

ZOOLOGISCHE MEDEDEELINGEN

UITGEGEVEN VANWEGE

's RIJKS MUSEUM VAN NATUURLIJKE HISTORIE

Deel VI.	te LEIDEN	Aflevering 2—3.
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VI. — A REVIEW OF THE FAMILY OF HESIONIDAE WITH A DESCRIPTION OF TWO NEW SPECIES.

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Occupied with the examination of *Hesionidae* from the Dutch East- and West-Indies I found not only, that some genera of this family are described under several different names, but also, as already stated by Webster and Benedict, that the genera seem to be badly confused ¹⁾; *Leocrates* Kbg. f. i. is identical with *Lamprophaës* Gr. and *Tyrrhena* Clap., and *Podarke pallida* was ranged by Claparède among the genus *Oxydromus* whereas *Podarke angustifrons* according to Grube belongs to the genus *Irma*. Partly this might be ascribed to the circumstance, that sometimes not full-grown specimens were described, partly to the fact that the cephalic appendages were overlooked, either in consequence of their minute dimension or because they were fallen off. Because in the last years our knowledge of this family much increased thanks to the arduous investigations of Fauvel, Mc Intosh, Gravier, Southern a. o. and the description of the species is scattered through a great number of publications, I tried to give in the present paper a review of the genera and an enumeration of all the species hitherto described. Though I am convinced, that no doubt several species may be overlooked, I hope however that my list might be of some use for my colleagues.

Whereas Ehlers ²⁾ and Grube ³⁾ made use of the number of cephalic appendages as a karakter to distinguish the different genera from each other, Gravier ⁴⁾ based his main divisions of the family on the uniramous or biramous condition of the parapodia; however I am agreeing with Ehlers' opinion, that this karakter is less suitable for the distinction of

1) The Annelida Chaetopoda from Provincetown and Wellfleet, Ann. Rep. Commiss. Fish and Fisheris for 1881, p. 709.

2) Die Borstenwürmer, p. 187.

3) Mitth. über die Familie der Phyllodoceen und Hesioneen, 1879, p. 16.

4) Annélides Polychètes de la Mer rouge, Nouv. Arch. Muséum d'Hist. nat. (Sér. 4), Vol. II, 1900, p. 170.

the genera „weil vom zweiästigen Ruder durch Verkümmern des oberen Astes zum tuberkelartigen Vorsprung ein allmählicher Übergang zum einfachen Ruder stattfindet.“ Therefore I used in the first place the number of tentacular cirri to distinguish the genera and in the second place the number of cephalic appendages; thus 15 genera could be distinguished, which can easily be recognized by the following key:

1 pair of tentacular cirri on each side	Unpaired antenna	absent	..... <i>Pilargis</i> St. Jos.	
		present	{ Parapodium uniramous	..... <i>Orseis</i> Ehl.
			{ „ biramous with dorsal hook shaped bristle.	<i>Ancistrostylis</i> Mc Int.
2, 3 or 4 pairs of tentacular cirri on each side	Unpaired antenna	absent; proboscis with papillae on its anterior margin and two ventral ridges		
		..... <i>Castalia</i> Sav.		
3 pairs of tentacular cirri on each side	Unpaired antenna	absent	{ parapodia uniramous	..... <i>Syllidia</i> Qfgs.
			{ „ biramous	..... <i>Lamproderma</i> Gr.
	present	anal plate	present	..... <i>Microphthalmus</i> Mecz.
		no anal plate	{ proboscis armed	..... <i>Irmula</i> Ehl.
		{ proboscis { parapodia faintly biramous	..... <i>Podarke</i> Ehl.	
			{ unarmed { „ distinctly biramous	..... <i>Ophiodromus</i> Sars
7 tentacular cirri (3 and two pairs) on each side	Unpaired antenna	absent		
		..... <i>Periboea</i> Ehl.		
4 pairs of tentacular cirri on each side	Unpaired antenna	absent	{ palps distinct	..... <i>Dalhousiella</i> Mc Int.
			{ no palps visible	..... <i>Hesione</i> Sav.
	present	{ proboscis armed	..... <i>Leocrates</i> Kbg.	
		{ „ with papillae on its anterior margin	..... <i>Gyptis</i> Mar. & Bobr.	

Genus *Pilargis* Saint-Joseph.
(*Phronia* Webst.).

Body long, with numerous segments. Cephalic lobe reduced, heart-shaped, with two antennae and two palps. Eyes absent. Proboscis unarmed. A single pair of tentacular cirri on each side. Parapodia faintly biramous, without dorsal setae.

A. Tentacular cirri and dorsal cirri of the first setigerous segment much larger than the succeeding ones.

tardigrada Webst. Trans. Albany Institute, Vol. IX, 1879 p. 68, Pl. XI, figs. 158—163. Coast of Virginia.

B. Tentacular cirri and dorsal cirri of the first setigerous segment little larger than the succeeding ones.

verrucosa St. Jos. Ann. Sc. Natur. (8^e Sér.) Vol. X, 1899, p. 175, Pl. VI, figs. 10—17. Fauvel, Bull. Soc. Zool. de France, Vol. 45, p. 208, fig. 1, a—e. Coast of France (Brest and Arcachon).

Genus *Orseis* Ehlers.
(*Salvatoria* Mc Intosh).

Body short, consisting of few segments. Cephalic lobe provided with 3 antennae, the unpaired one on the middle of the head; palps present. 4 eyes. The proboscis with papillae on its anterior margin. A single pair of tentacular cirri on each side. Parapodia faintly biramous.

Kerguelensis Mc Int. (*Mathai* Grav.) Gravier's *Orseis mathai* presumably is identical with *Salvatoria Kerguelensis* from the Sub-antarctic region, though Mc Intosh does not mention the palps. Challenger Report, zoology, Vol. XII, Annelida, p. 188, Pl. XXX, XXXIII and XVa. Expédition Antarct. française 1903—05, Annel. polych. p. 22, Pl. III, figs. 22—23. Kerguelen; Port Charcot.

Pulla Ehl. Die Borstenwürmer, p. 188, Pl. VIII, fig. 1 Quarnero.

Genus *Ancistrosyllis* Mc Intosh. ¹⁾
(*Harpochaeta* Korsch.).
(*Cabira* Webst.).

Body long, with numerous segments. Cephalic lobe with three antennae, the unpaired one on the posterior region of the head; two large palps with palpostyle. Eyes small or absent. Proboscis unarmed. A single pair of tentacular cirri on each side. Parapodia biramous, with a large, dorsal, hook-shaped bristle.

A. Skin covered with papillae.

groenlandica Mc Int. Trans. Linn. Soc. (2^e Ser.) Vol. I, 1878, p. 502, Pl. 65, figs. 3 and 20. Davis Strait.

B. Skin smooth.

a. Palps coalesced.

cingulata Korsch. Zeitschr. f. Wissensch. Zoologie, Vol. 57, 1893.
Adriatic Sea (Triest).

b. Palps distally separated.

α. dorsal bristle faintly bent.

albini Lghs. ²⁾ Ueber einige canarische Anneliden: Nova Acta
K. Leop. Carol. Deutsch. Akad. d. Naturf. Vol. 42, 1881,
p. 107, Pl. 4, fig. 16. Canaries.

rigida Fauv. Bull. Mus. d'Hist. nat. 1919, no. 5, p. 2,
figs. a—e. Gambir isles; Red Sea.

β. dorsal bristle hook-shaped.

1) For an elaborate revision of the genus and species see Fauvel, les genres *Ancistrosyllis* et *Pilargis*: Bull. Société Zoolog. de France, Vol. 45, 1920, p. 205.

2) This species seems to have been overlooked by Fauvel; it is distinguished from *A. rigida* a. o. by the presence of only 2 eyes.

*a** antennae and cirri elongated.

robusta Ehl. Deutsche Tiefsee Exped., 1898—99, Vol. XVI, 1912, p. 59, Pl. VI, figs. 4—7. Augener, Meeresfauna West-Afrika's, Polychaeten, p. 229. Fisch-bucht (S. Atlantic), Senegal.

*b** antennae and cirri very short.

incerta Webst. Trans. Albany Institute, Vol. IX, 1879, p. 67, Pl. XI, figs. 155—157. Coast of Virginia.

Genus *Castalia* Savigny.

(*Psamathe* Qtrf.).

(*Kefersteinia* Qtrf.).

Cephalic lobe roundish quadrangular, with four eyes. 2 Antennae on the frontal border of the head and two palps present. Tentacular cirri two, three or four pairs¹⁾ on each side, filiform and long. Proboscis with papillae on the margin and two ventral elevated ridges. Parapodia distinctly or slightly biramous.

A. 4 pairs of tentacular cirri.

aurantiaca Sars, loc. cit. p. 20. Norway (Floröen).

longicornis Sars, loc. cit. p. 21. Norway (Manger).

hesionoides Aug. West-Indischen Polychaeten: Bull. Museum Compar. Zoology, Cambridge, Vol. 43, 1908, p. 155, Pl. VI, figs. 106—109. Barbados.

B. 3 pairs of tentacular cirri.

punctata (O. F. Müll.) Mc Intosh, the British Annelids Vol. 2, Pt. I, pag. 120, Plts. 46, 69 and 79. North Sea (Scotland, Norway), Atlantic (Greenland, Azores).

mutilata Treadw. Treadwell, the Polychaetous Annelids of Porto Rico: Bull. U. St. Fish Commission, Vol. XX, 1902, p. 185, text-fig. 4. San Juan.

? *limicola* (Will.) Pearl Oyster report, Pt. IV, 1905, p. 267, Pl. III, figs. 74—76.

? *longicirrata* Treadw. loc. cit. p. 185, text-figs. 2 and 3. Porto Rico.
agilis Webst. a. Bened.²⁾ The Annelida chaetopoda from Provincetown

1) Sars, who first gave a diagnosis of this genus (Videnskabselsk. forhandl. for 1861), says therein „cirri tentaculares utrinque sex aut octo, longissimi”; however he overlooked that the nearly allied species *Cast. arctica* and *fusca* are provided only with two pairs of tentacular cirri on each side.

2) This species cannot be ranged among the genus *Hesiono*, as done by Webster and Benedict, because of the presence of only 3 pairs of tentacular cirri on each side and by their feet being distinctly biramous. No doubt it belongs to the genus *Castalia*, as already alluded to by the American authors themselves at the end of their paper.

- and Wellfleet (Mass.) Ann. report of Commissioner of fish a. fisheries for 1881, 1884, p. 707, Pl. I, figs. 9—11. Wellfleet.
- multipapillata* Théel. Annél. des Mers de la N.-Zemble. Kongl. Sv. Vet. Akad. Handl. Vol. 16, 1879, p. 38, Pl. III, fig. 38. Nov. Zembla.
- C. 2 pairs of tentacular cirri.
- arctica* Malmgr. Mc Intosh, loc. cit. p. 125, Plts. 58, 69 and 79. Ireland, Greenland, Behrings Strait.
- britannica* Chamb. Chamberlin, Report Canad. Arctic Exped. 1913—18, Vol. IX, Polychaeta, 1920, p. 13. Ireland.
- fusca* Johnst. Mc Intosh, loc. cit. p. 127, Plts. 46, 58, 69 and 79. Coast of England and France, Mediterranean.
- fusca* var. *hibernica* South. Southern, Clare island Survey, part 47, Proc. royal Irish Acad. Vol. XXXI, 1914, p. 49, Pl. V, fig. 8. Clew bay.

Genus *Syllidia* Quatrefages.
(*Magalia* Mar. & Bobr.).

Cephalic lobe roundish quadrangular with four eyes and 2 antennae on its anterior margin; palps present. Proboscis armed with a pair of denticulated maxillae and an unpaired stylet, its anterior margin being provided with papillae and hair-like appendages. 3 pairs of articulated tentacular cirri on each side. Parapodia uniramous.

armata Qfigs. (*perarmata* Mar. & Bobr.) Histoire natur. des Annelés, 1865, p. 13, Pl. VIII, figs. 10—15. Marion et Bobretzky, Annél. du golfe de Marseille; Ann. Sc. nat. (6^e Ser.) Vol. II, 1875, p. 54, Pls. 6 and 7. Augener, loc. cit., p. 227. Coast of England and France, Madeira, West-Afrika.

inermis Ehl. Nation. antarctic expedition 1901—04 (Discovery) Polychaeta, 1912, p. 15, Pl. II, figs. 1—5. Antarctic.

Genus *Lamproderma* Grube.

Body short. Cephalic lobe with two antennae and two palps; two pairs of eyes present. Proboscis with a jaw in the mid-dorsal and the mid-ventral line. 3 pairs of tentacular cirri on each side. Parapodia biramous.

longicirre Gr. Annelidenausbeute von S. M. S. Gazelle, Monatsber. K. Akad. d. Wissensch. Berlin, 1877, p. 525. Great Harbour (New Britain).

Genus *Microphthalmus* Meczni^kow.

Cephalic lobe with 3 smooth antennae, the unpaired one on the posterior half of the head; palps present. A single pair of small eyes. Pro-

boscis with papillae on the margin. 3 pairs of smooth tentacular cirri on each side, swollen in their basal portion and tapering distally. Parapodia with a notopodial, pectinate seta. Anal segment bearing a flat, hood-shaped plate.

sczelkowi Mecz. Beiträge zur Kenntniss der Chaetopoden. Zeitschr. f. Wiss. Zoologie, Vol. XV, 1865, p. 334. Southern, loc. cit., p. 45, Pl. V, figs. 6a—e. Helgoland, Ireland (Blacksod bay).

aberrans Webst. a. Ben. The Annelida chaetopoda from Eastport, Maine. U. St. Comm. Fish a. Fisheries, Vol. XIII (1887). Eastport.

Genus *Irmula* Ehlers.

Body long with numerous segments. Cephalic lobe with 3 antennae, the unpaired one on its posterior half; palps short and large. Two pairs of eyes present. Proboscis with a dorsal, conical jaw, 3 pairs of smooth tentacular cirri. Parapodia uniramous.

spissipes Ehl. Deutsche Südpolar Expedition 1901—03, Polychaeta, p. 468, Pl. XXIX, figs. 11—13. Simonstown.

Genus *Podarke* Ehlers.

(*Irma* Gr.).

(*Mania* Qfgs.).

Cephalic lobe quadrangular, with 3 antennae on its anterior margin, the unpaired one short; palps with palpostyle present. Two pairs of eyes. Proboscis unarmed, with numerous rather long cilia on the anterior margin. 3 pairs of tentacular cirri on each side. Parapodia faintly biramous, with 2 to 3 bifurcated bristles in the notopodium.

agilis Ehl. loc. cit. p. 197, Pl. VIII, figs. 9—11. Marenzeller, Zur Kenntn. Adriatischer Annel. I, p. 428. Treadwell, Polych. Annelids of Porto Rico, p. 185. Adriatic (Quarnero). ? Puerto real.

albocincta Ehl. ¹⁾ loc. cit. p. 190, Pl. VIII, figs. 2—5. Quarnero.

angustifrons Gr. ²⁾ (*latifrons* Gr.). Annull. semperiana, p. 108, Pl. VI and XV. Augener, Fauna S. W. Australiens, Polych. err. p. 189. Fauvel, Annél. Polych. des côtes d'Arabie etc., Bull. Mus. d'Hist. Nat. 1918, p. 333. Philippines, New Zealand, Red Sea, Persian Gulf and Australia.

coeca Webst. & Ben. Annel. chaetop. from Provincetown a. Wellfleet; Rep. Commiss. Fish a. Fisheries for 1881, p. 706, Pl. I, figs. 6—8.

comata Ehl. Deutschê Südpolar-expedition 1901—03, Polychaeten,

1) Mc Intosh suggested this species to be a young specimen of *Ophiodromus vittatus*.

2) I cannot agree with Augener's suggestion, that *Irma limicola* Will. from Ceylon should be identical with this species, because Willey clearly states „repeated examination failed to reveal any trace of a tentaculum impar.” Perhaps it may belong to the genus *Castalia*.

p. 469, Pl. XXX, figs. 1—4. Kaiser Wilhelm-land, Süd Victoria-land. *obscura* Verr. Invertebr. animals of Vineyard Sound etc. U. St. Comm. of Fish and Fisheries, Pt. I, 1873, p. 589, Pl. XII, fig. 61. Provincetown and Wellfleet.

pallida (Clpd.). Glan. Zootom. p. 1. Annél. de Port-Vendres, 1864, p. 61, Pl. IV, fig. 1. Pruvot et Racovitza, Annél. de Banyuls. Arch. Zool. exp. (3e Sér.). Vol. III, p. 423, Pl. XVIII, figs. 77—83. Mediterranean (Port Vendres et Banyuls).

pugettensis Johns. Proc. Bost. Soc. Nat. Hist. Vol. XXIX (1901), p. 397, Pl. III, figs. 23—25. Percy Moore, Polych. Annel. from Montereybay and San Diego, Proc. Acad. Nat. Sc. Philadelphia, 1909, p. 243. San Diego.

viridescens Ehl. Ehlers, die Borstenwürmer, p. 194, Pl. VIII, figs. 6—8. Marion et Bobretzky, Annélid. du Golfe de Marseille, p. 49. Quarnero. Golf of Marseille.

Genus *Ophiodromus* Sars.

(*Stephania* Clap.).

(*Orthodromus* Ehl.).¹⁾

Body elongated. Cephalic lobe with 3 antennae on its anterior margin; palps present. Two pairs of eyes. Proboscis not armed. 3 pairs of smooth tentacular cirri on each side. Parapodia distinctly biramous, with an elongated, cirrus-like anterior lip. Dorsal setae capillary and lyrate.

flexuosus Dl. Ch. Mc Intosh, loc. cit., p. 117, Plts. 58, 69 and 79. Southern, loc. cit., p. 47, Pl. V, fig. 9. Coast of Europe.

spinus Ehl. Bodens. Annel. d. deutschen Tiefsee-Expedition, p. 61, Pl. VII, figs. 1—7. Augener, Beitr. z. Kenntnis d. Meeresfauna West-Afrikas, Polychaeta, 1918, p. 224. West-Coast of Africa (Angola, Congo).

Genus *Periboea* Ehlers.

Body short. Cephalic lobe with 2 antennae and two palps. Two pairs of eyes present. Proboscis with papillae and hairy appendages on its anterior margin. 7 (3 + 2 pairs) tentacular cirri on each side. Parapodia uniramous.

longocirrata Ehl. loc. cit. p. 199, Pl. VIII, figs. 12—16. Quarnero.

Genus *Dalhousiella* Mc Intosh.

Body of the typical form. Cephalic lobe with 2 antennae on its anterior margin and a frontal tubercle; palps present. 4 eyes. Proboscis

¹⁾ According to Augener, who could examine the typical specimen, the genus *Orthodromus* is identical with *Ophiodromus*; for he could not approve Ehlers suggestion, that in his species the palps were not articulated.

without maxillae. 4 pairs of tentacular cirri on each side. Parapodia without dorsal bristles.

carpenteri Mc Int. Brit. Annelids, p. 134, Pl. 58 and 78. Channel slope, Azores. Fauvel, Annél. Polych. de l'Hirondelle etc. p. 124, Pl. VII.

? *longisetis* Gr. Oerst. Annulata oerstediana, p. 15. (Cannot be ranged among *Gyptis*, because it lacks the unpaired antenna). St. Croix.

Genus *Hesione* Savigny.

(*Fallacia* Qfg.).

Body short. Cephalic lobe heart-shaped with two small antennae on its anterior margin; two pairs of eyes present. 4 pairs of tentacular cirri on each side. Proboscis with a papilla in the median dorsal line. Parapodia uniramous.

genetta Gr. Annulata semperiana, p. 104. Philippines, Samoa.

pantherina Risso. (*sicula* Dl. Ch.). Marion et Bobretzky, loc. cit. p. 46, Pl. XII, fig. 28. Saint-Joseph, Annél. Polych. des côtes de France, Ann. Sc. Nat. (8e Sér.). Vol. V, 1898, p. 329. Pl. XIX, figs. 131—144. Atlantic, Mediterranean, Red sea, Persian Gulf.

proctochona Schm. Treadwell, Polychaet. Annelids of Porto Rico, loc. cit. p. 184. Hansen, Rech. s. l. Annél. rec. par

(*picta* Müll.)

(*margaritae* Hans.) Van Beneden au Brésil, Mém. cour. de l'Acad.

(*vittigera* Ehl.) Roy. de Belgique, Vol. 44, 1882, p. 6, Pl. I,

(*praetexta* Ehl.) figs. 18—22. Caribbean Sea, East Coast of S. America.

eugeniae Kbg. ¹⁾ Augener, Fauna Südwest-Australiens, Polychaeta,

(*ceylonica* Gr.) p. 187. Indo-Pacific, Red Sea, Persian Gulf.

(*intertexta* Gr.)

(*reticulata* Marz.)

(*ehlersi* Grav.)

(*pacifica* Mc Int.)

Genus *Leocrates* Kinberg.

(*Dalhousia* Mc Int.).

(*Lamprophaës* Gr.).

(*Tyrrhena* Clap.).

Body of the typical form. Cephalic lobe with 3 antennae (the unpaired one on the middle of the head), two palps and a frontal tubercle.

1) Augener, who had the opportunity to examine *Hesione*-specimens from several localities, suggests, that all the above-named species are identical with *Hes. splendida* Sav. from the Red sea; only *Hes. genetta* Gr. from Samoa might be recognized as a distinct species, on account of its characteristic marking and the somewhat different structure of its bristles. However, as rightly stated by Fauvel „la diagnose de Savigny, si elle est la plus ancienne, est absolument inexacte” and therefore his name can no longer be maintained. (Annél. polych. des côtes d'Arabie).

Two pairs of eyes. Proboscis with a chitinous jaw in the mid-dorsal and mid-ventral lines. 4 pairs of tentacular cirri on each side. Notopodium rudimentary, or provided with capillary bristles.

atlanticus Mc Int. British Annelids, p. 130, Plts. 58, 69 and 79. Fauvel, Annél. polych. de l'Hirondelle etc. p. 123. Atlantic (Azores, Gulf of Gasconje).

chinensis Kbg. ¹⁾ Kong. Svens. Freg. Eugenies resa, Annulater, Häft 16, p. 57, Pl. XXIII, fig. 7. Hongkong.

claparedii Costa (*giardi* Grav.) Claparède, Annél. chétop. du Golfe de Naples, p. 538, pl. XVIII, fig. 3. Gravier, Annél. polych. de la Mer rouge, Nouv. Arch. Museum, (Sér. IV) Vol. II, 1900, p. 180, pl. X, figs. 17—19. Mediterranean, Red sea, Persian Gulf.

filamentosus Ehl. ²⁾ Bodens. Anneliden d. deutschen Tiefsee-Expedition, 1912, p. 63, Pl. VI, figs. 8—12. S. of Nias.

greeffianus Aug. loc. cit. p. 219, Pls. II and III, textfig. XVIII Afrique occidental (Ilha das rolas, Ilha de Saõ Thomé).

iris Gr. ³⁾ (var. *cuprea* Gr.) Annulata Semperiana, p. 105, Pl. XV, fig. 10. Philippines, Samoa-Isles.

Genus *Gyptis* Marion & Bobretzky.
(*Oxydromus* Grube). ⁴⁾

Cephalic lobe cordiform, with 3 antennae, the unpaired one on the anterior half of the head; palps present. 4 pairs of tentacular cirri on each side. Proboscis provided with papillae and hairy-like appendages on its anterior margin. Parapodia biramous.

? *aucklandicus* Will. Southern Cross collect. Auckland.

flaccidus Gr. Oerst. Annulata Oerstediana, Naturh. Foren. Vidensk. Meddel., 1858, p. 16. St. Croix.

fuscescens Mrz. Zur Kenntn. d. adriatischen Anneliden, II, 1876, p. 143, Pl. II, fig. 1. Triest (Muggia-bay).

incompta Ehl. Deutsche Südpolar-expedition 1901—03, Polychaeta, p. 471, Pl. XXX, figs. 5—9. Kaiser Wilhelm-land, Süd Victoria-land.

1) In the figure (Pl. XXIII, fig. 73) the median antenna is absent, presumably because Kinberg confounded the frontal tubercle with it; as well-known, he overlooked also the ventral jaw.

2) On account of the absence of a notopodium in the parapodia Ehlers based a new genus *Leocrutides* on this species. However it possesses a small acicula in the base of its dorsal cirrus and the anterior parapodia in the species of *Leocrutes* also lack the notopodium; therefore I believe that the species can be ranged in the genus *Leocrutes*.

3) By Ehlers considered as identical with *Leocr. chinensis* Kbg. (Die Polychaeten des Magellan. und Chilen. strandes, 1901, p. 83, Pl. XI, figs. 10—15).

4) According to the explanations of Von Marenzeller (Zur Kenntniss der Adriat. Anneliden, I, p. 430) and of Marion et Bobretzky (loc. cit.) the name *Oxydromus* can no longer be maintained.

propinqua Mar. & Bobr. loc. cit. p. 50, Pls. V and VI, fig. 15. Southern, loc. cit., p. 47. Ballynakill harbour, North Coast of France, Marseille.

Leocrates ehlersi n. sp.

At Station 312, Saleh bay (N. coast of Sumbawa), the Siboga-expedition captured several individuals of a *Leocrates*-species, which, though closely allied to *Leocratides filamentosus* Ehl. cannot be identified with it. The species is especially characterized by the singular armature of its proboscis, for its dorsal jaw, in stead of having a conical shape, is double and much resembles the mandibles of an *Eunicid*; each half consists of a long shaft, nearly of the same breadth over its whole length and of an expanded anterior plate. The ventral jaw is a simple, conical organ; both jaws have a pale yellow colour. The cephalic lobe is broader than long, somewhat heart-shaped, with a straight, anterior margin and a deeply emarginated posterior border, that is prolonged in two diverging processes like in *Castalia longicirrata* Treadw. The longest of the tentacular cirri reaches to half the length of the body. The parapodia are uniramous; however in the base of the dorsal cirrus a couple of minute aciculae are visible. The neuropodium bears a rather long, dorsal, conical lip, in which the large acicula terminates with its apex. The ventral setae consist of a stout, short, faintly bent shaft, with a short, bevelled extremity; their terminal blade is hook-shaped, much less slender as in other *Leocrates*-species and it possesses only a single tooth and lacks the secondary process beneath the bifid tid.

The worms have the usual, Hesionid-appearance and measure about 25 mm. in length; they are entirely discoloured except a violet subneural band. The bristles are greenish.

Like as *Leocratides filamentosus* the Siboga-specimens were found in a species of *Aphrocallistes*, a Hexactinellid-sponge.

Leocrates indicus n. sp.

At Station 221 of the Siboga-expedition, in the depth of the Banda Sea (2798 m.), a small *Leocrates*-specimen was dredged, about 15 mm. long, which is closely allied to *Leocr. atlanticus* Mc Int. from the Atlantic abyss. The worm is colourless except a brownish subneural band, that is interrupted in the transversal line between the parapodia. The greater part of the cirri are broken off and the anal extremity is somewhat mutilated. There are 16 setigerous segments. The cephalic lobe is rounded rectangular, somewhat broader than long; its surface by a longitudinal and a transversal groove is divided in four convex area's. In

the middle of the surface, where the two grooves are crossing each other, another small area occurs, from which a minute, unpaired antenna arises. The paired antennae are much longer, about as long as the cephalic lobe and the palps are nearly of the same length. The anterior margin of the head besides a large, rounded, frontal tubercle bears a cushion-shaped appendage on each side of the palps. On the posterior half of the head on each side a pair of eyes is situated, the anterior of which are the largest. Of the 8 pairs of tentacular cirri only the basal joints are present. Unfortunately the proboscis is not protruded, therefore nothing can be stated about the jaws. The parapodia differ somewhat in shape from those of *Leocr. chinensis* Kbg. ¹⁾; the neuropodium is more slender, whereas the notopodium, that commences with the 4th parapodium, is shorter and conical. In the base of the last one there occur two aciculae, a larger and a smaller one; its capillary bristles are transversely striated, but not serrulated. The compound, ventral setae are pale brown, with a long, slender terminal piece, as usually bearing a secondary process beneath the bifid tip. In the fascicle of the 6th parapodium a long bristle was observed, much projecting beyond the other ones, with a shaft double as long as in the ordinary setae and a terminal blade with slender extremity. The dorsal cirrus is rather short, only extending to the distal extremity of the neuropodial bristle-fascicle, whereas the ventral cirrus is nearly half as long; both cirri are smooth, not articulated.

1) A common form in the Malay Archipelago, dredged by the Siboga-expedition at several localities.
