

ON SOME POLYCHAETOUS ANNELIDS FROM CURAÇAO

BY

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(With 2 Figures)

Though we know already a rather large number of Polychaetous Annelids from the Caribbean Sea, hitherto, as far as I know, no Annelids have been described from the coast of the island Curaçao and I therefore was very glad, that my colleague Dr. VAN DER HORST kindly placed in my hands for identification a collection of Annelids, made during his stay on that island in the summer of 1920. The worms have been collected in „de Spaansche haven”, „het Spaansche water” and the „Caracas-baai” at the South-coast of the island.

Our first knowledge of the West-indian Annelids dates from the middle of the foregoing century when Oersted (1845—48), Kröyer and Schmarda travelled in Central and South America. The Annelids procured by the first two naturalists have been examined by Grube and were described under the title of „Annulata Oerstediana”¹⁾. Schmarda during his journey around the world (1853—57) in the summer and autumn of 1855 stayed in Jamaica (Kingston and Port royal) and on the coral-reef of the neighbouring Keys; in 1857 he visited Havannah and St. Thomas²⁾. The Challenger-expedition in 1873 in shallow-water off St. Thomas and between tide-marks collected a half dozen of Annelids³⁾. The largest collection of Annelids however was made during the dredgings of the U. S. Coast survey steamer „Blake” under the direction of POURTALÈS during the years 1868—70 and of ALEX. AGASSIZ from 1877 to 79 in the Gulf of Mexico and in the Caribbean Sea; they have been examined and described by ERNST EHLERS⁴⁾ and HERMANN AUGENER⁵⁾. In 1902 AARON TREADWELL described the Polychaetes collected by the expedition sent to Porto Rico in the winter of 1898—99 by the U. S. commissioner of Fish and Fisheries⁶⁾; in 1911 the same naturalist published a paper on the Polychaetous Annelids from the Dry Tortugas, Florida⁷⁾ and in 1917 on Polych. Annelids from Florida, Porto Rico, Bermuda and the Bahamas⁸⁾. In 1919 Ruth Hoagland described the polychaetous Annelids from Porto Rico, the Florida Keys and Bermuda, collected by the expeditions sent out in 1914 and 1915 by the American Museum of Nat. History and the New York Academy of Sciences in cooperation with the Government of Porto Rico⁹⁾.

From these different papers the following list of Polychaetous Annelids from the West Indies has been compiled.

- 1) Naturhist. Foren. Vidensk. Meddelelser, 1856.
- 2) Neue Wirbellose Thiere, Vol. I, 2, 1861.
- 3) Report Scientif. Results voyage H. M. S. Challenger, Vol. XII, Ann. Polych. by Mc Intosh, 1885.
- 4) Florida-Anneliden; Mem. Mus. Comp. Zoology, Harvard College, Vol. XV, 1887.
- 5) Westindische Polychaeten, Bull. Mus. Comp. Zoology, Harvard College. Vol. 43, n° 4, 1916.
- 6) Bull. U. St. Fish Commission, Vol. XX, 1902.
- 7) Bull. Amer. Museum Nat. History, Vol. XXX, 1911.
- 8) Papers from the Departm. of Mar. Biology of Carnegie Instit. of Washington, Vol. XI, 1917.
- 9) Bull. Amer. Museum Nat. History, Vol. XLI, 1919.

Amphinomidae.

- Amphinome carnea Gr.
 " jamaicensis Schmarda.
 " macrotricha Schmarda.
 " microcarunculata Treadw.
 " pallasii Qtrf.
 " sanguinea Schmarda.
 " smaragdina Schmarda.
 Chloëia euglochis Ehl.
 " viridis Schmarda.
 Chloënea atlantica Mc Int.
 Euphrosyne armadillo Sars.
 " triloba Ehl.
 Eurythoë complanata (Pall.)
 Hermodice carunculata (Pall.)
 Notopygos crinita Gr.
 " ornata Gr.

Chrysopetalidae.

- Bhawania goodei Webst.
 Palmyra (?) elongata Gr.

Aphroditidae.

- Admetella longipedata Mc Int.
 Alentia gelatinosa Sars.
 Antinoë finmarchica Mlgr.
 Aphrodite acuminata Ehl.
 " obtecta Ehl.
 Euarche tubifex Ehl.
 Eulepis fimbriata Treadw.
 " splendida Treadw.
 Halosydna fusco-marmorata Gr.
 Harmothoë polytricha (Schmarda).
 " variegata Treadw.
 Hermenia verruculosa Gr.
 Hermione kinbergi Qtrf.
 Laetmonice filicornis Kinb.
 " kinbergi (Baird).
 " nuchipapillata Aug.
 Lagisca floccosa Sav. var. unidentata Aug.
 Lepidasthenia varius Treadw.
 Lepidonotus citrifrons Aug.
 " inquilinus Treadw.
 " notata Hoagl.
 " variabilis Webst.
 Nemidia antillicola Aug.
 Panthalis oculatea Treadw.
 Polynoë antillarum Schmarda.
 " branchiata Treadw.
 " brevisetosa Kinb.
 " clavata Gr.
 " crucis Gr.

- Polynoë granulata Ehl.
 " lactea Ehl.
 " leucohyba Schmarda.
 " lobocephala Schmarda.
 " nodosa Treadw.
 " taeniata Ehl.
 " tomentosa Gr.

Polynoëlla pachylepis Aug.

Pontogenia maggiae Aug.

" sericoma Ehl.

Psammolyce floccifera Aug.

" rigida Gr.

Sigalion pergamentaceum Gr.

" pourtalesii Ehl.

Sthenelais gracilior Aug.

" grubei Treadw.

" simplex Ehl.

Eunicidae.

Anisoceras bioculata Gr.

" rubra Gr.

" vittata Gr.

Arabella opalina Verrill.

Aracoda attenuata Treadw.

" debilis Ehl.

" multidentata Ehl.

" spatula Treadw.

Diopatra eschrichtii Oerst.

" (Paradiopatra) fragosa Ehl.

" (") glutinatrix Ehl.

" pourtalesii Ehl.

" spiribranchis Aug.

Eunice antillensis Ehl.

" articulata Ehl.

" auriculata Treadw.

" binominata Qtrf.

" cariboa Gr.

" collini Aug.

" conglomerans Ehl.

" culebra Treadw.

" denticulata Webst.

" filamentosa Gr.

" floridana (Pourt.).

" fucata Ehl.

" hamata Schmarda.

" lucei Gr.

" macrochaeta Schmarda.

" nigricans Schmarda.

" ornata Andrews.

" punctata Gr.

" quadrioculata Oerst.

" rubra Gr.

Eunice schemacephala Schmarda.
 „ siciliensis Gr.
 „ tibiana (Pourt.).
 „ violacea Gr.
 „ violacea-maculata Ehl.
 Hyalinoecia tubicola Müll.
 Lumbriconereis bidens Ehl.
 „ bilabiata Treadw.
 „ cingulata Treadw.
 „ floridana Ehl.
 „ maculata Treadw.
 „ parva-pedata Treadw.
 „ robusta Ehl.
 Lysarete brasiliensis (Kinb.).
 Lysidice brachycera Schmarda.
 „ notata Ehl.
 „ sulcata Treadw.
 Marphysa bellii Aud. & Edw.
 „ fragilis Treadw.
 „ goodsiri Mc Int.
 „ nobilis Treadw.
 „ parishii (Baird.)
 „ sanguinea Mont.
 „ viridis Treadw.
 Nacidion brevis Ehl.
 „ kinbergi Webst.
 Ninoë kinbergi Ehl.
 Oenone diphyllida (Schmarda).
 Onuphis eschrichti Oerst.
 „ (Paronuphis) gracilis Ehl.
 „ opalina Verrill.
 „ rubescens Aug.
 Paramarphysa longula Ehl.
 Rhamphobranchium agassizii Ehl.

Nereidae.

Nereis acuminata Ehl.
 „ anodonta Schmarda.
 „ antillensis Mc Int.
 „ arroyensis Treadw.
 „ articulata Ehl.
 „ bairdii Webst.
 „ bicruciata Aug.
 „ (Heteronereis) caudipunctata Gr.
 „ diversicolor O. F. Müll.
 „ dumerilii Aud. & Edw.
 „ (Heteronereis) fasciata Schmarda.
 „ glandulata Hoagl.
 „ (Mastigonereis) heterodonta Schmarda.
 „ krebsii Gr.
 „ limbata Ehl.
 „ marginata Gr.

Nereis (Ceratonereis) mirabilis Kinb.
 „ puncturata Gr.
 „ rigida Gr.
 „ riisei Gr.
 „ (Ceratonereis) versipedata Ehl.

Glyceridae.

Glyceria abranchiata Treadw.
 „ cirrata Gr.
 „ oxycephala Ehl.
 „ sphyrabranchia Schmarda.
 „ tessellata Gr.
 Goniada emerita Aud. & Edw.
 „ oculata Treadw.

Nephtydidae.

Nephtys (Aglaophanus Kinb.) inermis Ehl.
 „ phyllocirra Ehl.
 „ squamosa Ehl.

Phyllodocidae.

Eulalia quinque-lineata Treadw.
 Lopadorhynchus erythrophyllus Schmarda.
 Notophyllum myriacyclum Schmarda.
 Phyllodoce flavescens Gr.
 „ magna-oculata Treadw.
 „ oculata Ehl.
 „ (Anaitis Gz.) papillosa Ehl.
 „ puntarenae Gr.
 „ tortugae Treadw.

Hesionidae.

Castalia hesionoides Aug.
 „ longicirrata Treadw.
 „ mutilata Treadw.
 Hesionella praetexta Ehl.
 „ proctochona Schmarda.
 „ vittigera Ehl.
 Oxydromus flaccidus Gr.
 „ longisetis Gr.
 Podarke agilis Ehl.
 „ guanica (Hoagl.).

Syllidae.

Amblyosyllis rhombeata Gr.
 Branchiosyllis oculata Ehl.
 Odontosyllis octodentata Treadw.
 Syllis brachycirris Gr.
 „ breviarticulata Gr.
 „ complanata Treadw.
 „ gracilis Gr.
 „ longesegmentata Gr.
 „ macroceras Gr.

Syllis obscura Gr.
 „ prolifera Mc Int.
 „ rubra Gr.
 „ spongiphila Verrill.
 „ streptocephala Gr.
 „ zonata Gr.
 Trypanosyllis vittigera Ehl.

Cirratulidae.

Cirratulus caribous Gr.
 „ elongatus Treadw.
 „ melanocanthus (Gr.).
 „ miniatus Schmarda.
 „ nigromaculatus Treadw.
 „ punctatus Gr.

Opheliidae.

Ammotrypane fimbriata Verrill.
 Travia carnea (Verrill.)?

Spionidae.

Aonides cirrata Sars.
 Aricidia alata Treadw.
 Prionospio steenstrupi Mlgr.

Chloraemidae.

Siphonostomum cariboum Gr.
 Stylaroides collarifer Ehl.
 „ glabra Treadw.
 „ scutiger Ehl.

Chaetopteridae.

Phyllochaetopterus claparedii Mc Int.

Sphaerodoridae.

Sphaerodorum pentadactylum Schmarda.

Scalibregmidae.

Eumenia glabra Ehl.
 „ heterochaeta Aug.

Telethusae.

Arenicola antillensis (Lützk.).

Capitellidae.

Dasybranchus lunulatus Ehl.
 „ rectus Treadw.
 „ umbrinus Gr.

Ariciidae.

Anthostoma latacapitata Treadw.
 „ ramosum Schmarda.
 Aricia cirrata Treadw.
 „ laevigata Gr.
 „ rubra Webst.

Maldanidae.

Clymene cingulata Ehl.
 „ cirrata Ehl.
 Maldane collariceps Aug.
 „ cuculligera Ehl.
 Nicomachella picta Ehl.
 Praxilla gracilis Sars.
 „ praetermissa Mlgr.
 Rhodine sima Ehl.

Hermellidae.

Hermella varians Treadw.
 Sabellaria asteriformis Aug.
 „ tenera Aug.

Amphictenidae.

Pectinaria gouldii Verrill.
 „ (Petta Mlgr.) pellucida Ehl.

Ampharetidae.

Amage inhamata Hoagl.
 „ tumida Ehl.
 Amphicteis gunneri Mlgr.
 „ nasuta Ehl.
 „ procera Ehl.
 Melinna monocera Aug.
 „ parumentata Ehl.
 „ profunda Aug.
 Auchenoplax crinita Ehl.

Terebellidae.

Loimia bermudensis Verrill.
 Phenacia robusta Gr.
 Polycirrus purpureus Schmarda.
 Streblosoma verrilli Treadw.
 Terebella alata Gr.
 „ annulifilis Gr.
 „ brunneo-comata Ehl.
 „ cetrata Ehl.
 „ comata Gr.
 „ crassicornis Schmarda.
 „ frondosa Gr.
 „ macrocephala Schmarda.
 „ megalonema Schmarda.
 „ reticulata Ehl.
 „ turgidula Ehl.
 „ variegata Gr.
 Terebellides stroemii Sars.
 Thelepus cincinnatus Fabr.
 „ crassibranchiatus Treadw.

Sabellidae.

Branchiomma bioculatum Ehl.

- Branchiomma lobiferum Ehl.
 „ melanostigma (Schmarda).
 Dasychone conspersa Ehl.
 „ nigro-maculata (Baird).
 „ ponce Treadw.
 „ wyvillei Mc Int.
 Hypsicomus circumspiciens Ehl.
 Metalonome brunnea Treadw.
 Parasabella flecata Hoagl.
 „ fonticula Hoagl.
 „ midoculi Hoagl.
 „ sulfurea Treadw.
 Potamis spathiferus Ehl.
 Protulides elegans Webst.
 Sabella alba Treadw.
 „ bipunctata Baird.
 „ brevicollaris Gr.
 „ longicauda Gr.
 „ melania Schmarda.
 „ melanostigma Schmarda.
 „ „ var. Hoagl.
 „ pacifica Gr.
 „ spectabilis Gr.
- Sabellides oligocirra Schmarda.
- Serpulidae.*
- Cymospira polycera Schmarda.
 Eupomatus parvus Treadw.
 „ uncinatus (Phil.).
 Filigrana huxleyi Ehl.
 Hyalopomatus langerhansi Ehl.
 Placostegus incomptus Ehl.
 Pomatostegus brachysoma Schmarda.
 „ macrosoma Schmarda.
 „ stellatus (Abildg.).
 Protis simplex Ehl.
 „ torquata Hoagl.
 Protula antennata Ehl.
 „ appendiculata Schmarda.
 „ longiseta Schmarda.
 „ submedia Aug.
 Spirobranchus giganteus (Pall.).
 „ tricornis (Mörch).
 Vermilia annulata (Schmarda).
 „ annulituba Aug.

Family APHRODITIDAE.

Sub-family POLYNOÏNAE.

Lepidonotus branchiatus (Treadw.)¹⁾.*(Polynoë branchiata).*

In "Spaansch water" (in *Porites porites*) and in "Caracas-bay" several Polynoidae were collected, which must be identified with *Polynoë branchiata*. This species, at first described by TREADWELL from Porto Rico, is especially characterized by the villous appearance of its elytra and by the presence of a number of finger-shaped processes (gills) at the anterior and posterior wall of the parapodia; they appear first between the third and fourth segment. Such branchial outgrowths also have been found at the parapodia of *Lepidon. giganteus* Kirk. from New-Zealand²⁾. The elytra have their lateral and posterior margin densely fringed with long hairs, that are provided with a globular, swollen tip; moreover in some elytra there occurs a longer tuft of hairs on each side of the median dorsal line. The greater part of the surface of the elytron is covered with short spines or with small, globular papillae beset with spiculae; along the posterior and lateral margin they pass into long, bottle-shaped papillae, which are provided with small, spinous scales and with an acute tip. In most of the elytra the scar of attachment is covered by a brown (pale or dark) membrane, that is divided in a great number of small, polygonal fields; TREADWELL does not mention this membrane, perhaps because he had only young specimens, measuring 20 to 25 mm. in length, at his disposal, whereas our largest specimens have a length of 50 mm. For in young specimens the scar of attachment is only covered by a cluster of spherical tubercles or surrounded by a ring of stout, brown papillae. The notopodial bristles are not toothed on both edges, as stated by TREADWELL, but surrounded by densely crowded, lacinated

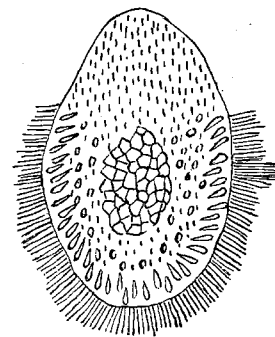


Fig. 1.
Lepidonotus branchiatus.

1) Loc. cit. p. 186, text-figs. 5-7.

2) Proc. Zool. Soc. 1900, p. 974.

fringes; however usually they are thus covered with foreign material, that it is difficult to recognize their real structure. Each of the neuropodial bristles ends in a blunt, hook-like tip and carries at a little distance from its end two transverse rows of sharp teeth, the anterior of which are much stouter than the others.

Lepidonotus verruculosus (Gr.).

(*Hermenia verruculosa* Gr.).

(*Polynoë nodosa* Treadw.).

A small specimen (L. 20 mm.) found in "Caracas-bay" in coral and a larger one from *Porites porites* in "Spaansch water" quite agree with the description and figures of TREADWELL. The worm at first was found at St. Jan and described by GRUBE as a species of the genus *Hermenia* ¹⁾, that should be characterized by the absence of palps (tentacula lateralia) and the presence of very small elytra except the first pair of them. However in his „Bemerkungen über die Familie der Aphroditëen" ²⁾ GRUBE himself was somewhat doubtful about the justness of the first character and he suggested that the species might be a true Polynoë, that had the palps withdrawn. Afterwards the worm was refound by TREADWELL at Porto Rico and described as *Polynoë nodosa* ³⁾; however he overlooked the small elytra of segment 3 to 23, for these are so minute, that they are just capping the elytophores and their surface being provided with tubercles like the surrounding skin, they are hardly recognizable. In 1911 the american author had the opportunity to examine a considerable number of specimens collected in the Tortugas and an elaborate description was based on them ⁴⁾.

Paralepidonotus boholensis Gr. var. *curaçaoensis* n. v.

In „Spaansch water" (in *Porites porites*) three small, incomplete Polynoidae were captured, which as well by their morphological characters as by their coloration so much agree with the Malayan specimens of *Paralepidonotus boholensis* Gr. ⁵⁾, that they must be considered as a variety of this species. The best preserved specimen, that lacks nearly all its elytra, has a length of about 16 mm. and consists of 37 segments; in the two other specimens several posterior segments are wanting. There are 15 pairs of elytra, conspicuously coloured. Each elytron shows a narrow black band along the margin of its posterior half and over its middle there runs an other black stripe, enlarging at its median side to a triangular spot. By the confluence of these spots in the succeeding scales there arises a dark band in the median dorsal line of the body. The elytra are slightly reniform, overlapping each other in the median dorsal line and leaving the posterior segments uncovered. Their margin is entirely plain, without fringes; in the anterior part of their surface, behind the concave margin there is a region beset with small tubercles. The belly on both sides is limited by a black border, owing to the dark coloured lamellae, situated next to the nephridial papillae; moreover in the median ventral region a pale band exists, laterally bordered by a black line. The exterior margin of the parapodia also is blackish like the surroundings of the mouth, the antennae and the distal part of the palps, except their whitish tip. With regard to the situation of their lateral antennae and the shape of the parapodia and the bristles the Curaçao-annelids quite resemble the specimens of *Paralepidonotus boholensis* from the East-indian seas; therefore I regret it very much that I can not agree with the opinion of FAUVEL ⁶⁾, who believes that GRUBE's *Polynoë boholensis* must be ranged among the genus *Harmothoë*. I cannot see in GRUBE's figure (Pl. III, fig. 4) a typical prostomium of *Harmothoë*; perhaps in the specimens from Djibouti which FAUVEL examined and which according to his statement have "acuminate lateral frontal corners" this is better recognizable.

1) *Annulata Oerstediana*, p. 18.

2) *Sitzungsber. Schles. Gesellschaft f. Vaterl. Cultur*, 1875.

3) *Loc. cit.* p. 187, text-figs. 8 and 9.

4) *Polychaet. Annelids from Florida*, Bull. Amer. Museum Nat. Hist. Vol. XXX, text-figs. 23—25.

5) *Polychaeta errantia of the Siboga-expedition*, Pl. II, 1917, p. 77, Pl. XVIII, figs. 1 and 2.

6) *Annél. polych. de Madagascar, de Djibouti etc.*; *Archiv. Zool. expériment.* Vol. 58, 1919, p. 332.

Harmothoë sp.

In "Caracas-bay", from coral, three *Harmothoë*-specimens were collected, with distinct frontal peaks and two pairs of eyes, but without scales and cirri; they are too incomplete for a satisfactory description or for identification.

Harmothoë sp.

A small worm, found in the „Spaansche haven”, indifferently preserved, too incomplete for a satisfactory description or for identification.

Sub-family SIGALIONINAE.

? *Sthenelais boa* Johnst.

An incomplete Sigalionid worm, sifted from the sand in the „Spaansche haven”, with regard to the appearance of its elytra and the structure of the parapodia mostly agrees with *Sthenelais boa* Johnst. ¹⁾, widely distributed in the Atlantic. In *St. grubei* Treadw. ²⁾ as well as in *St. gracilior* Aug. ³⁾ from the West-indies the elytra have a different appearance and the compound ventral setae are all provided with a long smooth, terminal joint.

Sub-family EULEPIDINAE ⁴⁾.*Eulepis weberi* n. sp.

In the „Spaansche haven” a worm was captured, belonging to the rare genus *Eulepis*. It is a stout specimen, larger than any of the species hitherto described, much resembling a *Lepidonotus*; it consists of 50 segments and its length amounts to 50 mm. The whole dorsal side is covered

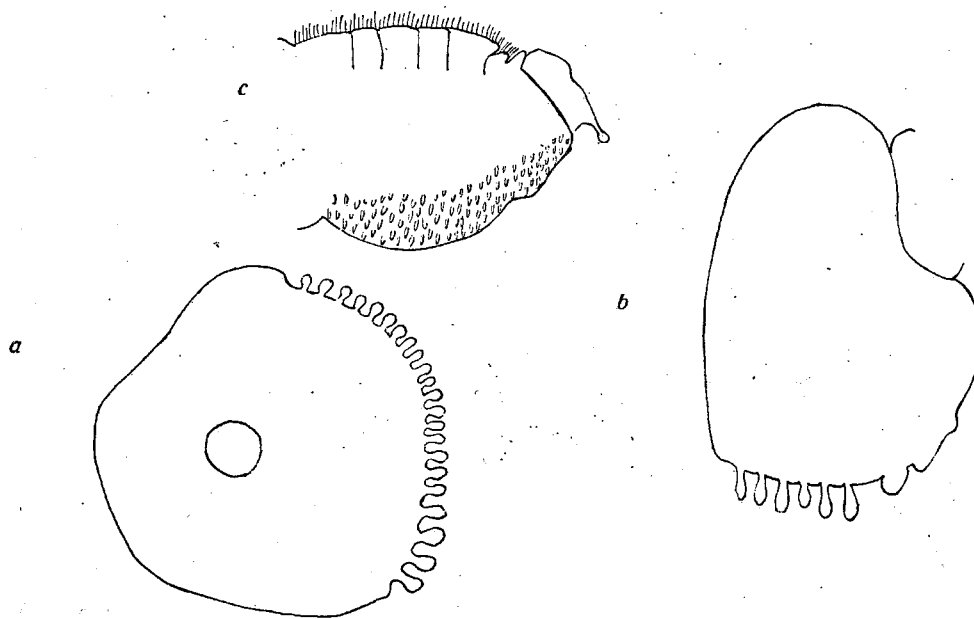


Fig. 2. *Eulepis weberi*: a 1st elytr., b poster. elytr., c branch. app.

by 36 pairs of elytra, overlapping each other and provided with processes along their external border. The elytra show a pale yellowish hue. The first of them is circular, with about 25 short, clavate appendages along its external border; the second scale is reniform with 8 digitiform appendages which are longer than in the preceding. The following elytra till the 12th increase in length and acquire an elongated, rectangular shape, with rounded angles; as usually they alternate with branchial

1) MC INTOSH, British Annelids, Vol. I, Pt. II, p. 408.

2) Loc. cit. p. 187.

3) Loc. cit. p. 107.

4) HORST, Polychaeta errantia of the Siboga-expedition, 1917, p. 127.

cirri. The 12th scale, extending over 6 segments, is provided with 15 digitiform processes along its external border and has the scar of attachment situated in its anterior half; like in other *Eulepis*-species this elytron is situated on the 24th parapodium. The two succeeding parapodia are provided with branchial appendages and the 27th parapodium bears the first of the posterior scales, 24 in number. These are true elytra and differ from the anterior scales only thereby, that they are transversally elongated and have the elyrophore inserted near the median, anterior angle; they bear 7 to 8 papillous appendages at their exterior border. This character is in disagreement with the statement of TREADWELL¹⁾ and AUGENER²⁾, that in *Eulepis* behind the 12th elytron there should not occur other elytra, but only enlarged branchial appendages. The last-named organs consist of a large, basal part, provided at their anterior border with a ridge, bearing cilia, whereas along its posterior margin there occurs a crest, containing large cells, with brown granulations; its ventral side is transversely folded. The distal part (cirrostyle) is a small, foliaceous process with a pointed tip. The parapodia have the usual structure; their dorsal lobe contains the large, knee-like bent bristles and a tuft of fine, serrated capillary ones, whereas the ventral lobe bears a fascicle of stout, plain bristles with a fine, capillary tip and a single pectinated one. The ventral cirrus is subulated in the anterior parapodia; posteriorly its inferior part becomes globular and bears a small, clavate, distal joint.

The head was totally withdrawn, therefore nothing can be said about its appearance and because I had only a single specimen at my disposal I cannot give such informations about its structure as I should like and my description therefore must remain somewhat incomplete.

Two other species of *Eulepis* with scales, bearing appendages along their exterior border, have been described, viz. *E. fimbriata* Treadw. from Porto-Rico and the Congo-coast and *E. geayi* Fauv.³⁾ from Madagascar; however both species are characterised by the presence of only 12 pairs of elytra and the posterior segments are uncovered.

Family HESIONIDAE.

Hesione proctochona Schmarda⁴⁾.

This species, at first described by SCHMARDA from Jamaica, afterwards was refound by WEBSTER⁵⁾ in the neighborhood of the Bermuda-islands, by TREADWELL⁶⁾ in the vicinity of Porto-Rico. The last-named author stated, that presumably all the species mentioned from the East coast of South-America: *Hes. picta* Müll.⁷⁾, — *margaritae* Hans.⁸⁾ — *vittigera* Ehl.⁹⁾ and — *praetexta* Ehl. are synonymous and belong to the same species. Several specimens were met with in „de Spaansche haven” and the „Spaansch water” of Curaçao, living in *Porites porites*; the largest of them has a length of 37 mm. Hansen's statement, that the largest specimen from Rio Janeiro measured 75 mm. in length, likely is a mistake, for the largest specimen found by myself in the collection of VAN BENEDEN only has a length of 36 mm. However in the collections of the Leyden Museum I met with a specimen of *Hes. pantherina* Risso from Napoli, measuring 70 mm. in length. The specimens of Curaçao show a different coloration; some of them have a dark brown ground-colour with narrow, whitish, transverse lines on the dorsal side, about ten on each segment. Usually these lines are passing across the dorsum from one lateral side to the other one; but sometimes they are bifurcated in the median dorsal line. The penultimate segment is excepted, being characterized by irregular small spots. At the ventral side there is a median area, provided with small dark spots and showing a nacreous tinge. The parapodia arise from a cushion-shaped enlargement along the lateral sides of the body, showing two broad, transverse, whitish spots, one at the base of the parapodium and the other one on its posterior part. Some specimens in the anterior part of each segment possess a broad, white band, passing from the para-

1) TREADWELL, The polychaetous Annelids of Porto Rico, 1900, p. 189.

2) AUGENER, Beiträge zur Kenntniss der Meeresfauna Westafrikas, 1918, p. 153.

3) FAUVEL, Annélides polych. de Madagascar, Arch. Zool. expériment. Vol. 58, 1919, p. 335.

4) Neue wirbellose Thiere, I, 2, 1861. p. 79, pl. XXVIII. fig. 226.

5) Contribut. Nat. History of the Bermudas, Bull. U. St. Nat. Museum 25, Vol. I, 1884, p. 311, pl. VIII, fig. 4.

6) The Polychaetous Annelids of Porto Rico, Bull. U. St. Fish Commission Vol. XX, 2, 1902, p. 184.

7) Archiv f. Naturgesch. Jhrg. 1858, I, p. 213, pl. VI, fig. 3.

8) Rech. s. l. Annélides, recueillies par E. V. BENEDEN au Brésil, Mém. couron. t. XLIV, 1882.

9) Florida-Anneliden, Mem. Museum Comp. Zoology at Harvard College, Vol. XV, 1887, p. 143, Pl. 41, figs. 1—4.

podium of one lateral side to the corresponding parapodium of the other side, as represented by the figures of SCHMARDA and EHLERS. In some specimens this transverse band is only present in the anterior region of the body, whereas in the posterior segments only a small, round spot has been left, situated in the median dorsal line. The specimens of the collection of VAN BENEDEN are totally discolored; only on the dark, median area of the ventral side pale, round spots are visible, exactly lying in the line of the parapodia.

The cephalic lobe is cordiform, its broad part pointing posteriorly. Over its middle there runs a groove, that is bifurcated anteriorly; at the anterior end of each of these grooves there arises from the frontal margin of the head a tiny, whitish tentacle, overlooked by several naturalists (HANSEN, EHLERS a. o.). Also on the base of the protruded proboscis a papilla is visible, that already has been figured with *Hes. pantherina* Riss in the Règne animal ¹⁾ and was mentioned by VON MARENZELLER ²⁾ and IZUKA ³⁾ in the description of *Hes. reticulata*. On the posterior region of the prostomium on each side a pair of eyes are situated, the anterior of which are the largest; however in the preserved specimens they are not always conspicuous because of the presence of pigment.

There are 16 pairs of setigerous parapodia; they are provided at the dorsal side of their distal extremity with two small, lip-like processes, a short triangular and a longer, digitiform one. The first parapodium is provided only with a single, un-divided lip. The penultimate segment bears no parapodia, only two cirri, a long, dorsal and a short, ventral one, corresponding to the cirri of the parapodia. The anal segment has two long cirri and is provided around the anal aperture with lobes.

Family GLYCERIDAE.

Glycera tessellata Grube.

TREADWELL, the Polychaetous Annelids of Porto-rico, loc. cit. p. 201.

IZUKA, the Errantiate Polychaeta of Japan, 1912, p. 241 (litterature).

AUGENER, Meeresfauna West-Afrikas, Polychaeta, p. 394, pl. V, fig. 131

Several specimens of a *Glycera*-species have been gathered with a sieve from out the sand of the „Spaansche haven”; they must be identified with *Glyc. tessellata* Gr., agreeing with that species as well by the structure of their parapodia as by the shape of the jaw-appendages and of the papillae of the proboscis. Besides from other parts of the world it has been recorded by TREADWELL from Porto Rico. The posterior lips of the parapodia are not so pointed as figured by EHLERS (die Borstenwürmer, pl. XXIV, fig. 33) but more agree with the figure of the Madeira-specimens by LANGERHANS (Die Wurmfauna Madeiras, pl. XVI, fig. 36a). The ventral setae are faintly heterogomph. The specimens are not very large, varying from 60 to 70 mm. in length; the number of segments of the longest specimen is about 150. The specimens are discolored, buff, except two parallel longitudinal stripes in the ventral median region. In a small specimen, found in a sponge in Caracas-bay, the parapodia are provided with a black pigment. MC INTOSH also mentions the presence of dusky yellowish pigment at the tips of the feet in a specimen from the Cape of Good Hope ⁴⁾.

TREADWELL describes a new species from ARROYO, *Glyc. abbranchiata*, which according to the description and the figure of the parapodium must be nearly allied to or, as suggested by AUGENER, be identical with *Glyc. tessellata*; unfortunately the author does not say anything neither about the shape of the jaw-appendages nor about the form of the proboscis-papillae.

For, though GRAVIER has some doubt whether „les caractères tirés de la forme de cette pièce (de soutien de chaque machoire) ont la valeur taxonomique que ARWIDSSON leur attribue” (Annél. polych. de la mer rouge, p. 438), in my opinion it is not permitted to neglect any character to distinguish the species of a genus, which offer so few characteristic differences.

1) Les Annelides, 1859, Pl. 14, fig. 4.

2) Südjapanische Anneliden, I, 1879, p. 21, Pl. III, fig. 4.

3) Errantiate Polychaete of Japan, p. 194.

4) Challenger Annelida Polychaeta, p. 343.