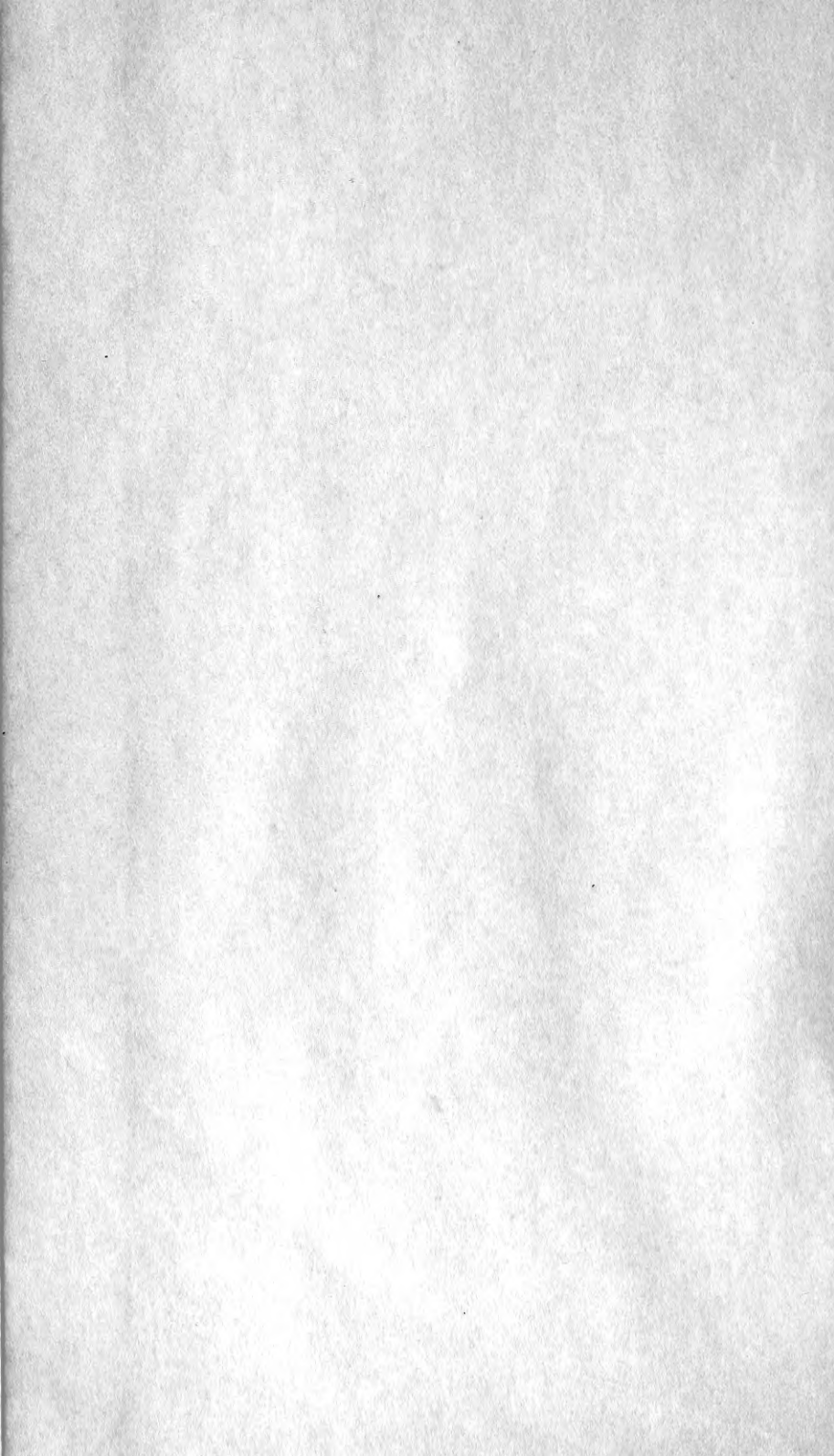


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ALLAN HANCOCK ATLANTIC EXPEDITION

REPORT NUMBER 3

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POLYCHAETOUS ANNELIDS

(PLATES 1, 2)

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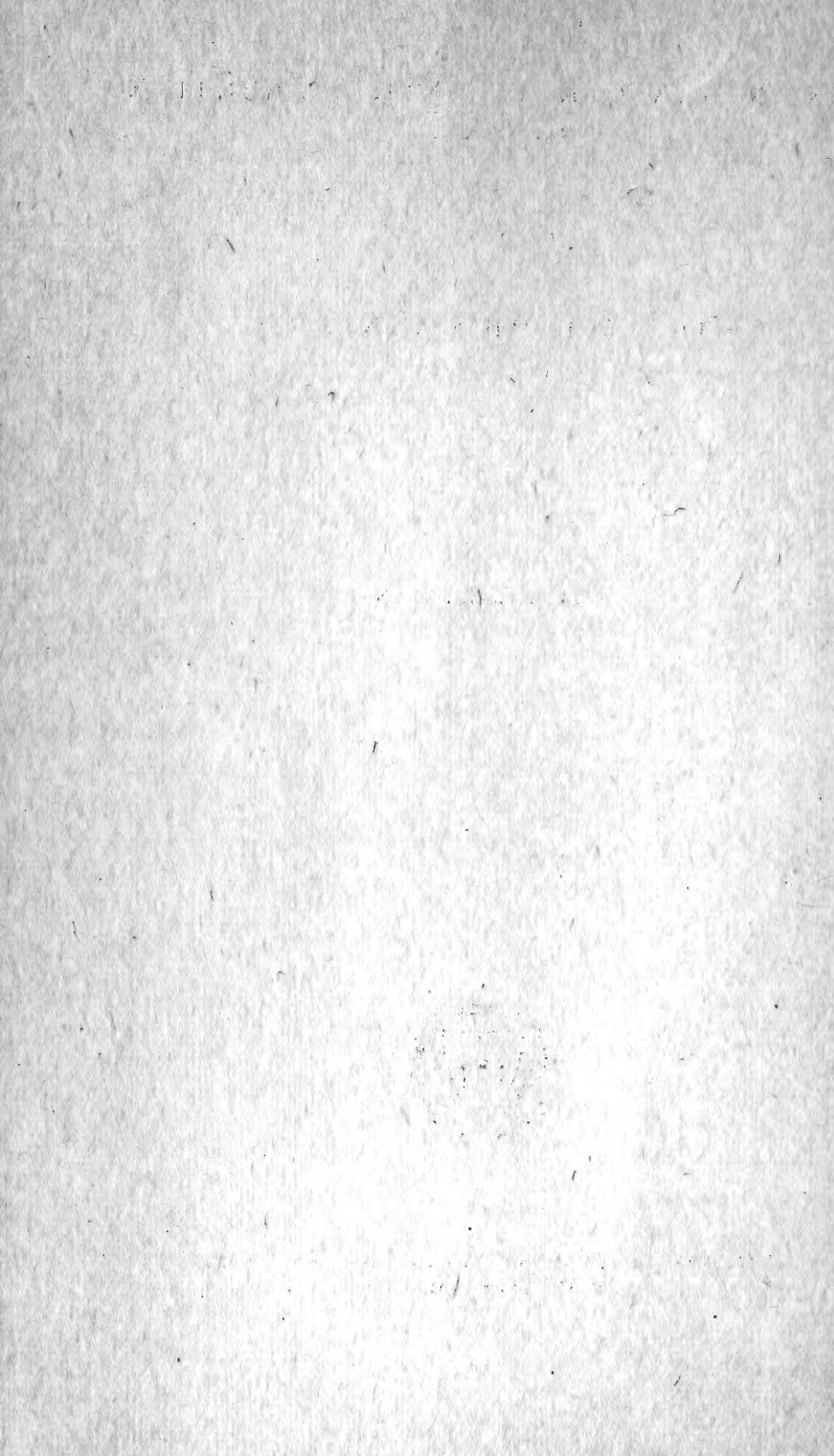
OLGA HARTMAN

ALLAN HANCOCK FOUNDATION



THE UNIVERSITY OF SOUTHERN CALIFORNIA PRESS
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1944



POLYCHAETOUS ANNELIDS

(PLATES 1, 2)

By OLGA HARTMAN

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POLYCHAETOUS ANNELIDS

OLGA HARTMAN

ALLAN HANCOCK FOUNDATION

These collections were made between April 3 and 27, 1939, from Caledonia Bay, Panama, east to Trinidad, British West Indies. Depths range from intertidal to 71 fms, though usually less than 30 fms. Seventy-seven species in 24 families are represented; of these at least 40 species are known to be present in both the Atlantic and Pacific oceans. At least one is believed new.

Following is a list of stations, with species encountered.

Station A 2-39. Caledonia Bay, Panama, shore.

| | |
|---------------------------------------|----------------------------------|
| <i>Hermodice carunculata</i> (Pallas) | <i>Glycera tessellata</i> Grube |
| <i>Nereis riisei</i> Grube | <i>Terebellides stroemi</i> Sars |

Station A 4-39. Caledonia Bay, Panama, in 8-14 fms.

| | |
|--|---|
| <i>Panthalis</i> , sp. | <i>Eunice longicirrata</i> Webster |
| <i>Psammolyce arenosa</i> (delle Chiaje) | <i>Eunice rubra</i> Grube |
| <i>Leanira incisa</i> (Grube) | <i>Lumbrineris latreilli</i> Audouin and Edwards |
| <i>Chloeia viridis</i> Schmarda | <i>Thelepus setosus</i> (Quatrefages) |
| <i>Eurythoë complanata</i> (Pallas) | <i>Terebellides stroemi</i> Sars |

Station A 7-39. Caledonia Bay, Panama, in 1-5 fms.

| | |
|---|---|
| <i>Leanira grubei</i> (Treadwell) | <i>Diopatro cuprea</i> (Bosc) |
| <i>Platynereis dumerilii</i> (Audouin and Edwards) | <i>Ammotrypane aulogaster</i> Rathke |
| <i>Eunice vittata</i> (delle Chiaje) | <i>Branchiomma nigromaculata</i> (Baird) |

Station A 8-39. Caledonia Bay, Panama, shore.

| | |
|---------------------------------------|---|
| <i>Hermodice carunculata</i> (Pallas) | <i>Pseudonereis gallapagensis</i> Kinberg |
|---------------------------------------|---|

Station A 12-39. 11 mi. southwest of Cape la Vela, Colombia, with light.

| | |
|------------------------------------|------------------------------------|
| <i>Lepidonotus humilis</i> Augener | <i>Paramarphysa longula</i> Ehlers |
|------------------------------------|------------------------------------|

Station A 12a-39. Same as above, in 5 fms.

| | |
|---------------------------------------|--|
| <i>Halosydna leucohyba</i> (Schmarda) | <i>Lumbrineris inflata</i> Moore |
| <i>Eurythoë complanata</i> (Pallas) | <i>Stylarioides plumosa</i> (O. F. Müller) |
| ? <i>Podarke obscura</i> Verrill | <i>Eupomatus lunulifer</i> Claparède |
| <i>Eunice rubra</i> Grube | <i>Hydroides</i> , sp. |
| <i>Nothria conchylega</i> (Sars) | |

74714

Station A 13-39. 11 mi. south of Cape la Vela, Colombia, in 13 fms.

| | |
|--------------------------------------|---|
| <i>Hermione hystrix</i> Savigny | <i>Paramarphysa longula</i> Ehlers |
| <i>Nereis riisei</i> Grube | <i>Hyalinoecia juvenalis</i> Moore |
| <i>Nephtys magellanica</i> Augener | <i>Onuphis eremita</i> Audouin and Edwards |
| <i>Glycera americana</i> Leidy | <i>Lumbrineris latreilli</i> Audouin and Edwards |
| <i>Glycera dibranchiata</i> (Ehlers) | <i>Armandia maculata</i> (Webster) |
| <i>Eunice longicirrata</i> Webster | |
| <i>Eunice rubra</i> Grube | |

Station A 14-39. South of Cape la Vela, Colombia, in 21-22 fms.

| | |
|---|---|
| <i>Eupanthalis oculata</i> , n. sp. | <i>Lumbrineris latreilli</i> Audouin and Edwards |
| <i>Euprosine triloba</i> Ehlers | <i>Arabella iricolor</i> (Montagu) |
| <i>Nereis riisei</i> Grube | <i>Owenia fusiformis</i> delle Chiaje |
| <i>Glycera americana</i> Leidy | <i>Lanicides bilobata antillensis</i> Augener |
| <i>Goniada emerita</i> (Audouin and Edwards) | <i>Pista cristata</i> (O. F. Müller) |
| <i>Eunice rubra</i> Grube | <i>Megalomma vesiculosa</i> (Mon- tagu) |
| <i>Diopatra tridentata</i> Hartman | <i>Sabella melanostigma</i> Schmarda |
| <i>Hyalinoecia juvenalis</i> Moore | |

Station A 15-39. Outside Bahia Honda, Colombia, in 8-9 fms.

| | |
|---|---|
| ? <i>Thormora taeniata</i> (Ehlers) | <i>Lysidice ninetta</i> Audouin and Edwards |
| <i>Anaitides erythrophyllum</i> (Schmarda) | <i>Diopatra tridentata</i> Hartman |
| <i>Hesione</i> , sp. | <i>Hyalinoecia juvenalis</i> Moore |
| <i>Podarke obscura</i> Verrill | ? <i>Lumbrineris latreilli</i> Audouin and Edwards |
| <i>Nereis riisei</i> Grube | <i>Arabella iricolor</i> (Montagu) |
| <i>Glycera americana</i> Leidy | <i>Stylarioides plumosa</i> (O. F. Müller) |
| <i>Glycera tessellata</i> Grube | <i>Armandia polyophtalma</i> Küken- thal |
| <i>Goniada emerita</i> (Audouin and Edwards) | <i>Polyophtalmus pictus</i> Dujardin |
| <i>Eunice rubra</i> Grube | <i>Megalomma vesiculosa</i> (Mon- tagu) |
| <i>Eunice vittata</i> (delle Chiaje) | |
| <i>Eunice (Nacidion) kinbergi</i> Webster | |

Station A 16-39. Punta Basora, Aruba, Dutch West Indies, shore.

| | |
|--|---|
| <i>Eurythoë complanata</i> (Pallas) | <i>Branchiomma nigromaculata</i> (Baird) |
| <i>Perinereis anderssoni</i> Kinberg | |
| <i>Pseudonereis gallapagensis</i> Kin- berg | |

Station A 17-39. Aruba, Dutch West Indies, in 71 fms.

Glycera americana Leidy

Station A 18-39. Same, in 24 fms.

Euphrosine triloba Ehlers

Hesione, sp.

Platynereis dumerilii (Audouin
and Edwards)

Nephtys squamosa Ehlers

Eunice rubra Grube

Hyalinoecia juvenalis Moore

Station A 20-39. Tortuga Island, Venezuela, shore.

Halosydna leucohyba (Schmar-
da)

Pseudonereis gallapagensis Kin-
berg

Eunice antennata Savigny

Eunice (Nicidadion) kinbergi
Webster

Lysidice ninetta Audouin and
Edwards

Paramarphysa longula Ehlers

Arabella iricolor (Montagu)

Cirriiformia filigera (della Chi-
aje)

Stylarioides plumosa (O. F.
Müller)

Polyophtthalmus pictus Dujardin

Station A 22-39. Same, in 2-5 fms.

Sthenelais articulata Kinberg

Armandia polyophtthalma Kükен-
thal

Station A 24-39. Cubagua Island, Venezuela, in 2-5 fms.

Eusigalion lewisii (Berkeley)

Eumida sanguinea (Oersted)

Armandia maculata Webster

Travisia, sp.

Station A 25-39. Same, shore.

Halosydna leucohyba (Schmar-
da)

Lepidonotus humilis Augener

Eulalia myriacyclum (Schmarda)

Perinereis anderssoni Kinberg

Platynereis dumerilii (Audouin
and Edwards)

?*Eunice filamentosa* Grube

Eunice rubra Grube

Marphysa sanguinea (Montagu)

Hypsicomus circumspiciens
Ehlers

Station A 28-39. Same, in 2 fms.

Neanthes succinea (Frey and
Leuckart)

Platynereis dumerilii (Audouin
and Edwards)

Eunice rubra Grube

Station A 30-39. Same, shore.

| | |
|--|--|
| <i>Halosydna leucohyba</i> (Schmarda) | <i>Pseudonereis gallapagensis</i> Kinberg |
| <i>Perinereis anderssoni</i> Kinberg | <i>Marphysa sanguinea</i> (Montagu) |
| <i>Platynereis dumerilii</i> (Audouin and Edwards) | <i>Cirriformia filigera</i> (delle Chiaje) |

Station A 32-39. 3 mi. north of Coche Island, Venezuela, in 21-33 fms.

| | |
|---|---|
| <i>Podarke obscura</i> Verrill | <i>Armandia maculata</i> Webster |
| <i>Nephtys magellanica</i> Augener | <i>Owenia fusiformis</i> delle Chiaje |
| <i>Eunice antennata</i> Savigny | <i>Hypsicomus circumspiciens</i> Ehlers |
| <i>Eunice vittata</i> (delle Chiaje) | <i>Megalomma vesiculosa</i> (Montagu) |
| <i>Lysidice ninetta</i> Audouin and Edwards | <i>Eupomatus lunulifer</i> Claparède |
| <i>Hyalinoecia juvenalis</i> Moore | |

Station A 35-39. Port of Spain, Trinidad, British West Indies, in 1-3 fms.

| | |
|--|---|
| <i>Nereis riisei</i> Grube | <i>Paramarphysa longula</i> Ehlers |
| <i>Platynereis dumerilii</i> (Audouin and Edwards) | <i>Armandia polyophthalma</i> Kükenthal |
| <i>Eunice vittata</i> (delle Chiaje) | <i>Spirobranchus tricornis</i> (Mörch) |
| <i>Eunice (Nacidion) kinbergi</i> Webster | <i>Hydroides</i> , sp. |

Station A 38-39. Tobago Island, British West Indies, in 9-18 fms.

| | |
|------------------------------------|-------------------------------------|
| <i>Leanira grubei</i> (Treadwell) | <i>Lumbrineris januarii</i> Grube |
| <i>Chloecia viridis</i> Schmarda | <i>Megalomma bioculata</i> (Ehlers) |
| <i>Diopatra tridentata</i> Hartman | |

Station A 41-39. Same, shore.

| | |
|---------------------------------------|----------------------------|
| <i>Eurythoë complanata</i> (Pallas) | <i>Nereis riisei</i> Grube |
| <i>Hermodice carunculata</i> (Pallas) | |

Station A 42-39. North of Margarita Island, Venezuela, in 18-22 fms.

| | |
|--|--|
| <i>Nephtys squamosa</i> Ehlers | <i>Hyalinoecia juvenalis</i> Moore |
| <i>Glycera americana</i> Leidy | <i>Nothria conchylega</i> (Sars) |
| <i>Glycera dibranchiata</i> (Ehlers) | <i>Onuphis eremita</i> Audouin and Edwards |
| <i>Goniada emerita</i> (Audouin and Edwards) | <i>Terebellides stroemi</i> Sars |
| <i>Eunice rubra</i> Grube | <i>Sabella melanostigma</i> Schmarda |
| <i>Diopatra tridentata</i> Hartman | |

Station A 44-39. North of Tortuga Island, Venezuela, in 21-22 fms.

Notopygos, sp. *Eunice longicirrata* Webster

Station A 44a-39. Curaçao, Dutch West Indies, shore.

Podarke obscura Verrill *Branchiomma nigromaculata*
Nereis riisei Grube (Baird)

Station A 46-39. Same, shore.

Hermodice carunculata (Pallas) *Glycera tessellata* Grube
Nereis riisei Grube *Thelepus setosus* (Quatrefages)

Station A 48-39. 5 mi. northwest of Galera Point, Colombia, in 12 fms.

Nephtys squamosa Ehlers

Station A 50-39. Caledonia Bay, Panama, shore.

Eurythoë complanata (Pallas) *Eunice guanica* (Treadwell)
Hermodice carunculata (Pallas) *Eunice schemacephala* Schmarda
Nereis riisei Grube *Marphysa sanguinea* (Montagu)
Perinereis anderssoni Kinberg *Palola siciliensis* (Grube)
Platynereis dumerilii (Audouin
and Edwards)

Station A 52-39. Same, in 5 fms.

Pareulepis fimbriata (Treadwell) *Eunice vittata* (delle Chiaje)
Chloëia viridis Schmarda *Lumbrineris latreilli* Audouin
and Edwards

Station A 53-39. Same, in 7-12 fms.

Platynereis dumerilii (Audouin and Edwards) *Diopatra cuprea* (Bosc)

Station A 56-39. Same, from skiff, on reef.

Nereis riisei Grube *Eunice mutilata* Webster

Station A 57-39. Same, shore.

Eurythoë complanata (Pallas) *Pomatostegus stellatus* (Abildgaard)
Hermodice carunculata (Pallas)

Station A -39. Atlantic Cruise, 1939 (more complete data lacking).

Hesione proctochona Schmarda *Palola siciliensis* (Grube)
Nereis riisei Grube *Branchiomma nigromaculata*
Glycera americana Leidy (Baird)



An alphabetical list of species follows; those preceded by an asterisk are now recorded from both the Atlantic and Pacific oceans.

- | | |
|-------------------------------------|---------------------------------|
| *1. Ammotrypane aulogaster | 40. Leanira grubei |
| 2. Anaitides erythrophyllum | 41. Leanira incisa |
| *3. Arabella iricolor | 42. Lepidonotus humilis |
| 4. Armandia maculata | *43. Lumbrineris inflata |
| 5. Armandia polyophthalma | 44. Lumbrineris januarii |
| 6. Branchiomma nigromaculata | *45. Lumbrineris latreilli |
| *7. Chloeia viridis | *46. Lysidice ninetta |
| 8. Cirriformia filigera | *47. Marphysa sanguinea |
| 9. Diopatra cuprea | 48. Megalomma bioculata |
| *10. Diopatra tridentata | 49. Megalomma vesiculosa |
| 11. Eulalia myriacyclum | *50. Neanthes succinea |
| *12. Eumida sanguinea | *51. Nephtys magellanica |
| *13. Eunice antennata | *52. Nephtys squamosa |
| *14. ?Eunice filamentosa | *53. Nereis riisei |
| 15. Eunice guanica | *54. Nothria conchylega |
| *16. Eunice longicirrata | 55. Notopygos, sp. |
| *17. Eunice mutilata | *56. Onuphis eremita |
| 18. Eunice rubra | *57. Owenia fusiformis |
| 19. Eunice schemacephala | *58. Palola siciliensis |
| *20. Eunice vittata | 59. Panthalis, sp. |
| 21. Eunice (Nicidadion) kinbergi | 60. Paramarphysa longula |
| 22. Eupanthalis oculata, n. sp. | *61. Pareulepis fimbriata |
| 23. Euphrosine triloba | 62. Perinereis anderssoni |
| 24. Eupomatus lunulifer | *63. Pista cristata |
| *25. Eurythoë complanata | *64. Platynereis dumerilii |
| *26. Eusigalion lewisii | 65. Podarke obscura |
| *27. Glycera americana | *66. Polyophthalmus pictus |
| *28. Glycera dibranchiata | 67. Pomatostegus stellatus |
| *29. Glycera tessellata | 68. Psammolyce arenosa |
| *30. Goniada emerita | *69. Pseudonereis gallapagensis |
| 31. Halosydna leucohyba | 70. Sabella melanostigma |
| 32. Hermione hystrix | *71. Spirobranchus tricornis |
| 33. Hermodice carunculata | *72. Sthenelais articulata |
| 34. Hesione proctochona | *73. Stylarioides plumosa |
| 35. Hesione, sp. | *74. Terebellides stroemi |
| *36. Hyalinoecia juvenalis | *75. Thelepus setosus |
| 37. Hydroides, sp. | 76. ?Thormora taeniata |
| 38. Hyspicomus circumspiciens | 77. Traviaisia, sp. |
| *39. Lanicides bilobata antillensis | |

Family **Aphroditidae**
Hermione hystrix Savigny

Fauvel, 1923, pp. 35-36, fig. 11.

H. kinbergi Augener, 1906, p. 99.

Melaenis tropicus Treadwell, 1934, pp. 1-2, pl. 1, figs. 1-6; 1939, p. 182.

H. tropicus Hartman, 1938, p. 127.

Collection.—A 13-39 (1).

The single specimen is 25 mm long by 10 mm wide and consists of 30 setigers. It is pale save for dark brown setae. There are only 13 pairs of elytra; it is probably immature.

Earlier, *Melaenis tropicus* Treadwell, from the West Indies, was referred to the genus *Hermione* (Hartman, 1938, p. 127); it is herein considered identical with the older *H. hystrix*.

Distribution.—In warm waters of both hemispheres.

Family **Polynoidae**
Halosydna leucohyba (Schmarda)

Polynoë leucohyba Schmarda, 1861, pp. 153-154, 5 figs.

Polynoë pustulata McIntosh, 1885, pp. 115-116.

Polynoë granulata Ehlers, 1887, pp. 50-51, pl. 11, figs. 2-7.

Polynoë brevisetosa Treadwell, 1902, p. 186 (not Kinberg).

Hartman, 1938, p. 110.

Collections.—A 12a-39 (1); A 20-39 (10); A 25-39 (1); A 30-39 (2).

Color variations range from iron gray to pale rust. In one specimen there are large flat pustules on elytra, ranged in an irregular row along the posterior margin of anterior pairs.

Distribution.—West Indian regions; the commonest polynoid in intertidal zones.

Lepidonotus humilis Augener

Augener, 1922, p. 40; 1933, pp. 194-195.

Collections.—A 12-39 (2); A 25-39 (1).

The collections include mature individuals of both sexes. A complete male is 11.5 mm long, 3.75 mm wide, and consists of 26 setigers; it is white in the posterior half. An adult female is 10 mm long, the posterior half dark green because of crowded ova. They are present from the ninth setiger to near the end. Elytra are strongly fringed at the outer lateral edge; their surface is marmorated and provided with many small flat-headed, or irregularly topped, papillae. Distal ends of notopodia and

neuropodia have many small papillae. Neurosetae are distally bidentate and have 3 or 4 rows of spinelets at the thickened region. Augener's original preliminary description (1922, p. 40) was later enhanced (1933, p. 194). The type specimen was said to be only 9 mm long, but no mention was made of its stage of development.

Distribution.—West Indies; intertidal.

?*Thormora taeniata* (Ehlers)

Polynoë taeniata Ehlers, 1887, pp. 51-52, pl. 10, figs. 1-8.

*Lepidonotus (Thormora) taeniatu*s Seidler, 1924, pp. 92-94.

Collection.—A 15-39 (2).

Two mature individuals, consist of 26 setigers, measure to 17 mm long by 4.5 mm wide, without parapodia; the general shape is rectilinear. The ovigerous region is dark green, present from the tenth setiger to near the posterior end. The dorsum is rust colored, save the elytra of the first pair and anterior half of the second pair, which are pale. The prostomium is distinctly lepidonotoid, the frontal processes continuous with the prostomial lobe, not sharply marked off as first shown (Ehlers, 1887, pl. 10, fig. 1). The anterior eyes, however, are near the anteroectal margins of the lobe as originally shown, and the posterior pair are far back, normally covered by the straight peristomial membrane. Prostomial antennae and palpi have the proportions first shown.

Elytra number 12 pairs, have entire margin, and are uniformly pale russet save for a small, pale spot over the elytraphoral scar. They overlap slightly in the middorsal line, but leave exposed most of the setal and neuropodial length. They are elongate oval, in anterior-posterior direction. The surface of most is smooth save for micropapillae, but the first few pairs are characterized by large, tall, yellow, blunt spines, especially in the area over the elytraphoral scar and at the posterior margin. These tall, coarse spines are most abundant on the first pair of elytra, where they are distributed over the entire surface, but well separated from one another; by the fourth pair they are not only smaller and less conspicuous, but limited to the area over the scar and at the posterior margin. Farther back the surface is comparatively smooth, but has micropapillae over all.

Notosetae consist of two kinds, as characteristic of *Thormora*; the spinous setae are coarse, distally bluntly pointed, disposed in a whorl around the smooth setae; the latter are much longer, slenderer, include longer and shorter ones, just as first shown. Neurosetae are coarse, yellow, distally entire, with 5 or 6 rows of transverse spinelets; the anteriormost have usually a large yellow tooth at the distal end of the spinous row, as shown for *T. taeniata* (Hoagland), but those in the middle and ventral

portions of the series lack this character. Parapodial lobes are short, distally truncate.

These specimens agree with the original account in all but two respects—the prostomial processes are continuous with the prostomium, not set off by a transverse line, and elytra are ornamented with some tall, yellow, blunt spines instead of pustules as shown in the original account. Ehlers' description was based on a single specimen, only 12 mm long.

Distribution.—West Indies, in a few fms.

Family **Polyodontidae**
Eupanthalis oculata, new species

Plate 1, Figs. 5-8; Plate 2, Fig. 12

Collection.—A 14-39 (1 anterior end).

An anterior end of 42 segments measures 21 mm long (without everted proboscis). The prostomium consists of 2 well-separated lobes, with median fissure; eyes number 4, the anterior pair very large, dark, occupy most of the prostomial lobes; the second posterior pair are very small, near the posterior margin (pl. 2, fig. 12). Frontal paired antennae are clavate; the unpaired one is inserted at the posterior margin of the prostomium and extends forward to beyond the prostomial lobe; it has a slender terminal filament. Palpi are long, slender, about 3 times as long as the prostomium.

Elytra are thin, translucent, oval, with entire margin, colorless save for a narrow brown crescent at the inner edge. The attachment is far lateral, at the outer third or fourth. The first segment has dorsal and ventral cirri resembling the paired prostomial antennae but slightly longer; it lacks setae and probably acicula. The second segment resembles those farther back, has well-developed neuropodial lobe, ventral cirri, and first elytra. The notopodium is suppressed, as typical of the genus, and its ventral cirri are about twice as large as those following. The third segment has dorsal and ventral cirri, resembles those farther back.

Jaw pieces are yellow, the 4 main fangs falcate, the upper piece has 6 teeth right, 5 left, the lower has 5 teeth right, 7 left. In addition to the long, median processes on dorsal and ventral sides, there are 6 elongate, soft papillae, both above and below, on each side.

Setae of the second segment (first setiger) are slender, slightly geniculate, terminate distally in a long, fine point. From the next there is a posterior series of some coarser setae which are increasingly more conspicuous farther back; they are aristate. A typical parapodium is provided with a heavy, yellow aciculum, a dorsal fascicle of slender, spinous setae in which the spines are widely separated (pl. 1, fig. 8), about as many

thicker, spinous aristate setae (pl. 1, fig. 6), 4 to 6 heavy, yellow aristate setae (pl. 1, fig. 5) from which the terminal portion has dropped off in nearly all instances, in the middle portion of the fascicle, and geniculate spinous setae (pl. 1, fig. 7) in the inferior part of the fascicle. Bushy-topped or brushlike setae are altogether lacking.

Spinning glands are first present from the ninth setiger, continued to the end of the piece.

E. oculata differs from known species of *Eupanthalis* most notably in the possession of its enormous anterior eyes and the character of its superior neuropodial setae.

Holotype.—AHF no. 72.

Type locality.—South of Cape la Vela, Colombia, in 21-22 fms (A 14-39).

Distribution.—Colombia, Atlantic side.

Panthalis, sp.

Collection.—A 4-39 (an anterior fragment).

A single anterior end of 37 segments, measures 24 mm long. The dorsal surface is marked with reddish brown in the form of broad, transverse bars across the segments; a large part of the elytral surface is covered with a similar pigment. Palpi, peristomial cirri, and the first 2 pairs of elytra are marked with many fine dark specks, ranged in transverse lines on the palpi. Ommatophores are elongate oval, set off from the prostomium by constricted bases, with conspicuous, lenticulated eyes in their distal half. The smaller, sessile eyes are at the anterior third of the prostomium, in front of the insertion of the median antenna. The latter has its origin at the midlength of the prostomium; its style extends distally to the ends of ommatophores. The paired antennae are inserted ventrally, posterior to the base of the ommatophores.

The first elytra are small, oval, the second a little larger; both are pale, with small dark specks. Farther back they increase in size but continue circular to oval, with entire smooth margin and have large, rust-colored blotches instead of fine black specks. The elytriphore is far to the side, near the lateral edge.

The first segment is reduced to a pair of long, forward-projecting, parapodial lobes with thick, tapering, subequal dorsal and ventral cirri, each speckled with dark pigment and provided with small dorsal and ventral tufts of a few fine, pointed setae. The second parapodia have the first pair of elytra, a ventral cirrus resembling that of the first, and slender, pointed setae in both notopodia and neuropodia, but spinous, geniculate setae in the inferior part of the neuropodial fascicle. From the third, setae

resemble those farther back. A typical parapodium has a slender fascicle of penicillate setae above, about 6 heavy, aristate setae, and a full fascicle of spinous, geniculate setae below. Notosetae are fine, few in number, inconspicuous throughout. Notopodia are sheaflike, at the anterior base of neuropodia; the latter are deep, truncate.

Digitiform branchiae are first present from the ninth setiger, gradually increase in length but continue as simple processes to the end of the piece.

Family Sigalionidae
***Eusigalion lewisii* (Berkeley)**

Sigalion lewisii Berkeley, 1939, pp. 326-328, fig. 23.

E. hancocki Hartman, 1939, pp. 59-60, pl. 12, figs. 141-145, 148-152.

Collection.—A 24-39 (1).

A single specimen agrees fully with others from the eastern tropical Pacific.

Distribution.—Eastern Pacific, in warm waters; Venezuela.

***Leanira grubei* (Treadwell)**

Sthenelais grubei Treadwell, 1902, p. 187, figs. 10-13.

Eupholoë grubei Treadwell, 1939, p. 197.

Hartman, 1942, pp. 106-107.

Collections.—A 7-39 (1); A 38-39 (2).

Composite setae are tapering, pointed, lack canaliculae. The type specimen has been re-examined and referred to *Leanira* (Hartman, 1942, p. 106).

Distribution.—Puerto Rico; Tobago Island, British West Indies; Caledonia Bay, Panama.

***Leanira incisa* (Grube)**

Pl. 1, Figs. 1-4; Pl. 2, Figs. 9-11

Sthenelais incisa Grube, 1878, pp. 518-520.

Sthenelais simplex Ehlers, 1887, pp. 60-63, pl. 13, figs. 2, 3, pl. 14, figs. 1-6; Treadwell, 1902, p. 187.

L. simplex Augener, 1906, pp. 106-107, pl. 1, figs. 16, 17.

Augener, 1918, pp. 107-108; Monro, 1930, p. 70.

Collection.—A 4-39 (1).

In this single specimen the prostomium has 4 circular eyespots, on the anterior half, near the base of the median ceratophore (pl. 2, fig. 10), thus differing from the original accounts. The median antenna has a pair of lateral ctenidia, as first shown by Ehlers (1887, pl. 13, fig. 2). The first

3 pairs of elytra are oval; thereafter they are sharply incised at both inner and outer lateral margins (pl. 2, fig. 9); in posterior segments, however, the inner lateral margin is rounded (pl. 2, fig. 11). Parapodia are strongly fringed, especially in anterior segments (pl. 1, fig. 2). A single long papilla on the notoacicular lobe projects beyond the others. The acicular lobe is conical (pl. 1, fig. 1). Neurosetae are of two kinds, including a small anterior-superior fascicle of spinose setae (pl. 1, fig. 4) and whorls of composite setae with canaliculate appendage and pointed tip (pl. 1, fig. 3).

Distribution.—Originally described from Congo, Africa, it has been reported from West Indian seas; this record extends the range to Caledonia Bay, Panama.

Psammolyce arenosa (delle Chiaje)

Fauvel, 1923, pp. 106-107, fig. 40.

P. floccifera Augener, 1906, pp. 109-113, pl. 2, figs. 24-30.

Augener, 1933, p. 194.

Collection.—A 4-39 (2).

Distribution.—Mediterranean and western Europe; West Indian seas.

Sthenelais articulata Kinberg

Kinberg, 1855, p. 387; 1910, p. 28, pl. 8, fig. 38.

Collection.—A 22-39 (1).

An accessory ventral cirrus is present through 5 segments. Multiarticulate hooks occur only in the superiormost series of neurosetae. The ventralmost hooks are bounded below by a row of fringe. In the closely related *S. tertiaglabra* Moore (1910, p. 395), to which *S. hancocki* Hartman (1939, p. 65) belongs, an accessory ventral cirrus is present only on 2 segments; multiarticulate hooks occur in number through the neuropodium, and there is no fringe on the ventral side of neurosetae. These and other differences will be discussed more fully later.

Distribution.—Brazil, tropical West Indian region; central eastern Pacific, north to southern California.

Family Pareulepidae

Pareulepis fimbriata (Treadwell)

Eulepis fimbriata Treadwell, 1902, pp. 190-191, figs. 23, 24.

Hartman, 1939, pp. 79-80, pl. 23, figs. 280-288.

Collection.—A 52-39 (1).

Distribution.—West Indies; central eastern Pacific, from southern California, south to Ecuador.

Family **Amphinomidae**
Eurythoë complanata (Pallas)

Hartman, 1940, pp. 202-203, pl. 31, figs. 1-4.

Collections.—A 4-39 (3); A 12a-39 (1); A 16-39 (1); A 41-39 (3); A 50-39 (5); A 57-39 (6).

Distribution.—Cosmopolitan, in tropical seas; intertidal.

Hermodice carunculata (Pallas)

Ehlers, 1887, pp. 27-29.

Collections.—A 2-39 (3); A 8-39 (3); A 41-39 (6); A 46-39 (3); A 50-39 (1); A 57-39 (5).

Distribution.—West Indian regions, commonly intertidal.

Chloeia viridis Schmarda

C. euglochis Ehlers, 1887, pp. 18-24, pl. 1, figs. 1, 2, pl. 2, figs. 1-8, pl. 3, figs. 1-4.

Hartman, 1940, p. 205.

Collection.—A 4-39 (1); A 38-39 (1); A 52-39 (1).

Distribution.—Tropical waters on both sides of the Western Hemisphere, intertidal, rarely to 150 fms.

Notopygos, sp.

Collection.—A 44-39 (4 juveniles).

In the largest specimen the anus opens on the sixteenth setiger. These may be immature individuals of *N. crinita* Ehlers (1887, pp. 24-26).

Family **Euphrosinidae**
Euphrosine triloba Ehlers

Ehlers, 1887, pp. 31-33, pl. 4, figs. 1-7.

Collections.—A 14-39 (1); A 18-39 (1).

Distribution.—West Indian seas.

Family **Phyllodocidae**
Anaitides erythrophyllum (Schmarda)

Lepadorhynchus erythrophyllum Schmarda, 1861, p. 88, pl. 29, fig. 232.

Phyllodoce oculata Ehlers, 1887, pp. 135-140, pl. 40, figs. 4-6.

Phyllodoce tortugae Treadwell, 1917, p. 262, pl. 2, figs. 4-6.

Augener, 1927, p. 47.

Collection.—A 15-39 (2).

Distribution.—West Indies seas, on coral reefs to depths of 220 fms.

Eulalia myriacyclum (Schmarda)

Notophyllum myriacyclum Schmarda, 1861, p. 87, pl. 29, fig. 233.

E. quinquelineata Treadwell, 1902, p. 192, figs. 27-29.

Augener, 1925, pp. 24-25.

Collection.—A 25-39 (1).

Distribution.—West Indian seas, among coral reefs.

Eumida sanguinea (Oersted)

Fauvel, 1923, pp. 166-167, fig. 59.

Collection.—A 24-39 (2).

Distribution.—Cosmopolitan; intertidal and shallow waters.

Family **Hesionidae****Hesione proctochona** Schmarda

H. vittigera Ehlers, 1887, pp. 143-147, pl. 41, figs. 1-4.

Augener, 1927, p. 49.

Collection.—A -39 (1).

Distribution.—West Indies seas, south to Brazil; intertidal.

Hesione, sp.

Collections.—A 15-39 (1); A 18-39 (1).

The dorsum is faded but shows traces of longitudinal reticulations as in *H. intertexta* Grube. The latter is typically from the Pacific side of Panama but has been reported from the Caribbean Sea (Hartman, 1939, p. 10).

Podarke obscura Verrill

Verrill, 1873, pp. 589-590, pl. 12, fig. 61.

Augener, 1927, p. 50.

Collections.—? A 12a-39 (one fragment); A 15-39 (1); A 32-39 (1); A 44a-39 (4).

These specimens have been compared with some from Beaufort, North Carolina, with which they agree in all details. The composite setae have a long, slender appendage, with distinct bidentate tip, the main fang strongly recurved, the accessory tooth delicate, but long. The neuropodium terminates distally in an elongate, papillar lobe.

Distribution.—Eastern America, from New England south to the West Indian region.

Family **Nereidae****Neanthes succinea** (Frey and Leuckart)

Fauvel, 1923, pp. 346-347, fig. 135 (part).

Nereis succinea Monro, 1933, pt. 1, p. 42.

Collection.—A 28-39 (2).

Distribution.—East and west coasts of the United States; West Indies; both sides of Panama; intertidal.

Nereis riisei Grube

N. nigripes Ehlers, 1868, pp. 508-510.

N. bicruciata Augener, 1906, pp. 151-153, pl. 5, figs. 102-104.

N. glandulata Hoagland, 1919, p. 575, pl. 30, figs. 1-6.

Collections.—A 2-39 (2); A 13-39 (2); A 14-39 (11); A 15-39 (5); A 35-39 (1); A 41-39 (1); A 44a-39 (1); A 46-39 (2); A 50-39 (1); A 56-39 (1); A -39 (2).

Distribution.—Subtropical and tropical seas on both sides of the Americas.

Perinereis anderssoni Kinberg

Kinberg, 1866, p. 175.

Nereis bairdii Webster, 1884, pp. 312-313, pl. 8, figs. 22-28.

Nereis (Perinereis) melanocephala McIntosh, 1885, pp. 216-219, pl. 34, figs. 14-17, pl. 16a, figs. 8, 9.

Collections.—A 16-39 (2); A 25-39 (3); A 30-39 (5); A 50-39 (2).

The type specimen of *P. anderssoni* in the Swedish State Museum has been examined and found to agree in all essentials with *N. bairdii* Webster (report in manuscript). Kinberg's name has priority.

Distribution.—Brazil; West Indian region.

Platynereis dumerilii (Audouin and Edwards)

Fauvel, 1923, pp. 359-360, fig. 141.

Nereis antillensis McIntosh, 1885, pp. 224-225, pl. 35, figs. 7-9, pl. 36a, figs. 14-16.

Collections.—A 7-39 (4); A 18-39 (many); A 25-39 (many); A 28-39 (5); A 30-39 (2); A 35-39 (4); A 50-39 (1); A 53-39 (about 10).

Distribution.—Eastern America, from Massachusetts south to Brazil; central eastern Pacific; western and southern Europe.

Pseudonereis gallapagensis Kinberg

Kinberg, 1866, p. 174; 1910, p. 52, pl. 20, fig. 3.

Hartman, 1940, p. 231.

Collections.—A 8-39 (1); A 16-39 (5); A 20-39 (2); A 30-39 (1).

Distribution.—Eastern Pacific including the Galapagos Islands, Chile, Ecuador, and Peru; Atlantic side of Panama.

Family **Nephtyidae**

Nephtys magellanica Augener

Augener, 1912, pp. 208-211, figs. 27, 28.

Hartman, 1940, p. 238, pl. 41, figs. 100-103.

Collections.—A 13-39 (13); A 32-39 (1).

Distribution.—Chile; Strait of Magellan; Peru; Mexico; southern California; Colombia and Venezuela.

Nephtys squamosa Ehlers

Ehlers, 1887, pp. 128-131, pl. 37, figs. 7-10.

Hartman, 1940, pp. 237-238, pl. 41, figs. 98-99.

Collections.—A 18-39 (5); A 42-39 (2); A 48-39 (1).

Distribution.—Florida; West Indies; Pacific Panama; Gulf of California.

Family **Glyceridae**

Glycera americana Leidy

Ehlers, 1868, pp. 668-670, pl. 23, figs. 43-46.

Hartman, 1940, p. 246.

Collections.—A 13-39 (1); A 14-39 (1); A 15-39 (1); A 17-39 (1); A 42-39 (1); A -39 (1).

Distribution.—Both sides of the Americas, in cold to tropical waters.

Glycera dibranchiata Ehlers

Ehlers, 1868, pp. 670-672, pl. 24, figs. 3-8, 10-28.

Hartman, 1940, p. 246.

Collections.—A 13-39 (1); A 42-39 (1).

Distribution.—New England coast, south to the West Indies; southern California.

Glycera tessellata Grube

Fauvel, 1923, p. 387, fig. 152.

Hartman, 1940, p. 247.

Collections.—A 2-39 (1); A 15-39 (2); A 46-39 (1).

Distribution.—Subtropical and tropical Pacific; West Indian regions.

Family **Goniadidae****Goniada emerita** (Audouin and Edwards)

Fauvel, 1923, pp. 391-392, fig. 154.

Collections.—A 14-39 (1); A 15-39 (1); A 42-39 (1).

Distribution.—West Indian region, north to New England; Europe.

The superfamily Eunicacea, including the Eunicidae, Onuphidae, Lumbrineridae, and Arabellidae, is more fully discussed in another report in this series. References are made to it.

Family **Eunicidae****Eunice antennata** Savigny

Hartman, 1944, p. 115.

Collections.—A 20-39 (posterior fragment); A 32-39 (2).

Distribution.—Cosmopolitan, in tropical and subtropical seas; West Indies.

Eunice filamentosa Grube

Hartman, 1944, p. 107.

Collection.—? A 25-39 (1).

Distribution.—West Indian seas.

Eunice guanica (Treadwell)

Hartman, 1944, p. 111.

Collection.—A 50-39 (1).

Distribution.—West Indian seas.

Eunice longicirrata Webster

Hartman, 1944, p. 104.

Collections.—A 4-39 (2); A 13-39 (2); A 44-39 (1).

Distribution.—Both sides of the Americas; tropical and subtropical.

Eunice mutilata Webster

Hartman, 1944, p. 113.

Collection.—A 56-39 (1).

Distribution.—West Indian seas.

Eunice rubra Grube

Hartman, 1944, p. 117.

Collections.—A 4-39 (1); A 12a-39 (15); A 13-39 (4); A 14-39 (21); A 15-39 (about 70); A 18-39 (about 22); A 25-39 (7); A 28-39 (2); A 42-39 (2).

Distribution.—West Indian seas.

Eunice schemacephala Schmarda

Hartman, 1944, p. 121.

Collection.—A 50-39 (2).

Distribution.—West Indian seas.

Eunice vittata (delle Chiaje)

Fauvel, 1923, pp. 404-405, fig. 158.

Hartman, 1944, p. 118.

Collections.—A 7-39 (1); A 15-39 (1); A 32-39 (3); A 35-39 (1); A 52-39 (1).

Distribution.—Atlantic and Pacific sides of the Americas.

Eunice (Nicidad) kinbergi Webster

Hartman, 1944, p. 124.

Collections.—A 15-39 (3); A 20-39 (2); A 35-39 (1).

Distribution.—West Indian seas.

Lysidice ninetta Audouin and Edwards

Fauvel, 1923, p. 411, fig. 162.

Hartman, 1944, p. 125.

Collections.—A 15-39 (6); A 20-39 (1); A 32-39 (1).

Distribution.—Circumtropical, in warm seas.

Marphysa sanguinea (Montagu)

Fauvel, 1923, pp. 408-409, fig. 161.

Hartman, 1944, p. 127.

Collections.—A 25-39 (2); A 30-39 (7); A 50-39 (1).

Distribution.—Cosmopolitan, in warm seas.

Palola siciliensis (Grube)

Eunice siciliensis Fauvel, 1923, pp. 405-406, fig. 159.

Hartman, 1944, p. 131.

Collections.—A 50-39 (1); A -39 (5).

Distribution.—In warm waters of both hemispheres.

Paramarphysa longula Ehlers

Hartman, 1944, p. 130.

Collections.—A 12-39 (1); A 13-39 (1); A 20-39 (3); A 35-39 (2).

Distribution.—West Indian seas.

Family **Onuphidae**
Diopatra cuprea (Bosc)

Hartman, 1944, p. 54.

Collections.—A 7-39 (1); A 53-39 (5).

Distribution.—Eastern America; West Indian seas.

Diopatra tridentata Hartman

Hartman, 1944, p. 61.

Collections.—A 14-39 (6, with tubes); A 15-39 (about 8); A 38-39 (1); A 42-39 (2, with tubes).

Distribution.—Both sides of Panama and Central America.

Hyalinoecia juvenalis Moore

Hartman, 1944, p. 46.

Collections.—A 13-39 (about 15); A 14-39 (about 40); A 15-39 (4); A 18-39 (2); A 32-39 (1); A 42-39 (about 30).

Distribution.—Southern California; both sides of Mexico and Panama; West Indian seas.

Nothria conchylega (Sars)

Onuphis conchylega Fauvel, 1923, pp. 415-416, fig. 164.

Hartman, 1944, p. 85.

Collections.—A 12a-39 (1); A 42-39 (1).

Distribution.—West Indian and eastern Pacific regions; western and southern Europe.

Onuphis eremita Audouin and Edwards

Fauvel, 1923, pp. 414-415, fig. 163.

Hartman, 1944, p. 75.

Collections.—A 13-39 (2); A 42-39 (5).

Distribution.—West Indian seas; both sides of Panama.

Family **Lumbrineridae**
Lumbrineris inflata Moore

Hartman, 1944, p. 160.

Collection.—A 12a-39 (1).

Distribution.—Eastern Pacific; West Indian seas.

Lumbrineris januarii Grube

Hartman, 1944, p. 167.

Collection.—A 38-39 (1).

Distribution.—Brazil; Tobago, British West Indies.

Lumbrineris latreilli Audouin and Edwards

Fauvel, 1923, pp. 431-432, fig. 171.

Hartman, 1944, p. 158.

Collections.—A 4-39 (1); A 13-39 (3); A 14-39 (1); ? A 15-39 (2 anterior ends); A 52-39 (1).

Distribution.—Cosmopolitan; on both sides of the Americas.

Family **Arabellidae** (Hartman, 1942 MS)

Arabella iricolor (Montagu)

Fauvel, 1923, pp. 438-439, fig. 175.

Hartman, 1944, p. 173.

Collections.—A 14-39 (1); A 15-39 (1); A 20-39 (3).

Distribution.—Cosmopolitan; in all seas.

Family **Cirratulidae**

Cirriformia filigera (delle Chiaje)

Audouinia filigera Fauvel, 1927, pp. 91-92, fig. 32.

Collections.—A 20-39 (1); A 30-39 (1).

Distribution.—West Indian region; western and southern Europe.

Family **Flabelligeridae**

Stylarioides plumosa (O. F. Müller)

Fauvel, 1927, pp. 116-117, fig. 41.

Collections.—A 12a-39 (1); A 15-39 (1); A 20-39 (1).

Distribution.—West Indies; eastern Pacific; Europe.

Family **Opheliidae**

Armandia maculata (Webster)

Ophelina maculata Webster, 1884, p. 322, pl. 11, figs. 54, 55.

Augener, 1927, p. 67; Monro, 1933, p. 265.

Collections.—A 13-39 (1); A 24-39 (1); A 32-39 (about 20).

Distribution.—Bermuda; West Indian seas.

Armandia polyophthalma (Kükenthal)

Fauvel, 1927, pp. 135-136, fig. 48.

Berkeley, 1936, p. 86.

Collections.—A 15-39 (8); A 22-39 (3); A 35-39 (17).

Distribution.—Bermuda; West Indian seas; Europe.

Ammotrypane aulogaster (Rathke)

Fauvel, 1927, p. 133, fig. 47.

A. fimbriata Verrill, Treadwell, 1902, p. 207.

Monro, 1933, pt. 2, p. 1059.

Collection.—A 7-39 (1).

Distribution.—Both coasts of the Americas; Europe.

Polyophthalmus pictus (Dujardin)

Fauvel, 1927, pp. 137-138, fig. 48; Augener, 1934, p. 69.

P. floridanus Augener, 1922, p. 46.

Collections.—A 15-39 (4); A 20-39 (1).

Distribution.—Cosmopolitan; intertidal.

Travisia, sp.

Collection.—A 24-39 (1).

A single, immature specimen, in which parapodial lobes are enlarged in the posterior region, somewhat resembles *T. gigas* Hartman (1938, p. 103) from southern California.

Family **Oweniidae****Owenia fusiformis** delle Chiaje

Fauvel, 1927, pp. 203-204, fig. 71.

A. aedificator Andrews, 1891, pp. 296-297, pl. 14, figs. 42-45.

Augener, 1934, p. 149.

Collections.—A 14-39 (tube); A 32-39 (2, anterior fragments).

Distribution.—Cosmopolitan; on both coasts of the Americas.

Family **Terebellidae****Lanicides bilobata antillensis** Augener

Augener, 1922, p. 47; 1937, p. 72; Monro, 1933, pp. 265-266, fig. 12.

?*Nicolea taboguillae* Chamberlin, 1919, pp. 425-427, pl. 79, figs. 12, 13.

Collection.—A 14-39 (4).

These specimens agree well with Augener's original account and with Monro's (1933) redescription. They may be conspecific with *L. taboguila* (Chamberlin) as suggested by Monro.

Distribution.—West Indian region; questionably Pacific side of Panama and Galapagos.

***Pista cristata* (O. F. Müller)**

Fauvel, 1927, p. 266, fig. 93.

Collection.—A 14-39 (4).

Distribution.—Both sides of the Americas; Europe; cosmopolitan.

***Thelepus setosus* (Quatrefages)**

Fauvel, 1927, p. 273, fig. 95; Monro, 1933, p. 266; Augener, 1934, p. 105.

Collections.—A 4-39 (1); A 46-39 (1).

Distribution.—Both sides of the Americas; Europe.

***Terebellides stroemi* Sars**

Fauvel, 1927, pp. 291-292, fig. 100; Augener, 1927, p. 73; Monro, 1933, p. 266; Augener, 1934, pp. 106-107.

Collections.—A 2-39 (1); A 4-39 (2); A 42-39 (1).

Distribution.—Both sides of the Americas; Europe; cosmopolitan.

Family **Sabellidae**

***Hypsicomus circumspiciens* Ehlers**

Ehlers, 1887, pp. 271-277, pl. 55, figs. 5-13, pl. 56, figs. 1-3.

Sabella alba Treadwell, 1917, pp. 266-267, pl. 3, figs. 10-15.

Parasabella sulfurea Treadwell, 1917, *ibid.*, p. 267, pl. 3, figs. 16-23.

H. purpureus Treadwell, 1924, pp. 20-21, figs. 30-33.

Johansson, 1927, pp. 139-141.

Collection.—A 32-39 (1).

Distribution.—West Indian seas.

***Branchiomma nigromaculata* (Baird)**

Dasychone nigromaculata McIntosh, 1885, pp. 503-504, pl. 53, fig. 5; pl. 31a, figs. 4-6; pl. 39a, fig. 6.

Dasychone conspersa Ehlers, 1887, pp. 266-270, pl. 54, figs. 1-6.

Dasychonopsis arenosa Treadwell, 1924, pp. 1-3, figs. 1-4.

Johansson, 1927, pp. 162-163.

Collections.—A 7-39 (2); A 16-39 (1); A 44a-39 (2); A-39 (2).

Distribution.—West Indies; Bermuda; intertidal to a few fms.

Megalomma bioculata (Ehlers)

Branchiomma bioculatum Ehlers, 1887, pp. 260-263, pl. 53, figs. 1-9.
Hartman, 1938, p. 18.

Collection.—A 38-39 (1).

Distribution.—Off Florida, in 100 fms; Tobago Island, British West Indies.

Megalomma vesiculosa (Montagu)

Branchiomma vesiculosum Fauvel, 1927, p. 315, fig. 109.

Collections.—A 14-39 (1); A 15-39 (2); A 32-39 (1).

Distribution.—West Indies; western and southern Europe.

Sabella melanostigma Schmarda

Ehlers, 187, pp. 263-266; Johansson, 1927, pp. 121-124, fig. 15.

Collection.—A 14-39 (1, juvenile); A 42-39 (2, fragments).

Distribution.—West Indies; Bermuda.

Family **Serpulidae****Pomatostegus stellatus** (Abildgaard)

Ehlers, 1887, pp. 296-300; Monro, 1933, p. 268; Augener, 1934, p. 118.

Collection.—A 57-39 (1).

Distribution.—West Indian region; Pacific side of Panama and Central America.

Spirobranchus tricornis (Mörch)

Ehlers, 1887, pp. 292-294, pl. 57, figs. 8-15.

Chamberlin, 1919, p. 481.

Collection.—A 35-39 (1).

Distribution.—West Indian seas; Pacific side of Panama.

Eupomatus lunulifer Claparède

Fauvel, 1927, pp. 358-359, fig. 122.

Eucarphus serratus Bush, 1910, pp. 495-496.

Hydroides lunulifera Monro, 1933, pt. 2, p. 1072.

Collections.—A 12a-39 (1); A 32-39 (tube masses).

Distribution.—West Indian seas; Bermuda; Mediterranean Sea.

Hydroides, sp.

Plate 2, Figs. 13-15

Collections.—A 12a-39 (4); A 35-39 (1).

Small, total length 15 to 20 mm; inhabits white calcareous tubes, more or less covered over with encrusting Bryozoa, but in places where clear



the surface is smooth, rounded save for low, faint concentric ridges. The operculum is unique; the lower disk consists of a more or less flattened, circular plaque with 24 to 30 sharply pointed papillae at its periphery (pl. 2, fig. 14). The upper cup has 10 major processes, all resembling one another; each has a major inwardly directed fang, 2 small spines, one at either side, and a blunt, outwardly projecting boss (pl. 2, fig. 15); at the base of each major process, on the inner side of the cup, there is a small, sharply pointed, recurved tooth (pl. 2, fig. 13).

These specimens differ from *H. bispinosa* Bush (1910, p. 496), described from Bermuda, mainly in that the opercular disk in *H. bispinosa* terminates in about 16 broadly rounded, short crenulations instead of pointed papillae, and the distal cup in 8, instead of 10, major falcate spines.

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PLATE 1

- Figures 1-4, *Leanira incisa*: Fig. 1, fifth parapodium in posterior view, showing outline of acicular lobes, setae omitted; Fig. 2, same parapodium in anterior view, setae indicated; Fig. 3, canaliculate composite seta from fifth parapodium; Fig. 4, superior, spinous, simple neuroseta from same fascicle, to same magnification.
- Figures 5-8, *Eupanthalis oculata*: Fig. 5, median aristate neuroseta with distal process missing; Fig. 6, superior aristate neuroseta; Fig. 7, inferior neuroseta; Fig. 8, superior spinous neuroseta (figs. 5-8 to same magnification).

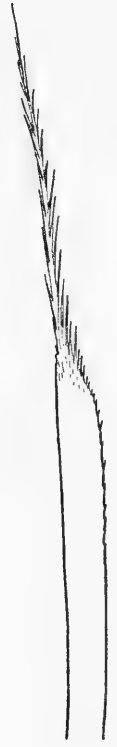
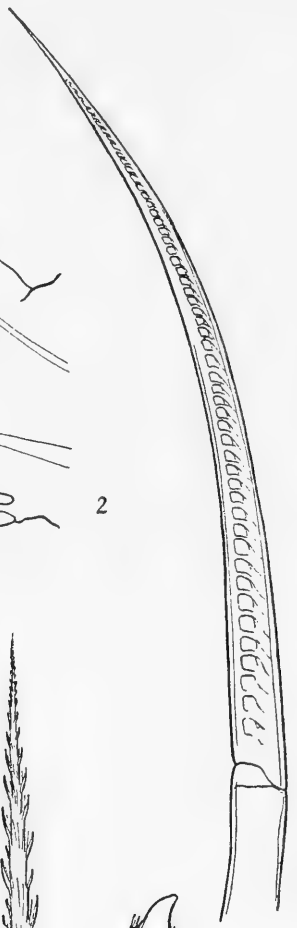
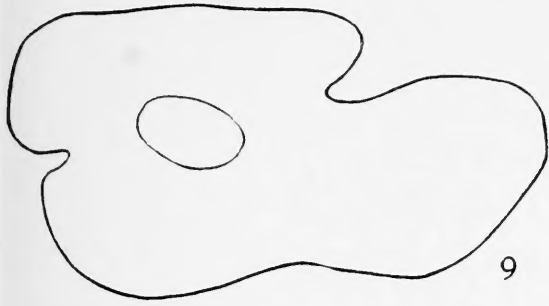
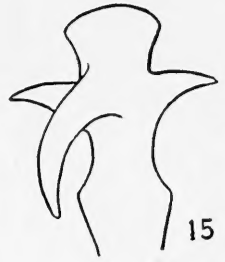


PLATE 2

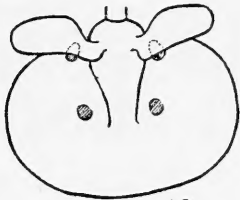
- Figures 9-11, *Leanira incisa*: Fig. 9, fifth elytrum from left side in ventral view, the right end is median; Fig. 10, prostomium in dorsal view, showing arrangement of 4 eyes and antennal ctenidia; Fig. 11, posterior elytrum, the right side is outer lateral.
- Figure 12, *Eupanthalis oculata*: prostomial lobe in dorsal view, the median antenna turned somewhat to the right to show the prostomial sulcus.
- Figures 13-15, *Hydroides*, sp.: Fig. 13, a process from the distal opercular cup, in lateral view; Fig. 14, outline of lower opercular disk; Fig. 15, same process as that shown in fig. 13, in frontal view (figs. 13-15 to same magnification).



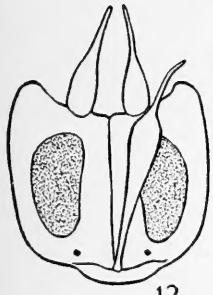
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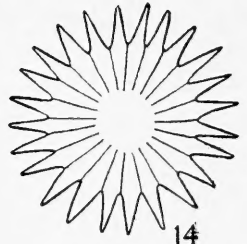
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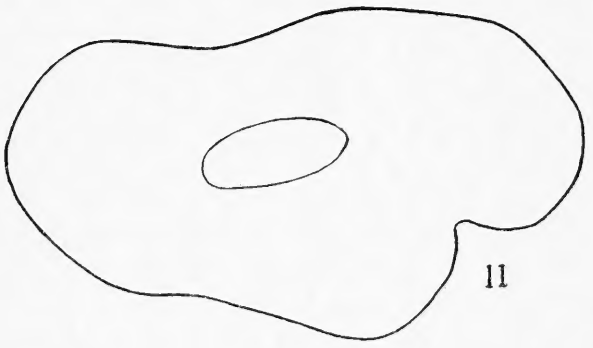
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