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Annals and Magazine of Natural History: Series 8

Publication details, including instructions
for authors and subscription information:
<http://www.tandfonline.com/loi/tnah14>

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Published online: 15 Sep 2009.

To cite this article: Gilbert J. Arrow (1909) LXVIII.—On some new species of Coleoptera from Rhodesia and adjacent territories , *Annals and Magazine of Natural History: Series 8*, 3:18, 517-528, DOI: [10.1080/00222930908692618](https://doi.org/10.1080/00222930908692618)

To link to this article: <http://dx.doi.org/10.1080/00222930908692618>

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- b¹. Buffy suffusion on flanks and thighs
 absent, that on shoulders reddish
 brown. (Katanga Dist., Congo State.) *P. c. quotus*, subsp. n.
 b. Hands and feet greyish white *P. c. soccatus*, subsp. n.
 B. Size smaller: hind foot 39 mm. (Zambesi
 Basin.) *P. c. sindi*, T. & W.

LXVIII.—*On some new Species of Coleoptera from Rhodesia and adjacent Territories.* By GILBERT J. ARROW.

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THE following notes and descriptions are incidental to the systematic study of two important collections recently added to the British Museum, that of Mr. S. A. Neave from North-East Rhodesia and the Katanga District of the Congo Free State, and another presented by Mr. Guy A. K. Marshall and made by him or on his behalf in Mashonaland and the part of Portuguese East Africa immediately adjoining.

Copridæ.

Sisyphus callosipes, sp. n.

Niger, opacus, undique minute sat dense griseo-setosus; capite grosse punctato, clypei margine antico profunde semicirculariter exciso, dentibus 2 internis prominentibus, externis subobsoletis; prothorace leviter varioloso-rugoso, postice medio lineato-sulcatulo, lateribus ante medium fortiter convergentibus, angulis anticis acutis, deinde paulo sinuatis, dorso convexo; elytris sat regulariter striatis, ad apices valde attenuatis; pedibus gracilibus, haud spinosis, trochanteribus haud productis; metasterno nitido, profunde impresso:

♂, tibiis anticis sat robustis, subtus haud dentatis, pedibus intermediis simplicibus, pedum posticorum femoribus clavatis, postice medio callo lato, nitido, instructis, tibiis longis, curvatis, intus serratis, extremitate intus abrupte dilatato.

Long. 10-11 mm.; lat. max. 6-7 mm.

Hab. German East Africa: Massailand; British Central Africa: Nyasaland; Katanga, 150-200 miles west of Kambove; Mashonaland: Chirinda.

The female of this is like the common *Sisyphus crispatus*, Gory, but it is a larger species, the upper surface is less rugose and clothed with a finer and closer pubescence. In the male the hind trochanters are not produced and the front

tibia is not furnished with teeth beneath; the hind femur is flattened, broad in the middle and bears a broad shining laminar appendix at its lower edge; the hind tibia is strongly curved, serrate within and has also a small laminar inner appendix at its extremity.

Sisyphus gazanus, sp. n.

Niger, opacus, supra ferrugineo-indutus, setis erectis ferrugineis undique tectus; clypeo antice dentibus 2 acutissimis internis armato, externis subobsoletis; prothorace sat longo, lateribus fere parallelis, paulo ante angulos anticos dentatis et deinde convergentibus, angulis anticis acutis, dorso parum convexo; elytris sat regulariter costatis, pone humeros latis, lateribus deinde leviter arcuatim contractis; pedibus gracilibus, haud spinosis, trochanteribus haud productis:

♂, tibiis posticis curvatis, intus serratis; clypei dentibus 2 internis remotis, intervallo haud angulato:

♀, clypei dentibus 2 internis haud remotis, intervallo angulato.

Long. 5-6 mm.; lat. max. 3-4 mm.

Hab. Gazaland: Chirinda, Chibababa (Oct., Nov., Dec., 1901-1906).

This is of similar size and appearance to *Sisyphus goryi*, Har., and like it clothed with rusty coarse setæ and earthy matter; indeed it is in all respects extremely like that species, differing only in the rather longer legs, the elytra a little more rounded at the sides and less tapered behind, the very sharp inner clypeal teeth, and feebler outer ones.

The sexual differences are slight in these and the small species of *Sisyphus* generally, and the synonymy of these still remains in the greatest confusion. Mr. Péringuey considers *S. goryi*, Har., to be identical with *S. crispatus*, Gory; but the first is described from West and the second from South Africa, and as a species exists in Senegambia to which the description of *S. goryi* can be applied there seems no reason to adopt Mr. Péringuey's view. The latter's species, *S. nanniscus*, is the insect called *S. rugosus* by Roth (a pre-occupied name) and considered by Gemminger and Harold to be the *S. ocellatus* of Reiche. The last appears to me to be another species of which there are representatives in the British Museum from Nyasaland and the interior of Angola. It is peculiar in having denuded spots upon the pronotum, as shown in Reiche's figure. These names should accordingly stand as follows:—

crispatus, Gory.

goryi, Péring. (nec Harold).

Abyssinia to Cape Colony.

<i>gazanus</i> , sp. n.	Gazaland.
<i>goryi</i> , Harold.	Senegambia.
<i>hirtus</i> , Gory (nec Wiedem.).	
<i>hirtus</i> , Wiedem.	S. India, Ceylon.
<i>nanniscus</i> , Péring.	Abyssinia to Natal.
<i>rugosus</i> , Roth (nec Gory).	
<i>ocellatus</i> , Gemm. & Har. (nec Reiche).	
<i>ocellatus</i> , Reiche.	E. Africa.

Onitis gazanus, sp. n.

Brevis, convexus, niger, subopacus, capite prothoraceque vage viridibus vel cæruleis; clypeo crebre punctato, carina frontali arcuata, integra, tuberculoque postico; pronoto rugose et dense punctato, postice medio immarginato, anguste bifoveolato; elytris striatis, interstitiis convexis, minute sat dense punctatis; metasterno fortiter punctato; femoribus omnibus inermibus, tibiis anticis quadridentatis:

♂, tibiis anticis gracilibus, fortiter arcuatis, subtus breviter denticulatis; clypeo rugose punctato:

♀, clypeo transverse strigoso.

Long. 15–18 mm.; lat. max. 9·5–11·5 mm.

Hab. E. Mashonaland: Chirinda Forest.

This was found in numbers by Mr. G. A. K. Marshall. It is a small compactly formed species allied to *Onitis caffer*, Bohem., but less shining and differently sculptured, with the femora quite unarmed in both sexes. It is black, with the head and prothorax sometimes faintly steel-blue, closely punctured and dull above, and moderately shining beneath. The head is closely punctured (the clypeus of the female transversely striated), with an arcuate and entire frontal carina and a slight frontal tubercle. The pronotum is densely and rugosely punctured, with the marginal line not complete behind and the basal foveæ elongate and rather close together. The elytra are striated, with the intervals convex and finely punctured.

Melolonthidæ.

Apogonia (subgenus *Rhynchogonia*) *minima*, sp. n.

Rufo-castanea, modice elongata, capite sat punctato, clypeo triangulari, acutissimo; prothorace fortiter punctato, marginibus antico et postico fere parallelis, lateribus antice rectis, angulis posticis arcuatis; elytris crebre fortiter punctatis, punctis partim

longitudinaliter ordinatis; pygidio grosse punctato, punctis piliferis.

Long. 5 mm.; lat. max. 3 mm.

Hab. S.E. Congo Free State: Katanga.

This is the smallest species of *Apogonia* known to me. It is exceedingly like *A. acuminata*, Arrow, but smaller and rather more numerously punctured and the clypeus is still more sharply pointed. The pronotum is more strongly punctured, the front and hind margins are rather more parallel, and the sides appear straighter as seen from above and less convergent towards the front. The pygidium is also rather more punctured. The sexes are alike, except in the dilatation of the front and middle tarsi of the male.

Cetoniidæ.

Eccoctocnemis mashunus, sp. n.

Læte viridis vel cyaneo-viridis, nitidus, tarsis cyaneis, tibiis posticis atque intermediis intus flavo-pilosis; capite crebre sat grosse punctato, antice leviter emarginato; prothorace lato, lateribus postice valde divergentibus, sat fortiter punctato, medio fere lævi; scutello vix punctato; elytris lævibus, punctis nonnullis minutissimis sparsutis; pygidio transverse strigoso; corpore subtus medio toto lævi, lateribus paulo punctatis, processu mesosternali circulari.

♂. Pedibus posticis crassatis, tibiis dense flavo-setosis, pygidio minus strigoso.

Long. 24-31 mm.; lat. max. 10.5-14 mm.

Hab. Mashonaland.

This species figures in Mr. Péringuey's 'Catalogue of the South-African Coleoptera' under the name of the West-African *E. barthi*, Harold, to which it is closely related. It agrees with it in the fringe of yellow velvety hairs at the inside of the middle and hind tibiæ, very thick in the male, but differs in the more shining and very feebly punctured elytra and the relatively shorter and rather differently shaped pronotum, the sides of which are less angulated at the middle, so that they are more divergent behind, and the base relatively broader. The sternal process is more narrowed between the middle coxæ, and the mesosternal part of it almost circular in shape.

Capt. Moser has described as a variety of *Ceratorrhina* (*Neptunides*) *polychroa*, Thoms., a form, *manowensis*, Moser, which is abundant at Chirinda, feeding upon pineapples. It presents marked and constant differences from Thomson's

species, and is not merely one of the many colour-varieties of it. Its brown coloration is peculiar and practically invariable, and it is very distinctly more elongate than *C. polychroa*. The females are at once distinguishable by the curious prolongation of the tips of the elytra, and the males have the hind femora strongly curved.

Leucocelis cobaltinus, sp. n.

Niger, nitidus, prothoracis lateribus anguste rufis elytrisque obscure cæruleis, corpore elongato, subtus parce setoso; capite dense punctato, clypeo angusto, leviter bifido; prothorace leviter punctato, antice paulo densius, marginibus lateralibus medio angulatis, postice fere parallelis, angulis posticis distinctis, basi regulariter arcuata; elytris grosse seriato-punctatis, striis 2 vel 3 posticis; pygidio irregulariter annulato-punctato; metasterni medio parvisime punctato, processu sat lato, rotundato:

♂, abdomine subtus paulo excavato, segmento ultimo medio minute producto, tarsis posticis multo longioribus.

Long. 12–13.5 mm.; lat. max. 6–7 mm.

Hab. E. Mashonaland: Chirinda Forest.

This is a rather large species, devoid of white spots, and black, with the exception of the elytra, which are indigo- or cobalt-blue, and a narrow red lateral border upon each side of the pronotum.

Leucocelis ichthyurus, sp. n.

Niger, nitidus, clypeo, antennis pygidioque læte rufis, maculis parvis albis inconspicue ornato, quarum 2 prothoracis lateralibus, 2 subbasalibus, elytrorum fascia mediana interrupta transversa punctisque nonnullis posticis; capite toto crebre punctato, clypeo antice leviter inciso; prothorace fortiter punctato, medio læviore, lateribus strigosis, basi omnino regulariter curvato, marginibus lateralibus postice paulo divergentibus, angulis posticis distinctis; elytris fortiter seriato-punctatis, postice distincte striatis, ad suturam spinose productis; pygidio opaco, parce punctato; corpore subtus sat griseo-setoso, processu sternali lato, parum producto:

♂, tibiæ posticæ calcare interno gracilissimo, curvato.

♀, pygidio medio late sulcato, fere bicuspidato, segmento ventrali ultimo postice late fulvo-ciliato.

Long. 10–11.5 mm.; lat. max. 5–5.5 mm.

Hab. Mashonaland: Salisbury, Chirinda Forest.

I have seen a considerable number of specimens of this. It is very nearly related to *L. rubriceps*, Raffray, and may possibly prove to be a local race of it. It is a little larger

Ann. & Mag. N. Hist. Ser. 8. Vol. iii.

and much more scantily spotted with white, the spots being always extremely small and not infrequently absent altogether. The antennæ, head, and pygidium are red, but not the last ventral segment, and the pygidium is not spotted with white, whereas in our specimen of *L. rubriceps* there are four marginal spots. The body is a little longer and less sharply narrowed behind, and the striæ on the posterior part of the elytra are less crowded.

In both these species the inner spur of the hind tibia is as long as the first two joints of the tarsus.

Mr. Péringuey has transferred *L. rubriceps* to the genus *Mausoleopsis*, on account of the asymmetrical front claws of the male, thus disregarding not only the general form, but more important characters common to both sexes, *e. g.* the prominent terminal spiracles of *Mausoleopsis*. It appears to me highly inadvisable to base any genus upon a feature found only in one sex.

Leucocelis opacipennis, sp. n.

Ænea vel cuprea, nitida, elytris viridi-testaceis, opacis, pygidio, pedibus, corpore subtus prothoracisque lateribus griseo-setosis, punctis prothoracis utrinque 3, elytrorum marginis externi postice 3-4 discique nonnullis minutis; corpore sat brevi; capite crebre punctato, antice fere bifido; prothorace ubique fortiter punctato, subcirculari, postice omnino arcuato, angulis nullis; elytris antice et extus leviter punctatis, postice intus fortiter geminato-striatis; pygidio varioloso-punctato; mesosterno vix producto.

Long. 8.5-9 mm.; lat. max. 5 mm.

Hab. Katanga: 150-200 miles W. of Kambove, 3500-4500 feet, 24th Sept., 1907.

This is a species allied to *L. spoliata*, Har., which is referred by Dr. Kolbe to his subgenus *Amaurina*, but it differs from all the known species of that section in that the elytra only are opaque. It is of short form, with the pronotum subcircular, very strongly punctured, the hind angles obliterated, and the sides decorated with a border of greyish hairs. There are six white spots forming two diverging straight lines upon the pronotum, three or four at the posterior part of the outer margin of each elytron, and usually a few very minute ones upon the disk. The pygidium and lower surface are fairly well clothed with grey hair, and there are sometimes four basal patches of scales upon the former.

The sexes seem almost identical.

Erotylida.

Platydacne ferruginea, sp. n.

Ferruginea, haud nitida, antennis, prothoracis et elytrorum marginibus externis, horumque lineis 4 longitudinalibus apice haud conjunctis nigris; corpore supra toto sat dense et minute punctato, prothorace lato, baseos lateribus sinuatis, angulis posticis acutis, marginibus lateralibus punctatis, haud crassis, regulariter arcuatis; elytris convexis, postice acuminatis, fortiter punctato-striatis, interstitiis modice convexis, crebre punctulatis.

Long. 14–17 mm.; lat. max. 6–7 mm.

Hab. N.E. Rhodesia: Serenje District; Katanga: Kambove, Lufira River.

P. ferruginea is very closely allied to the typical species of the genus, *P. vittulata*, Fairm., but rather narrower in shape, with the ground-colour rusty brown instead of red. The whole surface is very finely and rather closely punctured, and the elytra are more deeply striate-punctate. Each elytron has the extreme outer edge and four narrow longitudinal lines black, the outermost line extending almost to the suture but not uniting with the others, which also remain distinct at their extremities.

Platydacne levistriata, sp. n.

Subopaca, nigra, singulo elytro lineis rufis duabus ante apicem conjunctis, plerumque ante medium haud apparentibus, interdum etiam linea intermedia vestigiali antica ornato; corpore vix punctato, prothorace quam longitudinem vix latiore, lateribus ad basin paulo divergentibus, postice fere rectis, basi regulariter arcuato, angulis posticis acutis; elytris postice acuminatis, lævissime striatis, haud punctatis, interstitiis paulo convexis; antennis gracilibus, haud late clavatis.

Long. 15–17 mm.; lat. max. 6–7 mm.

Hab. S.E. Congo Free State: 150–200 miles W. of Kambove.

This is very near *P. rufovittata*, Har. (described as a species of *Megalodaene*). It is rather more oval in shape and more pointed behind, the sides of the prothorax are more divergent behind and the hind angles sharper, and the elytra are very lightly striated, without visible punctures in the striae or between them.

LXIX.—*New Species and Varieties of Hydroïda Thecata from the Andaman Islands.* By JAMES RITCHIE, M.A., B.Sc., Natural History Department, the Royal Scottish Museum.

IN a collection of Hydroids kindly entrusted to me for identification by Dr. Nelson Annandale, Superintendent of the Indian Museum, there were contained such specimens as had been dredged in the deeper waters of the Indian Ocean. Of the twenty-four distinct forms in this collection I regard four as new species and two as undescribed varieties. Fuller descriptions of these, with figures, will be published, along with the report on the rest of the collection, in an early number of the 'Records of the Indian Museum,' the object of the present notice being merely to chronicle the occurrence of a few interesting undescribed additions to the little-known deep-water Hydroid fauna of Indian seas.

Campanularidæ.

Hebella crateroides, sp. n.

Trophosome.—Colony epizoic, with a creeping hydrorhizal tube, which meanders over the stems and branches of other Hydroids. The hydrothecæ, which arise at irregular intervals from the stolon, are small and colourless, like a wine-glass in shape, with firm walls marked in some cases by exceedingly faint corrugations, and gracefully everted round the margin. As the hydrotheca gradually diminishes in diameter from the margin almost until the hydrorhizal tube is reached, the hydranthophore is not distinctly indicated; and the hydrotheca cavity is separated from the common cavity of the colony only by a delicate film. The hydranth bears from about 6 to 8 tentacles.

Gonosome.—The gonangia, which are borne on short indefinite stalks, are at least three times as large as the hydrothecæ. They are roughly cylindrical in shape and have irregularly corrugated walls, with an everted margin. Three medusæ, as a rule, develop from each blastostyle. The manubrium is large and four stout tentacles are present ere the medusa is set free.

This species is closely related to *Hebella calcarata* (A. Agassiz), from which it may be distinguished by the much smaller number of tentacles possessed by its hydranth and by the inverted-cone shape of its hydrotheca.

Loc. Growing on *Lytocarpus phœniceus* (Busk), dredged 8 miles west of Interview Island, Andamans. Depth 270-45 fathoms.

Sertularidæ.

Sertularella polyzonias (Linn.), var. *cornuta*, nov.

Trophosome.—Stem more definite than in var. *gracilis* of British waters and branches more regular in their alternate origin. The facies of the trophosome on the whole approaches that of var. *robusta*, Kirchenpauer, from the Cape of Good Hope.

Gonosome.—While the gonangia have the elongate-ovate shape and the strongly marked corrugations of typical specimens, they are surmounted by four stout spines lying crosswise in a plane at right angles to the long axis of the gonangium. To this character is due the designation of the variety.

Loc. (a) Andaman Islands. Depth 490 fathoms.

(b) 8 miles west of Interview Island, Andamans. Depth 270-45 fathoms.

Diphasia thornelyi, sp. n.

Trophosome.—Colony delicate, unbranched, with a non-fascicled stem, which springs from a creeping stolon. The stems show no signs of nodes, but bear hydrothecæ from the base upwards. The hydrothecæ are biserial, both rows lying in the same plane, but they vary much in their position relative to one another, for although in most cases they are alternate or subalternate, on occasion an opposite arrangement is simulated. A hydrotheca is deep and narrow, with the inner edge adnate to the stem for practically its whole length, with the exception of a short, horizontal, knobbed ledge upon which the adcauline operculum is hinged. A short upturned intrathecal septum projects into the hydrotheca cavity from the middle of the abcauline wall, which beneath this point becomes much thicker. The distal part of the hydrotheca resembles a bracket projecting from the stem. The margin is smooth and rimmed, in shape arc-like, the curve of the arc bending outwards, and the aperture is tilted somewhat towards the stem. The partition separating hydrotheca cavity from stem cavity lies almost parallel to the abcauline wall, and terminates in a thickened ridge.

Gonosome.—Stalkless gonothecæ arise from close below

the hydrothecæ. They are ovate in shape, with a bulging shoulder, a short neck, and a circular aperture. The distal half is ornamented with prominent scattered spines.

Loc. Andaman Islands. Collected by J. Wood-Mason.

Plumularidæ.

Aglaophenia septata, sp. n.

Trophosome.—Stem fascicled and unbranched, 74 mm. high. The hydroclades are borne on the anterior tube of the fascicle, which alone is divided by faint nodes into regular internodes. The hydroclades are biserial, lie on the anterior surface of the stem, from which they project at an angle of 40° – 45° , and reach a maximum of 11 mm. in length. Regularly placed nodes occur on the hydroclades, the internodes being divided by numerous strongly developed septa, four of which project from the posterior wall of the hydrotheca, while three arise from the anterior wall of the internode proximal to the hydrotheca. Of these one traverses the base of the mesial sarcotheca.

The hydrothecæ are rather distant, very narrow at the base, but widening greatly towards the top, almost obconical. The anterior profile is straight but for a concavity opposite the top of the mesial sarcotheca. The margin is horizontal and has a prominent anterior tooth, flanked on each side by four distinct sinuations. There is no intrathecal ridge, but the posterior wall bends inwards just above the base of the hydrotheca. The supracalcine sarcothecæ slightly overtop the margin of the hydrotheca. They are large and cylindrical and possess an internal septum. The mesial sarcotheca is about two-fifths the length of the hydrotheca, to which it is altogether adnate except for a free spout-like tip. A button of chitin projects into its cavity from the wall of the hydrotheca, proximal to the point where it becomes free.

Of cauline sarcothecæ, one lies on the anterior of the stem, proximal to the hydroclade-bearing process, another lies on the inner side of the process—both of these being large and similar to the mesial sarcotheca,—while a third, a mere perforation, lies on the anterior of the process itself.

Gonosome.—A kind of corbula, entangled amongst fibres at the base of the colony, I assume to have belonged to the colony. It is of peculiar type. A cylinder, formed of delicate plates of chitin, contains five spherical reproductive bodies, and along each side run two rows of projecting leaves. Each of the lower rows contains about 9 tube-like leaves,

furnished with small sarcothecæ arranged biserially. Each of the upper rows has 10 broader leaves, often contorted, and also bearing sarcothecæ irregularly arranged along the margins. The structure seems to resemble a type of open corbula where, instead of the leaves curling inwards to protect the reproductive bodies, special delicate chitinous wings have arisen between the leaves, these enclosing the gonangia in a cylinder.

Loc. Andaman Islands. Depth 490 fathoms.

Lytocarpus annandalei, sp. n.

Trophosome.—Colony dark brown in colour, unbranched, with a fascicled stem traversed here and there by pale-coloured constrictions slanting from behind downwards and forwards. The anterior tube, which is not divided into nodes, alone bears hydroclades, and these are close set and alternate, and are divided into regular hydrotheca-bearing internodes. The hydrothecæ are closely approximated, deep, and rudely ovate in outline, with an aperture facing outwards from the stem at an angle of about 45°. The lower half of their profile is convex, the upper concave, while the margin bears a single prominent anterior tooth, flanked by four sinuations on each side. The mesial sarcotheca is very broad, adnate for more than half the height of the hydrotheca, but with a free spout-like extremity; the supra-calyceine sarcothecæ are also very large, reach just above the margin of the hydrotheca, and possess a huge aperture. They are cylindrical in shape, the cylinder being broken by a constriction about midway, which is associated with an internal ridge traversing part of their cavity from the posterior wall.

The intrathecal ridge is little evident, but it projects into the lumen of the hydrotheca from a knob of chitin terminating an angular inbending of the posterior wall near the floor of the cavity. The bases of the two sides of the angle are marked by well-defined ridges projecting into the cavity of the internode, while a third ridge arises just above the bases of the supra-calyceine nematophores. A shorter internodal ridge arises from the proximal portion of the anterior wall. Two characteristic ridges are associated with the mesial nematophore: a knob of chitin projects into the nematophore cavity from the hydrotheca wall, while a sinuous septum traverses the base of the nematophore cavity.

Two large, scoop-shaped, cauline sarcothecæ lie at the base of each hydroclade, and on the anterior of the hydroclade-bearing process is a small tubular sarcotheca.

Gonosome.—A few structures, apparently phylactocarps, replace hydroclades towards the base of the stem. They are divided into regular internodes each with three nematophores, two lateral and one median and proximal. Unfortunately no gonangia are present. These structures are readily seen to be morphologically equivalent to hydroclades.

Loc. 'Investigator,' Station 241, lat. 10° 12' N., long. 92° 20' 30" E., between the Andaman and Nicobar Islands. Depth 606 fathoms.

Halicornaria hians, Busk, var. *profunda*, nov.

Trophosome.—Considerable variations are exhibited by the trophosome, but these seem in the main to be due to differences in age. The thecate internodes, while they are twice as broad as long at the base of a hydroclade, gradually lengthen till at the distal end their length may be to their breadth as four to one. The mesial sarcotheca in mature colonies is adnate almost to the lip of the hydrotheca, projecting beyond the margin as a short free spout; in young colonies it does not reach even to the intrathecal ridge, and at this stage closely resembles that of young colonies of *H. variabilis*, Nutting*. In all stages, however, its anterior profile is concave, a character which distinguishes this species from *H. balei* (Marktanner-Turneretscher).

The trophosome of this variety is distinguished from that described and figured by Bale † by the greater length of the thecate internodes compared with their diameter, the greater depth and more erect posture of the hydrothecæ, and the greater distance which separates the intrathecal septum from the base of the hydrotheca. The less prominent nature of the marginal teeth and the small size of the colonies (4 cm.) are variations of little significance.

Gonosome.—The gonangia, which have not hitherto been described, are quite unprotected and are borne on very short stalks, one at the base of each hydroclade. In shape they are saucer-like, convex beneath, concave above, appearing as perfect disks, up to 0.38 mm. in diameter, when viewed from the anterior of the colony.

Loc. Andamans, 1899.

* Nutting, C. C., "American Hydroids.—Part I. The Plumulariæ," Smithsonian Institution, Special Bulletin (Washington, 1900), p. 127, pl. xxxiii. fig. 7.

† Bale, W. M., 'Catalogue of the Australian Hydroid Zoophytes' (Sydney, 1884), p. 179, pl. xiii. fig. 6, pl. xvi. fig. 7.