellar area and the back of the head. The dorsum of the thorax and the mesopleura rather finely reticulate-punctate, the punctures punctulate, largest and deepest on the metanotum where they are up to half as wide as the anterior ocellus, the interspaces usually a little

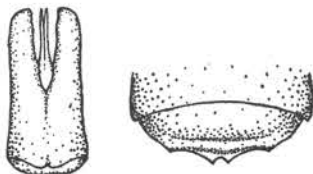


Fig. 17. *Acrotoma Dybowskyi* ♂. a, genitalia, $\times 30$; b, 3rd tergite, $\times 12$.

wider on the scutellum and the median area of the mesonotum than elsewhere. Pronotal furrow absent, the lateral excavations wide and shallow. Propleura and prosternum sparsely and very shallowly punctate. Mesosternum very finely, shallowly and closely punctate, episterna punctato-coriaceous. Metasternum rather irregularly, transversely rugulose. Metapleural and epinotal teeth reticulate-punctate above, smooth below, the latter fairly short, acute at the apex and subuncinate.

Tergites finely reticulate-punctate, the punctures from one-sixth to one-fourth as wide as the anterior ocellus, the 2nd sometimes with a very feeble median longitudinal carina, the 3rd with a fairly strong, transverse, subapical incassation, the apical margin more or less strongly emarginate in the middle, the emargination bordered by two very short, obtuse teeth, the sides more or less strongly angulate.

The antennal sockets separated by a distance nearly as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum about one-quarter longer than the 1st, the 1st and 3rd joints subequal in length. Cheeks short, varying in length from a quarter to nearly half as long as the 1st joint of the flagellum. Eyes divergent above and feebly so below, the shortest distance across the face from half to nearly two-thirds greater than the distance from the top of the facial cavity to the base of the clypeus. The head about one-third wider than the pronotum in front. The pronotum a little more than three times wider behind than long in the middle, the sides divergent behind and sinuate in the middle. The sides of the median area of the mesonotum parallel.

♀♀ like the ♂♂.

LOCALITY. Cape Province, Natal, Orange Free State, Southern Rhodesia.

Acrotoma discrepans sp.n. (Fig. 18).

♂♂ 5.7-6.7 mm. long. There is considerable variation in colour; of the seventeen specimens I have examined, those from Willowmore, Cape Province and Matjesfontein, Cape Province, are coloured as follows: the top of the head and the dorsum of the thorax metallic coppery red, becoming greener on the face, the front of the pronotum, the metanotum and the sides of the thorax, and sometimes darker to metallic purplish blue, especially on the mesopleura and the ventral surface of the thorax. Tergites coppery red to almost cerise, becoming a little greener laterally, sternites iridescent black, with a metallic green area on the middle of the 2nd. Femora and tibiae metallic green or blue, usually darker on the outer surface of the anterior and middle tibiae than elsewhere. Tarsi darker or paler ochreous. Mandibles dark shining brown, with a smaller subapical area ochreous and a larger basal area metallic green. Clypeus with a narrow black apical margin. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic green or blue, the rest of the antennae black. Wings fusco-

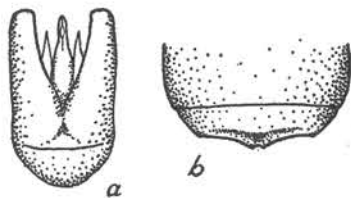


Fig. 18. *Acrotoma discrepans* ♂. a, genitalia, $\times 17$; b, 3rd tergite, $\times 12$.

hyaline, the forewings a little darker than the hind, tegulae bright metallic green. Other specimens, from Ceres, Cape Province, are largely metallic green with a tendency to purplish on the front of the pronotum, the tegulae, mesopleura, ventral surface of the thorax and the legs. There are, however, intermediate stages, and there is little doubt that the specimens all belong to one species, the more brightly coloured occurring in the drier areas.

Pubescence light, long and fairly sparse, shorter and a little denser on the face.

Clypeus finely and fairly closely punctate, the median area feebly convex transversely, its apical margin feebly concave. Facial cavity shallow and wide, very finely reticulate-punctate, except for a narrow median area where the punctures are replaced by a rather irregular transverse striation. The facial fovea elongate and indistinct. The rest of the head reticulate-punctate, the punctures punctulate and about one-fifth as wide as the anterior ocellus, becoming considerably smaller on the back of the head. Dorsum of the thorax and the mesopleura for the most part subreticulate-punctate, the punctures becoming closer to reticulate-punctate on the sides of the pronotum, the median area of the mesonotum in front and the metanotum; the punctures punctulate and all a little larger than the largest on the head. In some specimens the puncturation is reticulate over a larger area than in others. Pronotal furrow very indistinct, lateral excavations wide and of medium depth. Propleura and prosternum very finely and sparsely punctate, mesosternum finely and fairly closely punctate in the middle, becoming smooth laterally but closely punctate again near the lateral margins, episterna irregularly punctato-rugulose, margined behind by a strong, costate groove, metasternum irregularly rugulose. Metapleural and epinotal teeth reticulate-punctate above, the latter very finely so apically, both smooth below, the epinotal teeth strong and short.

Tergites subreticulate- to reticulate-punctate, the punctures deep and punctulate, smallest and closest on the middle of the 1st and near the base of the 2nd in the middle, a little larger elsewhere, largest on the sides of the 2nd, where they are about one-third as wide as the anterior ocellus. The 2nd with a very feeble median longitudinal carina, often only distinguishable as a narrow smooth strip; the 3rd more or less strongly incrassate subapically, its apical margin rather feebly emarginate in the middle, more or less strongly sinuate at the sides and with a more or less distinct, fairly narrow, translucent border. The basal declivity of the 1st tergite with a very wide and shallow depression which is a little more finely punctate than the rest of the tergite.

The antennal sockets separated by a distance equal to two-thirds of the width of the 1st joint of the flagellum, the 2nd joint of the flagellum about one-fifth longer than the 1st and subequal in length to the 3rd. Cheeks short, nearly half as long as the 1st joint of the flagellum. The shortest distance across the face half as great again as the distance from the top of the facial cavity to the base of the clypeus. Eyes divergent above and below. Pronotum three times wider behind than long in the middle, the sides divergent behind. The sides of the median area of the mesonotum indistinct and parallel.

♀♀ like the ♂♂ except that the apical portion of the 3rd tergite beyond the subapical incassation is a little wider in the middle.

LOCALITY. Cape Province.

Described from 7 ♂♂ and 6 ♀♀. Types in British Museum.

Acrotoma discrepans var. **candida** var.n.

♂♂ and ♀♀ 4.5–6.0 mm. long. Similar to the type of the species but much brighter, the dorsum of the thorax a bright metallic orange red, becoming lighter on the sides to pale orange. The face a little narrower relative to its length, about one-quarter wider than long, the pronotum a little longer relative to its width, the apical margin often with a shallow impression in the middle. The puncturation of the 3rd tergite is less strong and deep, the interspaces often considerably wider.

LOCALITY. Aus, South-West Africa.

Described from four ♂♂ and one ♀. Types in British Museum.

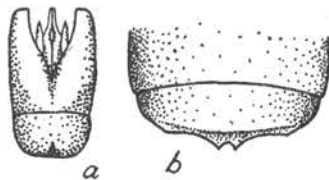


Fig. 19. *Acrotoma discrepans candida* ♂. a, genitalia, × 17; b, 3rd tergite, × 12.

Genus **Hedychridium** Abeille

Abeille, Diagn. *Chrys. Nouv.* p. 3, n. 10 (1878).

CHARACTERS. Small to fairly large insects. The head is large, usually a little longer than the pronotum and sometimes a little wider (*coloratum* sp.n.). The mouthparts are normal, the mandibles acute at the apex and with two more or less obtuse teeth on the inner margin near the apex. The facial cavity may be fairly shallow or very deep, sometimes strongly marginate above, the facial fovea feeble or very elongate. The pronotum transverse, the sides more or less strongly divergent behind and sinuate in the middle, the median area of the mesonotum often indistinct, the mesopleura normal, unarmed, the metapleura small and forming the metapleural teeth. The epinotal teeth strong, their posterior margins entire, more or less strongly emarginate or toothed near the base. The wing venation is similar to that in *Holopyga*. The metathoracic stigmata are situated below the metapleural teeth. The tarsal claws with one, often indistinct, tooth in the middle. The 3rd tergite with or without a translucent apical border, the latter entire, more or less feebly sinuate or angulate at the sides, usually broadly rounded in the middle, seldom very feebly impressed.

The most valuable characters for separating the species are the sculpture, the shape of the epinotal teeth, the ratio of width to length of the face and the shape and texture of the apical margin of the 3rd tergite.

DISTRIBUTION. The species are widely distributed throughout the world, none, however, having yet been described from Australia. In the South African subregion there are twenty-one species and subspecies, one of which, *rhodesiaca* Mocsary, is not included in the following key as I have not been able to study the type or any named specimens.

Key to the species of Hedychridium

- (6) 1. Sides of the face coarsely reticulate-punctate, the median area coarsely rugulose.
- (3) 2. Pronotum not carinate on each lateral third of the anterior margin.
maculatum sp.n.
- (2) 3. Each lateral third, more or less, of the anterior margin of the pronotum carinate.
- (5) 4. Green. **capense** var. **viridis** var.n.
- (4) 5. Purple and black. **capense** Mocsary
- (1) 6. Sides of the face finely reticulate-punctate, or at least the face not sculptured as in 1.
- (16) 7. Posterior margin of the epinotal teeth seen from below not strongly emarginate or toothed.
- (11) 8. 3rd tergite with a distinct translucent apical border.
- (10) 9. Coppery red above. **bulawayoense** sp.n.
- (9) 10. Dark greenish blue above. **parvulum** sp.n.
- (8) 11. 3rd tergite without a distinct translucent apical border.
- (13) 12. Reddish copper, the face feebly marginate above.
subauratum Mocsary
- (12) 13. Green or dark blue, the face rounded above.
- (15) 14. More than 6.0 mm. long, the puncturation exceedingly fine.
subtilissimum sp.n.
- (14) 15. Not more than 6.0 mm. long, the puncturation not quite so fine.
obscuratum Mocsary
- (7) 16. Posterior margin of the epinotal teeth seen from below strongly emarginate or toothed.
- (20) 17. Posterior margin of the epinotal teeth with a strong tooth near the base.
- (19) 18. Mandibles pale ferruginous, dark brown at the apex, epinotal teeth longer and more transverse. **laterale** sp.n.
- (18) 19. Mandibles dark brown with a small subapical region ferruginous, epinotal teeth shorter, their apices more strongly curved behind.
diversum sp.n.
- (17) 20. Posterior margin of the epinotal teeth without a strong tooth near the base.
- (30) 21. 3rd tergite with a distinct translucent apical border.
- (25) 22. At least the tergites reddish copper.
- (24) 23. Shortest distance across the face half as great again as the distance from the top of the facial cavity to the base of the clypeus.
sinuatum sp.n.
- (23) 24. Shortest distance across the face not nearly half as great again as the distance from the top of the facial cavity to the base of the clypeus.
sulcatum Mocsary
- (22) 25. Green or bluish green.
- (27) 26. Apical border of the 3rd tergite strongly angulate at the sides.
angulatum sp.n.
- (26) 27. Apical border of the 3rd tergite not strongly angulate at the sides.
- (29) 28. Punctures on the metanotum subequal in size to those on the pronotum.
latifrons sp.n.
- (28) 29. Punctures on the metanotum considerably larger than those on the pronotum.
vulgare sp.n.
- (21) 30. 3rd tergite without a distinct translucent apical margin.
- (34) 31. Cheeks nearly as long as the 1st joint of the flagellum.

- (33) 32. Transverse incrassation above the face with a distinct depression in the middle. **coloratum** var. **impressum** var.n.
- (32) 33. Transverse incrassation above the face entire. **coloratum** sp.n.
- (31) 34. Cheeks not nearly as long as the 1st joint of the flagellum.
- (36) 35. Punctures near the apical margin of the 2nd tergite larger than those on the metanotum. **uncinatum** sp.n.
- (35) 36. Punctures near the apical margin of the 2nd tergite not larger than those on the metanotum.
- (38) 37. 2nd tergite with a distinct median longitudinal carina on the basal two-thirds more or less. **chrysochlorum** Mocsary
- (37) 38. 2nd tergite without a distinct carina. **ultimum** sp.n.

Hedychridium maculatum sp.n. (Fig. 20).

♀ 4.8-6.0 mm. long. General colour metallic green, the ocellar area of the head and more or less of the occiput, two indistinctly defined areas on the disk of the pronotum and more or less of the mesonotum dark purplish to black. Tergites on the disk and sometimes near the apical margin of the 2nd and 3rd, darker to purplish, the 3rd with a narrow translucent apical border. Sternites iridescent black, the 2nd with a large metallic green area in the middle. Femora and tibiae metallic green, the apices of the latter and the tarsi ferruginous, the tarsi becoming darker apically. Mandibles green at the base, dark brown apically with a small ferruginous subapical region. Scapes and the upper surface of the 1st joint of the flagellum metallic green or purplish, the rest of the antennae very dark greyish brown. Wings hyaline, very faintly tinged with fuscous, tegulae dark iridescent brown. Pubescence light, short and sparse.

Clypeus very finely and sparsely punctate in the middle, a little more densely so at the sides, the median area very feebly convex transversely, its apical margin nearly straight. Facial cavity fairly shallow, a median area, about half as wide as the shortest distance across the face, strongly rugulose transversely with a small area above nearly smooth; the facial fovea elongate and rather indistinct. The sides of the face and the rest of the head coarsely reticulate-punctate, the punctures feebly punctulate, the largest on the sides of the face and on the vertex where they are half as wide as the anterior ocellus, becoming smaller behind. Lateral to each posterior ocellus is a small area nearly smooth or sparsely punctate. Dorsum of the thorax reticulate- or subreticulate-punctate, the punctures punctulate, largest and most dense on the metanotum where they are nearly as wide as the anterior ocellus. On the scutellum and the median area of the mesonotum the interspaces are wider than elsewhere. Pronotal furrow very feeble, the lateral excavations wide and fairly shallow with a tendency to irregular striation. Propleura, pro- and mesosterna very shallowly, finely and sparsely punctate, mesopleura rather shallowly but coarsely reticulate-punctate, episterna coarsely

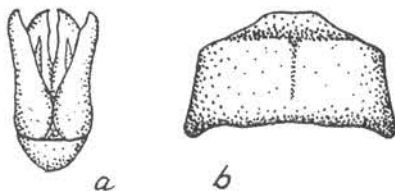


Fig. 20. *Hedychridium maculatum* ♂. a, genitalia, $\times 23$; b, pronotum, $\times 16$.

reticulate-punctate anteriorly, becoming smooth behind, metasternum rather irregularly longitudinally rugulose. Metapleural and epinotal teeth reticulate-punctate above, the latter coarsely at the base and finely apically, the former smooth below, the latter coriaceous, fairly long, acute and curved slightly backwards at the apex.

Tergites rather finely reticulate- or subreticulate-punctate. The puncturation is reticulate on the middle and near the base of the 2nd and near the apical margins of the 2nd and 3rd, elsewhere the interspaces are a little wider; the largest punctures are on the 1st tergite and about one-quarter as wide as the anterior ocellus. The apical margin of the 3rd with a narrow translucent border, entire in the middle, very feebly sinuate laterally. The basal declivity of the 1st with a very feeble wide V-shaped depression.

The distance between the antennal sockets equal to half the width of the 1st joint of the flagellum, the 2nd joint of the flagellum nearly twice as long as the first and three times longer than wide, the 1st and 3rd joints subequal in length. Cheeks very short. The shortest distance across the face rather more than half as great again as the distance between the top of the face and the base of the clypeus. Eyes divergent above and below. Pronotum about two and three-fifths times wider behind than long in the middle, the sides feebly divergent behind and feebly sinuate in the middle; the sides of the median area of the mesonotum feebly divergent in front.

♂ like the ♀♀ except that the 3rd tergite is more broadly rounded apically.

LOCALITY. Southern Rhodesia and Broken Hill, Northern Rhodesia. Described from one ♂ and four ♀♀. Types in coll. R. H. R. Stevenson.

Hedychridium capense (Fig. 21).

Mocsary, *Monog. Chrysid.* p. 136, n. 132 (1889).

♂♂ 4.0-6.0 mm. long. General colour purple, some specimens very dark greenish blue; the ocellar area of the head, a large area on the disk of the pronotum and the median area of the mesonotum darker, frequently black; the face always bright purple. The 2nd and 3rd tergites usually darker than the thorax or the 1st tergite, each with a narrow translucent apical border, that on the 2nd usually appearing dirty brown. Sternites iridescent black, the 2nd with a larger or smaller metallic purplish area in the middle, the 3rd sometimes with a similar but much smaller area. Mandibles purplish at the base, dark shining brown apically with a short subapical region ferruginous. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, dark iridescent purplish black, the rest of the antennae black. Femora and tibiae metallic

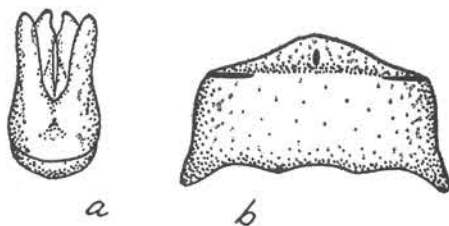


Fig. 21. *Hedychridium capense* ♂.
a, genitalia, $\times 23$; b, pronotum, $\times 16$.

purple or purplish green, tarsi ferruginous to dark greyish brown, the 1st joint of the latter feebly metallic on the outer surface. Wings dark fusco-hyaline, tegulae dark iridescent brown. Pubescence very pale brown, fairly long and sparse.

The sculpture of the head and thorax similar to that in *maculatum* except that the facial fovea is rather more distinct and the puncturation on the dorsum of the thorax is a little more disperse, that on the metanotum, however, is reticulate. The anterior margin of the pronotum is distinctly carinate except on the middle third more or less, the episterna coarsely punctato-regulose, the metasternum nearly smooth. The puncturation of the tergites is considerably sparser than that in *maculatum*, on the 2nd and 3rd the interspaces are often as wide as the punctures themselves. The basal declivity of the 1st with a very wide and shallow V-shaped depression, somewhat more distinct than in *maculatum*. The apical margin of the 3rd tergite broadly rounded and very feebly sinuate laterally.

The distance between the antennal sockets equal to two-thirds of the width of the 1st joint of the flagellum, the 2nd joint of the flagellum a little more than half as long again as the 1st and rather more than twice as long as wide, the 1st and 3rd joints subequal in length. The shortest distance across the face rather more than half as great again as the distance from the top of the facial cavity to the base of the clypeus. Pronotum about three times wider behind than long in the middle, the sides feebly divergent behind and sinuate in the middle. The sides of the median area of the mesonotum feebly divergent in front.

♀ like the ♂ except that the 3rd tergite is more narrowly rounded apically.

LOCALITY. Cape Province.

Hedychridium capense var. viridis var.n. (Fig. 22).

♀ 6.4 mm. long. Differs from the type of the species in the following characters: General colour metallic green, the 2nd tergite near the apical margin and the whole of the 3rd with purplish reflexions, no conspicuously darker areas on the head or thorax; tarsi ferruginous. The puncturation on the pronotum is a little closer, especially apically. The pronotum is a little longer relative to its width, about two and a half times wider behind than long in the middle.

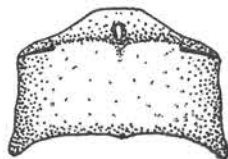


Fig. 22. *Hedychridium capense viridis* ♀, pronotum, $\times 16$.

LOCALITY. Lichtenburg, Transvaal.

Described from one ♀. Type in Transvaal Museum.

Hedychridium bulawayoense sp.n.

♀ 3.2-4.1 mm. long. General colour metallic yellowish bronze with reddish bronze reflexions, some specimens approaching metallic green; the vertex, the dorsum of the thorax and of the abdomen a little redder than elsewhere. The face often light metallic green, the apical margin of the 2nd tergite always green, that of the 3rd with a narrow more or less

translucent border. Femora and tibiae metallic reddish or greenish copper, tarsi ochreous or ferruginous. Scapes, and sometimes the upper surface of the 1st joint of the flagellum, metallic copper, the rest of the antennae black. Mandibles dark iridescent brown, with a short sub-apical region ochreous and a short basal region red or copper. Wings hyaline, iridescent in some lights, tegulae feebly metallic green. Pubescence dirty white, fairly long and sparse except on the sides of the face where it is a little denser.

Clypeus finely and fairly closely punctate, the median area feebly convex transversely, its apical margin nearly straight. Facial cavity very shallow, finely reticulate-punctate at the sides, with an indistinct median area more sparsely and more coarsely punctate and a feeble median groove becoming stronger above and forming an elongate fovea. The top of the face very feebly biconcave transversely. The rest of the head reticulate-punctate, the punctures punctulate, largest in front of the anterior ocelli where they are rather more than half as wide as the latter, becoming a little smaller behind and considerably smaller on the back of the head. Pro- and mesonotum subreticulate-punctate, the punctures about the size of the largest on the head but smaller than this near

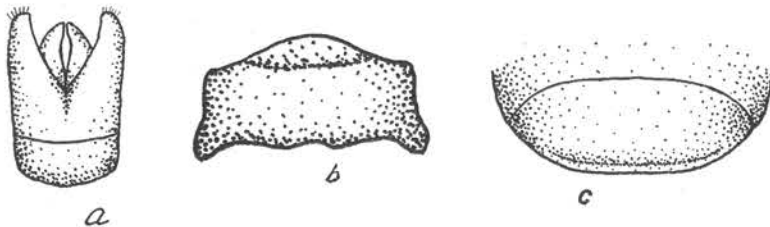


Fig. 23. *Hedychridium bulawayoense* ♂. a, genitalia, $\times 40$; b, pronotum, $\times 25$; c, 3rd tergite, $\times 20$.

the anterior margin and the sides of the pronotum where the puncturation is reticulate; the interspaces larger on the median area of the mesonotum than elsewhere. On the scutellum and metanotum the punctures are larger than elsewhere, on the former the interspaces are often nearly as wide as the punctures themselves, on the latter the puncturation is coarse and reticulate. Pronotal furrow absent, the lateral excavations with a tendency to transverse rugulation. Propleura very finely and fairly sparsely punctate, mesopleura similar in puncturation to the sides of the pronotum, mesosternum sparsely and shallowly punctate, episterna punctato-rugulose, metasternum rather coarsely coriaceous. Metapleural and epinotal teeth reticulate-punctate above, the former more finely at the apex than at the base, the latter smooth below. The epinotal teeth long, narrow and acute at the apex.

Tergites rather finely and closely punctate, the punctures about one-fifth as wide as the anterior ocellus, smaller and denser than elsewhere on the disk of the 2nd. The apical margin of the 2nd nearly smooth, that of the 3rd with a fairly wide translucent border, entire.

The distance between the antennal sockets nearly as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum one-

quarter longer than the 1st and about one-half longer than wide. Cheeks fairly short, about half as long as the 1st joint of the flagellum. The shortest distance across the face two-thirds greater than the distance between the top of the face and the base of the clypeus. Pronotum about three and a quarter times wider behind than long in the middle, the sides feebly divergent behind and feebly sinuate in the middle. The sides of the median area of the mesonotum feebly divergent in front and behind.

♂♂ like the ♀♀ except that the 3rd tergite is more broadly rounded apically.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from three ♂♂ and six ♀♀. Types in coll. R. H. R. Stevenson.

Hedychridium parvulum sp.n. (Fig. 24).

♂ 3.8 mm. long. Dark metallic greenish blue with lighter green reflexions, clypeus light metallic green with a narrow black apical margin, the median area of the mesonotum blackish, the metanotum purple. Femora and tibiae metallic bluish green, more or less of the inner surface of the latter, their apices and the tarsi pale ferruginous. Mandibles

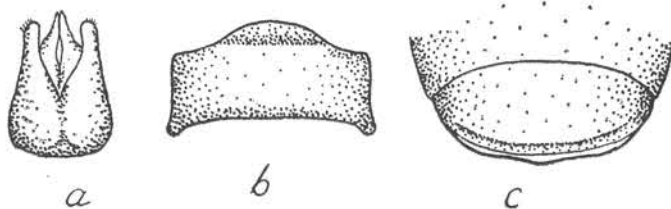


Fig. 24. *Hedychridium parvulum* ♂. a, genitalia, $\times 40$; b, pronotum, $\times 23$; c, 3rd tergite, $\times 23$.

green at the base, ferruginous apically. Scapes metallic green, the rest of the antennae dark ferruginous brown. Wings hyaline, very faintly tinged with fuscous, tegulae metallic bluish green. Pubescence dirty white, fairly short and sparse.

Clypeus finely and fairly closely punctate, the median area convex transversely, its apical margin feebly concave. Facial cavity broad and shallow, finely but irregularly subreticulate-punctate and feebly transversely striate near the middle, the puncturation becoming much coarser above and similar to that on the vertex; the facial fovea elongate and indistinct. The rest of the head reticulate-punctate, the punctures punctulate, largest in front of the anterior ocellus where they are about one-third as wide as the latter. Dorsum of the thorax and the mesopleura fairly coarsely subreticulate-punctate, the punctures rather feebly punctulate and somewhat irregular in size, particularly on the pronotum; on the metanotum the puncturation is reticulate and the punctures are larger than elsewhere, up to two-thirds as wide as the anterior ocellus. The interspaces are wider than elsewhere on the scutellum and the median area of the mesonotum. Pronotal furrow absent, the lateral excavations wide and shallow. Propleura finely, shallowly and closely

punctate, becoming smooth towards the middle, mesosternum finely and fairly sparsely punctate, more densely so laterally, episterna punctatogrugulose, metasternum coriaceous, metapleural and epinotal teeth finely reticulate-punctate above, smooth below, the latter fairly strong, the apex curved posteriorly and subacute.

The whole of the 1st and the basal half more or less of the 2nd tergite reticulate-punctate, the punctures about one-sixth as wide as the anterior ocellus, increasing in size towards the apical margin of the 2nd where the interspaces are a little wider and the puncturation is subreticulate. The 3rd tergite reticulate-punctate, the punctures deep and nearly as large as the largest on the 2nd but becoming smaller laterally. The apical margin of the 3rd with a narrow but distinct translucent border, very feebly sinuate on each side near the middle. The basal declivity of the 1st nearly flat.

The distance between the antennal sockets half as great again as the width of the 1st joint of the flagellum, the first two joints subequal in length, the 2nd two-thirds longer than wide, the 3rd joint a little shorter than the 2nd. The cheeks fairly short, a little less than half as long as the 1st joint of the flagellum. Eyes divergent above and below. The shortest distance across the face rather more than one-third greater than the distance from the top of the facial fovea to the base of the clypeus. Pronotum three and a half times wider behind than long in the middle, the sides very feebly divergent behind, sinuate in the middle, the sides of the median area of the mesonotum parallel.

♀ 3.0 mm. long, similar to the ♂ except that the size is smaller, the 3rd tergite is a little narrower apically and the first three joints of the flagellum are a little shorter.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from one ♂ and one ♀. Types in coll. R. H. R. Stevenson.

Hedychridium subauratum (Fig. 25).

Mocsary, *Term. Fuzet.* xxv, 537, n. 3 (1902).

♂ 4.5 mm. long. General colour above reddish copper, ventral surface of the thorax, tegulae, legs, the 2nd and 3rd tergites near their apical and lateral margins and to a lesser extent the face, metallic green. Tarsi ochreous. Sternites black with large metallic green areas covering most of the 1st and 2nd. Mandibles green at the base, dark brown apically. Scapes metallic coppery green, the 1st joint of the flagellum above coppery red, the rest of the antennae black. Wings hyaline tinged with fuscous. Pubescence white, fairly short and rather dense, especially on the face.

Clypeus very finely reticulate-punctate except the median area near the apical margin which is smooth, the median area convex transversely, its apical margin nearly straight. The facial cavity fairly shallow, very finely coriaceous at the sides but becoming more coarsely punctate above, an indistinct median area very feebly striate transversely and with a very feeble median groove, the facial fovea indistinct. Face rounded above on to the vertex, the latter and the rest of the head reticulate-punctate, the punctures feebly punctulate, largest in front of the anterior

ocellus where they are up to one-third as wide as the latter, becoming a little smaller behind; a small, nearly smooth, somewhat depressed area in front of the anterior ocellus and a similar area postero-lateral to each posterior ocellus. Mesopleura and the dorsum of the thorax finely reticulate-punctate, the punctures punctulate and about as wide as the largest on the head, those on the metanotum and near the posterior margin of the scutellum a little larger than elsewhere. Pronotal furrow absent, the lateral excavations wide and fairly shallow, propleura finely, shallowly and fairly closely punctate, prosternum nearly smooth, mesosternum with a large, nearly smooth area in each lateral half, the rest rather shallowly and closely punctate, episterna punctato-rugulose, metasternum coriaceous. Metapleural and epinotal teeth reticulate-punctate above, smooth below, the latter strong, subacute at the apex, the posterior margin concave but not strongly emarginate.

Tergites reticulate-punctate, the punctures punctulate and a little smaller than those on the pronotum, the punctures on the 3rd tergite a little larger than elsewhere. The basal declivity of the 1st with a very wide, shallow U-shaped depression similar in puncturation to the rest of the tergite; the 3rd with a feeble subapical transverse incrustation

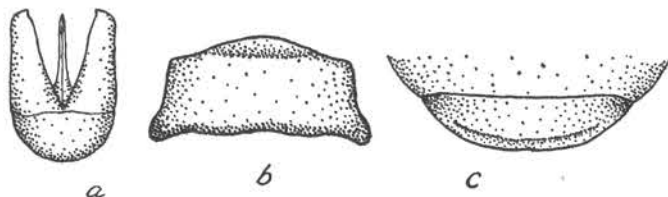


Fig. 25. *Hedychridium subauratum* ♂. a, genitalia, $\times 30$; b, pronotum, $\times 17$; c, 3rd tergite, $\times 17$.

rather more sparsely punctate than the rest of the tergite, the apical margin without a narrow translucent border, with an extremely feeble, wide, V-shaped incision in the middle.

The antennal sockets separated by a distance rather less than the width of the 1st joint of the flagellum, the 2nd joint of the flagellum nearly one-half longer than the 1st and rather more than twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks nearly as long as the 1st joint of the flagellum. Eyes divergent above and below, the shortest distance across the face half as great again as the distance between the top of the face and the base of the clypeus. Pronotum three times wider behind than long in the middle, the sides divergent behind and strongly sinuate, the sides of the median area of the mesonotum parallel.

LOCALITY. Bothaville, Orange Free State.

Hedychridium subtilissimum sp.n. (Fig. 26).

♂ 6.3 mm. long. General colour dull metallic green, the occipital area of the head, a narrow, indistinct transverse area on the posterior half of the pronotum, the median area of the mesonotum and the base of the 2nd and 3rd tergites, darker, greenish blue. Femora and tibiae metallic

green, the apices of the latter and the whole of the tarsi pale ochreous. Mandibles green at the base, very dark shining brown apically, with a short subapical region ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic bluish green, the rest of the antennae black. Wings hyaline tinged with fuscous, tegulae metallic green. Pubescence pale brown, short and fairly dense, white and denser on the sides of the face.

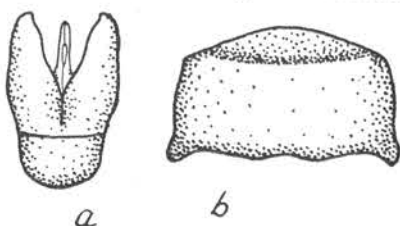


Fig. 26. *Hedychridium subtilissimum* ♂. a, genitalia, $\times 23$; b, pronotum, $\times 17$.

Clypeus finely and fairly sparsely punctate, the median area feebly convex transversely, its apical margin feebly concave. Facial cavity shallow, very finely reticulate-punctate below, the punctures becoming a little larger above, a narrow median area very finely coriaceous-punctate, the facial fovea deep and elongate. The puncturation of the top of the face continuing over the vertex to the back of the head, the punctures becoming a little larger towards the top of the head, where they are up to one-third as wide as the anterior ocellus, all the punctures except the smallest on the face punctulate. Mesopleura and the dorsum of the thorax very finely reticulate-punctate, the punctures punctulate; the largest on the metanotum where they are about one-third as wide as the anterior ocellus, a little smaller than this elsewhere. Pronotal furrow absent, the lateral excavations wide and rather shallow. Propleura sparsely and shallowly punctate, mesosternum sparsely and shallowly punctate in the middle, becoming smooth laterally but punctate near the lateral margins, episterna ruguloso-punctate, becoming smooth above. Metasternum finely coriaceous. Metapleural and epinotal teeth finely reticulate-punctate above, smooth below, the latter strong, broad and subrectangular at the apex.

Tergites very finely punctate, the punctures punctulate and from one-half to one-third as wide as those on the pronotum, a little larger near the apical margin of each tergite than elsewhere. The 3rd with a rather feeble subapical transverse incrustation, its apical margin with an extremely narrow and indistinct brownish border, the latter with an extremely feeble impression in the middle. The basal declivity of the 1st with a feeble, very wide U-shaped depression.

The antennal sockets separated by a distance nearly as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum nearly two-thirds longer than the 1st and twice as long as wide, the 1st and 3rd joints subequal in length. The shortest distance across the face one-quarter greater than the distance between the top of the facial cavity and the base of the clypeus. Pronotum about three times wider behind than long in the middle, the sides feebly divergent behind and sinuate in the middle. The sides of the median area of the mesonotum parallel.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from one ♂. Type in coll. R. H. R. Stevenson.

Hedychridium obscuratum (Fig. 27).

Mocsary, *Term. Fuzet.* xxv, 536, n. 2 (1902).

♂♂ 4.5-6.0 mm. long. Metallic green or dark greenish blue, the ocellar area of the head and more or less of the occiput, an ill-defined transverse area on the basal half of the pronotum, the median area of the mesonotum, the 2nd tergite except apically and the whole of the 3rd tergite always darker than the rest, in some specimens nearly black. Sternites iridescent black, the 1st with a smaller and the 2nd with a larger metallic green area in the middle. Femora and tibiae metallic green or dark greenish blue, more or less of the inner surface of the latter, their apices and the tarsi dull greyish brown; mandibles green at the base shining brown apically, with a short subapical region ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic bluish green, the rest of the antennae black. Wings hyaline, tinged with fuscous, tegulae metallic bluish green or blue. Pubescence light, short and fairly sparse, denser on the sides of the face.

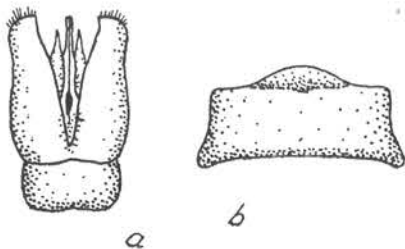


Fig. 27. *Hedychridium obscuratum* ♂. a, genitalia, $\times 26$; b, pronotum, $\times 17$.

Clypeus finely and fairly closely punctate, the median area feebly convex transversely, its apical margin feebly concave. Facial cavity fairly shallow, the sides very finely reticulate-punctate, the punctures becoming larger above and merging into the coarser puncturation of the vertex, the face with an ill-defined median area finely striate transversely, the facial fovea elongate. The rest of the head rather finely reticulate-punctate, the punctures punctulate and largest in front of the anterior ocellus where they are up to a quarter as wide as the latter. Dorsum of the thorax finely reticulate-punctate, the punctures punctulate and largest on the metanotum where they are about one-third as wide as the anterior ocellus, becoming a little smaller anteriorly. Pronotal furrow absent, the lateral excavations wide and fairly deep. Propleura finely, closely and very shallowly punctate, prosternum nearly smooth, mesosternum like the prosternum in the middle, becoming nearly smooth laterally but rather more coarsely punctate near the lateral margins, episterna finely ruguloso-punctate, metasternum rather irregularly transversely rugulose. Metapleural and epinotal teeth finely reticulate-punctate above, smooth below, the latter rather short and broad, their posterior margins entire.

Tergites very finely reticulate-punctate, the punctures a little smaller than those on the head or thorax. The basal declivity of the 1st with a wide, shallow depression, the 3rd with a feeble subapical transverse incassation, its apical margin entire and with an extremely narrow, indistinct, subtranslucent border, very broadly rounded.

The distance between the antennal sockets equal to the width of the 1st joint of the flagellum, the 2nd joint of the flagellum about one-fifth

longer than the 1st and two-thirds longer than wide, the 1st and 3rd joints subequal in length. Cheeks fairly short, about one-third as long as the 1st joint of the flagellum. The shortest distance across the face a quarter to a third greater than the distance between the top of the facial fovea and the base of the clypeus. Pronotum about three and a third times wider behind than long in the middle, the sides divergent behind and sinuate in the middle, the sides of the median area of the mesonotum parallel or very feebly divergent behind.

♀♀ like the ♂♂ except that the apical margin of the 3rd tergite is a little less broadly rounded.

LOCALITY. Cape Province and Southern Rhodesia.

Hedychridium laterale sp.n. (Fig. 28).

♀ 6.3 mm. long. Metallic green, the vertex slightly yellowish, the tergites with bluish reflexions, the apical margin of the 1st yellowish. Sternites metallic green, each with a wide, iridescent, black border. Tarsi and the inner surface of the tibiae ochreous. Mandibles ferruginous, a small basal area green and a small apical area nearly black. Scapes, and to a much lesser extent the upper surface of the 1st joint of the flagellum, metallic green, the rest of the antennae brown. Wings hyaline. Pubescence short, white and fairly dense, longer and denser on the sides of the face.



Fig. 28. *Hedychridium laterale* ♀, outline of epinotal tooth, $\times 35$.

Clypeus finely and fairly closely punctate, the median area convex transversely, its apical margin feebly concave. The facial cavity fairly shallow, the sides very finely reticulate-punctate, a median area about a quarter as wide as the face, but wider above than below, very finely, obliquely striate and with a few larger punctures, more frequent above than below. Facial fovea very indistinct and elongate. The rest of the head reticulate-punctate, the punctures indistinctly punctulate, largest in front where they are about one-quarter as wide as the anterior ocellus, a little smaller than this on the ocellar area and behind. Dorsum of the thorax finely and fairly shallowly reticulate- or subreticulate-punctate, the punctures largest on the metanotum where they are up to three-quarters as wide as the anterior ocellus, becoming smaller anteriorly. On the scutellum the interspaces are wider than elsewhere, the puncturation here and on more or less of the mesonotum is subreticulate. Pronotal furrow absent, the lateral excavations wide and shallow. Propleura very sparsely and finely punctate with large smooth interspaces, prosternum smooth, the puncturation of the mesopleura similar to that of the pronotum. Mesosternum finely, shallowly and sparsely punctate medially, becoming smooth laterally but punctate near the lateral margins, episterna similar in puncturation to the mesopleura but becoming smooth above, metasternum rather coarsely rugulose. Meta-pleural and epinotal teeth finely reticulate-punctate above, smooth

below, the latter fairly long and subacute at the apex which is curved slightly backwards, the posterior margin seen from below with a distinct, acute, laterally directed tooth near the base.

Tergites finely subreticulate-punctate, the basal declivity of the 1st with an extremely wide, shallow depression, the 3rd with a subapical transverse incassation, the lateral margins with an extremely feeble translucent border, feebly sinuate, the apical margin entire in the middle.

The distance between the antennal sockets nearly as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum as long as the 1st and two-thirds longer than wide. Cheeks short, about one-fifth as long as the 1st joint of the flagellum. Eyes divergent above and to a lesser extent below, the shortest distance across the face half as great again as the distance between the top of the facial fovea and the base of the clypeus. Pronotum three times wider behind than long in the middle, the sides divergent behind and feebly sinuate in the middle. The sides of the median area of the mesonotum parallel.

LOCALITY. Sawmills, Southern Rhodesia.

Described from one ♀. Type in coll. R. H. R. Stevenson.

Hedychridium diversum sp.n. (Fig. 29).

♂ 5.0 mm. long. Bright metallic green, the lateral areas of the mesonotum and the tergites a little darker, bluish green. Sternites metallic green, each with a wide black border. Mandibles green at the base, dark brown apically and dark ferruginous in the middle. Tarsi and more or less of the inner surface of the tibiae ochreous. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic green, the rest of the antennae black. Wings hyaline, faintly tinged with fuscous. Pubescence, dirty white, fairly short and sparse, denser on the sides of the face.

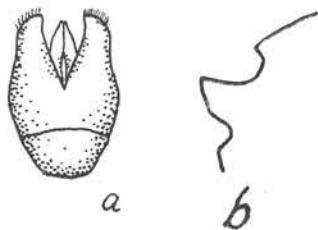


Fig. 29. *Hedychridium diversum* ♂. a, genitalia, $\times 23$; b, outline of epinotal tooth, $\times 40$.

The sculpture is similar to that in *laterale* but differs in the following respects: Striae on the median area of the face more nearly transverse, the largest punctures on the head one-third as wide as the anterior ocellus. The interspaces on the dorsum of the thorax a little wider except on the metanotum where the puncturation is reticulate, on the scutellum the interspaces are sometimes as wide as the punctures themselves. The epinotal teeth rather shorter, their apices curved backwards to a greater extent than in *laterale*, the tooth on the posterior margin is a little stronger.

The basal declivity of the 1st tergite with a slightly stronger V-shaped depression, the tergites a little more coarsely punctate, the subapical incassation on the 3rd a little feebler.

The distance between the antennal sockets about two-thirds as great as the width of the 1st joint of the flagellum, the 1st and 2nd joints sub-

equal in length, the latter one-half longer than wide and a little longer than the 3rd. The shortest distance across the face half as great again as the distance from the top of the facial fovea to the base of the clypeus. Eyes divergent above and to a lesser extent below. Cheeks short, about one-quarter as long as the 1st joint of the flagellum. Pronotum three times wider behind than long in the middle, the sides divergent behind and sinuate in the middle; the sides of the median area of the mesonotum feebly divergent behind.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from two ♂♂. Type in coll. R. H. R. Stevenson.

Hedychridium sinuatum sp.n. (Fig. 30).

♂ 5.5 mm. long. Vertex of the head and dorsum of the thorax reddish copper, the back of the head, temples, anterior declivity of the pronotum, the metanotum, the lateral and ventral surfaces of the thorax and the femora and tibiae metallic bluish green to dark purplish blue. The face metallic green. Tergites bright coppery red, the 2nd with a narrow apical margin very much lighter than elsewhere. Tarsi and the apices of the tibiae ferruginous. Mandibles green at the base, dark brown apically, ferruginous in the middle. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic green, the rest of the antennae very dark brown. Wings hyaline tinged with fuscous, tegulae dark iridescent brown. Pubescence brown, fairly long and dense, white on the sides of the face.

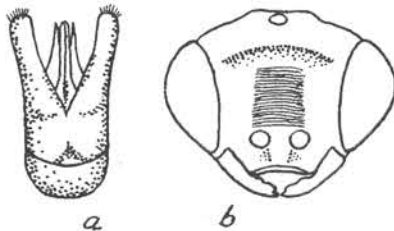


Fig. 30. *Hedychridium sinuatum* ♂.
a, genitalia, $\times 26$; b, head, $\times 17$.

The sculpture is similar to that in *sulcatum* but differs in the following respects: Facial cavity more strongly concave longitudinally and the margination above stronger, the vertex forming with the face a subtrenchant angle. The whole of the dorsum of the thorax reticulate-punctate, the punctures as large on the pronotum as elsewhere. Metasternum finely coriaceous, epinotal teeth broadly rounded apically, the posterior margins deeply emarginate. The apical margin of the 3rd tergite strongly sinuate laterally.

The distance between the antennal sockets equal to the width of the 1st joint of the flagellum, the 2nd joint of the flagellum nearly half as long again as the 1st and rather more than twice as long as wide, the 1st and 3rd joints equal in length. The shortest distance across the face half as great again as the distance from the top of the facial cavity to the base of the clypeus. Pronotum three times wider behind than long in the middle, the sides fairly strongly divergent behind and feebly sinuate in the middle. The sides of the median area of the mesonotum indistinct and parallel.

LOCALITY. Matjesfontein, Cape Province.

Described from one ♂. Type in British Museum.

Hedychridium sulcatum (Fig. 31).

Mocsary, *Term. Fuzet.* XIII, 52, n. 14 (1890).

♂♂ 5.0-6.0 mm. long. Head and thorax above metallic coppery green or reddish copper, tergites, especially the disk of the 2nd, redder to bright cerise, the face metallic bluish green. Lateral and ventral surfaces of the thorax lighter than the dorsum, light metallic green. Femora and tibiae metallic bluish green with purplish reflexions, the apices of the latter and the tarsi ochreous. Sternites metallic green with fairly wide black borders. Mandibles green at the base, black apically, ferruginous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green or purplish, the rest of the antennae black. Wings fusco-hyaline, tegulae iridescent brown, sometimes feebly metallic green. Pubescence pale brown, short and sparse, denser on the sides of the face.

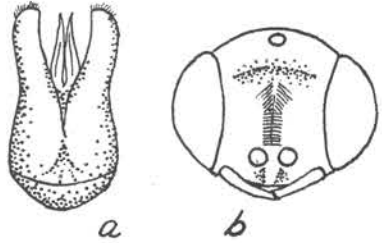


Fig. 31. *Hedychridium sulcatum* ♂.
a, genitalia, $\times 23$; b, head, $\times 17$.

Clypeus finely and fairly sparsely punctate, the median area convex transversely, its apical margin nearly straight. Facial cavity wide and rather shallow, very finely reticulate-punctate at the sides, the punctures becoming a little larger above, a median area about one-quarter as wide as the face very finely transversely striate and with a fine median longitudinal groove, the facial fovea indistinct. Face with a fairly strong transverse incrustation above, the latter and the rest of the head coarsely reticulate-punctate, the punctures punctulate and largest in front where they are up to one-third as wide as the anterior ocellus, becoming smaller on the ocellar area and the back of the head. Mesopleura and the dorsum of the thorax reticulate-punctate, except the median area of the mesonotum and sometimes the scutellum where the interspaces are a little wider than elsewhere. The punctures largest on the scutellum and metanotum where they are up to two-thirds as wide as the anterior ocellus, a little smaller elsewhere. Pronotal furrow absent, the lateral excavations wide and fairly deep. Propleura shallowly and fairly closely punctate, mesosternum with a large smooth area in the middle, becoming closely punctate near the lateral margins, episterna irregularly punctate below, becoming smooth above, metasternum coarsely and irregularly transversely rugulose. Metapleural and epinotal teeth reticulate-punctate above, smooth below, the latter strong, subacute at the apex, their posterior margins fairly strongly emarginate.

Tergites rather coarsely reticulate- or subreticulate-punctate, the punctures about one-quarter as wide as the anterior ocellus but smaller than this on the middle of the 2nd. On some areas, particularly the basal half of the disk of the 2nd except in the middle, the interspaces are fairly wide and sparsely punctulate. The basal declivity of the 1st with a wide, shallow, V-shaped depression coarsely ruguloso-punctate; the 2nd with a very feeble median longitudinal carina on its basal half; the 3rd with a

fairly strong subapical transverse incrassation, the apical margin with a narrow translucent border, the latter entire in the middle and feebly sinuate laterally. The antennal sockets separated by a distance nearly as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum only slightly longer than the 1st, the 1st and 3rd joints equal in length. The shortest distance across the face about one-ninth greater than the distance from the top of the face to the base of the clypeus. Pronotum about three and a quarter times wider behind than long in the middle, the sides feebly divergent behind and strongly sinuate in the middle. The sides of the median area of the mesonotum indistinct, nearly parallel.

LOCALITY. Cape Province.

Hedychridium angulatum sp.n. (Fig. 32).

♂ 7.0 mm. long. Metallic bluish green, the median area of the mesonotum, the second tergite near its lateral and apical margins and the whole of the 3rd tergite rather more blue than elsewhere, the face light metallic green, the sternites metallic green, each with a narrow black margin. Femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi, ochreous, the latter becoming darker apically. Mandibles green at the base, dark brown apically and ferruginous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae very dark greyish brown. Wings pale fusco-hyaline, feebly iridescent in some lights, tegulae metallic green. Pubescence white, short and sparse, considerably denser on the sides of the face.

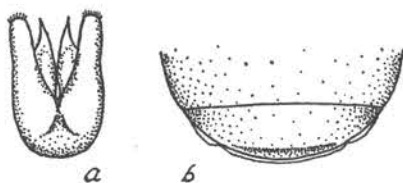


Fig. 32. *Hedychridium angulatum* ♂. a, genitalia, $\times 17$; b, 3rd tergite, $\times 12$.

Clypeus finely and very closely punctate, the punctures becoming finer and closer laterally, the median area feebly convex transversely, its apical margin feebly concave. Facial cavity fairly deep, very finely reticulate-punctate on the sides, a median area, about one-quarter as wide as the least distance across the face, feebly striate transversely and with a feeble longitudinal groove, the facial fovea elongate and indistinct, the face rather irregularly, arcuately marginate above. The rest of the head coarsely reticulate-punctate, the punctures punctulate and often nearly half as wide as the anterior ocellus, but smaller than this on the back of the head and the temples, the latter with a rather feeble carina below. Dorsum of the thorax coarsely reticulate-punctate, the punctures very feebly punctulate and increasing in size from the pronotum to the metanotum where they are as wide as the anterior ocellus. Metanotum very strongly gibbous. Pronotal furrow absent, the lateral excavations wide and fairly shallow. Propleura coarsely, sparsely and very shallowly punctate laterally, the interspaces microscopically reticulate, the punctures much finer and closer towards the middle, prosternum very finely and sparsely punctate, mesopleura similar in puncturation to the pronotum, mesosternum very finely, shallowly and fairly closely punctate,

with a fairly large area in each lateral half nearly smooth, episterna rather finely punctato-rugulose, metasternum a little more coarsely so. Metapleural teeth reticulate-punctate above, punctato-coriaceous below, epinotal teeth reticulate-punctate above, nearly smooth below, long, narrow and subacute at the apex, the posterior margins very strongly and widely emarginate.

Tergites very coarsely reticulate-punctate, the punctures deep and punctulate, the interspaces where wide enough fairly closely punctulate, the punctures about two-fifths as wide as the anterior ocellus. Basal declivity of the 1st with a wide, V-shaped depression, rather more finely punctate than the rest of the tergites. The 3rd with a strong subapical transverse incassation, the apical margin with a distinct narrow translucent border, strongly, obtusely angulate laterally, entire in the middle.

The distance between the antennal sockets about two-thirds as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum about two-fifths longer than the 1st and nearly twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face about one-seventh greater than the distance from the top of the facial cavity to the base of the clypeus. Pronotum three and a half times wider behind than long in the middle, the sides of the median area of the mesonotum parallel.

♀♀ 6.0-7.0 mm. long. Similar to the ♂ except that the face is only one-tenth longer than wide, the 3rd tergite is a little longer and narrower apically. The colour of the two specimens I have examined is lighter, but further material will probably show this to be a normal intra-sexual variation.

LOCALITY. Gwanda, Sawmills, Southern Rhodesia.

Described from one ♂ and two ♀♀. Types in coll. R. H. R. Stevenson.

Hedychridium latifrons sp.n. (Fig. 33).

♂ 5.0 mm. long. General colour metallic green, the anterior lateral regions of the pronotum, the median area of the mesonotum and the metanotum lighter than elsewhere; a median basal area on the 2nd tergite and a basal area on the 3rd much darker to black; the face dark metallic bluish green, the clypeus purple. Sternites black. Femora and tibiae metallic bluish green, the apices of the latter and the tarsi ferruginous. Scapes black with purplish and greenish reflexions, the upper surface of the 1st joint of the flagellum feebly metallic bluish green, the rest of the antennae black. Wings hyaline faintly tinged with fuscous, tegulae very dark iridescent brown with purplish reflexions. Pubescence light, long and fairly dense; white, short and dense on the face.

Clypeus finely and fairly closely punctate, the median area feebly convex transversely, its apical margin concave. Facial cavity rather shallow, finely reticulate-punctate at the sides, an ill-defined median

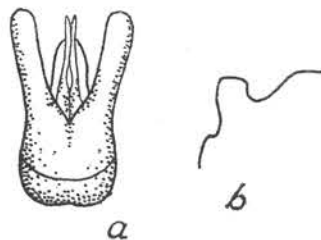


Fig. 33. *Hedychridium latifrons* ♂. a, genitalia, $\times 23$; b, outline of epinotal tooth, $\times 23$.

area punctato-striate and with a feeble median longitudinal groove; facial fovea elongate, the face arcuately marginate above. The rest of the head reticulate-punctate, the punctures punctulate, about one-third as wide as the anterior ocellus but smaller on the ocellar area and the back of the head. Dorsum of the thorax and the mesopleura reticulate-punctate, the punctures a little larger than those on the head. Pronotal furrow absent, propleura very sparsely and finely punctate, prosternum smooth, mesosternum nearly smooth, becoming punctate laterally, episterna punctatorugose, nearly smooth behind, metasternum finely coriaceous. Meta-pleural and epinotal teeth reticulate-punctate above, smooth below, the latter broadly rounded apically, the posterior margins deeply and somewhat obliquely emarginate.

Tergites very deeply reticulate-punctate, the punctures a little smaller than those on the dorsum of the thorax; near the middle of the 2nd and on the disk of the 1st the punctures are still smaller. Basal declivity of the 1st with a very wide, shallow V-shaped depression, the 3rd with a fairly strong subapical transverse incrossation, the apical margin with a narrow brownish translucent border, the lateral margins sinuate.

The distance between the antennal sockets nearly as great as the width of the 1st joint of the flagellum, the 2nd joint of the flagellum about one-quarter longer than the 1st and a little more than twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, the shortest distance across the face half as great again as the distance from the top of the facial cavity to the base of the clypeus. Pronotum a little more than three times wider behind than long in the middle, the sides divergent behind and feebly sinuate in the middle, the sides of the median area of the mesonotum indistinct.

♀ like the ♂ except that the coloration is rather darker and the clypeus is dark blue, not distinctly purple; it is probable, however, that further material will prove these differences to be normal intra-sexual ones. The 3rd tergite is a little narrower apically than in the ♂.

LOCALITY. Somerset East, Cape Province.

Described from one ♂ and one ♀. Types in British Museum.

Hedychridium vulgare sp.n. (Fig. 34).

♀♀ 5.0–6.5 mm. long. Metallic green, the median area of the mesonotum, the disk of the 2nd tergite, more or less of the 3rd tergite and to a lesser extent the ocellar area, usually darker than elsewhere, metallic greenish blue. The apical border of the 3rd tergite translucent. Sternites metallic yellowish green each with a broad iridescent black border. Tarsi and the apices of the tibiae dark ochreous or ferruginous. Mandibles green at the base, very dark shining brown apically, with a short median region ferruginous. Scapes, and to a much lesser extent the upper surface of the 1st joint of the flagellum, metallic green, the rest of the antennae very

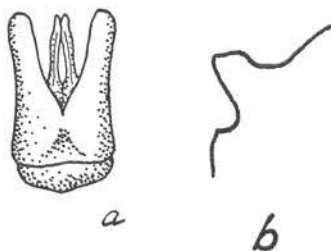


Fig. 34. *Hedychridium vulgare* ♂. a, genitalia, $\times 23$; b, outline of epinotal tooth, $\times 35$.

dark greyish brown becoming paler near the apex. Wings hyaline tinged with fuscous. Pubescence light, short and fairly sparse, a little denser on the sides of the face.

Clypeus finely and fairly closely punctate, the median area convex transversely, its apical margin shallowly concave. Facial cavity fairly deep, finely reticulate-punctate at the sides, an ill-defined median area, about one-quarter as wide as the shortest distance across the face feebly striate transversely below, becoming nearly smooth above. Facial fovea distinct, the face not distinctly marginate above but rounded, with a feeble transverse incassation. The rest of the head reticulate-punctate, the punctures punctulate, largest and least distinct in front of the anterior ocellus where they are up to one-third as wide as the latter; becoming a little smaller behind and much smaller on the back of the head. Dorsum of the thorax and the mesopleura reticulate-punctate, the punctures largest on the metanotum where they are half as wide as the anterior ocellus, a little shallower and smaller elsewhere, smallest on the pronotum. On the median area of the mesonotum and sometimes the scutellum, the interspaces are wider and the puncturation is subreticulate. Pronotal furrow absent, the lateral excavations wide and fairly deep, propleura and prosternum very sparsely and shallowly punctate, mesosternum finely and very closely punctate, becoming nearly smooth laterally but punctate near the lateral margins, episterna rather finely reticulate-punctate, metasternum irregularly transversely striate. Metapleural and epinotal teeth reticulate-punctate above, the latter very finely so apically, both smooth below; the epinotal teeth long, narrow and acute at the apex, the posterior margins widely and deeply emarginate.

Tergites deeply reticulate-punctate, the largest punctures a little smaller than those on the vertex, the punctures smaller and very close on the disk of the 2nd and near the apical margin of the 1st and becoming much shallower near the apical margin of the 2nd. Basal declivity of the 1st with a very wide, shallow V-shaped depression, the 3rd with a subapical transverse incassation, its apical margin entire.

The distance between the antennal sockets equal to half the width of the 1st joint of the flagellum, the 2nd joint a little longer than the 1st and two-thirds longer than wide, the 1st and 3rd joints subequal in length. Cheeks very short, the shortest distance across the face about one-third greater than the distance between the top of the face and the base of the clypeus. Pronotum three and three-quarters times wider behind than long in the middle, the sides divergent behind and sinuate in the middle, the sides of the median area of the mesonotum parallel.

♂ like the ♀♀ except that the 3rd tergite is rather more broadly rounded, the subapical incassation is a little weaker and the translucent apical border is a little narrower.

LOCALITY. Bulawayo, Gwanda, Southern Rhodesia.

Described from nine ♀♀ and one ♂. Types in coll. R. H. R. Stevenson.

Hedychridium coloratum sp.n. (Fig. 35).

♂ 4.0 mm. long. Brightly coloured, the vertex of the head, pronotum except the anterior and lateral margins, mesonotum, scutellum and mesopleura in the middle, coppery red; tergites, especially the 2nd and

3rd, redder to bright cerise. Face, temples and the rest of the thorax dark metallic greenish blue. Sternites black with a large metallic bluish green area on the 2nd and 3rd and a similarly coloured but much smaller area on the 1st. Femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi, ochreous, the apical joints of the tarsi much darker.

Mandibles green at the base, dark brown apically, with a short subapical area ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic bluish green, the rest of the antennae black. Wings hyaline, tinged with fuscous, tegulae metallic bluish green. Pubescence light, fairly long and dense, white and denser on the sides of the face.

Clypeus finely and fairly sparsely punctate, the median area feebly convex transversely, its apical margin concave. Facial cavity wide and fairly deep, very finely reticulate-punctate except on a narrow indistinct median area which is feebly coriaceous; facial fovea absent; the face distinctly transversely marginate above. The rest of the head reticulate-punctate, the punctures largest in front of the anterior ocellus where they are up to two-fifths as wide as the latter, becoming considerably smaller towards the back of the head. Dorsum of the thorax and mesopleura reticulate-punctate, the punctures rather irregular in size, especially on the pronotum, largest on the metanotum and the disk of the pronotum where they are up to half as wide as the anterior ocellus, on the scutellum and the posterior half of the median area of the mesonotum the interspaces are a little wider than elsewhere and the puncturation is subreticulate. Pronotal furrow absent, the lateral excavations wide, shallow and irregularly rugulose. Propleura finely, shallowly and closely punctate, prosternum smooth, mesosternum nearly smooth, its posterior and lateral margins and a small median area becoming punctate, episterna punctato-rugulose, becoming smooth behind, metasternum nearly smooth, very feebly transversely striate. Metapleural and epinotal teeth reticulate-punctate above, smooth below, the latter fairly strong, subacute apically, the posterior margins strongly and deeply emarginate.

Tergites rather coarsely reticulate-punctate, the punctures feebly punctulate, the largest about one-third as wide as the anterior ocellus, but becoming a little smaller on the middle of the 2nd near the base. Basal declivity of the 1st with a wide, shallow V-shaped depression similar in puncturation to the rest of the tergite, the 3rd with a very feeble subapical incassation, the apical margin with a very feeble, wide, V-shaped excision in the middle, the sides with a very narrow and indistinct, semi-translucent border.

The distance between the antennal sockets rather less than the width of the 1st joint of the flagellum, the 2nd joint two-fifths longer than the 1st and twice as long as wide, the 1st and 3rd joints equal in length. Cheeks medium, a little shorter than the 1st joint of the flagellum, eyes divergent above and below. The shortest distance across the face one-quarter greater than the distance between the top of the facial cavity and

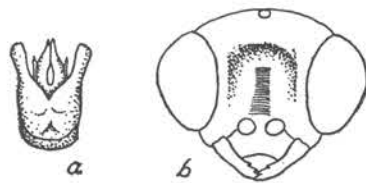


Fig. 35. *Hedychridium coloratum* ♂.
a, genitalia, $\times 17$; b, head, $\times 17$.

the base of the clypeus. Pronotum three and a third times wider behind than long in the middle, the sides divergent behind and strongly sinuate in the middle, a little wider than the head across the eyes. The sides of the median area of the mesonotum indistinct.

♀♀ 4.3 mm. long, like the ♂♂ except that the subapical incrustation on the 3rd tergite is a little stronger and the tergite itself is a little longer and narrower apically.

LOCALITY. Matjiesfontein, Cape Province.

Described from one ♂ and two ♀♀. Types in British Museum.

Hedychridium coloratum var. **impressum** var.n. (Fig. 36).

♀ 5.2 mm. long. Differs from the type of the species in the following characters: a little longer, the coloration of the tergites a little less bright, reddish copper rather than cerise. The transverse incrustation at the top of the face with a distinct impression in the middle. The puncturation generally is rather finer, this is particularly noticeable on the tergites and to a lesser extent on the metanotum and scutellum. The face is a little longer compared with its width, the pronotum is two and three-quarter times wider behind than long in the middle.

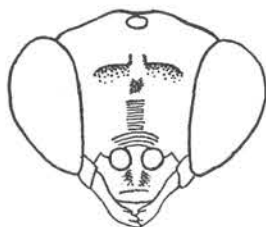


Fig. 36. *Hedychridium coloratum impressum* ♀, head, × 17.

LOCALITY. Ceres, Cape Province.

Described from one ♂. Type in British Museum.

Hedychridium uncinatum sp.n. (Fig. 37).

♂ 4.7 mm. long. Light metallic green, the median area of the mesonotum and to a lesser extent the scutellum light yellowish copper, sternites black with a large metallic yellowish green area on the 2nd and 3rd and a similar smaller area on the 1st. Femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi, ochreous. Mandibles green at the base, dark brown apically, with a short subapical region ferruginous, clypeus with a narrow black apical border, wider in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae black. Wings hyaline tinged with fuscous, tegulae metallic green. Pubescence pale, of medium length and density, denser on the sides of the face.

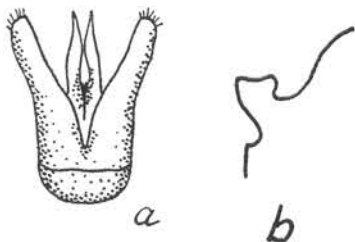


Fig. 37. *Hedychridium uncinatum* ♂. a, genitalia, × 23; b, outline of epinotal tooth, × 35.

Clypeus finely and fairly closely punctate, the median area feebly convex transversely its apical margin nearly straight. The facial cavity fairly shallow, very finely reticulate-punctate at the sides, a narrow median

area about one-quarter as wide as the face finely striate transversely and with a feeble median longitudinal groove; facial fovea feeble. The face marginate above, the margination feebly impressed in the middle. The rest of the head reticulate-punctate, the punctures feebly punctulate and largest in front of the anterior ocellus where they are up to two-fifths as wide as the latter, becoming a little smaller behind. Temples with a longitudinal carina below. Dorsum of the thorax reticulate-punctate, the punctures largest on the metanotum where they are up to two-thirds as wide as the anterior ocellus, becoming a little smaller towards the pronotum; on the median area of the mesonotum and the scutellum the interspaces are a little wider, and on the pronotum the punctures are rather deeper, than elsewhere. Pronotal furrow absent, the lateral excavations fairly wide and shallow, propleura very sparsely and shallowly punctate, prosternum smooth, mesopleura similar in puncturation to the lateral areas of the mesonotum, mesosternum sparsely and shallowly punctate, the punctures becoming closer laterally, episterna punctato-rugulose, metasternum coriaceous. Metapleural and epinotal teeth reticulate-punctate above, nearly smooth below, the latter fairly strong, rounded apically and apparently strongly uncinatate due to a very strong and somewhat oblique emargination of the posterior margins.

Tergites coarsely and deeply reticulate-punctate, the punctures largest on the apical half of the 2nd in the middle where they are as wide as those on the metanotum, a little smaller than this on the 3rd and considerably smaller on the 1st and the base of the 2nd. Basal declivity of the 1st with a wide shallow U-shaped depression striato-rugulose, the 3rd with a strong transverse subapical incassation, the apical margin entire, without a translucent border, feebly sinuate laterally.

The distance between the antennal sockets about two-thirds as great as the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and a little more than twice as long as wide, the 1st and 3rd joints equal in length. Cheeks short, one-quarter as long as the 1st joint of the flagellum, eyes divergent above and below. The shortest distance across the face two-fifths greater than the distance between the top of the face and the base of the clypeus. Pronotum about three and one-third times wider behind than long in the middle, the sides divergent behind and feebly sinuate in the middle. The sides of the median area of the mesonotum parallel.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from one ♂. Type in National Museum, Southern Rhodesia.

Hedychridium chrysochlorum (Fig. 38a).

Mocsary, *Ann. Mus. Nat. Hung.* vi, 505, n. 2 (1908).

♀ 5.0 mm. long. General colour metallic greenish copper, the ocellar area, the median area of the mesonotum and a median basal area on the 2nd tergite nearly black, the floor of the punctures on the median area of the mesonotum metallic green. The rest of the 2nd tergite, the whole of the 3rd, the ventral surface of the thorax and the face except the clypeus, greener than elsewhere. Sternites iridescent brownish black with a large green area in the basal half on the 2nd. Femora and tibiae

greenish copper, more or less of the inner surface of the latter, and the tarsi, dark ferruginous. Mandibles green at the base, dark brown apically with a small subapical area ferruginous. Scapes and the upper surface of the 1st joint of the flagellum coppery green, the rest of the antennae black. Clypeus with a fairly wide dark brown apical border. Wings hyaline tinged with fuscous, pubescence dirty white, fairly short and sparse.

Clypeus finely and closely punctate, the median area convex transversely, its apical margin nearly straight. Facial cavity fairly deep, the sides finely reticulate-punctate, the punctures punctulate and becoming larger and a little sparser towards the middle and above, a narrow median area indistinctly striate, the facial fovea shallow, the puncturation of the top of the face approaching that of the vertex, the latter and the rest of the head reticulate-punctate, the punctures punctulate and largest in front of the anterior ocellus where they are up to one-third as wide as the latter, becoming a little smaller behind. A small smooth area postero-lateral to each posterior ocellus, temples with a feeble longitudinal carina below. Mesopleura and the dorsum of the thorax reticulate-punctate except the median area of the mesonotum and the scutellum which are subreticulate-punctate, the punctures largest on the metanotum where they are nearly half as wide as the anterior ocellus, becoming a little smaller towards the pronotum. Pronotal furrow absent, the lateral excavations wide and shallow. Propleura shallowly, finely and closely punctate, prosternum nearly smooth, mesosternum finely and closely punctate in the middle, becoming smooth laterally, but punctate near the lateral and posterior margins, episterna punctato-rugulose, metasternum finely transversely rugulose. Metapleural and epinotal teeth finely reticulate-punctate above, smooth below, the latter strong, subacute at the apex, the posterior margin strongly emarginate.

Tergites for the greater part reticulate-punctate, the punctures smaller than those on the dorsum of the thorax, smallest and most dense on the middle of the 2nd near the base; towards the apical margin of the 2nd and on the whole of the 3rd the punctures are larger and the interspaces wider. The basal declivity of the 1st with a very wide U-shaped depression rather coarsely rugulose longitudinally, the 2nd with a rather feeble median longitudinal carina on the basal two-thirds, the 3rd with a feeble subapical incassation, its apical margin entire.

The distance between the antennal sockets rather less than the width of the 1st joint of the flagellum, the 2nd joint one-fifth longer than the 1st and twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face rather more than one-fifth greater than the distance from the top of the facial cavity to the base of the clypeus. Pronotum three and a half times wider behind than long in the middle, the sides divergent behind and sinuate in the middle. The sides of the median area of the mesonotum parallel.

LOCALITY. Johannesburg, Transvaal.



Fig. 38. Outlines of epinotal teeth, $\times 23$. a, *Hedychridium chrysochlorum* ♀; b, *H. ultimum* ♀.

Hedychridium ultimum sp.n. (Fig. 38b).

♀♀ 3.8–5.0 mm. long. Head and thorax dark blue, the surface washed with greenish bronze; or, bluish green, the surface washed with yellowish copper; tergites very dark blue or blackish with greenish reflexions, in lighter specimens the tergites are bronze green, in darker specimens the 1st tergite is considerably lighter than the rest. Sternites black with a larger or smaller metallic blue or green area on the 2nd. Femora and tibiae metallic bluish green or purplish, more or less of the inner surface of the latter, their apices and the tarsi, ferruginous or dark ochreous. Mandibles green at the base, dark brown apically with a subapical region ferruginous. Scapes metallic green, the rest of the antennae very dark greyish brown, except the upper surface of the 1st joint of the flagellum which is sometimes feebly metallic. Wings fusco-hyaline, tegulae dark brown. Pubescence pale, short and fairly dense, denser on the sides of the face.

Clypeus finely and fairly sparsely punctate, the median area feebly convex transversely, its apical margin nearly straight, the facial cavity fairly shallow, very finely reticulate-punctate at the sides, a median area about one-third as wide as the face finely striate transversely, without a median groove, the facial fovea feeble. Face marginate above by a transverse incassation, the latter fairly strongly impressed in the middle. The rest of the head reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus, but a little smaller on the ocellar area and considerably smaller on the back of the head. Dorsum of the thorax and mesopleura rather finely reticulate-punctate, the punctures punctulate and largest on the metanotum where they are up to one-third as wide as the anterior ocellus, becoming a little smaller towards the pronotum. Pronotal furrow absent, the lateral excavations fairly wide and deep. Propleura finely, shallowly and closely punctate, prosternum nearly smooth, mesosternum closely and finely punctate, with a smooth area in each lateral half, episterna closely punctate, becoming rugulose below, metasternum coriaceous, metapleural and epinotal teeth finely reticulate-punctate above, smooth below, the latter fairly long, rounded apically, the posterior margins deeply and obliquely emarginate.

Tergites finely reticulate-punctate, the punctures a little smaller than those on the pronotum. Basal declivity of the 1st with a wide, shallow U-shaped depression, similar in puncturation to the rest of the tergite, the 3rd with a feeble subapical transverse incassation, the apical margin entire or with a feeble, very wide impression in the middle.

The distance between the antennal sockets half as great as the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and a little less than twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face about one-fifth greater than the distance between the top of the facial cavity and the base of the clypeus. Pronotum a little more than three times wider behind than long in the middle, the sides divergent behind and sinuate in the middle, the sides of the median area of the mesonotum indistinct.

LOCALITY. Cape Town, Ceres, Cape Province.

Described from five ♀♀. Type in British Museum.

Hedychridium rhodesiaca

Mocsary, *Ann. Mus. Nat. Hung.* XII, 4 (1914).

Submediocris, parallela, sat robusta, virescenti-cyanea, breviter pilosa; vertice, pronoti lateribus, pleuris ac scutello magis virescentibus; abdominis segmento dorsali primo margine apicali anguste viridi-subaureo limbato; segmentis omnibus magis cyaneis; mesonoti lobo medio violascenti; cavitate faciali profunda, medio dense subtilissime transverse striata, lateribus fortius punctato-coriacea; antennis sat tenuibus, minus longis, fuscis, articulis duobus primis cyaneis, tertio longo, secundo plus quam duplo longiore; genis linearibus; pronoto longo, capite parum longiore, sed eius latitudinis, transverse rectangulo, lateribus in medio sinuatis, antice in medio longitudinaliter sulcato; postscutello convexo, metanoti dentibus postico-lateralibus acute-triangularibus; pronoto dense ac parum subtilius, mesonoto cum scutello ac postscutello modice dispersius sat crasse ac profunde punctato-reticulatis; mesopleuris punctatura pronoti; abdominis segmentis dorsalibus fere aequaliter dense subtiliter punctatis, secundo carinula mediana nulla, tertio margine apicali rotundato-integro et imo margine anguste sordide albo-hyalino; ventris segmentis duobus primis, femoribus item et tibiis cyaneis, segmento tertio nigro-piceo, tarsis rufo-testaceis; alis hyalinis modice fumatis iridescentibus, venis fuscis, tegulis nigro-piceis.

♀ Long. 5 mm.

Species: de cavitate faciali, punctatura thoracis abdominisque et huius segmento dorsali primo margine apicali anguste viridi-subaureo limbato margineque apicali tertii anguste sordide albo-hyalino, facile cognoscitur. De cetero *Holopyga capensis* Mocs., affinis; sed punctatura abdominis segmentis dorsalium multo densiore parumque subtiliore, satis distincta.

Rhodesia septentrionalis-orientalis (Mus. Brit.).

Genus **Hedychrum** Latreille

Hedychrum Latreille, *Hist. Nat. Ins.* III, 317 (1806) (*ex parte*).

Holopyga Dahlbom, *Hym. Europ.* II, 47, gen. 5 (1854) (*ex parte*).

Hedychrum Mocsary, *Monog. Chrysid.* p. 155 (1889).

CHARACTERS. Small to fairly large insects, the head strongly developed, as long as, or considerably shorter than, the pronotum and about as wide. The facial cavity usually deep but sometimes shallow, always transversely rugulose or striate, cheeks usually very short, mouth parts normal or considerably elongated (*coelestinum* Spin.), mandibles acute at the apex and with two obtuse teeth on the inner margin. The pronotum transverse, varying between two and three times wider behind than long in the middle, the sides more or less strongly divergent behind. Mesopleura normal, the lower margins frequently carinate, the epinotal teeth strong, their posterior margins varying considerably in shape as in *Hedychridium*. The wing venation is very similar to that in *Hedychridium* although the basal vein is a little straighter than in several (but by no means all) species

of that genus. The metathoracic stigmata are large, usually long, narrow, oblique slits, situated below the metapleural teeth. The anterior or lower surface of the posterior femora is more or less completely dull black in the ♂♂, metallic in the ♀♀. The tarsal claws each with a strong tooth near the apex so that the latter appears forked. The apical margin of the 3rd tergite with or without a narrow hyaline border, more or less strongly angulate at the sides and usually feebly impressed or excised in the middle. The most valuable characters for separating the species are the sculpture, colour (used with discretion, since this varies considerably within a species), the texture and shape of the apical margin of the 3rd tergite, the shape of the epinotal teeth and the proportions of the face and pronotum.

DISTRIBUTION. The distribution of this genus is similar to that of *Hedychridium*. Thirty-eight species and subspecies occur in the South African subregion, nine of which I have been unable to include in the following key as I have not seen the types or reliably named specimens.

Key to the species of Hedychrum

- (4) 1. Interspaces on the dorsum of the thorax flat and distinctly striate.
 (3) 2. Interspaces on the 1st tergite smooth. **Bouyssoui** Buysson
 (2) 3. Interspaces on the 1st tergite feebly striate. **abdominale** sp.n.
 (1) 4. Interspaces on the dorsum of the thorax not flat and distinctly striate.
 (24) 5. Apical and lateral margins of the 1st tergite without a translucent border.
 (9) 6. Length of the 1st tergite in the middle, from the top of the basal declivity to the apical margin half (or very slightly more) as long as the scutellum.
 (8) 7. Sides of the pronotum feebly divergent behind, transverse striae on the face interrupted by a shallow V-shaped depression above.
expectatum var. **interruptum** var.n.
 (7) 8. Sides of the pronotum strongly divergent behind, transverse striae on the face entire. **expectatum** sp.n.
 (6) 9. Length of the 1st tergite measured as in 6 above, considerably more than half as long as the scutellum.
 (21) 10. At least the posterior half of the tegulae non-metallic, brown.
 (14) 11. Pronotum with two distinct, more or less triangular, maculae.
 (13) 12. Disk of the 1st tergite very finely and closely punctate.
gonomaculatum sp.n.
 (12) 13. Disk of the 1st tergite more coarsely and sparsely punctate.
gonomaculatum var. **Bevisi** var.n.
 (11) 14. Pronotum immaculate or only indistinctly maculate.
 (16) 15. 2nd joint of the flagellum nearly twice as long as the 1st.
ordinatum sp.n.
 (15) 16. 2nd joint of the flagellum not nearly twice as long as the 1st.
 (18) 17. Base of the 2nd tergite with a very narrow median longitudinal area smooth, the pronotum very coarsely and rather sparsely punctate.
crassinotum sp.n.
 (17) 18. Base of the 2nd tergite without such a smooth strip.
 (20) 19. 1st tergite without large smooth interspaces laterally, some areas strongly copper in colour, stipites narrower apically compared with their length.
emendatum var. **dunbrodiense** var.n.

- (19) 20. 1st tergite with large smooth interspaces laterally, less coppery in colour, stipites wider apically compared with their length. **emendatum** sp.n.
- (10) 21. The whole of the tegulae, except sometimes the lateral and posterior margins, metallic green or purple.
- (23) 22. Shortest distance across the face at least one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity, pronotum more deeply and densely punctate. **Arnoldi** sp.n.
- (22) 23. Shortest distance across the face about one-tenth greater than the distance from the top of the antennal sockets to the top of the facial cavity, pronotum more shallowly and sparsely punctate. **coelestinum** Spinola
- (5) 24. Apical margin of the 3rd tergite with at least a feeble translucent border.
- (26) 25. Red or reddish copper. **rubrum** sp.n.
- (25) 26. Not red or reddish copper.
- (32) 27. 2nd tergite with a distinct though narrow smooth median longitudinal strip.
- (29) 28. Disks of the 1st and 2nd tergites black or at least much darker than the sides. **nigrocyaneum** sp.n.
- (28) 29. 1st and 2nd tergites unicolorous.
- (31) 30. Posterior margins of the epinotal teeth with a distinct emargination lateral to the recurved tooth near the base. **laevivittatum** var. **disturbans** var.n.
- (30) 31. Posterior margins of the epinotal teeth without such emargination. **laevivittatum** sp.n.
- (27) 32. 2nd tergite without a distinct smooth median longitudinal strip.
- (40) 33. Posterior margins of the epinotal teeth without an acute recurved tooth near the base.
- (35) 34. Pronotum with a small smooth triangular area in the middle near the apical margin. **Stevensoni** sp.n.
- (34) 35. Pronotum without such a smooth area.
- (37) 36. Sides of the face very coarsely and obliquely punctato-rugulose. **apiculatum** sp.n.
- (36) 37. Sides of the face normal, reticulate-punctate.
- (39) 38. Punctures on the metanotum coarser, as wide as the anterior ocellus and distinctly punctulate. **comptum** sp.n.
- (38) 39. Punctures on the metanotum finer, not more than two-thirds as wide as the anterior ocellus, very indistinctly punctulate or not at all. **aptum** sp.n.
- (33) 40. Posterior margins of the epinotal teeth with an acute recurved tooth near the base.
- (42) 41. Pronotum immaculate, posterior half of the tegulae testaceous. **brevinotum** sp.n.
- (41) 42. Posterior half of the tegulae brown or metallic, not testaceous, pronotum usually with two dark maculae.
- (44) 43. Pronotum with two large, distinct black maculae, disks of the 1st and 2nd tergites, except apically on the latter, purplish blue, much darker than the rest of the tergites. **nigromaculatum** sp.n.
- (43) 44. Pronotum without two large, distinct black maculae.
- (50) 45. Posterior margin of the epinotal teeth with a non-metallic, subtranslucent border.
- (49) 46. Puncturation very coarse and strong, metanotum gibbous.
- (48) 47. Disk of the 2nd tergite black, subtranslucent border on the posterior margin of the epinotal teeth wider. **penultimum** sp.n.

- (47) 48. Disk of the 2nd tergite green or dark blue, subtranslucent border on the posterior margin of the epinotal teeth narrower.
morosum Buysson
- (46) 49. Punctuation less coarse and strong, metanotum not gibbous.
palliditarsis sp.n.
- (45) 50. Posterior margin of the epinotal teeth without a distinct subtranslucent border.
- (52) 51. Face with a small, slightly raised smooth area in the middle above, punctuation of the tergites extremely coarse and rather sparse.
distinctum sp.n.
- (51) 52. Face without such a raised smooth area.
- (54) 53. Pronotum light yellowish green with two distinct, navy blue, oblique maculae, the punctures regular in shape and size, the interspaces sparsely punctulate.
obliquum sp.n.
- (53) 54. Without the above combination of characters.
- (56) 55. A distinct black macula on the ocellar area.
katbergense sp.n.
- (55) 56. Without a distinct black macula on the ocellar area.
- (58) 57. Punctures near the apical margin of the 2nd tergite shallow and not nearly half as wide as the anterior ocellus.
explicatum sp.n.
- (57) 58. Punctures near the apical margin of the 2nd tergite deep and half as wide as the anterior ocellus.
scrobiculatum sp.n.

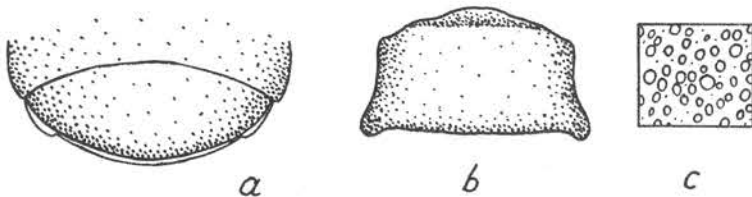


Fig. 39. *Hedychrum Bouyssoui* ♀. a, 3rd tergite, $\times 17$; b, pronotum, $\times 17$; c, punctuation of 2nd tergite, $\times 40$.

Hedychrum Bouyssoui (Fig. 39).

Buysson, *Rev. Ent. Caen.* XIX, 129 (1900).

♀♀ 4.0–6.0 mm. long. Metallic coppery green to bluish green, tergites a little darker than the dorsum of the thorax, two rather indistinct maculae near the middle of the pronotum and the anterior lateral regions of the median area of the mesonotum much darker than the rest of the dorsum of the thorax. Sternites black, the 1st with a small area in each lateral half and the 2nd with one much larger area in the middle, metallic blue or green. Femora and tibiae lighter or darker metallic green, the inner surfaces of the latter, their apices and the tarsi, ochreous or ferruginous. Mandibles green at the base, ferruginous in the middle, black apically, clypeus with a narrow black apical border. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae very dark blackish brown, becoming a little paler apically. Wings hyaline tinged with fuscous, tegulae metallic green. Pubescence light, fairly short and dense, absent on the disks of the 1st and 2nd tergites.

Clypeus very short below the antennal sockets, finely and fairly closely punctate, the median area convex transversely, its apical margin nearly

straight. Facial cavity broad and fairly deep, the sides finely reticulate-punctate, the punctures becoming a little finer medially, a median area about one-third as wide as the shortest distance across the face transversely rugulose and with a small triangular area above smooth or nearly smooth, the facial fovea indistinct. Face rounded above onto the vertex, the latter and the rest of the head reticulate-punctate, the punctures punctulate, largest between the posterior ocelli and the tops of the eyes where they are up to half as wide as the anterior ocellus. Dorsum of the thorax reticulate-punctate except the scutellum and often the sides of the pronotum where the interspaces are a little wider; the punctures punctulate and largest on the metanotum where they are nearly as wide as the anterior ocellus; the interspaces, except on the metanotum, rather irregularly striate. Pronotal furrow absent, the lateral excavations deep and strongly rugulose. Propleura shallowly, closely and somewhat irregularly punctate, prosternum nearly smooth, mesopleura similar in puncturation to the pronotum, mesosternum very finely and closely punctato-striate, episterna and metasternum transversely rugulose, the former becoming reticulate-punctate near the anterior margin. Meta-pleural and epinotal teeth finely reticulate-punctate above, the former smooth, the latter finely coriaceous or striate below, the epinotal teeth strong and subacute at the apex, the posterior margins with an acute tooth near the base.

1st tergite and the base of the 2nd reticulate- or subreticulate-punctate, the punctures becoming larger laterally up to the size of those on the vertex of the head, the punctures punctulate, the interspaces sparsely so. On the apical third, more or less, of the 2nd tergite and on the whole of the 3rd, the punctures are a little sparser, shallower and larger than elsewhere. The basal declivity of the 1st with a distinct, rather narrow V-shaped depression in the middle, the apical and lateral margins of the 3rd with a distinct, narrow, translucent border, entire or very feebly impressed in the middle, distinctly angulate at the sides.

Antennal sockets separated by a distance equal to the width of the 1st joint of the flagellum, the 2nd joint about one quarter longer than the 1st and twice as long as wide, the 1st and 3rd joints equal in length. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face one-third greater than the distance between the top of the antennal sockets and the top of the facial cavity. Pronotum about two and a fifth times wider behind than long in the middle, the sides divergent behind and sinuate in the middle. Sides of the median area of the mesonotum feebly divergent in front and behind.

LOCALITY. Widely distributed throughout the South African subregion.

Hedychrum abdominale sp.n. (Fig. 40).

♀ 10.0 mm. long. General colour darkish metallic green with yellowish reflexions, the 3rd tergite a little darker than elsewhere, becoming bluish. Sternites black with a large metallic green macula in the middle of the 2nd. Femora and the outer surface of the tibiae metallic green, the inner surface of the latter, their apices and the tarsi, dark reddish brown. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black, clypeus with a narrow

brownish apical margin. Mandibles green at the base, black apically with a short subapical region ferruginous. Wings fusco-hyaline, tegulae metallic olive green. Pubescence nearly black on the dorsum of the thorax, whitish elsewhere, long and fairly dense, shorter on the thorax than on the tergites.

Clypeus short, coriaceous, the median area convex transversely, its apical margin very feebly concave. Facial cavity deep and not as wide as the face. The sides of the face coarsely reticulate-punctate, the punctures punctulate and becoming smaller medially; the facial cavity coarsely rugose transversely, a short area at the top very finely striate. Face rounded above. The head in front of the posterior ocelli subreticulate-punctate, the punctures punctulate, largest above the tops of the eyes where they are nearly half as wide as the anterior ocellus. Behind the posterior ocelli the puncturation is a little sparser and the interspaces become distinctly, but rather irregularly, transversely striate. Dorsum of the thorax except the metanotum subreticulate-punctate, the punctures

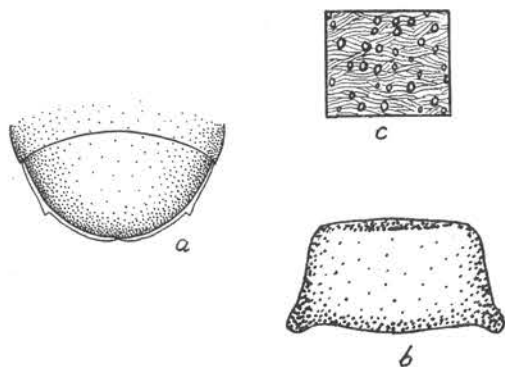


Fig. 40. *Hedychrum abdominale* ♀. a, 3rd tergite, $\times 8$; b, pronotum, $\times 10$; c, punctuation of 2nd tergite, $\times 40$.

punctulate, those on the scutellum a little larger than elsewhere, about the size of the largest on the vertex, the interspaces distinctly but rather irregularly striate transversely. Metanotum coarsely reticulate-punctate, the punctures feebly punctulate and up to the width of the anterior ocellus. Pronotal furrow absent, the lateral excavations deep and strongly, arcuately rugose. Propleura very finely, closely and shallowly punctate with a few much larger punctures laterally, prosternum smooth, mesopleura coarsely reticulate-punctate, the interspaces rather feebly and sparsely striato-punctulate, mesosternum finely coriaceous, becoming more coarsely punctate laterally, the lateral margins carinate, episterna rugulose behind, coarsely reticulate-punctate near the anterior margin, metasternum transversely rugulose. Metapleural and epinotal teeth reticulate-punctate above, the latter very finely so apically, the metapleural teeth smooth below, the epinotal teeth smooth at the base, becoming fairly closely punctate apically, strong, acute at the apex, continuous in front with the metapleural teeth, their posterior margins with a strong, recurved, acute tooth near the base.

1st and 2nd tergites finely and fairly closely punctate, the punctures becoming a little larger and sparser laterally on the 1st and laterally and apically on the 2nd, the interspaces on the disks of both tergites very finely coriaceous. On the 3rd tergite the punctures are about the same size as those near the apical margin of the 2nd and fairly dense, becoming much denser laterally, the interspaces smooth. Basal declivity of the 1st with a fairly strong, rather narrow U-shaped depression in the middle, the 3rd without a translucent border, its apical margin rather feebly impressed in the middle and with a distinct, acute tooth at each side.

Distance between the antennal sockets equal to the width of the 1st joint of the flagellum, the 2nd joint twice as long as the 1st and about three times longer than wide, the 3rd joint slightly longer than the 1st. Cheeks short, one-sixth as long as the 1st joint of the flagellum. Shortest distance across the face one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum two and one-fifth times wider behind than long in the middle, the sides divergent behind. The sides of the median area of the mesonotum feebly divergent in front.

LOCALITY. Stella Bay, Durban, Natal.

Described from one ♀. Type in Durban Museum.

Hedychrum expectatum sp.n. (Fig. 41).

♂♂ 8.0-9.5 mm. long. Metallic green with coppery reflexions, the pronotum and head usually more coppery than elsewhere, sometimes distinctly reddish copper, the 3rd tergite greenish blue, the two lateral thirds of the median area of the mesonotum and usually the anterior margin of the scutellum, much darker to black. 1st sternite black with small transverse green areas near its apical margin, the 2nd and 3rd green with broad basal and lateral borders black. Femora and tibiae metallic coppery green, the anterior surface of the hind femora dull black. Tarsi and more or less of the inner surfaces of the tibiae ferruginous. Mandibles green at the base, black apically, ferruginous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae blackish. Clypeus with a narrow black apical margin. Wings fusco-hyaline. Pubescence light, fairly long and sparse.

Clypeus very finely and closely punctate, the median area convex transversely, its apical margin nearly straight. Facial cavity fairly deep, the sides of the face fairly coarsely reticulate-punctate, the punctures becoming much smaller medially and merging into a transversely striate median area, about one-half as wide as the face, with a small smooth area above. Facial fovea absent. The rest of the head in front of the anterior ocellus coarsely reticulate-punctate, the puncturation becoming subreti-

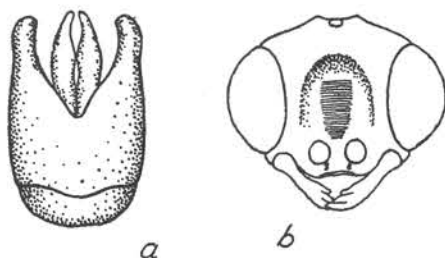


Fig. 41. *Hedychrum expectatum* ♂.
a, genitalia, $\times 17$; b, head, $\times 12$.

Pubescence light, fairly long and sparse. Clypeus very finely and closely punctate, the median area convex transversely, its apical margin nearly straight. Facial cavity fairly deep, the sides of the face fairly coarsely reticulate-punctate, the punctures becoming much smaller medially and merging into a transversely striate median area, about one-half as wide as the face, with a small smooth area above. Facial fovea absent. The rest of the head in front of the anterior ocellus coarsely reticulate-punctate, the puncturation becoming subreti-

culate behind, the punctures punctulate and up to one-third as wide as the anterior ocellus, the interspaces on the back of the head irregularly striate or punctulate. Pronotum fairly closely punctate, the punctures from one-third to half as wide as the anterior ocellus, the interspaces sparsely punctulate; the rest of the dorsum of the thorax coarsely reticulate-punctate, the punctures feebly punctulate and largest on the metanotum where they are as wide as the anterior ocellus, becoming smaller anteriorly. Pronotal furrow absent, the lateral excavations deep and coarsely, irregularly coriaceous. Propleura closely and finely punctate, prosternum nearly smooth, mesopleura rather shallowly reticulate-punctate, the interspaces becoming wider and closely punctulate above, mesosternum very finely, closely and shallowly punctate, the lateral and postero-lateral margins carinate, episterna extremely coarsely punctate in front, rugulose behind, the margins carinate, metasternum coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely and closely punctate below, long, acute at the apex, the posterior margins obtusely angulate near the base.

More or less of the apical margin of the 1st tergite and the disk of the 2nd finely and fairly closely punctate, the punctures punctulate and becoming larger and sparser apically and laterally on the 2nd and basally and laterally on the 1st, the largest punctures as wide as those on the pronotum. Basal declivity of the 1st usually smooth. On the 3rd the punctures are equal in size to the largest on the 2nd but somewhat denser and shallower, each puncture open behind. The density of the puncturation on the tergites varies considerably; the above description is only an average and must not be taken to apply in detail to each specimen.

Basal declivity of the 1st with a wide, fairly deep V-shaped depression, the apical and lateral margins of the 3rd without a distinct translucent border, more or less distinctly impressed in the middle and acutely angulate laterally.

Distance between the antennal sockets nearly as great as the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and rather more than twice as long as wide, the 1st and 3rd joints equal in length. Cheeks very short. The shortest distance across the face about one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum strongly convex transversely and fairly strongly so longitudinally, about two and a fifth times wider behind than long in the middle, the sides strongly divergent behind. The sides of the median area of the mesonotum indistinct, feebly divergent in front.

♀♀ 8.3-10.0 mm. long. Similar to the ♂♂ except that the anterior surface of the posterior tibiae is metallic green.

LOCALITY. Cape Province.

Described from five ♂♂ and five ♀♀. Types in National Museum, Southern Rhodesia.

***Hedychrum exspectatum* var. *interruptum* var.n. (Fig. 42).**

♀ 7.2 mm. long. Differs from the type of the species in the following characters: A little smaller; the striae on the facial cavity finer and interrupted in the middle by a narrow median longitudinal area which is very

finely coriaceous and with a distinct narrow, shallow V-shaped depression near the top. The lateral teeth on the 3rd tergite obtuse, the pronotum a little narrower behind in proportion to its length, the sides considerably less divergent behind.

LOCALITY. Aliwal North, Cape Province.

Described from one ♂. Type in British Museum.

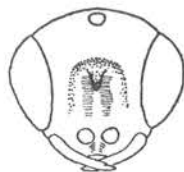


Fig. 42. *Hedychrum expectatum interruptum* ♀, head, × 12.

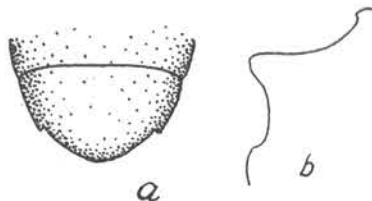


Fig. 43. *Hedychrum gonomaculatum* ♀. a, 3rd tergite, × 7; b, outline of epinotal tooth, × 12.

***Hedychrum gonomaculatum* sp.n.** (Fig. 43).

♀♀ 8.5–10.5 mm. long. Lighter or darker metallic green, the base of the pronotum and sometimes the face lighter than elsewhere, yellowish green or light copper. Two more or less distinctly triangular maculae on the pronotum, more or less of the median area of the mesonotum in front and to a lesser extent the scutellum in front, darker than elsewhere, blackish or purplish blue. Sternites black with a metallic green macula in each lateral half, small in the 1st and 3rd, larger in the 2nd. Femora and tibiae metallic green, more or less of the inner surface of the latter blackish brown, their apices and the tarsi dark reddish brown. Mandibles green at the base, dark shining brown apically, ferruginous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae black.

Clypeus finely and closely punctate at the sides, more sparsely so medially, the median area strongly convex transversely, with a feeble median longitudinal carina, its apical margin nearly straight. Facial cavity deep and rather narrow, the sides of the face rather coarsely reticulate-punctate, a median area, forming the cavity, about two-fifths as wide as the face, strongly rugulose transversely with a small area above nearly smooth. The rest of the head coarsely reticulate-punctate, the punctures punctulate and largest between the posterior ocelli and the tops of the eyes, where they are half as wide as the anterior ocellus. Pronotum subreticulate-punctate, the punctures punctulate and about as wide as the largest on the head, the interspaces sparsely punctulate or striate. The rest of the dorsum of the thorax reticulate-punctate, the punctures punctulate, largest on the metanotum, where they are nearly as wide as the anterior ocellus, becoming smaller anteriorly, the interspaces on the scutellum a little wider than elsewhere and rather sparsely punctate. Pronotal furrow absent, the lateral excavation deep and rugulose. Propleura shallowly and closely punctate, the punctures varying considerably in size, prosternum smooth, mesopleura similar in puncturation to the scutellum, mesosternum very closely, finely and shallowly punctate,

the lateral margins strongly carinate, episterna very coarsely reticulate-punctate in front, rugulose behind, the margins carinate, metasternum coarsely rugulose longitudinally. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely and closely punctate below, broad, strong and subacute apically, the posterior margins with a distinct recurved tooth near the base.

The disk of the 1st and 2nd tergites finely reticulate- or subreticulate-punctate, the smallest punctures, near the middle, about one-sixth as wide as the anterior ocellus; laterally on the 1st and 2nd the punctures becoming larger and a little sparser. The 2nd apically and the whole of the 3rd much more sparsely and rather more shallowly punctate, the interspaces, at least on the 3rd, sparsely punctulate. Basal declivity of the 1st with a fairly strong V-shaped depression in the middle, the apical margin of the 3rd without a translucent border, very feebly impressed in the middle and strongly angulate laterally.

The distance between the antennal sockets about three-quarters as great as the width of the 1st joint of the flagellum, the 2nd joint twice as long as the 1st and two and a half times longer than wide, the 1st and 3rd joints equal in length. Cheeks very short, eyes divergent above and below. The shortest distance across the face one-fifth to one-seventh greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum twice wider behind than long in the middle, the sides rather feebly divergent behind and very feebly sinuate. The sides of the median area of the mesonotum indistinct, divergent in front.

LOCALITY. Southern Rhodesia.

Described from four ♀♀. Type in National Museum, Southern Rhodesia.

Hedychrum gonomaculatum var. **Bevisi** var.n. (Fig. 44).

♂ 7.5 mm. long. Differs from the type of the species in the following characters: Somewhat shorter; head and pronotum metallic green, the rest of the dorsum of the thorax and the tergites dark greenish blue, the dark maculae on the pronotum less distinct, the anterior surface of the posterior femora dull black (a sexual character), wings a little darker, tegulae entirely brown. The puncturation of the dorsum of the thorax except on the pronotum is rather coarser and the punctures rather deeper, those on the metanotum as wide as the anterior ocellus and only slightly larger than those on the scutellum and the median area of the mesonotum; the interspaces on the scutellum are no wider than elsewhere. The punctures on the mesosternum becoming distinctly sparser laterally. The disk of the 1st and 2nd tergites a little more coarsely punctate, the apical margin of the 3rd tergite distinctly impressed in the middle. The 2nd joint of the flagellum slightly shorter in proportion to the 1st, the pronotum a little wider behind in proportion to its length.

LOCALITY. Medikani River, Basutoland.

Described from one ♂. Type in Durban Museum.

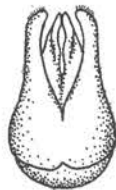


Fig. 44. *Hedychrum gonomaculatum* *Bevisi* ♂, genitalia, $\times 17$.

Hedychrum ordinatum sp.n. (Fig. 45).

♀♀ 8.0-9.5 mm. long. Metallic green, two very indistinct maculae on the

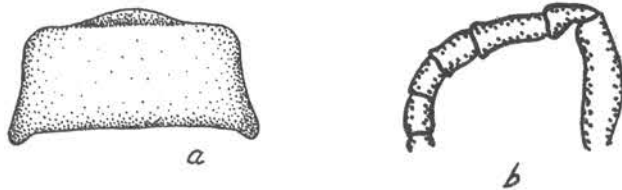


Fig. 45. *Hedychrum ordinatum* ♀. a, pronotum, $\times 12$; b, antenna, $\times 25$.

pronotum and sometimes the median area of the mesonotum a little darker green, the 3rd tergite dark greenish blue. Sternites iridescent black, the 1st with a small and the 2nd with a much larger macula in each lateral half, the 3rd with a small median macula, green. Femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi ferruginous. Mandibles green at the base, very dark brown apically, with a small area in the middle ferruginous. Clypeus with a narrow, nearly black, apical margin. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Wings fusco-hyaline, tegulae green in front, brown behind. Pubescence dirty white, black on the dorsum of the thorax, fairly short and sparse.

Clypeus finely and closely punctate, the median area strongly convex transversely with a very feeble median longitudinal carina, its apical margin feebly concave. Facial cavity wide and fairly deep, the sides coarsely reticulate-punctate, a wide median area, about three-quarters as wide as the face, strongly and somewhat obliquely rugulose with a small area above nearly smooth, the facial fovea feeble and elongate, the face rounded above. The head in front of the anterior ocellus reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus, behind this the puncturation is subreticulate or even sparser, the punctures a little smaller and the interspaces sparsely punctulate, the punctures becoming closer again on the back of the head. Pro- and mesonotum finely and closely punctate, the punctures varying in size from one-fifth to one-third as wide as the anterior ocellus, a little shallower and more irregular on the mesonotum, the interspaces fairly sparsely punctulate or striate, the punctures becoming considerably larger near the base of the median area of the mesonotum, on the scutellum the punctures are a little larger and sparser, at least in the middle, much larger and closer near the base; metanotum coarsely reticulate-punctate, the punctures as wide as the anterior ocellus. Pronotal furrow absent, the lateral excavations wide and fairly shallow, rugulose. Propleura very finely and shallowly reticulate-punctate, prosternum nearly smooth, mesopleura coarsely reticulate-punctate, the interspaces striate, mesosternum finely coriaceous, becoming smooth laterally, the lateral margins carinate, episterna reticulate-punctate in front becoming rugulose behind, metasternum strongly rugulose longitudinally. Metapleural teeth reticu-

late-punctate above, smooth below; epinotal teeth reticulate-punctate above, very finely so apically, finely punctate below, strong and fairly short, rounded apically, their posterior margins with an acute, recurved tooth near the base.

Tergites finely and fairly deeply punctate, the punctures about one-sixth as wide as the anterior ocellus, a little sparser near the base of the 2nd than elsewhere, the basal declivity of the 1st with a fairly deep U-shaped depression in the middle; the 2nd with a feeble median longitudinal carina, the 3rd with an extremely feeble subapical transverse impression, its apical margin without a translucent border, entire in the middle and obtusely angulate laterally.

Antennal sockets separated by a distance one-quarter greater than the width of the 1st joint of the flagellum, the 2nd joint twice as long as the 1st and two and a half times longer than wide, the 3rd joint as long as the 1st. Cheeks very short, eyes divergent above and below. The shortest distance across the face about one-third greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum rather more than twice wider behind than long in the middle, the sides divergent behind, the sides of the median area of the mesonotum feebly divergent in front and behind.

LOCALITY. Chirinda Forest and Mount Selinda, Southern Rhodesia.

Described from 10 ♀♀. Type in National Museum, Southern Rhodesia.

Hedychrum crassinotum sp.n. (Fig. 46).

♂ 9.0 mm. long. Metallic coppery green, the disk of the 1st and 2nd

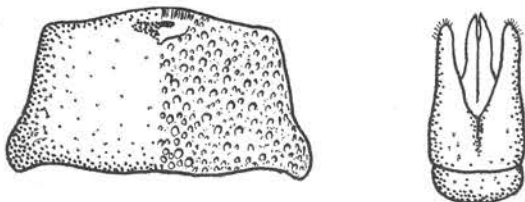


Fig. 46. *Hedychrum crassinotum* ♂. *a*, pronotum, $\times 17$, right half to show puncturation; *b*, genitalia, $\times 17$.

tergites reddish copper, sternites black, the 1st with a smaller, the 2nd and 3rd each with a larger metallic green area apically. The anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic green except more or less of the inner surface of the latter, their apices and the tarsi which are dark reddish brown. Mandibles light coppery green at the base, dark reddish brown apically, clypeus with a nearly black apical border. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic coppery green, the rest of the antennae nearly black. Wings fusco-hyaline, the basal half clearer, tegulae brown with a small metallic green area in front. Pubescence dirty white, long and fairly sparse.

Clypeus punctato-coriaceous at the sides, the median area more coarsely punctate, convex transversely, without a distinct median carina, its apical margin feebly convex. Facial cavity broad and deep, strongly

transversely rugulose with a small area above smooth, the facial fovea absent, a narrow area at the sides of the face coarsely reticulate-punctate; the rest of the head in front of the posterior ocelli coarsely reticulate-punctate, the punctures punctulate and up to one-third as wide as the anterior ocellus, behind the posterior ocelli the puncturation is somewhat sparser, with a distinct smooth area postero-lateral to each posterior ocellus. Pronotum fairly closely punctate in the middle to subreticulate-punctate at the sides, the interspaces, especially at the sides, finely punctulate, the punctures about as large as those on the vertex. The rest of the dorsum of the thorax reticulate-punctate, the punctures feebly punctulate largest on the metanotum and posteriorly on the median area of the mesonotum where they are up to three-quarters as wide as the anterior ocellus, a little smaller than this elsewhere, the interspaces, where wide enough, sparsely punctulate. Pronotal furrow absent, the lateral excavations fairly deep and rugulose. Propleura finely, shallowly and fairly sparsely punctate, prosternum smooth, mesopleura similar in puncturation to the scutellum, mesosternum finely, shallowly and very closely punctate in the middle, becoming smooth laterally, but more coarsely punctate near the lateral margins, the latter carinate, episterna coarsely punctato-rugulose, the margins carinate, metasternum longitudinally rugulose. Metapleural teeth reticulate-punctate above, smooth below, epinotal teeth reticulate-punctate above, finely so apically, finely coriaceous below, strong and wide, acute apically, the posterior margins without an acute recurved tooth near the base.

Disks of the 1st and 2nd tergites finely and fairly closely punctate, the punctures punctulate and about one-quarter as wide as the anterior ocellus, the 2nd with a very narrow, median longitudinal area on the basal half nearly smooth. The rest of the tergites rather more coarsely and sparsely punctate, the punctures on the 3rd rather shallower than elsewhere and denser near the lateral and apical margins. Basal declivity of the 1st with a very wide, shallow, V-shaped depression, the apical margin of the 3rd with a narrow, opaque, non-metallic dark brown border, entire in the middle. The lateral margins of the tergite obtusely angulate.

Distance between the antennal sockets one-quarter greater than the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and rather more than twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and below, the shortest distance across the face one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a fifth times wider behind than long in the middle, the sides strongly divergent behind and sinuate in the middle, the sides of the median area of the mesonotum parallel.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from one ♂. Type in coll. R. H. R. Stevenson.

Hedychrum emendatum sp.n. (Fig. 47)

♂♂ 8.5-9.0 mm. long. Metallic light green, more or less of the median area of the mesonotum and to a lesser extent the 3rd tergite, purplish blue, posterior margin of the pronotum and the disk of the 1st tergite

more or less distinctly greenish gold; sternites black, the 1st with two smaller transverse areas and the 2nd and 3rd with two larger areas in their apical two-thirds, metallic green. Anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic green, more or less of the inner surfaces of the latter, their apices and the tarsi, dark reddish brown. Mandibles very dark brown with a large metallic green area at the base and a short median region ferruginous; clypeus

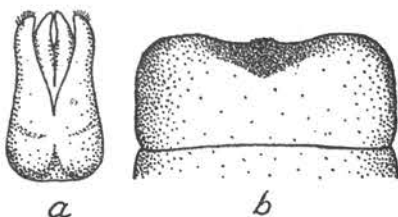


Fig. 47. *Hedychrum emendatum* ♂.
a, genitalia, $\times 17$; b, 1st tergite, $\times 12$.

with a narrow black apical margin, scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Wings fusco-hyaline, tegulae metallic green in front, brown behind. Pubescence darker or lighter brown, long and fairly dense, shorter and very sparse on the face.

Clypeus finely and closely punctato-coriaceous, the median area convex transversely and with an indistinct median longitudinal carina, its apical margin nearly straight. Facial cavity deep and fairly narrow, strongly transversely rugulose, with a very indistinct median groove, a small area above smooth, facial fovea absent. The sides of the face coarsely reticulate punctate, the punctures becoming much smaller towards the median area which is about half as wide as the shortest distance across the face; the face rounded above on to the vertex. The rest of the head in front of the posterior ocelli coarsely reticulate-punctate, the punctures punctulate and largest between the anterior ocellus and the top of the face, where they are up to two-fifths as wide as the former, behind the posterior ocelli the puncturation is subreticulate, the interspaces sparsely punctulate or striate. Pronotum fairly densely punctate, the punctures about one-third as wide as the anterior ocellus, much smaller on the extreme posterior margin, the interspaces finely but fairly densely punctulate; the rest of the dorsum of the thorax reticulate-punctate, the punctures very feebly punctulate, largest on the metanotum where they are up to the width of the anterior ocellus, becoming smaller anteriorly, but those near the base of the median area of the mesonotum as large as those on the metanotum. Pronotal furrow absent, lateral excavations deep and coriaceous. Propleura irregularly, densely and shallowly punctate, prosternum smooth, mesopleura coarsely subreticulate-punctate, the interspaces sparsely punctulate, mesosternum finely and closely punctate, the lateral and postero-lateral margins carinate, episterna reticulate-punctate in front, becoming coarsely rugulose behind, the margins carinate, metasternum finely, longitudinally rugulose. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, smooth at the base below, becoming very finely and densely punctate apically, long and rather narrow, subacute apically, the posterior margins with a somewhat obtuse tooth near the base.

The basal half of the 1st tergite in the middle and the disk of the 2nd

finely and fairly closely punctate, the punctures about one-fifth as wide as the anterior ocellus, elsewhere on the 1st and 2nd and on the 3rd the punctures are a little larger and sparser, shallower on the 3rd than elsewhere, those on the apical half open behind. Basal declivity of the 1st with a wide, shallow V-shaped depression, sparsely punctate, the apical margin of the 3rd without a translucent border, feebly but distinctly impressed in the middle, the sides with a distinct rectangular tooth.

The distance between the antennal sockets rather less than the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and twice as long as wide, the 1st and 3rd joints equal in length. Cheeks short, about one-fifth as long as the 1st joint of the flagellum. Eyes divergent above and below, the shortest distance across the face about one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum a little more than twice wider behind than long in the middle, the sides strongly divergent behind and very feebly sinuate in the middle, sides of the median area of the mesonotum divergent in front.

LOCALITY. Bulawayo, Southern Rhodesia.

Described from two ♂♂. Type in National Museum, Southern Rhodesia.

Hedychrum emendatum var. **dunbrodiense** var.n. (Fig. 48).

♂ 8.5 mm. long. Very similar to the type of the species, but differs from it in the following characters:

The 1st tergite more coppery, its apical margin in the middle distinctly copper, the posterior margin of the pronotum with a row of small punctures. The epinotal teeth not smooth at the base below, finely and closely punctate, rather longer and narrower, acute at the apex. The disk of the 1st and 2nd tergites a little more densely punctate, the punctures on the apical half of the 3rd not open behind, distinct. In the male genitalia the stipites are a little narrower apically compared with their length than in the type of the species.

LOCALITY. Dunbrody, Cape Province.

Described from one ♂. Type in Albany Museum.

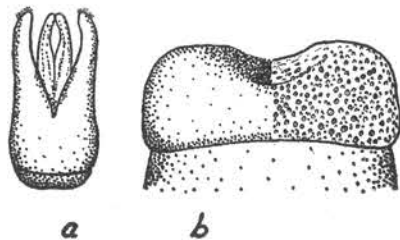


Fig. 48. *Hedychrum emendatum dunbrodiense* ♂. a, genitalia, $\times 17$; b, 1st tergite, $\times 12$.

Hedychrum Arnoldi sp.n. (Fig. 49).

♂♂ 5.8–6.5 mm. long. Metallic green with copper or dark greenish blue reflexions, the median area of the mesonotum and the 3rd tergite often a little darker than elsewhere. Sternites black with a large metallic green area on the 2nd and similar larger or smaller areas on the 1st and 3rd. The anterior surface of the posterior femora with a large dull black area, the rest of the femora and tibiae metallic green, more or less of the

inner surfaces of the latter, their apices and the tarsi, ferruginous. Mandibles green at the base, very dark brown apically, with a small area in the middle ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black, clypeus with a black apical margin. Wings fuscohyaline, tegulae green. Pubescence white, fairly long and sparse.

Clypeus finely and fairly sparsely punctate, the median area strongly convex transversely, its apical margin nearly straight. Facial cavity wide and fairly deep, the sides coarsely reticulate-punctate, a median area about three-

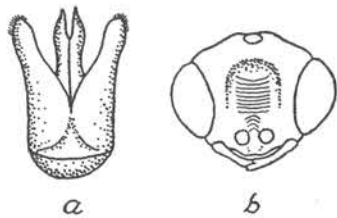


Fig. 49. *Hedychrum Arnoldi* ♂. a, genitalia, $\times 17$; b, head, $\times 12$.

quarters as wide as the face, rugulose transversely with a small triangular area above smooth, the rest of the head rather shallowly reticulate-punctate, the punctures punctulate, the largest about one-third as wide as the anterior ocellus, a small area lateral to each posterior ocellus and another in front of the anterior ocellus, nearly smooth. Pronotum fairly strongly and closely punctate, the punctures punctulate, about half as wide as the anterior ocellus and sparser in the middle than on the sides, the rest of the dorsum of the thorax reticulate- or subreticulate-punctate, the punctures feebly punctulate, largest on the metanotum where they are nearly as wide as the anterior ocellus, becoming smaller anteriorly, the interspaces a little wider on the scutellum and sometimes on the lateral areas of the mesonotum than elsewhere. Pronotal furrow absent, the lateral excavations fairly deep, rugulose. Propleura shallowly, finely and fairly closely punctate, prosternum smooth, mesopleura rather shallowly reticulate-punctate, mesosternum finely punctato-coriaceous in the middle, becoming sparsely and very shallowly punctate laterally, episterna punctato-rugulose, metasternum rather finely rugulose longitudinally. Metanotal teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely coriaceous below, strong, fairly long and acute apically, the posterior margins with an obtuse angle near the base.

The puncturation of the tergites very similar to that of *coelestinum* Spin., the depression on the basal declivity of the 1st a little deeper and narrower, the apical margin of the 3rd similar in texture but very indistinctly impressed or entire in the middle, the lateral angles weaker and less acute than in *coelestinum*.

The distance between the antennal sockets half as great again as the width of the 1st joint of the flagellum, the 2nd joint about half as long again as the 1st and twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks short, about one-quarter as long as the 1st joint of the flagellum, eyes divergent above and below. The shortest distance across the face a third to a quarter greater than the distance between the top of the antennal sockets and the top of the facial cavity. Pronotum about two and a half times wider behind than long in the middle, the sides divergent behind and feebly sinuate in the middle; the sides of the median area of the mesonotum feebly divergent in front.

♀♀ 6.0–8.0 mm. long. Like the ♂♂ except that there is no black area on the posterior femora and that the 1st tergite is a little narrower apically.

LOCALITY. Southern Rhodesia and Natal (Scottburgh).

Described from three ♂♂ and twelve ♀♀. Types in National Museum, Southern Rhodesia.

Hedychrum coelestinum (Fig. 50).

Spinola, *Ann. Soc. Ent. France*, VII, 454, n. 11 (1838).

♂♂ 6.7–8.0 mm. long. Metallic green to purplish blue, the base of the median area of the mesonotum and the 3rd tergite usually darker than elsewhere; sternites green or purple with more or less narrow black borders, the anterior surface of the posterior femora with a large black area in the middle, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi ochreous or ferruginous. Mandibles green or purplish at the base, very dark brown apically with a short subapical area ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae very dark blackish brown. Wings fusco-hyaline, tegulae metallic green to purplish. Pubescence pale brown, fairly long and dense.

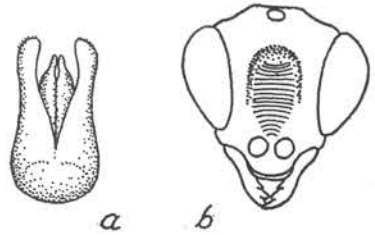


Fig. 50. *Hedychrum coelestinum* ♂.
a, genitalia, $\times 17$; b, head, $\times 12$.

Clypeus fairly long, finely and closely punctate at the sides, the median area more sparsely so, convex transversely, its apical margin straight. Facial cavity deep and fairly narrow, the sides of the face coarsely reticulate-punctate, a median area about two-thirds as wide as the face, strongly rugulose transversely, with a small triangular area above, smooth. The rest of the head in front of the posterior ocelli rather shallowly reticulate- or subreticulate-punctate, the punctures punctulate and about one-quarter as wide as the anterior ocellus, behind the posterior ocelli the puncturation becomes sparser and then, on the back of the head, much closer and somewhat rugulose; a small smooth area lateral to each posterior ocellus. Pronotum rather shallowly and fairly sparsely punctate, the punctures becoming deeper in front and at the sides, about as wide as those on the head, but varying considerably in size, on the mesonotum the punctures are a little larger and fairly sparse except on the basal half, more or less, of the median area, where they are much larger and the puncturation is reticulate; on the scutellum the puncturation is reticulate near the lateral and basal margins but sparse in the middle; the metanotum coarsely reticulate-punctate, the punctures larger than elsewhere, some nearly as wide as the anterior ocellus. Pronotal furrow absent, lateral excavations shallow and rugulose, propleura finely, shallowly and closely punctate, prosternum smooth, mesopleura coarsely reticulate- or subreticulate-punctate, the interspaces wider above than below, mesosternum finely, closely and shallowly punctate, the lateral margins carinate, episterna coarsely punctato-rugulose, metasternum strongly

rugulose longitudinally. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely and closely punctate below, long and strong, subacute at the apex, the posterior margins with a bluntly rounded projection near the base.

More or less of the apical region of the 1st tergite and the base of the 2nd finely and fairly closely punctate, the punctures about one-sixth as wide as the anterior ocellus but varying considerably in size; elsewhere on the 1st and 2nd the punctures a little larger and sparser, considerably sparser near the sides of the 1st; on the 3rd the punctures are fairly close, a little larger than elsewhere and usually rather shallow and open behind. Basal declivity of the 1st with a wide, shallow, U-shaped depression, the apical and lateral margins of the 3rd without a distinct translucent border, though it is often rather thin at the sides and feebly translucent in some lights; with a distinct, wide, shallow V-shaped incision in the middle and acutely angulate at the sides.

The distance between the antennal sockets a little less than the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and nearly twice as long as wide, the 1st and 3rd joints equal in length. Cheeks about half as long as the 1st joint of the flagellum, the mouth parts elongate. Eyes divergent above and below. The shortest distance across the face about one-tenth greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum a little more than twice wider behind than long in the middle, and a little more than half as long again as the head, the sides strongly divergent behind and feebly sinuate in the middle, the sides of the median area of the mesonotum divergent in front.

♀♀ 7.3–9.0 mm. long. Posterior femora without a black area, otherwise similar to the ♂♂.

LOCALITY. Widely distributed throughout the South African sub-region.

Hedychrum rubrum sp.n. (Fig. 51).

♀♀ 5.2–5.6 mm. long. General colour reddish or yellowish orange, the 2nd tergite and the sides of the 1st usually redder than elsewhere to cerise, the ventral surface of the thorax and sometimes the 3rd tergite greener. Sternites black. Femora and tibiae metallic green or orange, more or less of the inner surface of the latter, their apices and the tarsi dark ferruginous. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic reddish green, the rest of the antennae nearly black. Mandibles metallic orange at the base, black apically with a short subapical region ferruginous. Wings hyaline, strongly tinged with fuscous, tegulae metallic green. Pubescence white, fairly long and dense, absent on the face.

Clypeus fairly short, finely and closely punctate or nearly smooth, the median area convex transversely with a feeble median carina, its apical margin feebly concave. Facial cavity deep, narrower above than below



Fig. 51. *Hedychrum rubrum* ♂, genitalia, × 24.

and rounded above; the sides of the face and of the facial cavity below rather coarsely reticulate punctate, the punctures feebly punctulate, a median area about three-quarters as wide as the face strongly rugulose transversely, with a feeble median longitudinal groove and a small area above smooth. The rest of the head reticulate-punctate, the punctures punctulate and largest on the front of the vertex where they are half as wide as the anterior ocellus, becoming a little smaller behind. Mesopleura and the dorsum of the thorax reticulate-punctate, the punctures punctulate, largest on the metanotum where they are nearly as wide as the anterior ocellus, decreasing slightly in size towards the pronotum. Pronotal furrow absent, the lateral excavations deep and arcuately rugulose. Propleura finely, shallowly and fairly coarsely punctate, the punctures becoming larger laterally, prosternum smooth, mesosternum finely and closely punctate in the middle, becoming smooth laterally but more coarsely punctate near the lateral and posterior margins, episterna punctato-rugulose, metasternum rather irregularly transversely rugulose. Metapleural and epinotal teeth reticulate-punctate above, the latter rather finely so apically, both smooth below. The epinotal teeth long and rather narrow, very acute apically, the posterior margins with an acute tooth near the base.

The 1st tergite rather finely and closely punctate in the middle, the punctures punctulate and becoming distinctly larger and sparser towards the sides, but denser again near the lateral margins; on the 2nd tergite, except laterally, the puncturation is a little sparser, the punctures about as wide as the largest on the 1st, on the 3rd the punctures are as large as those on the 2nd, a little less distinct and considerably denser than on the disk of the 2nd. Basal declivity of the 1st sparsely punctate, with a shallow U-shaped depression in the middle. The 3rd with a more or less distinct, narrow, translucent border, entire apically and angulate at the sides.

The distance between the antennal sockets half as great again as the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and a little more than twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face one-fifth greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum rather more than twice wider behind than long in the middle, the sides divergent behind and sinuate in the middle; the sides of the median area of the mesonotum parallel.

♂ 6.5 mm. long, the greater part of the anterior surface of the posterior femora dull black, otherwise like the ♀.

LOCALITY. Belmont, Cape Province.

Described from one ♂ and two ♀♀. Types in British Museum.

Hedychrum nigrocyanum sp.n. (Fig. 52).

♂♂ 6.5-7.5 mm. long. Head and thorax metallic coppery green, the ocellar area and the back of the head, an indistinct transverse area on the disk of the pronotum, more or less of the median area of the mesonotum in front and an area on the anterior half more or less of the scutellum, dark purplish blue or blackish, frequently these dark areas are feeble or

absent. The anterior two-thirds more or less of the 2nd tergite except laterally, black, the rest of the tergites dark blue, the sides of the 1st and 2nd distinctly green, the whole of the 3rd purplish blue. Sternites black. The anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic bluish green, more or less of the inner surfaces of the latter, their apices and the tarsi dark reddish brown. Mandibles green at the base, black apically, ferruginous in the middle. Clypeus with a fairly narrow black apical border. Scapes and, to a very slight extent, the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae dark greyish brown. Wings fusco-hyaline, tegulae brown. Pubescence black, long and fairly dense, absent on the face.

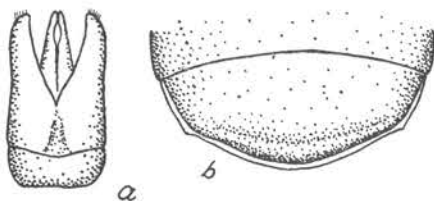


Fig. 52. *Hedychrum nigrocyanum* ♂.
a, genitalia, $\times 17$; b, 3rd tergite, $\times 12$.

Clypeus finely and sparsely punctate, the median area feebly convex transversely, its apical margin nearly straight. Facial cavity fairly deep and broad, the sides of the face coarsely reticulate-punctate, the median area, about two-thirds as wide as the face, finely transversely rugulose, median groove and facial fovea absent, a short wide area above smooth. The rest of the head reticulate-punctate, the punctures punctulate and largest in front, where they are up to half as wide as the anterior ocellus, becoming a little smaller behind, between the tops of the eyes the interspaces are a little wider than elsewhere and the puncturation is subreticulate. Mesopleura and the dorsum of the thorax except the scutellum reticulate-punctate, the scutellum subreticulate-punctate; the punctures rather deep, feebly punctulate and largest on the metanotum where they are up to the width of the anterior ocellus, becoming smaller towards the pronotum, the interspaces where wide enough very sparsely punctulate. Pronotal furrow absent, the lateral excavations fairly deep and feebly striate. Propleura shallowly finely and irregularly punctate, prosternum very sparsely and finely punctate, mesosternum similar in puncturation to the propleura, episterna punctato-rugulose, metasternum finely coriaceous. Metapleural and epinotal teeth reticulate-punctate above, the latter finely so apically, smooth or nearly smooth below, the epinotal teeth strong, rounded apically when seen from above, their posterior margins widely emarginate, with an obtuse angle near the base.

The 1st tergite finely and closely punctate in the middle and on the basal declivity below, the punctures becoming larger and sparser laterally and at the top of the basal declivity; on the 2nd tergite the punctures are rather larger than the smallest on the 1st but become larger apically and laterally, the punctures fairly sparse except apically and laterally, a narrow median longitudinal area on the basal two-thirds more or less, smooth; the 3rd tergite closely punctate, the punctures about the size of the largest on the 2nd, with a fairly strong subapical incassation. The basal declivity of the 1st with a strong U-shaped depression in the middle, the 3rd with a distinct, narrow, translucent apical and lateral border,

The 1st tergite finely and closely punctate in the middle and on the basal declivity below, the punctures becoming larger and sparser laterally and at the top of the basal declivity; on the 2nd tergite the punctures are rather larger than the smallest on the 1st but become larger apically and laterally, the punctures fairly sparse except apically and laterally, a narrow median longitudinal area on the basal two-thirds more or less, smooth; the 3rd tergite closely punctate, the punctures about the size of the largest on the 2nd, with a fairly strong subapical incassation. The basal declivity of the 1st with a strong U-shaped depression in the middle, the 3rd with a distinct, narrow, translucent apical and lateral border,

entire or very feebly impressed in the middle and distinctly angulate at the sides.

The distance between the antennal sockets one-third greater than the width of the 1st joint of the flagellum, the 2nd joint one-fifth longer than the 1st and one-half longer than wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face nearly half as great again as the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a half times wider behind than long in the middle, the sides divergent behind and sinuate in the middle; the sides of the median area of the mesonotum feebly divergent in front.

♀♀ 6.5-7.5 mm. long. Similar to the ♂♂ except that the anterior surface of the posterior femora is metallic green or blue.

LOCALITY. Ceres, Worcester, Cape Province.

Described from four ♂♂ and five ♀♀. Types in British Museum.

This species is very close to *cyaneum* Brullé according to the rather inadequate description of the latter by Dahlbom in Mocsary's Monograph (1889). I have not been able to see the type of *cyaneum* and since there appears from the description to be a difference in wing venation I have described the specimens available to me as forming a new species. It may be found subsequently that my *nigrocyanum* is synonymous with *cyaneum* Brullé.

Hedychrum laevivittatum sp.n. (Fig. 53).

♂ 7.0 mm. long. Dark metallic bluish green, two indistinct areas near the base of the pronotum and the median area of the mesonotum dark purplish blue. Sternites black, a narrow transverse area near the apex of the 2nd and a more compact area in the middle of the 3rd metallic green. The anterior surface of the posterior femora black, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter, dark greyish brown, the tarsi ferruginous. Mandibles green at the base, black apically, with a small median area ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Wings hyaline, becoming smoky apically, tegulae brown with a small metallic green area in front. Pubescence nearly black on the head and thorax above, paler elsewhere, fairly long and sparse.

Clypeus finely and closely punctate, nearly smooth between the antennal sockets, the median area strongly convex transversely, its apical margin feebly concave, facial cavity wide and fairly deep, the sides coarsely reticulate-punctate, a median area, three-quarters as wide as the face, strongly rugulose transversely with a feeble median groove and a large smooth area above; the rest of the head strongly reticulate-punctate, the punctures punctulate, the largest about one-third as wide as the anterior ocellus, a small area lateral to each posterior ocellus and

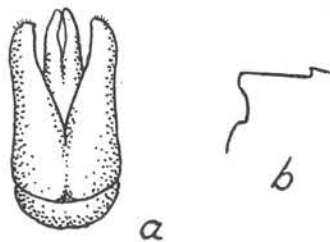


Fig. 53. *Hedychrum laevivittatum* ♂. a, genitalia, $\times 23$; b, outline of epinotal tooth, $\times 17$.

one in front of the anterior ocellus, smooth. Dorsum of the thorax subreticulate-punctate except on the sides of the pronotum, the sides of the mesonotum, and the metanotum which are reticulate-punctate, the punctures punctulate, the largest on the metanotum where they are up to three-quarters as wide as the anterior ocellus, becoming progressively smaller anteriorly except near the base of the median area of the mesonotum where they are nearly as wide as those on the metanotum. Pronotal furrow extremely feeble, the lateral excavations shallow, reticulate-punctate in front, rugulose behind. Propleura very shallowly and fairly closely punctate, the punctures varying considerably in size, prosternum smooth, mesopleura rather coarsely reticulate-punctate with a few wider interspaces above closely punctulate, mesosternum very finely, closely and shallowly punctate, episterna coarsely reticulate-punctate in front, becoming feebly punctate-rugulose behind, metasternum nearly smooth in front, rugulose behind. Metapleural and epinotal teeth reticulate-punctate above, smooth below, the former long and rather narrow, rounded apically, the posterior margins sinuate and with a distinct recurved tooth near the base.

Tergites fairly strongly punctate, the punctures punctulate, smallest and most dense on the disk of the 1st near the base where the puncturation is reticulate, the punctures about one-quarter as wide as the anterior ocellus, elsewhere on the 1st and 2nd the punctures a little larger and sparser, but denser on the middle of the 2nd near the base than laterally, the 2nd with a narrow median longitudinal area smooth; on the 3rd the punctures are a little shallower, very dense at the base, becoming a little sparser apically; the basal declivity of the 1st with a wide shallow V-shaped depression, coarsely punctate-rugulose, a small area at the top of the depression in the middle smooth; the apical and lateral margins of the 3rd with a very narrow, indistinct translucent border, the latter a little more distinct at the sides, the apical margin shallowly impressed in the middle, the sides obtusely angulate.

The distance between the antennal sockets nearly one-half greater than the width of the 1st joint of the flagellum, the 2nd joint nearly half as long again as the 1st and twice as long as wide, the 1st and 3rd joints equal in length. Cheeks very short, eyes divergent above and below; the shortest distance across the face nearly one-third greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a half times wider behind than long in the middle, the sides divergent behind and very feebly sinuate in the middle; the sides of the median area of the mesonotum very feebly divergent behind and in front.

LOCALITY. Katberg, Cape Province.

Described from one ♂. Type in British Museum.

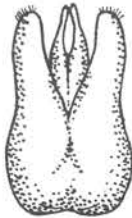
Hedychrum laevivittatum var. **disturbans** var.n. (Fig. 54).

♂ 7.5 mm. long. Very similar to the type of the species from which it differs in the following characters: Wings a little darker, fusco-hyaline, pubescence darker on the tergites, nearly black. Clypeus between the antennal sockets fairly strongly striate obliquely, mesopleura without the wide, punctulate interspaces above. Posterior margins of the epinotal

teeth with a distinct emargination lateral to the recurved teeth near the base. The shortest distance across the face only one-fifth greater than the distance from the top of the antennal sockets to the top of the facial cavity.

LOCALITY. Durban, Natal.

Described from one ♂. Type in British Museum.



a



b

Fig. 54. *Hedychrum laevivittatum disturbans* ♂. a, genitalia, $\times 23$; b, outline of epinotal tooth, $\times 17$.



a



b

Fig. 55. *Hedychrum Stevensoni* ♂. a, genitalia, $\times 17$; b, head, $\times 12$.

Hedychrum Stevensoni sp.n. (Fig. 55).

♂ 7.5 mm. long. Metallic green with paler reflexions, the median area of the mesonotum a little darker than elsewhere, greenish blue, the anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi, pale ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Wings hyaline, strongly tinged with fuscous, tegulae metallic green in front, brown behind. Pubescence light, fairly long and dense.

Clypeus finely punctato-coriaceous, the median area strongly convex transversely, with a distinct median carina, the apical margin nearly straight. Facial cavity deep and of medium width, the sides coarsely reticulate-punctate, a wide median area, nearly three-quarters as wide as the face, strongly rugulose transversely, a small area above nearly smooth. The rest of the head in front of the posterior ocelli reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus, behind the posterior ocelli the interspaces are a little wider and sparsely punctulate, on the back of the head the puncturation is again reticulate, the punctures a little smaller than elsewhere, a small area lateral to each posterior ocellus nearly smooth. The disk of the pronotum subreticulate-punctate, the punctures about the size of the largest on the head, a small triangular median area in the apical half smooth, the sides of the pronotum and the rest of the dorsum of the thorax reticulate-punctate, the punctures indistinctly punctulate, largest on the metanotum where they are nearly as wide as the anterior ocellus, becoming a little smaller anteriorly, the interspaces on the scutellum punctulate. Pronotal furrow absent, the lateral excavations fairly deep, rugulose. Propleura and prosternum finely, shallowly and fairly sparsely punctate,

mesopleura similar in puncturation to the scutellum, mesosternum very finely, shallowly and closely punctate, the punctures becoming sparser laterally, the lateral and postero-lateral margins carinate, episterna coarsely reticulate-punctate in front, rugulose behind, the margins carinate, metasternum longitudinally rugulose. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, very finely so apically, very finely coriaceous below, strong, fairly short, subacute apically, the posterior margins with an obtuse angle near the base.

The disk of the 1st and 2nd tergites finely and closely punctate, the punctures about one-quarter as wide as the anterior ocellus, laterally and basally on the 1st and laterally and apically on the 2nd, the punctures becoming larger and a little sparser, near the apical margin of the 2nd the punctures much closer and often open behind; on the 3rd the puncturation is subreticulate, the punctures nearly as wide as the largest on the 2nd. On all the tergites the interspaces are sparsely punctulate. Basal declivity of the 1st with a wide, shallow U-shaped depression, densely punctate, the 2nd with a narrow, median longitudinal strip a little lighter in colour than the rest of the tergite and a little more sparsely punctate; the apical and lateral margins of the 3rd with a narrow, rather indistinct, translucent border, entire in the middle and with a distinct obtusely rounded tooth at each side.

The distance between the antennal sockets one-third greater than the width of the 1st joint of the flagellum, the 2nd joint two-fifths longer than the 1st and twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and below. The shortest distance across the face one-third greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a third times wider behind than long in the middle, the sides strongly divergent behind and feebly sinuate in the middle, the sides of the median area of the mesonotum feebly divergent in front and behind.

LOCALITY. Southern Rhodesia.

Described from one ♂. Type in coll. R. H. R. Stevenson.

Hedychrum apiculatum sp.n. (Fig. 56).

♀ 7.5 mm. long. Light metallic green, the sides of the clypeus tinged with copper, the anterior half of the median area of the mesonotum

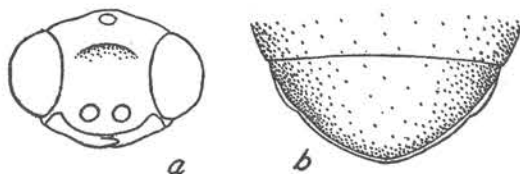


Fig. 56. *Hedychrum apiculatum* ♀. a, head, $\times 12$; b, 3rd tergite, $\times 12$.

black; 1st sternite black with a narrow transverse green macula in each lateral half, 2nd sternite green with a black border, 3rd sternite black with a small triangular green macula in the middle. Femora and tibiae

metallic green, more or less of the inner surface of the latter, their apices and the tarsi ferruginous; mandibles green at the base, black apically, ferruginous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae black. Wings rather pale fusco-hyaline, tegulae metallic green, with a narrow brown border. Pubescence dark on the head and thorax above, light elsewhere, short and sparse.

Clypeus finely reticulate-punctate at the sides, smooth in the middle, the median area convex transversely near the apical margin, flat behind. Facial cavity wide and shallow, coarsely punctato-rugulose, the rugulae strongly arcuate; the rest of the head coarsely reticulate-punctate, the punctures punctulate, largest immediately above the face where they are up to two-fifths as wide as the anterior ocellus, becoming smaller and the interspaces becoming wider behind, a small smooth area posterior to each lateral ocellus. Dorsum of the thorax reticulate-punctate, the punctures punctulate, the interspaces narrower on the metanotum and wider on the middle of the scutellum and the posterior half of the median area of the mesonotum than elsewhere, the punctures largest on the metanotum where they are rather more than three-quarters as wide as the anterior ocellus, becoming considerably smaller anteriorly. Pronotal furrow absent, the lateral excavations wide, punctato-rugulose. Propleura very finely, shallowly and closely punctate, prosternum nearly smooth, mesopleura coarsely but fairly shallowly reticulate-punctate, mesosternum very finely, shallowly and fairly sparsely punctate, episterna shallowly punctato-rugulose, metasternum smooth in front, becoming finely coriaceous behind and below. Metapleural teeth reticulate-punctate above, smooth below, epinotal teeth reticulate-punctate above, very finely so apically, closely, finely but deeply punctate below, strong, fairly long, their apices acute and curved posteriorly, the posterior margins sinuate, with a very obtuse angle near the base.

Tergites finely and fairly closely punctate, the punctures about one-sixth as wide as the anterior ocellus, a little denser near the apical margin of the 1st than elsewhere, considerably smaller and denser on the apical margin of the 2nd; the basal declivity of the 1st with an extremely shallow, wide depression in the middle, the 3rd with a feeble subapical incassation, the apical and lateral margins with a distinct translucent border, entire and rather narrowly rounded apically, obtusely angulate laterally.

The distance between the antennal sockets one-quarter less than the width of the 1st joint of the flagellum, the 2nd joint twice as long as the 1st and nearly three times longer than wide, the 3rd joint a little longer than the 1st. Cheeks very short, eyes divergent above and below. The shortest distance across the face half as great again as the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum a little more than two and a half times wider behind than long in the middle, the sides divergent behind and feebly sinuate in the middle, the sides of the median area of the mesonotum divergent in front and behind.

LOCALITY. Sawmills, Southern Rhodesia.

Described from one ♀. Type in National Museum, Southern Rhodesia.

Hedychrum comptum sp.n. (Fig. 57a).

♀ 5.6 mm. long. Metallic green, the median area of the mesonotum dark greenish blue, sternites very dark brown with a trace of metallic

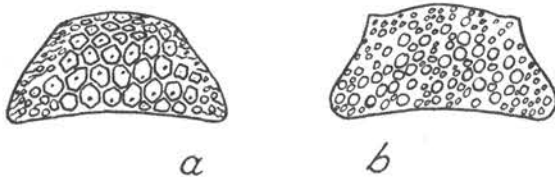


Fig. 57. Puncturation of metanotum of a, *Hedychrum comptum*;
b, *H. aptum*, $\times 23$.

green in the middle of the 2nd near the apical margin. Femora and tibiae metallic green, more or less of the inner surfaces of the latter, their apices and the tarsi ferruginous, mandibles green at the base, very dark brown apically, with a short median area ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Wings hyaline at the base, becoming smoky apically, tegulae metallic bluish green. Pubescence light, fairly long and sparse.

Clypeus finely punctato-coriaceous, the median area convex transversely, its apical margin straight, facial cavity wide and fairly deep, the sides reticulate-punctate, the median area about two-thirds as wide as the face, strongly rugulose transversely, with a feeble median groove and with a very small smooth area above. The rest of the head reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus, becoming a little smaller on the back of the head. Dorsum of the thorax reticulate-punctate, the punctures punctulate and largest on the metanotum where they are as wide as the anterior ocellus, becoming a little smaller anteriorly, those on the sides of the pronotum a little larger than those on the disk; the interspaces on the pronotum, where wide enough, punctulate. Pronotal furrow absent, the lateral excavations wide, fairly shallow and rugulose. Propleura very finely, shallowly and closely punctate, prosternum nearly smooth, mesopleura similar in puncturation to the sides of the pronotum, mesosternum similar to the prosternum, episterna coarsely but shallowly punctato-rugulose, becoming nearly smooth behind, metasternum ruguloso-coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, very finely so apically; below, smooth at the base, finely and closely punctate apically, strong, fairly long, acute at the apex, the posterior margin feebly sinuate and with a subacute angle near the base.

The 1st tergite near the apical margin and the 2nd near the base finely reticulate-punctate, the punctures distinctly punctulate, elsewhere on the 1st and 2nd the punctures becoming larger and a little sparser, but closer again near the lateral margins, the punctures on the 3rd tergite and near the apical margin of the 2nd as large as the largest on the 2nd but shallower, the interspaces near the apical margin of the 3rd fairly closely

punctulate. Basal declivity of the 1st with a very wide, shallow V-shaped depression, the apical and lateral margins of the 3rd with a distinct translucent border, entire in the middle and obtusely angulate laterally.

The distance between the antennal sockets nearly as great as the width of the 1st joint of the flagellum, the 2nd joint one-third longer than the 1st and twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and below. The shortest distance across the face one-sixth greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum nearly two and a half times wider behind than long in the middle, the sides divergent behind for the posterior half of their length, the sides of the median area of the mesonotum parallel.

LOCALITY. West Nicholson, Southern Rhodesia.

Described from one ♀. Type in coll. R. H. R. Stevenson.

Hedychrum aptum sp.n. (Fig. 57b).

♀ 5.8 mm. long. Light metallic green, two very indistinct maculae on the pronotum darker green, sternites black with a small green macula in each lateral half of the 2nd near the apical margin. Femora and tibiae metallic green, more or less of the inner surfaces of the latter, their apices and the tarsi, dark ochreous. Mandibles green at the base, ferruginous apically, ochreous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae very dark brown. Wings hyaline tinged with fuscous, tegulae metallic green. Pubescence light, short and sparse.

Clypeus finely and fairly closely punctate, more sparsely so in the middle, the median area feebly convex transversely, its apical margin feebly concave. Facial cavity wide and fairly deep, reticulate-punctate at the sides, the median area about three-quarters as wide as the face, strongly rugulose transversely, with a small area above nearly smooth. The rest of the head in front of the posterior ocelli reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus, behind the posterior ocellus the puncturation is irregular and subreticulate. Pro- and mesonotum reticulate-punctate, the punctures a little larger than those on the head and feebly punctulate, the interspaces, which are fairly wide, fairly densely punctulate. Scutellum rather more sparsely punctate, the interspaces punctulate, metanotum fairly coarsely reticulate-punctate, the punctures two-thirds as wide as the anterior ocellus. Pronotal furrow absent, the lateral excavations very wide and shallow, regularly rugulose. Propleura shallowly, finely and fairly sparsely punctate, prosternum very sparsely so, mesopleura reticulate-punctate, the punctures a little smaller than those on the metanotum, mesosternum very finely, shallowly and closely punctate, episterna coarsely reticulate-punctate in front, becoming rugulose behind, metasternum finely rugulose. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically; below, smooth at the base, punctate apically; long, fairly strong, acute at the apex, the posterior margins entire.

Tergites very closely and finely punctate on the disk of the 1st near the apical margin and on the disk of the 2nd near the base, the punctures

becoming larger and somewhat sparser elsewhere except near the lateral margins where the puncturation is reticulate. The puncturation on the 3rd subreticulate, the punctures fairly deep. Basal declivity of the 1st with a feeble V-shaped depression in the middle; the apical margin of the 3rd with a distinct translucent border, entire in the middle, strongly obtusely angulate laterally.

The distance between the antennal sockets a little less than the width of the 1st joint of the flagellum, the 2nd joint half as long again as the 1st and nearly three times wider than long, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face one-third greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum a little more than twice wider behind than long in the middle, the sides feebly divergent behind and sinuate in the middle; the sides of the median area of the mesonotum feebly divergent in front.

LOCALITY. Sanyati Valley, Southern Rhodesia.

Described from one ♀. Type in coll. R. H. R. Stevenson.

Hedychrum brevinotum sp.n. (Fig. 58).

♂ 7.0 mm. long. Metallic green with coppery reflexions, the median area of the mesonotum dark greenish blue, becoming green behind, sternites black with two small metallic green maculae near the apical margin of the 2nd. The anterior surface of the posterior tibiae dull black, the rest of the femora and tibiae metallic green, more or less of the inner surfaces of the latter, their apices and the tarsi ferruginous. Mandibles coppery green at the base, very dark brown apically, with an indistinct sub-apical area ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Clypeus with a distinct black apical margin. Wings fusco-hyaline, tegulae green in front, testaceous behind. Pubescence white, fairly short and sparse.

Clypeus finely and closely punctate, the median area strongly convex transversely, its apical margin feebly concave. Facial cavity wide and fairly shallow, the sides coarsely reticulate punctate, a median area three-quarters as wide as the face strongly rugulose transversely and with a small area above smooth; the face feebly marginate transversely above. The rest of the head reticulate-punctate, the punctures punctulate and up to a third as wide as the anterior ocellus, a small area lateral to each posterior ocellus nearly smooth. Dorsum of the thorax reticulate-punctate, the punctures punctulate, largest on the metanotum where they are four-fifths as wide as the anterior ocellus, becoming much smaller anteriorly except on the median area of the mesonotum where the interspaces on the apical half more or less are considerably wider than elsewhere and the punctures on the basal half are nearly as large as those

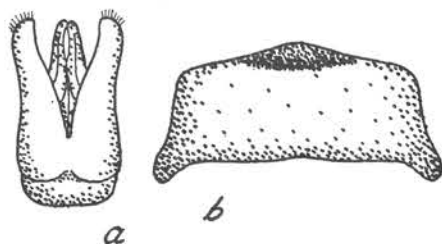


Fig. 58. *Hedychrum brevinotum* ♂. a, genitalia, $\times 23$; b, pronotum, $\times 17$.

on the metanotum; the interspaces on the pronotum sparsely punctulate. Pronotal furrow shallow and indistinct, the lateral excavations shallow, rugulose. Propleura finely, shallowly and closely punctate, prosternum nearly smooth, mesopleura similar in puncturation to the pronotum, mesosternum finely, shallowly and closely striato-punctate, with a distinct smooth area near each lateral margin, the latter carinate, episterna rather shallowly punctato-rugulose, metasternum finely and shallowly coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely coriaceous below, long and narrow, extended laterally, subacute apically, the posterior margins nearly straight with an acute tooth near the base.

Tergites rather coarsely reticulate- or subreticulate-punctate, the punctures punctulate, smallest and most dense on the disks of the 1st and 2nd, becoming a little larger and sparser laterally on the 1st and laterally and basally on the 2nd, the largest punctures about one-third as wide as the anterior ocellus. Basal declivity of the 1st with a fairly narrow U-shaped depression in the middle, the apical and lateral margins of the 3rd with an indistinct, narrow translucent border, entire in the middle, obtusely angulate laterally.

The distance between the antennal sockets half as great again as the width of the 1st joint of the flagellum, the 2nd joint two-fifths longer than the 1st and rather more than twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face about one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum short, nearly three times wider behind than long in the middle, the sides feebly divergent behind and feebly sinuate in the middle; the sides of the median area of the mesonotum parallel.

LOCALITY. Mount Selinda, Southern Rhodesia.

Described from one ♂. Type in coll. R. H. R. Stevenson.

Hedychrum nigromaculatum sp.n. (Fig. 59).

♀♀ 6.0-6.5 mm. long. Metallic green blue, the top of the head except a transverse area between each posterior ocellus and the top of the eye on each side, two large maculae on the pronotum, the median area of the mesonotum except more or less of the base and the greater part of the scutellum in front, black, each area becoming dark blue near its perimeter; a large area on the tergites covering the apical half more or less of the disk of the 1st and the basal two-thirds of the disk of the 2nd except a narrow median longitudinal strip on the latter, purplish, the rest of the tergites metallic bluish green, sternites black with a fairly large transverse area in the apical half of the 2nd metallic green. Femora

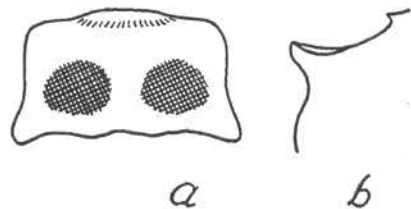


Fig. 59. *Hedychrum nigromaculatum* ♀. a, pronotum, $\times 17$; b, outline of epinotal tooth, $\times 23$.

and tibiae metallic green, most of the inner surface of the latter black, tarsi dark reddish brown, the surfaces of the basal joints feebly metallic. Mandibles green at the base, very dark brown apically, a short median region ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae black. Wings hyaline tinged with fuscous, tegulae green blue. Pubescence pale brown, fairly long and dense.

Clypeus short below the antennal sockets, nearly smooth between the latter, the rest very finely and closely punctate, the median area very feebly convex transversely, its apical margin nearly straight. Facial cavity wide and fairly deep, the sides reticulate-punctate; a median area about two-thirds as wide as the face rugulose transversely, with a narrow transverse area above smooth. The rest of the head deeply reticulate-punctate, the punctures punctulate, a third to half as wide as the anterior ocellus, smaller on the ocellar area and the back of the head, a small area lateral to each posterior ocellus nearly smooth. Dorsum of the thorax reticulate-punctate, the punctures punctulate, the interspaces on the disk of the pronotum, the median area of the mesonotum in front and the scutellum, usually wider than elsewhere, flat and fairly closely punctulate; the punctures largest on the metanotum where they are as wide as the anterior ocellus. Pronotal furrow absent, the lateral excavations fairly deep, rugulose, with a small area behind smooth. Propleura very shallowly and fairly closely punctate, prosternum sparsely so, mesopleura similar in puncturation to the sides of the pronotum, mesosternum finely, closely and shallowly punctate in the middle, becoming smooth laterally but punctate again near the lateral margins, the latter carinate, episterna coarsely punctato-rugulose, the margins carinate, metasternum coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely striate below, strong, acute at the apex, the posterior margins concave, with a distinct recurved tooth near the base.

Tergites rather finely subreticulate-punctate on the purplish areas, more coarsely and sparsely punctate elsewhere, the interspaces sparsely punctulate, becoming striate near the apical margin of the 3rd, the largest punctures about as wide as the largest on the head. Basal declivity of the 1st with a fairly deep U-shaped depression in the middle, the apical margin of the 3rd with a distinct, narrow, translucent border, the latter entire in the middle, obtusely dentate laterally.

The distance between the antennal sockets one-third greater than the width of the 1st joint of the flagellum, the 2nd joint about half as long again as the 1st and twice as long as wide, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face nearly one-third greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum two and a third times wider behind than long in the middle, the sides strongly divergent for the posterior half of their length, nearly parallel in front, the sides of the median area of the mesonotum nearly parallel.

LOCALITY. Katberg, Cape Province.

Described from three ♀♀. Type in British Museum.

Hedychrum penultimum sp.n. (Fig. 60).

♂♂ 5.5-6.0 mm. long. Dark metallic purplish blue, the ocellar area of the head, the greater part of the basal half of the pronotum, the median area of the mesonotum, more or less of the scutellum and the greater part of the disk of the 2nd tergite black, the 1st tergite, particularly at the sides, lighter than elsewhere, bluish green, sternites blackish brown with two small transverse maculae near the apical margin of the 3rd greenish blue. The anterior surface of the posterior femora black, the rest of the femora and tibiae greenish blue, more or less of the inner surfaces of the latter, their apices and the tibiae, ochreous.

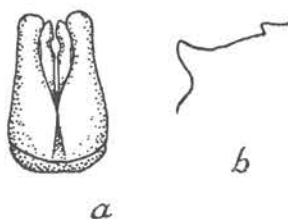


Fig. 60. *Hedychrum penultimum* ♂. a, genitalia, $\times 23$; b, outline of epinotal tooth, $\times 23$.

Mandibles greenish blue at the base, very dark brown apically, ferruginous in the middle. Scapes, and to a lesser extent the upper surface of the 1st joint of the flagellum, metallic green, the rest of the antennae nearly black. Wings fusco-hyaline, a little darker apically than at the base, tegulae metallic purplish in front, brown behind. Pubescence brown, fairly long and dense.

Clypeus very finely punctato-coriaceous at the sides, nearly smooth in the middle, the median area strongly convex transversely, its apical margin nearly straight. Facial cavity deep and fairly wide, the sides coarsely reticulate punctate, a median area, rather more than half as wide as the face, strongly rugulose transversely, with a short transverse area above smooth. The rest of the head reticulate-punctate, the punctures punctulate, largest in front where they are three-eighths as wide as the anterior ocellus. Dorsum of the thorax coarsely and deeply reticulate-punctate, the punctures punctulate and largest on the metanotum where they are as wide as the anterior ocellus, becoming smaller anteriorly. Pronotal furrow absent, the lateral excavations deep, narrow and rugulose. Propleura finely, shallowly and fairly sparsely punctate, prosternum nearly smooth, mesopleura coarsely reticulate-punctate, the interspaces above wider than those on the pronotum and punctulate, mesosternum finely, shallowly and fairly closely punctate, episterna shallowly punctato-rugulose, metasternum shallowly ruguloso-coriaceous. Metapleural and epinotal teeth reticulate-punctate above, the latter finely so apically, the former smooth below, the latter nearly so; epinotal teeth fairly long, curved posteriorly, the posterior margins feebly sinuate, translucent and with an acute, recurved tooth near the base.

Tergites strongly reticulate- or subreticulate-punctate, the punctures punctulate and smallest on the disk of the 1st, largest on the sides of the 1st and 2nd where they are half as wide as the anterior ocellus. Basal declivity of the 1st with a very wide, shallow U-shaped depression, the apical and lateral margins of the 3rd with a distinct translucent border, feebly impressed in the middle and obtusely angulate laterally.

The distance between the antennal sockets a little greater than the width of the 1st joint of the flagellum, the 2nd joint nearly half as long again as the 1st and twice as long as wide. Cheeks very short, eyes

divergent above and to a lesser extent below. The shortest distance across the face about one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a third times wider behind than long in the middle, the sides strongly divergent behind and feebly sinuate, the sides of the median area of the mesonotum nearly parallel.

LOCALITY. Western Cape Province.

Described from two ♂♂. Type in British Museum.

Hedychrum morosum (Fig. 61).

Buysson, *Rev. Ent. Caen.* XIX, 130 (1900).

♂♂ 5.0–5.5 mm. long. Metallic green to dark purplish blue, the median area of the mesonotum and sometimes two macula on the pronotum, darker than elsewhere. Sternites dark brown or with a trace of green near the base of the 2nd. The anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi ferruginous, mandibles green at the base, very dark ferruginous apically, dark ochreous in the middle. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae dark greyish brown. Wings fusco-hyaline, tegulae green or purplish in front, usually with a brown area behind. Pubescence pale brown, short and sparse, longer on the 2nd and 3rd tergites.



Fig. 61. *Hedychrum morosum* ♂, genitalia, × 23.

Clypeus very finely coriaceous, nearly smooth between the antennal sockets, the median area convex transversely with a feeble longitudinal carina, its apical margin nearly straight. Facial cavity wide and fairly deep, the sides coarsely reticulate-punctate, a median area about two-thirds as wide as the face rugulose transversely, with a transverse area above nearly smooth, the latter often with a few oblique rugulae at the sides. The rest of the head reticulate-punctate, the punctures punctulate, up to three-eighths as wide as the anterior ocellus, a small, indistinct, nearly smooth area lateral to each posterior ocellus. Dorsum of the thorax reticulate-punctate, the punctures punctulate, largest on the metanotum where they are up to three-quarters as wide as the anterior ocellus, becoming a little smaller anteriorly. Pronotal furrow absent, the lateral excavations shallow, finely rugulose. Propleura finely and shallowly reticulate-punctate, mesopleura similar in puncturation to the pronotum, mesosternum very finely, shallowly and closely reticulate-punctate, episterna punctato-rugulose in front becoming nearly smooth behind, metasternum finely coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, coriaceous below, strong, acute apically, the posterior margins translucent, without a distinct tooth near the base.

The disk of the 1st tergite near the apical margin finely and very closely punctate, the puncturation often reticulate, the disk of the 2nd on the

basal half more or less, rather more coarsely and usually a little more sparsely punctate, elsewhere the puncturation is coarser and sparser except on the 3rd and sometimes near the apical margin of the 2nd where it is shallower and fairly dense. Basal declivity of the 1st with a very shallow, indistinct impression in the middle, the apical margin of the 3rd with a distinct, narrow, translucent border, entire in the middle, obtusely angulate laterally.

The distance between the antennal sockets a little less than the width of the 1st joint of the flagellum, the 2nd joint one-quarter longer than the 1st and two-thirds longer than wide, the 1st and 3rd joints subequal in length. Cheeks very short, eyes divergent above and below. The shortest distance across the face about one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum two and a third times wider behind than long in the middle, the sides strongly divergent behind and sinuate in the middle, the sides of the median area of the mesonotum parallel.

♀♀ like the ♂♂ except that the anterior surface of the posterior femora is green.

The specimens on which the above description is based (four ♂♂ and eight ♀♀) were determined as *morosum* by comparison with a specimen in the South African Museum bearing Mocsary's det. label. The type locality is Egypt, the specimens studied by me, including the one determined by Mocsary, were all taken in the Cape Province except for one from Okahandya, South West Africa.

Hedychrum palliditarsis sp.n. (Fig. 62).

♂ 5.3 mm. long. Head and thorax metallic green, the ocellar area, the greater part of the disk of the pronotum, the median area of the mesonotum and the scutellum in the middle, very dark blackish blue; tergites dark greenish blue, sternites very dark blackish brown. A large area on the anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic green, the greater part of the inner surface of the latter, their apices and the tarsi pale ochreous. Mandibles green at the base, dark brown apically, with a large median area pale ferruginous.

Scapes, and to a very slight extent the upper surface of the 1st joint of the flagellum, metallic green, the rest of the antennae black. Wings fuscohyaline, tegulae green in front, iridescent brown behind. Pubescence dark on the head and thorax above, light elsewhere, short and sparse.

Clypeus very finely punctato-coriaceous at the sides, nearly smooth in the middle, the median area convex transversely, its apical margin feebly concave. Facial cavity wide and fairly shallow, the sides reticulate-punctate, a median area nearly three-quarters as wide as the face strongly

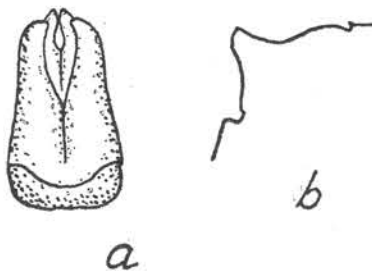


Fig. 62. *Hedychrum palliditarsis* ♂. a, genitalia, $\times 35$; b, outline of epinotal tooth, $\times 35$.

rugulose transversely, the rugulae becoming oblique above and very shallow, a feeble facial fovea present, the face feebly marginate above. The rest of the head reticulate-punctate, rather irregularly so behind the posterior ocellus, the punctures punctulate and about one-third as wide as the anterior ocellus, a little smaller on the ocellar area and the back of the head. Dorsum of the thorax reticulate-punctate, the punctures punctulate and somewhat irregular in shape, largest on the metanotum where they are nearly as wide as the anterior ocellus, the interspaces on the pronotum sparsely punctulate. Pronotal furrow absent, the lateral excavations shallow, rugulose. Propleura very finely, closely and regularly punctate, prosternum nearly smooth, mesopleura similar in puncturation to the sides of the pronotum, mesosternum very finely and closely punctate in the middle, becoming nearly smooth laterally, the lateral margins feebly carinate behind, episterna punctato-rugulose, metasternum finely striato-coriaceous. Metapleural and epinotal teeth reticulate-punctate above, the latter finely so apically, both nearly smooth below, the epinotal teeth long and fairly narrow, extended laterally, acute at the apex, the posterior margins sinuate with a short, acute tooth near the base.

Tergites reticulate-punctate, the punctures indistinctly punctulate, the interspaces on the apical half of the disk of the 2nd a little larger than elsewhere, the puncturation subreticulate; the punctures all more or less equal in size, about one-quarter as wide as the anterior ocellus. Basal declivity of the 1st with a very wide, shallow, V-shaped depression, the apical and lateral margins of the 3rd with a distinct, narrow, translucent border, very feebly impressed in the middle and obtusely angulate laterally.

The distance between the antennal sockets equal to the width of the 1st joint of the flagellum, the 2nd joint one-quarter longer than the 1st and two and a half times as long as wide. Cheeks very short, eyes divergent above and feebly so below. The shortest distance across the face two-fifths greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum two and a quarter times wider behind than long in the middle, the sides divergent behind and sinuate in the middle; the sides of the median area of the mesonotum parallel.

♀ similar to the ♂ except that the 3rd tergite is a little less broadly rounded apically and the apical margin is entire in the middle. The anterior surface of the posterior femora metallic green.

LOCALITY. Chipinga District, Southern Rhodesia.

Described from one ♂ and one ♀. Types in National Museum, Southern Rhodesia.

Hedychrum distinctum sp.n. (Fig. 63).

♂ 7.0 mm. long. Rather dark metallic green, two indistinct maculae on the pronotum, the ocellar area and the sides of the median area of the mesonotum dark blackish blue, the face greenish copper. Sternites black. The anterior surface of the posterior femora dull black, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi pale ferruginous. Mandibles green

at the base, very dark reddish brown apically, paler ferruginous in the middle. Scapes and the upper surface of the 1st joint of the flagellum coppery green, the rest of the antennae nearly black. Wings fuscohyaline, tegulae metallic green in front, brown behind. Pubescence pale brown, fairly long and sparse, absent on the face.

Clypeus fairly long, finely and closely punctate, the median area strongly convex transversely with a very feeble median longitudinal carina, its apical margin nearly straight. Facial cavity wide and deep, coarsely reticulate-punctate at the sides, with a very broad median area strongly rugulose transversely, a small, slightly raised area at the top, smooth, the face rounded above. The rest of the head reticulate-punctate, the punctures punctulate and nearly half as wide as the anterior ocellus, behind the posterior ocelli the interspaces are a little wider and sparsely punctulate. Dorsum of the thorax coarsely reticulate-punctate, the punctures punctulate, increasing slightly in size posteriorly, those on the metanotum as wide as the anterior ocellus, the interspaces, where wide enough, sparsely punctulate. Pronotal furrow absent, the lateral excavations rather shallow, rugulose. Propleura finely, shallowly and closely punctate, prosternum smooth, mesopleura similar in puncturation to the pronotum, mesosternum finely, shallowly and fairly closely punctate, the lateral and postero-lateral margins carinate, episterna punctate in front, rugulose behind, metasternum coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, feebly and sparsely punctate below, long, produced laterally and ventrally, acute at the apex, the posterior margins with a small, acute tooth near the base.

The disk of the 1st tergite and the base of the 2nd in the middle rather finely and closely punctate, the punctures punctulate, the smallest about one-quarter as wide as the anterior ocellus; elsewhere on the 1st and 2nd the punctures are larger, up to one-half as wide as the anterior ocellus and, except laterally on the 1st and apically and laterally on the 2nd, sparser. The 3rd coarsely reticulate-punctate near the base, the punctures punctulate and becoming a little smaller and sparser apically. Basal declivity of the 1st smooth and with a shallow, U-shaped depression in the middle, the apical and lateral margins of the 3rd with a distinct, narrow, translucent border, entire in the middle and strongly, obtusely angulate at the sides.

The distance between the antennal sockets one-third greater than the width of the 1st joint of the flagellum, the 2nd joint about one-third longer than the 1st and nearly twice as long as wide, the 1st and 3rd joints equal in length. Cheeks very short, eyes divergent above and below. The shortest distance across the face rather more than one-third greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a half times wider behind than long in the middle, the sides strongly divergent behind and feebly

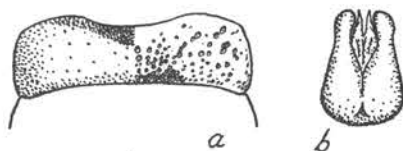


Fig. 63. *Hedychrum distinctum* ♂. a, 1st tergite; right half to show puncturation, $\times 13$; b, genitalia, \times ca. 17.

sinuate in the middle; the sides of the median area of the mesonotum parallel.

LOCALITY. Dunbrody, Cape Province.

Described from one ♂. Type in Albany Museum.

Hedychrum obliquum sp.n. (Fig. 64).

♀ 7.0-8.0 mm. long. Metallic yellowish green to bluish green, the ocellar area of the head, two oblique maculae on the pronotum, the median area of the mesonotum and more or less of the scutellum in front, darker than elsewhere, sometimes almost black. Tergites green with bluish reflexions, the apical margin of the 1st and near the apical and basal margins of the 2nd and 3rd rather darker blue than elsewhere. Sternites black with two small transverse green maculae in the apical half of the 2nd. Femora and tibiae metallic green, more or less of the inner surfaces of the latter, their apices and the tarsi dull ferruginous. Mandibles green at the base, nearly black apically, with a small area in the middle dark ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic bluish green, the rest of the antennae dark greyish brown. Wings hyaline tinged with fuscous, particularly towards the apex. Pubescence dark on the dorsum of the thorax and the top of the head, dirty white elsewhere, fairly short and dense.

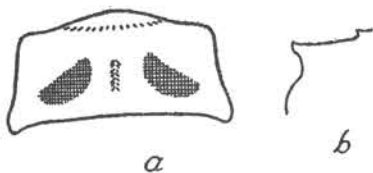


Fig. 64. *Hedychrum obliquum* ♀. a, pronotum, $\times 13$; b, outline of epinotal tooth, $\times 13$.

Clypeus finely and closely punctate at the sides, very finely coriaceous in the middle, the median area strongly convex transversely, its apical margin feebly concave. Facial cavity wide and fairly deep, the sides coarsely reticulate-punctate, the median area nearly three-quarters as wide as the face, strongly rugulose transversely, the rugulae arcuate, becoming oblique above, with a small area above nearly smooth. The rest of the head reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus, smaller on the ocellar area, the interspaces between the posterior ocelli and the tops of the eyes larger than elsewhere, a very small area lateral to each posterior ocellus and in front of the anterior ocellus, smooth. Dorsum of the thorax reticulate-punctate, the punctures punctulate, largest on the metanotum where they are about three-quarters as wide as the anterior ocellus, considerably smaller than this elsewhere, smallest on the apical half of the median area of the mesonotum. Pronotal furrow absent, the lateral excavation fairly shallow, rugulose. Propleura very shallowly, irregularly punctate, prosternum smooth, mesopleura similar in puncturation to the sides of the pronotum, mesosternum very finely, closely and shallowly punctate in the middle, smooth towards the sides except near the lateral margins where it is finely punctate, the margins carinate, episterna coarsely reticulate-punctate in front, becoming shallowly rugulose behind, metasternum shallowly rugulose or coriaceous. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, very sparsely and finely punctate below,

long and fairly narrow, produced laterally, subacute at the apex, the posterior margins sinuate, with a short, recurved tooth near the base.

The 1st tergite near the apical margin and the disk of the 2nd near the base finely and fairly closely punctate, the punctures about one-fifth as wide as the anterior ocellus, elsewhere on the tergites the punctures a little larger and sparser. Basal declivity of the 1st with a wide, shallow V-shaped depression, the apical and lateral margins of the 3rd with a distinct, narrow, translucent border, feebly impressed in the middle and obtusely angulate laterally.

The distance between the antennal sockets a little greater than the width of the 1st joint of the flagellum, the 2nd joint three-fifths longer than the 1st and two and a half times wider than long, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and below. The shortest distance across the face one-sixth to one-seventh greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a third times wider behind than long in the middle, the sides feebly divergent near the basal margin and very feebly sinuate in the middle; the sides of the median area of the mesonotum feebly divergent in front and behind.

LOCALITY. Katberg, Cape Province.

Described from four ♀♀. Type in British Museum.

***Hedychrum katbergense* sp.n.** (Fig. 65).

♂♂ 5.8-6.3 mm. long. Metallic green to dark greenish blue, a macula on the ocellar area, two more or less indistinct maculae on the pronotum, more or less of the median area of the mesonotum at the sides and sometimes the anterior region of the scutellum, darker than elsewhere, in dark specimens these areas are nearly black, in lighter ones, dark bluish green, sometimes the areas are very indistinct. Sternites

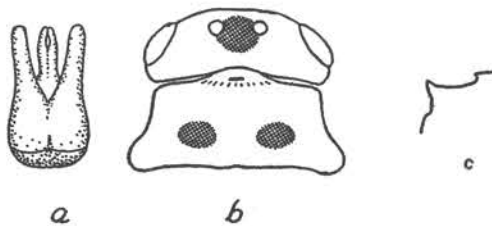


Fig. 65. *Hedychrum katbergense* ♂. a, genitalia, \times ca. 17; b, head and pronotum, \times 13; c, outline of epinotal tooth, \times 13.

black, a large transverse area in the apical two-thirds of the 2nd and the greater part of the 3rd metallic green. The anterior surface of the posterior femora with a large, dull black area, the rest of the femora and tibiae metallic green, more or less of the inner surfaces of the latter, their apices and the tarsi, dark reddish brown. Mandibles green at the base, very dark brown apically, with a short region in the middle light ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic bluish green, the rest of the antennae nearly black. Wings fusco-hyaline, tegulae green, a small area behind brown with more or less strong metallic purple reflexions. Pubescence dirty white, fairly short and sparse.

Clypeus finely and closely punctate, nearly smooth or coriaceous between the antennal sockets, the median area feebly convex transversely, its apical margin nearly straight. Facial cavity fairly deep and narrow, the sides of

the face coarsely reticulate-punctate, a median area, forming the cavity proper, about two-thirds as wide as the face, transversely rugulose, the rugulae feebly arcuate, a short transverse area above smooth. The rest of the head reticulate-punctate, the punctures about three-eighths as wide as the anterior ocellus, a little smaller on the ocellar area and the back of the head, a small, nearly smooth area lateral to each posterior ocellus. Dorsum of the thorax reticulate-punctate, the punctures punctulate, the interspaces on the pronotum and near the apical margin of the scutellum wider than elsewhere, the puncturation on these areas sometimes being subreticulate, the interspaces where wide enough fairly closely punctulate, the punctures largest on the metanotum where they are up to three-quarters as wide as the anterior ocellus, becoming a little smaller anteriorly. Pronotal furrow absent, the lateral excavations fairly shallow, rugulose. Propleura shallowly, finely and fairly sparsely punctate, prosternum nearly smooth, mesopleura similar in puncturation to the pronotum, mesosternum very finely, shallowly and closely punctate, episterna shallowly and irregularly rugulose, metasternum shallowly rugulose. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, striate below, strong, fairly long, acute apically, the posterior margin with a fairly strong, recurved tooth near the base.

Near the apical margin of the 1st tergite and near the base of the 2nd the puncturation is fine and dense, sometimes reticulate, the punctures punctulate and about one-fifth as wide as the anterior ocellus; elsewhere the punctures are a little larger and sparser, much shallower near the apical margin of the 2nd; those on the 3rd intermediate in size and density; the interspaces generally very sparsely punctulate, near the apical margin of the 3rd they are closely striate transversely. Basal declivity of the 1st with a fairly strong U-shaped depression in the middle, the apical and lateral margins of the 3rd with a distinct narrow translucent border, the latter with a very wide, shallow, V-shaped excision in the middle, strongly, obtusely angulate laterally.

The distance between the antennal sockets a little greater than the width of the 1st joint of the flagellum, the 2nd joint about one-quarter longer than the 1st and twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and to a lesser extent below. The shortest distance across the face nearly half as great again as the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum about two and a half times wider behind than long in the middle, the sides strongly divergent behind, the sides of the median area of the mesonotum feebly divergent behind and in front.

LOCALITY. Katberg, Cape Province.

Described from four ♂♂. Type in British Museum.

Hedychrum explicatum sp.n. (Fig. 66).

♂♂ 7.0-7.5 mm. long. Metallic green blue, two ill-defined, somewhat oblique areas on the pronotum and the median area of the mesonotum darker than elsewhere, dark purplish blue. Sternites black with a large transverse area in the 2nd and 3rd metallic green. The anterior surface of

the posterior femora black, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter brownish black, their apices and the tarsi dark ferruginous. Mandibles green at the base, very dark brown apically, with a short median region ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae nearly black. Wings fusco-hyaline, tegulae metallic green in front, brown, with more or less purplish iridescence, behind. Pubescence brown, short and sparse.

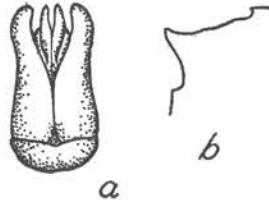


Fig. 66. *Hedychrum explicatum* ♂. a, genitalia \times ca. 17; b, outline of epinotal tooth, \times ca. 17.

Clypeus very finely and closely punctate at the sides, nearly smooth between the antennal sockets, the median area strongly convex transversely, its apical margin feebly concave. The facial cavity wide and rather shallow, the sides reticulate-punctate, a median area three-quarters as wide as the face strongly rugulose transversely, the rugulae more or less feebly arcuate and interrupted in the middle above to form a small smooth area; an indistinct facial fovea present, the face feebly marginate above. The rest of the head rather shallowly reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus. Dorsum of the thorax reticulate-punctate, the punctures punctulate and largest on the metanotum where they are about three-quarters as wide as the anterior ocellus, the punctures becoming smaller and the interspaces wider towards the pronotum, where the puncturation is usually subreticulate and the interspaces punctulate. Pronotal furrow feeble, the lateral excavations wide, shallow and rugulose. Propleura very finely, shallowly and closely punctate, prosternum nearly smooth, mesopleura reticulate-punctate, the punctures a little larger than those on the pronotum, mesosternum very finely and shallowly reticulate-punctate in the middle, becoming nearly smooth laterally, the lateral margins feebly carinate, episterna shallowly but coarsely punctato-rugulose, metasternum very finely rugulose. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, more finely so apically than at the base, very finely punctato-striate below, strong, rather short, the posterior margins sinuate and with an acute, recurved tooth near the base.

The greater part of the tergites reticulate-punctate, the interspaces a little wider on the disk of the 2nd and sometimes on the sides of the 1st and 2nd but the puncturation never sparser than subreticulate, the punctures fairly deep, except near the apical margin of the 2nd and on the whole of the 3rd, where they are shallow, a little smaller near the apical margin of the 1st and the base of the 2nd than elsewhere, the interspaces where wide enough feebly and rather sparsely punctulate. The basal declivity of the 1st with a fairly strong U-shaped depression in the middle, more coarsely and strongly punctate than elsewhere, the punctures up to half as wide as the anterior ocellus. The apical and lateral margins of the 3rd with a narrow, more or less distinct, translucent

border, very feebly impressed or entire in the middle, obtusely angulate at the sides.

The distance between the antennal sockets one-third greater than the width of the 1st joint of the flagellum, the 2nd joint three-fifths longer than the 1st and a little more than twice as long as wide, the 3rd joint a little shorter than the 1st. The shortest distance across the face one-fifth to one-third greater than the distance between the top of the antennal sockets and the top of the facial cavity. Pronotum short, about two and three-quarters times wider behind than long in the middle, the sides feebly divergent behind and sinuate in the middle, the sides of the median area of the mesonotum parallel.

LOCALITY. Eastern border of Southern Rhodesia.

Described from four ♂♂. Type in National Museum, Southern Rhodesia.

Hedychrum scrobiculatum sp.n. (Fig. 67).

♂ 6.0 mm. long. Metallic bluish green without any distinct darker maculae or areas, sternites black with a fairly large metallic green area in the apical half of the 3rd and a trace of green near the apical margin of the 2nd. The anterior surface of the posterior femora black, the posterior surface brown, the rest of the femora and tibiae metallic green, more or less of the inner surface of the latter, their apices and the tarsi, ferruginous. Mandibles green at the base, very dark brown apically, with a short median region ferruginous. Scapes and the upper surface of the 1st joint of the flagellum metallic green, the rest of the antennae black. Wings hyaline tinged with fuscous, tegulae greenish blue in front, purplish behind. Pubescence dark, fairly long and dense.

Clypeus very finely punctato-coriaceous, the median area strongly convex transversely, its apical margin nearly straight. Sides of the face coarsely reticulate-punctate, the median area about two-thirds as wide as the face, fairly strongly rugulose transversely, with a small area above nearly smooth. The rest of the head reticulate-punctate, the punctures punctulate and about one-third as wide as the anterior ocellus. Dorsum of the thorax reticulate-punctate, the punctures punctulate, largest on the metanotum where they are up to the width of the anterior ocellus, becoming smaller anteriorly, but a little larger on the pronotum than on the mesonotum in front, on the former the interspaces are a little wider than elsewhere and fairly closely punctulate. Pronotal furrow absent, the lateral excavations fairly wide and deep. Propleura very finely, shallowly and closely punctate, prosternum nearly smooth, with a few larger very shallow punctures, mesopleura similar in puncturation to the pronotum, mesosternum finely and closely punctate, the lateral margins carinate, episterna rather coarsely punctato-rugulose, metasternum coriaceous in

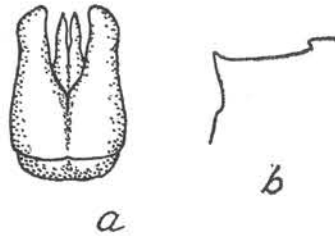


Fig. 67. *Hedychrum scrobiculatum* ♂. *a*, genitalia, $\times 23$; *b*, outline of epinotal tooth, $\times 23$.

front, becoming rugulose behind. Metapleural teeth reticulate-punctate above, smooth below; epinotal teeth reticulate-punctate above, finely so apically, finely and closely punctate below, strong, acute apically, rather short, the posterior margins with an acute recurved tooth near the base.

1st tergite in the middle near the apical margin finely reticulate-punctate, the punctures punctulate; elsewhere on the 1st and 2nd tergites the punctures much larger and proportionately deeper, near the base of the 2nd in the middle the punctures are still very dense, but elsewhere they are sparser, those near the apical margin of the 2nd half as wide as the anterior ocellus; on the 3rd tergite the punctures are a little smaller than the largest on the 2nd but very dense. Basal declivity of the 1st with a feeble U-shaped depression in the middle, the apical and lateral margins of the 3rd with a distinct, narrow, translucent border, entire in the middle, obtusely angulate laterally.

The distance between the antennal sockets rather more than one-third greater than the width of the 1st joint of the flagellum, the 2nd joint nearly half as long again as the 1st and twice as long as wide, the 3rd joint a little shorter than the 1st. Cheeks very short, eyes divergent above and below. The shortest distance across the face nearly one-quarter greater than the distance from the top of the antennal sockets to the top of the facial cavity. Pronotum two and a half times wider behind than long in the middle, the sides divergent behind and feebly sinuate in the middle, the sides of the median area of the mesonotum parallel.

LOCALITY. Aliwal North, Cape Province.

Described from one ♂. Type in British Museum.

Hedychrum Braunsianum

Mocsary, *Ann. Mus. Nat. Hung.* vi, 506 (1908).

Mediocre, sat robustum, totum viridi-auratum, solum mesonoti lobo medio maculis duabus indistinctis violascentibus; parce sed longius cinereo-pilosum; cavitate faciali profunda, dense subtiliter transverse striata, lateribus fortius punctato-coriacea; antennis minus longis, haud crassis, fuscis, cano puberulis, articulis duobus primis viridi-auratis, tertio sat longo, secundo dimidio adhuc longiore; genis brevibus, linearibus; pronoto sat lato, capite tamen angustiore, vertice dense, parum subtilius, thorace fortius, punctato-reticulatis, postscutello convexo, metanoti dentibus postico-lateralibus sat longis, acute-triangularibus, fere spinoideis; abdominis segmentis dorsalibus: primo et secundo laterum parte basali dense, minus fortiter, huius parte apicali et tertio parum fortius rugosiuscule punctatis, secundo carinula basali abbreviata indistincta, centro subtiliter dense punctato, tertio convexo, margine apicali anguste membranaceo-pellucido, integro-rotundatoque, lateribus obtuse-angulatis; femoribus tibiisque aurato-viridibus, tarsis fusco-rufescentibus; ventre nigropiceo, nitido, segmento secundo viridi-aureo maculato; alis fusco-hyalinis, basim versus dilutioribus, venis fuscis, tegulis viridibus, radice viridi-aurato.

♂ Long. 6 mm.

Species: de colore eximio viridi-aurato iam facile cognoscitur.

Transvaal: Johannesburg, November 1905 (Coll. Brauns).

Hedychrum crassipes

Bischoff, *Mitt. Zool. Mus. Berlin*, IV, 444 (1910).

Mediocre, robustum, saturate violaceum; maculis indistinctis in lobis lateralibus mesonoti, scutello, postscutello, dentibus thoracis postico-lateralibus ad basim et apicem parum viridescentibus, macula magna verticis, duabus pronoti, mesonoti lobo medio, tegulis nigro-violaceis; clypeo sat brevi, in medio longitudinaliter fortiter elevato-carinato, ad apicem parum excavato; genis brevissimis, mandibulis piceis, in basi violascentibus; antennis sat tenuibus, articulis duobus primis coeruleo-viridescentibus, articulo tertio secundo fere duplo longiore, quarto et secundo fere aequilongis; cavitate faciali sat lata et profunda, dense transverse striata, superne arcuate marginata; fronte dense punctata, fere reticulata; vertice punctatura minus regulari, parum fortiore; pronoto sat longo, dimidio longiore mesonoto, antice parum angustato, in medio vix impresso, punctis parum maioribus quam in capite, densis; mesonoto brevi, lobis lateralibus fere punctatura pronoti, solum parum irregulari, lobo medio punctis fortioribus; scutello postscutelloque punctatura multo fortiore; scutello interstitiis angustis, politis; postscutello distincte reticulato; dentibus thoracis postico-lateralibus robustis, sed acutis et spinoideis; mesopleuris fortiter punctato-reticulatis; segmentis dorsalibus punctatura subtili versus apicem segmenti secundi fortiore; angulis postico-lateralibus segmenti secundi obtusis; segmento tertio in basi subtilissime punctulato, versus apicem multo fortius; margine apicali integro, lateribus sat fortiter angulatis; extremo margine non membranaceo; ventre piceo; subtiliter in dimidio posteriore segmenti secundi et tertii et lateribus segmenti secundi punctatis; ceteris ventris partibus plus minusve politis, punctis valde dispersis; maculis versus apicem segmenti secundi et tertii violascentibus; pedibus violaceis; genibus, apicibus tibiaram cum spinis, tarsis rufo-testaceis; unguiculis in medio sat fortiter unidenticulatis; femoribus posticis fortiter dilatatis et crassis; alis totis infuscatis, venis piceis, vena basali vix incurvata.

♂ Long 6 mm.

Patria: Capland.

Hedychrum katanganum

Mocsary, *Ann. Mus. Nat. Hung.* XII, 9 (1914).

Parvum, minus robustum, viride, parce breviterque pilosum; maculis duabus minus distinctis pronoti, mesonoti lobo medio antice et abdominis segmentis dorsalibus: primo disco et secundo maxima parte basali in medio violascentibus; scutello et abdominis lateribus viridi-auratis; cavitate faciali lata, sat profunda, dense subtilissime transverse striata; antennis haud longis ac crassis, fuscis, articulis duobus primis cyaneis, tertio minus longo, secundo vix dimidio adhuc longiore; genis linearibus, fere nullis; pronoto brevi, capite non longiore, sed fere aequilato, transverso, angulis obtusis, lateribus sinuatis, antice in medio vix impresso; mesonoti suturis lateralibus indistinctis; postscutello parum gibbo-convexo, metanoti dentibus postico-lateralibus brevibus robustis,

acute-triangularibus; vertice et pronoto dense subtilius, mesonoto cum scutello parum dispersius crassiusque haud profunde, postscutello multo fortius punctato-reticulatis; mesopleuris fere punctatura pronoti; abdominis segmentis dorsalibus: primo basi in medio leviter sulcato laevigatoque, secundo carinula mediana nulla, angulis postico-lateralibus obtusiusculis, tertio convexo, ante marginem apicalem arcuatim fortius impresso, ipso margine arcuato-integro, non hyalinito, denticulo utrinque laterali parvo, acute-triangulari; segmentis: primo disco dense sat concinne profundeque subtilius punctato, secundo punctatura parum subtiliore rugosiuscula, tertio densiore magisve rugosa; ventre nigropiceo nitido; femoribus tibiisque viridibus; tarsis fusco-rufescentibus; alis subfumato-hyalinis iridescentibus, tegulis nigro-aeneis.

♀ Long. 5 mm.

Species: praecedentibus (*abyssinicum* Mocs.) maior, pronoto multo breviori, punctatura ex parte alia, segmento abdominis tertio margine apicali non hyalino et alis fumatis magis distincta.

Africa meridionalis: Katanga in Rhodesia (Mus. Brit.).

Hedychrum laevigatum

Mocsary, *Ann. Mus. Nat. Hung.* IX, 451 (1911).

Submagnum, sat robustum, longius densiusque cinereo-albidoque pilosum; capite, pronoto, mesonoto et abdominis segmentis dorsalibus et ventralibus, femoribus tibiisque viridi-auratis; thoracis parte relique et abdominis segmento dorsali tertio cyaneis; femoribus posticis subtus tarsisque fusco-rufis; alarum tegulis violaceis, radice viridi; capite haud lato, fronte subangusta, cavitate faciali profunda, dense subtilissime transverse striata, lateribus punctato-coriacea; antennis longiusculis, sat crassis, cano-puberulis, articulis duobus primis viridi-auratis, tertio longo, secundo duplo longiore; mandibulis rufis, apice nigris; pronoto longo, antice fortius angustato, capitis latitudine; fronte valde dense subtiliter, vertice parum fortius dense, pro- et mesonoto scutelloque fortius, sed dispersius, postscutello adhuc crassius punctato-reticulatis, metanoti dentibus postico-lateralibus validis, acute-triangularibus; abdominis segmentis dorsalibus: primo parte truncata fortiter excavata et superne late laevi ac polita, dein punctis profundis sparsis magnis instructo, segmento secundo pariter valde disperse fortius punctato, interstitiis latis ac laevibus, punctis tamen paulo minoribus, tertio similiter punctato, punctis debilioribus minusve profundis, margine apicali anguste testaceo-scarioso, centro subintegro, angulis lateralibus seu denticulis parvis subobtusis, postice recte truncatis; ventris segmento secundo dense punctulato, punctis maioribus insitis piliferis, tertio cyanescenti subtiliter coriaceo; alis leviter fumato-hyalinis.

♀ Long. 9 mm.

Species: punctatura frontis et abdominis segmentis dorsalibus primeque basi spatio late laevi ac polito eminent.

Terra Capensis (Mus. Hung.).

Hedychrum lydenburgense

Bischoff, *Mitt. Zool. Mus. Berlin*, IV, 443 (1910).

H. brevicolle Mocs. affine. Subparvum; viride; maculis duabus pronoti et duabus in basi mesonoti obscuris, aeneis, segmento secundo in disco indistincte subviolascenti, ad basim anguste nigro-violaceo; clypeo brevissimo, in medio sat fortiter elevato-carinato, apice truncato; antennis sat brevibus, articulis duobus primis viridibus, tertio secundo dimidio longiore, quarto secundo parum brevior; genis brevissimis; mandibulis ad basim viridibus, ad apicem brunescens, in medio obtuse angulatis; cavitate faciali sat angusta et profunda, densissime et subtilissime punctulata, superne non marginata; fronte verticeque aequaliter minute, sed dense punctatis, fere punctato-reticulatis; marginibus extraorbitalibus acute marginatis, angustissimis, thorace supra vix convexo; pronoto mesonoto plus dimidio longiore, antice parum angustato, non impresso, punctatura fortiore quam in capite, in tota superficie thoracis fere aequali, solum in angulis anticis pronoti, in parte posteriore mesonoti lobi medii et in scutello punctatis; postscutello punctatura reticulata, mesonoti suturis longitudinalibus indistinctis; mesopleuris punctatura superficiei thoracis, neque sulcatis, neque carinatis, neque denticulatis, dentibus postico-lateralibus thoracis sat fortibus, extradirectis, acutis, spinoideis; segmentis dorsalibus subtilissime punctulatis; primo et secundo punctatura fere aequali, punctis parum dispersis, interstitiis non politis neque punctulatis, punctis solum in marginibus lateralibus et apicali segmenti secundi fortioribus; segmento primo brevi, segmenti secundi angulis postico-lateralibus obtusis; segmento tertio punctatura multo fortiore, margine apicali integro, in centro non sinuato, anguste albo-hyalino marginato, lateribus non vel indistinctissime angulatis; ventre piceo, aenescenti; segmento secundo ventrali macula magna densissime punctulata viridi; ceteris ventris partibus valde disperse punctatis et politis; pedibus viridibus, tarsis testaceis; unguiculis unidentatis; coxis posticis sat magnis; femoribus posticis crassis; alis sordide hyalinis, in disco pure hyalinis; venis pallide testaceis.

♀ Long. 5.5 mm.

Patria: Transvaal (Lydenburg).

Hedychrum maximum

Bischoff, *Mitt. Zool. Mus. Berlin*, IV, 442 (1910).

Speciebus praecedentibus (*amamiense*, *nigrofemoratum*, *kamerunum*) affinissimum; maximum; corpore viridi-micanti; macula interocellari, fascia in dimidio posteriore pronoti, lobo medio mesonoti, scutello coeruleoviolaceis; margine apicali pronoti viridi-subaurato; cavitate faciali profunda, transverse striata, supra indistincte marginata, fronte fortiter et regulariter punctato, punctis non rugosis; vertice dense et fortissime punctato; pronoto proportionaliter longiore, densius et fortius punctato, interstitiis non tam laevibus ac politis ut in *H. coelestino*

Spin.; sed coriaceis; mesonoti punctatura fere ut in pronoto; scutello postscutelloque fortiter punctato-reticulatis; scutello in interstitiis punctis multo minoribus intermixtis; dentibus postico-lateralibus thoracis non tam fortiter arcuatis, ut in *H. coelestino*, sed lenius; segmentis dorsalibus ut in illa specie punctatis, sed segmento secundo in dimidio posteriore et toto tertio punctis multis dispersioribus; alis fumatis.

♀ Long. 11 mm.

Patria: South West Africa (Omburu).

Hedychrum natalense

Mocsary, *Ann. Mus. Nat. Hung.* IX, 456 (1911).

Submagnum, minus robustum, cyaneo-viridi, tantum mesonoti lobis lateralibus parum violascentibus et segmento dorsali tertio cyanescenti, parcius cinereo-alboque pilosum; cavitate faciali frontisque medio leniter viridi-aureo nitentibus, illa sat lata ac profunda, medio subtiliter transverse striata, lateribus punctato-coriacea; antennis sat longis, crassiusculis, fuscis, cano-puberulis, articulis duobus primis viridibus, scapo supra ad apicem igneo-aurato, articulo tertio sat longo, secundo duplo longiore; genis brevibus, fere nullis; pronoto sat longo, antice leniter angustato, capitis latitudine, antice in medio profundius impresso; postscutello convexo, metanoti dentibus postico-lateralibus longis, acute-triangularibus; vertice subtiliter, pro- et mesonoto scutelloque fere aequaliter dense, multo fortius punctato-reticulatis, postscutello scrobiculato; abdominis segmentis dorsalibus: duobus primis fere aequaliter dense sat profunde sed haud crasse cribrato-punctatis tertio punctatura simile, sed parum densiore, secundo carinula mediana nulla, tertio convexo, ante marginem lateralem utrinque leniter impresso, imo margine arcuato-integro, angustissime testaceo-scarioso, centro nonnisi lenissime sinuato angulis lateralibus bene distinctis, ventre nigro-piceo, nitido, segmentis 2-3 ante marginem apicalem macula magna viridi cyanea; pedibus viridibus, tarsi fuscis, alis fumato-hyalinis parumque violascentibus, venis fuscis, tegulis viridi-cyaneis.

♂ Long. 7 mm.

Species: de colore, punctatura abdominis et segmento anali facillime cognoscenda.

Natal: Howick (Mus. Hung.).

Hedychrum punctulatum

Mocsary, *Ann. Mus. Nat. Hung.* IX, 452 (1911).

Submagnum, capite thoracique subangustis, abdomine latiusculo, viridi-cyaneum, longius cinereo-alboque pilosum; cavitate faciali, occipite, maculis duabus pronoti, mesonoto cum scutello et postscutello, macula magna basali abdominis segmento dorsali secundo margineque apicali tertioque pulchre violaceis; capite proportionaliter parvo, cavitate faciali profunda, dense subtiliter transverse striata, lateribus punctato-coriacea; antennis crassiusculis, fuscis, cano-puberulis, articulis duobus primis viridibus, tertio longitudine mediocri, secundo duplo longiore;

genis brevibus, linearibus; mandibulis longo falcatis, rufis, apice nigris; pronoto haud longo, antice fortiter angustato, medio capitis latitudine; postscutello convexo, metanoti dentibus postico-lateralibus anguste triangularibus acutis; vertice, pro- et mesonoto dense sat crasse ac profunde, scutello et postscutello adhuc crassius punctato-reticulatis; abdominis segmentis dorsalibus: primo basi excavato, centro et secundo parte basali in medio late valde dense, subtiliter et rugosiuscule, lateribus et secundo parte minore apicali tertioque vero sat sparsim fortius, fere cribrato-punctatis, interstitiis laevibus ac politis, imo margine apicali anguste testaceo-scarioso, centro levissime sinuato, lateribus sat fortiter subacute denticulatis; ventre nigro-piceo, nitido, segmento secundo macula magna viridi-cyanea, tertio minuta coerulea; pedibus cyaneo-viridibus, tibiis apice tarsisque fusco-rufis; alis fumato-hyalinis, venis fuscis; tegulis piceis, antice cyaneis.

♂ Long. 10 mm.

Species: capite proportionaliter parvo, pronoto haud longo, antice fortiter angustato, metanoti dentibus postico-lateralibus anguste triangularibus acutis et praesertim: abdominis segmentis dorsalibus; primo centro et secundo parte maiore basali in medio late valde dense subtiliter rugosiuscule punctulatis, a sociis facillime distinguenda.

Terra capensis (Mus. Hung.).

Hedychrum spinigerum

Mocsary, *Ann. Mus. Nat. Hung.* XII, 10 (1914).

Submagnum, latum ac robustum, totum laete-cyaneum parumque violascens, parce pilosum; cavitate faciali minus lata, sed profunda, dense subtilissime transverse striata, lateribus punctato-coriacea; antennis sat longis, fuscis, articulis duobus primis cyaneis, tertio minus longo, secundo dimidio tantum longiore; genis linearibus; pronoto longo, capite multo longiore, transverse rectangulo, antice leniter angustato, capite angustiore, antice in medio leviter impresso; postscutello convexo; metanoti dentibus postico-lateralibus longis, angustis, sat tenuibus, spinulosis, subrectis, postice lenissime sinuatis; pronoto sat crasse ac profunde, mesonoto parum fortius, scutello adhuc crassius sat sparsim punctatis, interstitiis laevibus, postscutello crasse punctato-reticulato; mesopleuris sat crasse ac profunde subreticulatim punctatis; abdominis segmentis dorsalibus: primo basi superne lateribusque crassius profunde sat sparsim punctato, interstitiis laevibus ac politis postice centro punctura subtiliore densioreque, secundo carinula mediana nulla, angulis postico-lateralibus subrotundis, punctura sat sparsa subtili, pariter interstitiis laevibus ac politis, tertio convexo, ante marginem posticum arcuatim leviter impresso, ipso margine arcuato-integro, denticulo utrinque laterali sat valido obtuso, punctura sparsa fortiore profundioreque, quam segmenti secundi; ventris segmentis duobus primis, femoribus tibiisque cyaneo-viridibus, illis segmento tertio nigro, opaco, his tarsis fusco-rufis; alis subfumato hyalinis, venis fuscis, tegulis violascentibus.

♂ Long. 8 mm.

Hedychro coelestino Spin. similis et affinis; sed parum angustius, punctatura thoracis fortiore et e contrario abdominis, praesertim secundi dorsalis parum subtiliore, sparsa, interstitiis latis, laevibus ac politis, tertio margine apicali centro non emarginato, denticulo utrinque laterali non acute triangulari et praesertim dentibus metanoti postico-lateralibus non acute-triangularibus, sed angustis, sat tenuibus spinulosis, medio tam latis, quam apice et basi vix dilatis, certe distinctum.

Terra capensis: Prince Albert (Mus. Hung.).