ZOOLOGISCHE MEDEDEELINGEN

UITGEGEVEN VANWEGE

's RIJKS MUSEUM VAN NATUURLIJKE HISTORIE

Deel II. | te LEIDEN | Aflevering 2.

IX. — MALAYAN SPECIES OF THE GENERA APHRODITELLA, HERMIONE, LAETMONICE AND APHROGENIA.

BY Dr. R. HORST.

Genus APHRODITELLA Roule [1]).

Mc Intosh [2]) in 1885 first described a minute Aphroditean-worm from the West-Indian abyss, the ventral bristles of which are „densely pilose almost to the terminal hook and provided with a spur as in *Laetmatonice*" (*Aphrod. intermedia*); two years thereafter Ehlers [3]) among the Annelids of the Blake, from a depth of 1719 M., met with an *Aphrodite*, that possesses ventral bristles, provided on one side with a beard of hairs (*Aphrod. obtecta*). Finally Roule among the Annelids of the Travailleur and the Talisman found an *Aphrodite* from a depth of 1084 M., that also possesses ventral setae with a pinnate appearance; with the two preceding species he ranges this form in a new genus *Aphroditella*. Several species of this genus appear to be represented in the Malayan abyss.

Aphroditella malayana n. sp.

Siboga-expedition, Stat. 161, east off Kofian-island; depth 798 M.

The body is oval, distinctly narrowed in the posterior region like in *Aphrodite australis* (Challenger Annel. Pl. VII, fig. 7). The long golden-brown dorsal bristles pierce the grey dorsal felt as in *Aphrodite aculeata*, but the iridescent lateral bristles of this species are absent; the dorsal bristles are directed backwards, but they do not quite reach to the median dorsal line. In the posterior half of the ventral side the intersegmental grooves have a sinuous course, as also appears to occur in *Aphroditella obtecta* (Florida-Anneliden, Pl. VI, fig. 2). The ventral bristles are shorter than the dorsal ones; their distal part is faintly S-like curved and densely

1) Expéditions scientif. du "Travailleur" et du "Talisman"; Annél. et Géphyriens, p. 15.
2) Challenger Annelida p. 38, Pl. I, fig. 6, Pl. VIA, fig. 1.
3) Florida-Anneliden, p. 42, Pl. VI, figs. 1—8.

pilose over a short region at some distance from the hook, much resembling the ventral bristles of the Florida-species. They are arranged in three groups of different length: two dorsal ones are the longest; a median group of three, that have three-quart of the length of the dorsal ones and an inferior group of four, that are shorter than the median ones. The ventral cirrus, tapering distally, extends beyond the extremity of the neuropodium. The head is rounded, nearly as long as broad. Two black eyes are situated on the lateral side of the anterior part of the head and therefore have a position quite different from that in the other species; the anterior ones are the largest. The facial tubercle is large, pear-shaped, tuberculate. The tentacle is slender, cylindrical, nearly as long as the head. The palps are not very long; bent backward they extend to the sixth segment. Of the tentacular cirri the dorsal one measures two thirds of the length of the palps; the ventral one is a third shorter than the dorsal one. The largest specimen measures 37 mm. in length and 25 mm. in breadth; the number of segments amounts to 38.

Aphroditella sibogae n.sp.

Siboga-expedition, Stat. 162, between Loslos- and Broken-islands, west off Salawatti.

An oval form of moderate size, entirely covered with mud, which leaves only visible the short brown ventral bristles besides the slender dorsal setae, that are coated with granular matter and therefore have the appearance of fringes. The head is rounded trapezoidal, nearly as long as broad, of a pale red tint, bearing on its anterior part two large, round prominent areas, which are somewhat darker coloured and provided with two small black spots. A small tentacle, not as long as the head, arises from the middle of the frontal margin; beneath it a wedge-shaped facial tubercle is situated. The palps are rather long, tapering distally, reddish coloured in their terminal part like the head. The ventral bristles are not very long, straight, faintly S-like bent over a short distal part, that is coated along one side with villous appendages, extending beyond the hooked tip, like in *Aphrod. intermedia* (Challenger Annelida Pl. VIa, fig. 1); they are arranged in three rows. Coarse dorsal bristles could not be observed amidst the felt. The length of the unique specimen is 22 mm., its breadth 15 mm.

Aphroditella decipiens n. sp.

Siboga-expedition, Stat. 51, Molo-strait.

In its external appearance as well as by the structure of its ventral bristles this small worm so much resembles the preceding species, that

I first believed it to be identical; however a closer examination revealed some differences especially in the structure of the head, so I think it to belong to another species. The head is broadly oval, somewhat resembling that of *Aphrod. alta* (Kinberg, Annulata, Pl. I, fig. 1) and bears in its anterior part on each side two small black eyes, situated close behind each other on a faintly globular area. The tentacle is slender, filiform, somewhat longer than the head; the facial tubercle is pear-shaped, with a short stalk. The palps are not very long, rather stout in their basal part, tapering distally. The ventral bristles have a conspicuous hook-like tip; beneath it over a short region the bristle is densely villous and in some of them that region is continued and projects as a pilose process beyond the hook, like in *Aphrod. intermedia* (Challenger Annelida, Pl. VIA, fig. 1). There are seven of them, arranged in three groups of different length.

Length of the specimen about 10 mm., breadth 8 mm.; number of segments nearly 30.

Aphroditella mongolica n. sp.

Siboga-expedition, Stat. 105, north off Soeloe-island.

In this species some of the coarse dorsal bristles pierce the thick dorsal felt with their distal end; they are not very stout, brown yellow, densely covered with small tubercles or spines and terminating in an uncoloured, vitreous hook-shaped extremity. The ventral bristles are pale-brown coloured, faintly S-like bent in their distal part and provided with a villous beard at some distance from the end, like in *Aphrod. malayana* and *-obtecta*; they are arranged in rows as usually. The head is heart-shaped, provided with a tentacle, that consists of a thick basal part, measuring about a third of the length of the head and of a slender distal joint, nearly as long as the head. In its anterior part there occur on each side a pair of semilunar eyes, situated on a prominent elliptical area. The facial tubercle has the shape of a pine-apple and is nearly of the same length as the head. The palps are glossy, stout, not very long, tapering distally and beset with fine, spinous papillae, only visible by high power. The length of the worm is about 25 mm.; its breadth 12 mm.

Aphroditella floresiana n. sp.

Siboga-expedition, Stat. 51, Molo-strait.

The body of this worm in its anterior and posterior region is acuminated; its dorsum is coated with a thick felt, through which the dorsal bristles penetrate. However these bristles are not prominent, but with their strongly curved or knee-like bent distal end lie in tranverse rows down on the back; their distal half is paler coloured, densely covered

with minute tubercles and terminates in a short hook. The ventral bristles are nearly straight, beset over one side of the short distal region with villous appendages; in some of the bristles that villous coating projects beyond the apex, as in *Aphrod. intermedia* (Challenger Annelida, Pl. VIA, fig. 1). However in young specimens these bristles have a quite different appearance; their tip lack the villous beard and are shaped like a pen, provided with three or four indistinct teeth. They are situated in the neuropodium as usually in three rows: two stout ones, dark brown coloured dorsally, 5 shorter bristles in a median series and 8 ones ventrally. The head is heart-shaped, with a small knob-like tentacle in the middle of the anterior region, as in *Aphrod. acuminata* from Florida; on each side of it there occurs a prominent area, on which two minute black spots are situated in a transverse series. The palps are rather long, with an acute extremity; they show a constriction in their basal region. The facial tubercle is oblong-conical, beset with papillae. The specimen has a length of 27 mm., whereas its breadth in the middle of the body is 14 mm. (without bristles); the number of its segments is about 30.

Aphroditella limosa n. sp.

Siboga-expedition, Stat. 178, north off Ceram; depth 835 M.

The body is oval, long 27 mm., broad 18 mm.; it consists of about 30 segments. The whole dorsum is covered with mud, containing Foraminifera-shells, Annelid tubes etc. hiding all the parts of the animal except the ventral bristles and the palps. The ventral side, attenuated posteriorly, is densely covered with small papillae. The ventral bristles have their distal part faintly S-like curved, terminating in an acute tip, and provided along the underside with a villous beard; as usually they are arranged in three rows. The dorsal bristles are represented by a fascicle of fine, smooth, faintly curved setae, that lie totally embedded in the dorsal felt and terminate in a vitreous, hook-shaped tip, directed towards the median dorsal line. The head is oval with its broadest part directed anteriorly; its possesses two rather large, globular eye-peduncles, without pigment. The tentacle is short and very slender, not quite as long as the head and a narrow, keel-shaped, facial tubercle, covered with papillae and somewhat longer than the head, lies enclosed between the base of the palps. The palps are rather long, slender and tapering distally, beset with spinous papillae. This species somewhat resembles *Aphrod. obtecta* Ehl. from the coast of Florida.

Genus HERMIONE Blainville.

Our knowledge of the Indo-pacific species of the genus *Hermione* is very incomplete. The best known is *Herm. malleata*, at first described

by Grube from the Philippines [1]) and afterwards found by Willey near Ceylon [2]), by Potts near the Amirante-isles (Seychelles) [3]) and by both English authors considered as a southern form of *Herm hystrix*. Afterwards Grube mentioned *Herm. bicolor* [4]) from the Red Sea, also closely allied to *Herm. hystrix*, but distinguished by the gray-blue colour of the place of attachment of the scales and by the first pair of its elytra being provided with short papillae. *Herm. erinaceus* [5]) from the Red Sea and *Herm. Mathei* [5]) from Isle de France according to Quatrefages should be characterised by the presence of only 13 pairs of elytra, as for the first-named species was confirmed by Frickhinger [6]). Haswell described three species from Australy, viz. *Herm. Macleari*, *-brachyceras* and *-dolichoceras* [7]); of these *Herm. Macleari* presumably belongs to the genus *Pontogenia* on account of the appearance of the dorsal bristles. *Herm. brachyceras* should be characterised by a very short tentacle, but it appears somewhat dubious to me, wether it has not lost its distal part, as was also the case with *Herm. dolichoceras*, the ventral setae of which possess "two smaller accessory teeth and a fringe of hairs" (that however is not figured). The last species probably ought to be ranged in the genus *Laetmonice*, for, though the genera *Hermione* and *Laetmonice* are closely allied to each other and Claparède [8]) therefore proposed to unite them, I think it better to reserve the name of *Hermione* for those species, that have only toothed ventral bristles, without a fringe of hairs. Grube believed that the Oriental form *Herm. malleata* should be distinguished from the European *Herm. hystrix* besides by its smaller dimensions and the shorter tentacle especially by „a hammer-shaped appendage at the dorsal side of the cirriphore segments"; Willey however stated that the malleiform processes, described by Grube, are „clearly not definite morphological structures, but merely dermal folds associated with the elytrophores and branchial tubercles". At the same time he pointed out that in *Herm. malleata* the elytrophore-segments besides the backwardly directed fascicle of long brown glochideal setae carry on each side a flabellum of curved smooth-tipped setae radiating dorsad, whereas in *Herm. hystrix* these bristles are minutely nodular and provided with a swelling below the tip, as already exactly figured by Claparède (Annel. chétopod. de Naples, Pl. I,

1) Annulata Semperiana, p. 17, Pl. I, fig. 5.
2) Loc. cit. p. 245, Pl. I. figs. 3 and 4.
3) Loc. cit. p. 329.
4) Bemerk. über die Fam. d. Aphroditëen Sitzber. Schles. Gesellsch. 1874, p. 11,
5) Hist. nat. d. Annelés, p. 208 and 210.
6) Jap. Polychäten a. d. Sammlung Doflein, Zool. Anz. Bd. XLVI, 1916, p. 233, and by letters.
7) Proc. Linn. Soc. Vol. 7, p. 272, Pl. VII.
8) Annél. Chétop. du Golfe de Naples. p. 357.

figs. 2, 2A and B) and afterwards by Mc Intosh (Brit. Annelids, (Pl. XXXVI, fig. 9). In my opinion these short dorsal bristles furnish us a good criterion to distinguish the different species of *Hermione* from each other, though of course also the other characters, viz. the length of the tentacle etc. might not be neglected. The statement of Fischli and Collin that *Herm. hystrix* should be found in the neighbourhood of Ternate and Amboina appears to me rather dubious.

Hermione moluccana n. sp.

Siboga-expedition, Stat. 131, anchorage of Beo, Talaut-islands; Stat. 138, anchorage on the east coast of Kajoa-island; Stat. 220, anchorage off Pasir Pandjang, west-coast of Binongka.

The largest specimen has a length of 20 mm.; its breadth (without bristles) is 9 mm., whereas the number of segments amounts to 32. The body has an oblong-ellipsoidal shape, with the broadest segments in the median area, whereas in *Herm. hystrix* the segments over a large part of the body have the same breadth. All bristles are yellow, only the glochideal setae are darker coloured at their base and distal extremity; they are directed towards the median dorsal line, whereas in *Herm. hystrix*, and *-malleata* these setae are conspicuously brown-coloured and flanking the lateral sides of the body. The glochideal bristles have a long, pointed spear-head and two recurved fangs at one side and three at the opposite, the inferior of them being the largest, about twice as long as the superior ones; the distal part of their shaft is smooth, whereas the inferior part is covered with small tubercles. The short dorsal bristles of the elytral segments are slightly curved, covered with minute tubercles and provided with a smooth, translucent tip, quite differing from those in *Herm. hystrix*. The tip usually is surrounded by a cap of fine threads, that appear to emerge from it. The bifurcated ventral setae are provided with a small accessory tooth above the large spur. The head is rounded, nearly as long as broad, with two large oval eye-peduncles on its frontal margin, each provided with a large black spot; between them a short tentacle arises, consisting of a conical tuberculate basal part, a median joint nearly twice as long as the preceding and a short, clavate, distal part.

Hermione parva n. sp.

Siboga-expedition, Stat. 60, Haingsisi, Samau-island; Stat. 65*a*, north off Tana Djampea.

At the above-named Stations a small *Hermione* was caught, that cannot be identified with the preceding species. The largest specimen measures 18 mm. in length. In the specimen from Haingsisi the dorsal bristles are

pale-brown coloured, in the other one all the bristles are pale-yellow, the glochideal ones only somewhat darker in their distal part; they are directed towards the median dorsal line and arch over the elytra. Their shaft is covered with minute tubercles and the tip bears on one side two and on the other side three recurved fangs beneath the spear-head. The short dorsal bristles of the elytral segments are nearly straight, also beset with small tubercles and terminate in an acute tip, somewhat resembling a pen. The bifurcate ventral setae are usually provided with an accessory tooth. The head is rounded oval, with a tentacle consisting of a stout conical, tuberculated, basal part, a slender median joint twice as long as the head, dilated distally and a short clavate terminal part. There are two large eye-peduncles, each provided with a large ventral and a smaller dorsal pigment-spot.

Genus LAETMONICE Kinberg [1]).

Laetmonice producta Grube, var. [2]).

Siboga-expedition, Stat. 45 and 314, South off the Paternoster-islands depth of 794 and 694 M.

In the neighbourhood of the Paternoster-islands, at a rather great depth, four specimens of this huge, nice worm have been collected. The shape of their body is oblong fusiform, not much narrowing anteriorly and posteriorly; it measures from 85 to 90 mm. in length, whereas the number of segments amounts to 48 or 49. The ventral surface is blueish grey, sparingly beset with small papillae; however in two specimens it is covered by a brownish coat, probably due to the presence of an alga. Of the "many brownish cuticular warts", mentioned by Mc Intosh, nothing could be seen. The area behind the mouth, as usually, is longitudinally grooved. The dorsum is entirely covered by 20 pairs of opalescing, imbricated elytra, arranged in the ordinary manner on the segments 2, 4, 5, 7 . . . . 23, 25, 28, 31, 34, 37, 40, 43 and 46; the last pair of them have their median border somewhat concave, leaving thus between them an oval opening above the anus, that is situated dorsally and surrounded by a folded wall. No dorsal felt exists.

The cephalic lobe is oblong, with globular ocular peduncles, without eyes. The palps, bent afterwards over the ventral side, extend to the 10th or 11th segment. The median antenna, with a short basal part and a clavate distal extremity, separated from the main axis by a constriction, measures about a third of the length of the palps. Of the multi-lobate

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1) Öfversigt Kongl. Vet.-Akad. Forhandl. 1855, p. 382.

2) Anneliden-Ausbeute von S. M. S. Gazelle: Monatsber. K. Akad. Berlin, 1877, p. 512.

process, behind the ocular peduncles, mentioned by Mc Intosh, no trace was visible. The tentacular cirri are not quite as long as the median antenna; both nearly of the same length, the ventral one somewhat slenderer than the dorsal cirrus. With regard to the cirri and bristles the feet of our specimens show some differences with those of *L. producta*, according to the description of Mc Intosh. The bristles of the notopodium of the 2d foot are all smooth, slender, slightly bent and such ones with chitinous nodules on their shaft, as figured in the Challenger report (Pl. IVA, fig. 2), have not been observed; in the neuropodium the upper division shows two of the powerful serrated bristles, figured by Mc Intosh (Pl. IVA, fig. 3). In the 4th foot the notopodium contains a fan-shaped fascicle of stout bristles, that are faintly bent and over their whole length beset with small nodules, especially near the tip; one of these bristles shows already some fangs at its distal extremity. The neuropodium possesses some pinnate bristles like in the preceding feet, but in those, situated more afterwards, they are wanting. In the next segment, (the 5th) all spines have fangs at their tip, whereas in the typical *L. producta* even the spines of the 7th segment are not barbed. In the median body-region according to Mc Intosh the median spines appear to have simple extremities, that are minutely nodulated; however in our specimens also these median bristles are provided with fangs and their tips are not simple, but furnished with three points, a main spine and one at the anterior and posterior side. The long golden spines of an elytron-bearing segment extend themselves backward over three succeeding elytra, therefore over seven segments, whereas Mc. Intosh only speaks of the succeeding scale. The spines are preceded by a small fascicle of single, capillary, slightly bent bristles, that are longitudinally striated. This fascicle is much larger in the cirrus-bearing segments, whereas the spines, though also glochidiate, are usually half as long as those of the elytron-bearing segments.

Though this species principally is found in the neighbourhood of the Kerguelen-islands in rather shallow water (not below 120 fath.), there are also specimens of it dredged in more northern regions; f. i. the variety *Wyvillei* Mc Intosh was met with by the Challenger-expedition between the Antarctic and Australy in a depth of 3500 M. [1]). Afterwards Miss Buchanan [2]) recognized in the British Museum a specimen, coming from Japan and dredged at a depth of 43 fth. Also von Marenzeller [3]) had the opportunity to examine two specimens from Eno-sima (Collect. by Döderlein)

1) Loc. cit. p. 44, Pl. VII, fig. 3; Pl. IVA, figs. 9—11.

2) Report on Polychaets coll. during the R. Dublin Soc. survey off the West-coast of Ireland, Sc. Proc. Royal Dublin Society, Vol. VIII (N. S.) 1893, p. 169.

3) Südjap. Anneliden, III, 1902, p. 4.

from a depth of 300 M. and an other large specimen met with by Hilgendorf in the vicinity of Hakodate; the last-named specimen had only 18 elytra, but the glochideal spines were provided with 5 to 6 opposite fangs. In my opinion it therefore does not excite astonishment that Miss Buchanan among the Polychaeta, dredged in the deep sea off the West-coast of Ireland (500 M.) met with four specimens, nearly allied to *L. producta*; for, as already observed by Ehlers [1]) and Fauvel [2]), several species of Annelida, living in the littoreal regions of the Arctic and Antarctic continents, are also met with in the depths of the Tropical Atlantic, where they find about the same temperature. The Ireland-specimens, distinguished besides by the absence of eyes, by the presence of a smaller number of segments (43 to 44) and a great deal of variation with regard to the length of the palps, are afterwards described by Mc Intosh as belonging to the variety *brittanica*. Though none of both authors mentions the exact number of the elytra, I cannot accept Marenzeller's opinion, that the specimens should belong to the sphere of varieties of *L. filicornis*. Unfortunately there reigns a good deal of controversy among Annelidologists with regard to the species and varieties of this genus; f.i. von Marenzeller rightly reproches Mc Intosh, that he, in describing the rich material of the Challenger-expedition, considers *Laetmonice filicornis* as a constant, nearly invariable species, whereas *L. producta* is regarded by him to be very variable. Now examining the descriptions of different authors, we meet with two well characterised species: *Laetm. filicornis* especially from Northern and *Laetm. producta* from Southern seas. *L. filicornis* reaches a length at the most of 36 mm., has no more than 36 segments, usually a dorsal felt, 15 elytra, eye-peduncles without pigment, dorsal spines with 3 to 4 alternating fangs and neuropodial bristles with numerous closely packed fine pinnae. *L. producta* however can reach a length of 100 mm., possesses 45 to 47 segments, 18 to 20 elytra and eye-peduncles provided with eyes, whereas the glochideal spines possess 6 opposite fangs and the neuropodial bristles are provided with few and stiffer pinnae. Considering that both species have a very wide geographical distribution and are found at different dephts, I think it rather probable that there occur also varieties of both species.

Laetmonice malayana n. sp.

Siboga-expedition, Stat. 52, south off Flores, depth of 959 M.; Stat. 161, north off Misool, depth of 798 M.; Stat. 178, north off Ceram, depth of 835 M.

At the above-named stations several specimens were collected of a

1) Geogr. Verbreitung der Polychaeten.

2) Annél. polychètes de San Thomé; Arch. Zool. Expérim. t. 54, 1914, p. 111.

Laetmonice-species, closely allied to *Laetm. filicornis*. The largest of them has a length of 40 mm., but usually they are not longer than 32 mm.; the number of segments amounts to 34. They are especially characterised by their large dorsal spines, the shaft of which is provided on one side with several series of distinct thorns; these bristles are stout, dark brown, in the anterior segments reaching to the median body-region, whereas those of the middle of the body extend beyond the anal extremity. Their distal end is provided with three small, trigonal, alternating fangs. The ventral bristles are provided with a dense series of fine, slender pinnae, separated at its base by a short interval from the distal hook, that is not very long, hardly a third of the length of the pinnae. No dorsal felt occurs. There are 15 pairs of elytra, usually not overlapping each other and covering the whole dorsum, or leaving the middle of it bare; the ventral side of the body is smooth, not beset with papillae as in *Laetm. filicornis*, whereas its median region is thin, translucent.

Laetmonice rugosa n. sp.

Siboga-expedition, Stat. 302, north off Rotti-island.

The largest of the specimens has a length of 32 mm.; the number of its segments amounts to 34. The dorsum of the body is covered by a felt, while its ventral side has a rugose appearance, due to the presence of closely packed globular papillae; its median region is not translucent as in the preceding species. The stout dorsal bristles are golden-yellow, half as long as the body, with three alternating, pointed fangs beneath the hastate tip; their shaft shows a row of tubercles along one side. The short dorsal bristles are densely covered with small tubercles. The ventral bristles are not pinnate, but provided with four or five large spines; in this character the species agrees with *Hermione*.

Laetmonice dubiosa n. sp.

Siboga-expedition, Stat. 302, north off Rotti-island.

Besides the specimens of *Laetm. rugosa* at Stat. 302 another worm of the same genus was collected, that could not be identified with any known species. It measures 28 mm. in length, whereas the number of its segments amounts to 35. It is especially characterised by the shape of its large dorsal bristles; these are golden-yellow, with a smooth, flat and rather broad shaft, that beneath the barbed tip is suddenly constricted. The tip is provided with three pairs of alternating, elongated, curved fangs. The bristles extend posteriorly over 10 to 12 succeeding segments. The ventral bristles have the usual shape and

are provided with a dense beard of fine pinnae, separated by a short interval from the spine beneath them. The ventral side of the body is beset with scattered small papillae, that do not cover the whole parapodium (as in *Laetm. rugosa*) but extend only over the proximal half of it, where the ventral cirrus arises. No dorsal felt occurs. There are 15 pairs of rather large elytra, overlapping each other and totally covering the dorsum.

Laetmonice breve-pinnata n. sp.

Siboga-expedition, Stat. 311, Sapeh-bay, east-coast of Soembawa.

At the above-named station a small *Laetmonice* (a young one?) was collected, that can easily be recognised by the appearance of its ventral bristles; for instead of the beard of long pinnae, inserted on the tip of these bristles, there is a group of short cirri separated by a rather large interval from the spine beneath them and in this interval there occur three or four smaller spines. The tip of the neuropodium bears a small curved appendix; the ventral cirrus, that measures two thirds of the length of the neuropodium, is swollen over the greater part of its length, but its distal extremity is filiform. All the large dorsal bristles are wanting, but a smaller one of them shows three pairs of fangs, the inferior of which is the longest. No dorsal felt occurs. There are 15 pairs of rather large elytra, overlapping each other in the median dorsal line and totally covering the dorsum. The median ventral region is smooth, translucent. The head is rounded, broader than long, with two short globular eye-peduncles; no eyes were visible. The tentacle is about half as long as the palps; its basal part is rather large, somewhat longer than the eye-peduncles, whereas its distal joint is slender, with elongated, clavate tip. The palps are long, extending to the 10th segment.

The specimen measures 25 mm. in length, whereas the number of its segments amounts to 35.

Laetmonice batheia n. sp.

Siboga-expedition, Stat. 221, South-east off Binongka-island; depth of 2798 m.

This species is especially characterised by its translucent body and by its long dorsal bristles, some of which are longer than the body and extend a great deal beyond its anal extremity. They are golden-yellow, with a dark coloured tip and the whole surface of their shaft is beset with scattered, acute tubercles. There are three pairs of fangs, not very large, triangular, the inferior of them being the largest.

The ventral bristles are provided with a beard of fine, slender pinnae, separated by a large interval from the spine beneath them. The ventral cirrus it slender, not extending beyond half the length of the neuropodium. A dorsal felt occurs, that is covered with mud. There are 12 pairs of transparent elytra, not overlapping each other in the median dorsal line and leaving the middle of the dorsum bare. The ventral side of the body is villose, covered with small papillae. The head is rounded, somewhat broader than long, with two large, globular eye-peduncles, without pigment. The tentacle is wanting. The palps are very long, reaching to the 12th segment.

The largest specimen measures about 20 mm.; the number of its segments amounts to 25.

Genus Aphrogenia Kinberg [1]).

This genus is characterised by the presence of sabre-like curved dorsal bristles. The first representant of it in the Indo-pacific region (*Aphroh. margaritacea*) was described by Augener from the Sea of South-West Australia [2]); for, as rightly stated by this author, *Aphrog. dolichoceras* Hasw. [3]) must belong to an other genus.

Aphrogenia villosa n. sp.

Siboga-expedition, Stat. 273, anchorage off Poeloe Jedan, east-coast of Aroe-islands.

The length of the worm is about 12 mm.; the number of its segments amounts to 30. The body dorsally has a grey-brown colour, with a faint nacreous gloss; its ventral side shows a row of black spots on each side of the median line. There are 13 pairs of elytra, much resembling those of *Aphrog. margaritacea*. Each elytron is rounded rhomboidal, somewhat pointed at its median side, laterally provided with a slight concavity next to the place of attachment; it is surrounded by a colourless margin and especially in the centre shows a yellow-grey pigment. Its surface like in *Hermione* is finely, radially striated, whereas very minute papillae scatteredly occur. The large dorsal bristles are curved like a sabre and in this regard agree with those of *Aphrog. alba* and *margaritacea*; however their apex is surrounded by a crown of short villi, whereas their shaft is longitudinally striated and shows numerous transversal ridges, extending only over a part of the periphery of the bristle. In the elytro-

1) loc. cit. p. 6, Pl. II, fig. 6.
2) Die Fauna Südwest-Australiens, Polychaeta, 1913, p. 93.
3) A monograph of the Australian Aphroditea, p. 273, Pl. VII, figs. 4—7.

phore-segments these bristles are much longer than in the cirriphore-ones and arch over the dorsum. The ventral bristles are brown-coloured, simply bifurcated, without accessory teeth. The head is oval, somewhat broader than long, with two conspicuous eye-stalks, provided with black pigment-spots. Between them a slender tentacle arises, four- to five times as long as the head, provided with a clavate distal joint. The palps are not very long, tapering distally.

Aphrogenia villosa, var. *laevis*.

Siboga-expedition, Stat. 285, anchorage south-coast of Timor.

At the above named station a worm was dredged, long 8 mm., that agrees in its main characters with the preceding species; however its dorsal bristles have a smooth shaft and do not show any trace of transversal ridges.

Aphrogenia nigro-punctata n. sp.

Siboga-expedition, Stat. 37, Sailus Ketjil, Paternoster-islands.

A small worm, measuring only 7 mm. in length and consisting of about 27 segments. The body is pale-grey coloured with a black spot on the dorsum of the parapodia of the cirriphore-segments. There are 13 pairs of elytra, much resembling in shape and appearance those of *Aphrog. villosa*, only somewhat more elongated transversally; besides the minute papillae they show some larger, round, cellular figures, as are also present in the elytra of *Aphrog. alba*. The dorsal bristles of the elytrophore-segments are not so long as in *Aphrog. villosa* and do not reach the median dorsal line; they are pale-yellow, longitudinally striated and possess at the tip a cluster of coarse, highly refractive tubercles, that somewhat resembles the swelling below the tip of the short dorsal bristles of *Hermione hystrix*.