

of *Agamermis decaudata* are of two types; namely, a protein with reactions of a conjugated fatty-acid-protein, and a neutral fat. It is also indicated that Scharlach R and Nile blue sulphate are not specific tests for uncombined fat or fatty acid but may indicate the presence of a fatty-acid-protein complex. Substances which are stained by Scharlach R or Nile blue sulphate must be shown to be extractable in fat solvents, to be non-digestible in artificial gastric juice, and to give negative xanthoproteic and ninhydrin reactions, before it can be concluded that they are free fatty acids or neutral fats.

Preliminary observations indicate the presence of protein (?-fatty-acid-protein) globules in *Rhabditis strongyloides* Schneider (Rhabditidae), and *Ditylenchus dipsaci* (Kühn) Filipjev (Tylenchidae).

The writers are indebted to Mr. Jacob M. Schaffer, Mr. Robert R. Henley and Mr. Howard R. McMillin of the U. S. Bureau of Animal Industry for valuable suggestions.

ZOOLOGY.—*Nomenclatorial changes involving types of polychaetous annelids of the family Nereidae in the United States National Museum.*¹ OLGA HARTMAN. (Communicated by MARY J. RATHBUN.)

An examination of the types of polychaetous annelids deposited in the U. S. National Museum indicates a necessity for several changes of names in the family Nereidae. The following alphabetical list gives the original name, reference, type locality, museum catalog number, and revised name. Synonyms are enclosed in brackets.

[*Ceratonereis alaskensis* Treadwell] (Proc. U. S. Nat. Mus. **60**: 1-3, figs. 1-5, 1921) from Alaska, U.S.N.M. no. 19029, is *C. paucidentata* (Moore).

Ceratonereis bartletti Treadwell (Jour. Wash. Acad. Sci. **27**: 30-31, figs. 8-13, 1937) from western Greenland, U.S.N.M. no. 20224, is close to, if not identical with, *C. hircinicola* (Eisig). Area I of the proboscis lacks teeth, area III has a circular patch of 7 teeth; the jaw has 5 oblique teeth.

Ceratonereis gracilis n. comb., for *Nereis gracilis* Webster.

Ceratonereis irritabilis, n. comb., for *Nereis irritabilis* Webster.

Ceratonereis paucidentata, n. comb., for *Nereis paucidentata* Moore, includes *Ceratonereis alaskensis* Treadwell.

Ceratonereis pusilla, n. comb., for *Nereis pusilla* Moore.

[*Heteronereis caeruleis* Hoagland] (Bull. U. S. Nat. Mus. **100**: 608, pl. 47, figs. 13-16, pl. 48, figs. 1-4, 1920) from the Philippine Islands, U.S.N.M. no. 18948, is a *Perinereis*. It is close to *P. camiguina* Grube, but differs in that the areas V and VI of the proboscis have numerous small flat plaques in addition to the single series of transverse plates characteristic of the genus *Perinereis*, also, areas I and II lack paragnaths. *P.*

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neo-caledonia Pruvot (Arch. zool. exp. Paris, 70: 50-54, pl. 3, figs. 77-79) from New Caledonia, seems to be identical with *P. caeruleis*. This has already been suggested by Pruvot.

- [*Leptonereis acuta* Treadwell] (Rev. Mus. Paulista São Paulo 13: 3-5, figs. 1-7, 1923) from Brazil, U.S.N.M. no. 19030, is identical with *Leptonereis culveri* (Webster).
- Leptonereis culveri*, n. comb., for *Nereis culveri* Webster, includes *Leptonereis acuta* Treadwell.
- [*Neanthes palpata* Treadwell] (Rev. Mus. Paulista São Paulo 13: 5-9, figs. 6-15, 1923) from Brazil, paratype U.S.N.M. no. 19031, is a *Pseudonereis*. Transverse teeth are present on area VI, pointed cones are present on areas V, VII and VIII and rows of pectinae are on the maxillary ring.
- [*Nereis brevicirrata* Treadwell] (Proc. U. S. Nat. Mus. 58: 467-468, figs. 1-4, 1920) from Brazil, U.S.N.M. no. 18934, is a *Perinereis*. Area V of the proboscis has 2 conical teeth, side by side, area VI has 2 transverse teeth in similar arrangement but nearer the maxillary ring, areas VII and VIII have about 12 larger flattened cones on the oral side and an irregular row of smaller cones on the maxillary side; area I has 2 teeth in tandem.
- [*Nereis culveri* Webster] (Ann. Rep. New York Mus. 32: 111-113, pl. 3, figs. 23-30; pl. 4, figs. 31, 32, 1879) from New Jersey, U.S.N.M. no. 541, is a *Leptonereis*. Paragnaths are absent from both rings. Jaws are delicate, amber, with 9-12 closely set teeth; parapodia have greatly shortened dorsal and ventral cirri. The types of *N. culveri* and *Leptonereis acuta* agree favorably.
- [*Nereis decora* Treadwell] (Rev. Mus. Paulista São Paulo 17: 15-17, figs. 6-11, 1932) from Brazil, U.S.N.M. no. 19639, is identical with *Nereis riisei* Grube.
- [*Nereis disparsitosa* Treadwell] (Rev. Mus. Paulista São Paulo 17: 15-17, figs. 6-11, 1932) from Brazil, U.S.N.M. no. 19638, is a *Pseudonereis*, identical with *Ps. palpata*. Area VI of the proboscis has a transverse chitinous plate, area V a pointed cone, areas VII-VIII have 21 cones in a single continuous row. Posterior dorsal lobes are elongate, flattened, foliaceous, convex along the dorsal edge, the dorsal cirrus is inserted terminally. Jaws are dark brown, each with 6 indistinct crenulate teeth. Dorsal, middle and ventral parapodial lobes are pigmented.
- [*Nereis eucapitis* Hartman] (Proc. U. S. Nat. Mus. 83: 468-469, fig. 46, 1936) from California, U.S.N.M. no. 20198, is identical with *Nereis heterocirrata* Treadwell.
- [*Nereis gracilis* Webster] (Bull. U. S. Nat. Mus. 25: 313-314, pl. 9, figs. 29-35, 1884) from Bermuda, U.S.N.M. no. 4787, is a *Ceratonereis*. Paragnaths are absent from the oral ring. Paragnaths on the maxillary ring are arranged as follows: areas I and II none, areas III and IV each with about 9 to 12 tall, slender cones in a crescent. Jaws are light horny brown, each with 4 or 5 teeth. The name, *N. gracilis* is preoccupied by Hansen (Mém. cour. Belg. 44: 10, 1882). Since, Webster's type is a *Ceratonereis*, no change seems necessary.
- Nereis heterocirrata* Treadwell (Proc. U. S. Nat. Mus. 80: 1-2, figs. 1a-e, 1931) from Japan, U.S.N.M. 19323, includes *N. eucapitis* Hartman.
- [*Nereis irritabilis* Webster] (Trans. Albany Inst. 9: 231-234, pl. 5, figs. 56-64; pl. 6, figs. 65-69, 1879) from Virginia, U.S.N.M. no. 531-534, is a *Ceratonereis*. It differs from the widely known *C. hircinicola* (Eisig)

which it resembles in some respects, in having area III of the proboscis provided with a broad band of 3 or 4 irregular rows of teeth, which almost meet those of area IV, instead of having a subcircular patch. Transformation of parapodia in epitokous females is at the 31st parapodium.

[*Nereis (Neanthes) linea* Treadwell] (Proc. U. S. Nat. Mus. **83**: 268-270, fig. 19, 1936) from China, U.S.N.M. no. 20115, is a *Perinereis*, identical with *P. aibuhitensis* (Grube).

[*Nereis (Neanthes) orientalis* Treadwell] (Proc. U. S. Nat. Mus. **83**: 270-272, fig. 19, 1937) from China, U.S.N.M. no. 20116, is identical with *Perinereis aibuhitensis* Grube. The type is a male heteronereid.

[*Nereis paucidentata* Moore] (Proc. Acad. Nat. Sci. Philadelphia, pp. 430-431, pl. 24, figs. 28-30, 1903) from Alaska, U.S.N.M. no. 15709, is a *Ceratonereis*.

[*Nereis pusilla* Moore] (Proc. Acad. Nat. Sci. Philadelphia, pp. 428-429, pl. 24, figs. 25-27, 1903) from Japan, U.S.N.M. no. 15734, is a *Ceratonereis*. The specific name has been previously used by Bosc in 1802, and by Langerhans in 1879. Neither of these, belongs to the genus *Ceratonereis*, thus a change of name is unnecessary.

Perinereis aibuhitensis Grube (Mem. Acad. Sci. St. Petersburg **25**: 89-90, pl. 5, fig. 3, 1878) from the Philippine Islands, includes *Nereis linea* and *Nereis orientalis*, both from China.

Perinereis caeruleis, n. comb., for *Heteronereis caeruleis* Hoagland.

[*Platynereis integer* Treadwell] (Bull. Mus. Nat. Hist. **100**: 595-597, figs. 1-4, 1920) from the Philippine Islands, U.S.N.M. no. 18939, is identical with *Pl. polyscalma* Chamberlin (*vide* Monro, in Scientific Reports, **4**: 18, 1931, and Fauvel, in Voy. Indes orient. Néerlandaises, p. 23, 1931).

Platynereis polyscalma Chamberlin (Mem. Mus. Harvard **48**: 219) from the Gilbert Islands, U.S.N.M. no. 19449, includes *Pl. integer*.

[*Pseudonereis atopodon* Chamberlin] (Mem. Mus. Harvard **48**: 228, pl. 35, figs. 3-5, 1919) from the Tonga Islands, U.S.N.M. no. 19467, is identical with *P. palpata*.

Pseudonereis palpata, n. comb., for *Neanthes palpata* Treadwell, includes *Nereis disparsetosa* Treadwell and *Pseudonereis atopodon* Chamberlin.

Uncinereis agassizi (Ehlers) (Die Borstenwürmer, pp. 542-546, p. 23, fig. 1) from the Gulf of Georgia, British Columbia and Mendocino, California, includes *U. subita* Chamberlin.

[*Uncinereis subita* Chamberlin] (Mem. Mus. Harvard, **48**: 215-219, pl. 30, figs. 1-4, 1919) from California, U.S.N.M. no. 19495, is identical with *U. agassizi* (Ehlers).

ZOOLOGY.—*Three new species of the amphipod genus Amphithoe from the west coast of America.*¹ CLARENCE R. SHOEMAKER, U. S. National Museum. (Communicated by WALDO L. SCHMITT.)

When examining collections of Amphipoda from the west coast of America from time to time, I have noted several specimens of *Am-*

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