Four new nereidid species (Annelida, Polychaeta) collected during the MUSORSTOM cruises in the Indo-Pacific Ocean

Jesús Angel DE LEÓN-GONZÁLEZ
Laboratorio de Biosistemática,
Facultad de Ciencias Biológicas, UANL,
Ap. Postal 5 "F", San Nicolás de los Garza, NL, 66451 Mexico (Mexico)
jadeleon@ccr.dsi.uanl.mx

Sergio I. SALAZAR-VALLEJO
Departamento Ecología Acuática, ECOSUR,
Ap. Postal 424, Chetumal, QR, 77000 Mexico (Mexico)
salazar@ecosur-qroo.mx

León-González J. A. de & Salazar-Vallejo S. I. 2003. — Four new nereidid species (Annelida, Polychaeta) collected during the MUSORSTOM cruises in the Indo-Pacific Ocean. *Zoosystema* 25 (3) : 365-375.

ABSTRACT
Four new nereidid polychaete species are described; all were sampled during the MUSORSTOM oceanographic cruises. *Leonnates crosnieri* n. sp. (New Caledonia) resembles *L. indicus* Kinberg, 1866 but the former has pharynx area VI with 18-19 papillae in group, and superior lobe is present throughout the body. *Neanthes philippinensis* n. sp. (Philippine Islands) is closely allied to *N. maculata* Wu, Sun & Yang, 1985 but it differs by having only one line of five paragnaths on pharyngeal area VII-VIII. *Neanthes pleijeli* n. sp. (Philippine Islands and New Caledonia) resembles *N. anchylochaeta* Horst, 1924 but it differs by lacking cones in pharynx areas II, III, IV, V and VI. *Nicon pettiboneae* n. sp. is a deep water species (Philippine Islands and New Caledonia); it differs from other species by the presence of neuropodial infracicular sesquigomph falcigers in all parapodia.

KEY WORDS
Annelida,
Polychaeta,
Nereididae,
Indo-Pacific,
new species.

RÉSUMÉ

Quatre nouvelles espèces de Nereididae (Annelida, Polychaeta) des campagnes MUSORSTOM dans l'océan Indo-Pacifique.

Quatre nouvelles espèces de polychètes sont décrites, toutes proviennent des campagnes océanographiques MUSORSTOM. *Leonnates crosnieri* n. sp. (Nouvelle-Calédonie) ressemble à *L. indicus* Kinberg, 1866 mais a la zone pharyngienne VI avec 18 ou 19 papilles groupées, et le lobe superieur est présent tout le long du corps. *Neanthes philippinensis* n. sp. (Philippines) est proche de *N. maculata* Wu, Sun & Yang, 1985 mais en diffère par la présence d'une seule ligne de cinq paragnathes sur la zone pharyngienne VII-VIII. *Neanthes pleijeli* n. sp. (Philippines et Nouvelle-Calédonie) ressemble à *N. anchylochaeta* Horst, 1924 mais en diffère par l'absence de cones dans les zones pharyngiennes II, III, IV, V et VI. *Nicon pettiboneae* n. sp. est une espèce d'eaux profondes (Philippines et Nouvelle-Calédonie) ; elle diffère des autres espèces par la présence de falcigères sesquigomphes infraciculaires neuropodiaux sur tous les parapodes.

MOTS CLÉS
Annelida,
Polychaeta,
Nereididae,
Indo-Pacifique,
nouvelles espèces.

INTRODUCTION

This study is part of a major effort devoted to documenting the marine biodiversity of the southwestern Pacific, mainly in the French Territories, Philippine Islands, and from some abyssal localities sampled between India and Madagascar (Safari cruises) and Japan (Kaiko Expedition), during several MUSORSTOM cruises. Recently, Salazar-Vallejo (2000) sorted out the material resulting in almost 1400 lots separated in 51 polychaete families; they belong to 40 expeditions or sampling cruises covering more than 20 years. Currently, 22 volumes of MUSORSTOM results have been published in the *Mémoires du Muséum national d'Histoire naturelle* series covering many taxonomic groups but there have been just a single publication on polychaetes (Hanley & Burke 1991), and two others based on those materials have been published elsewhere (Hartmann-Schröder 1998; Hartmann-Schröder & Zibrowius 1998).

MATERIAL AND METHODS

Sampling equipment and procedure are explained in Hanley & Burke (1991). For every species, holotypes and non-type specimens have been deposited in the Muséum national d'Histoire naturelle, Paris (MNHN). Some specimens have been deposited in either El Colegio de la Frontera Sur (ECOSUR), the Facultad de Ciencias Biologicas, Universidad Autónoma de Nuevo León (UANL) and the National Museum of the Philippines, Manila (NMP).

SYSTEMATICS

Family NEREIDIDAE Johnston, 1845
Genus *Leonnates* Kinberg, 1866

Leonnates crosnieri n. sp.
(Fig. 1)

TYPE MATERIAL. — **New Caledonia.** MUSORSTOM 4, stn 147, 19°35'S, 163°39.6'E, 43 m, 13.IX.1985, holotype (MNHN-POLY 73), 4 paratypes (MNHN-POLY 74).

ETYMOLOGY. — The specific name is an hommage to Dr Alain Crosnier (MNHN) for his sustained support in the MUSORSTOM cruises and especially by his help to develop this study.

OTHER MATERIAL EXAMINED. — **New Caledonia.** MUSORSTOM 4, stn 146, 19°53.4'S, 163°47.1'E, 33 m, 13.IX.1985, 3 specimens (UANL 5078). — LAGON, stn 741, 22°14.8'S, 167°02.8'W, 77-80 m, 13.VIII.1986, Richer de Forges coll., 1 specimen (ECOSUR).

DISTRIBUTION. — Known only from New Caledonia region, in 33-80 m depth.

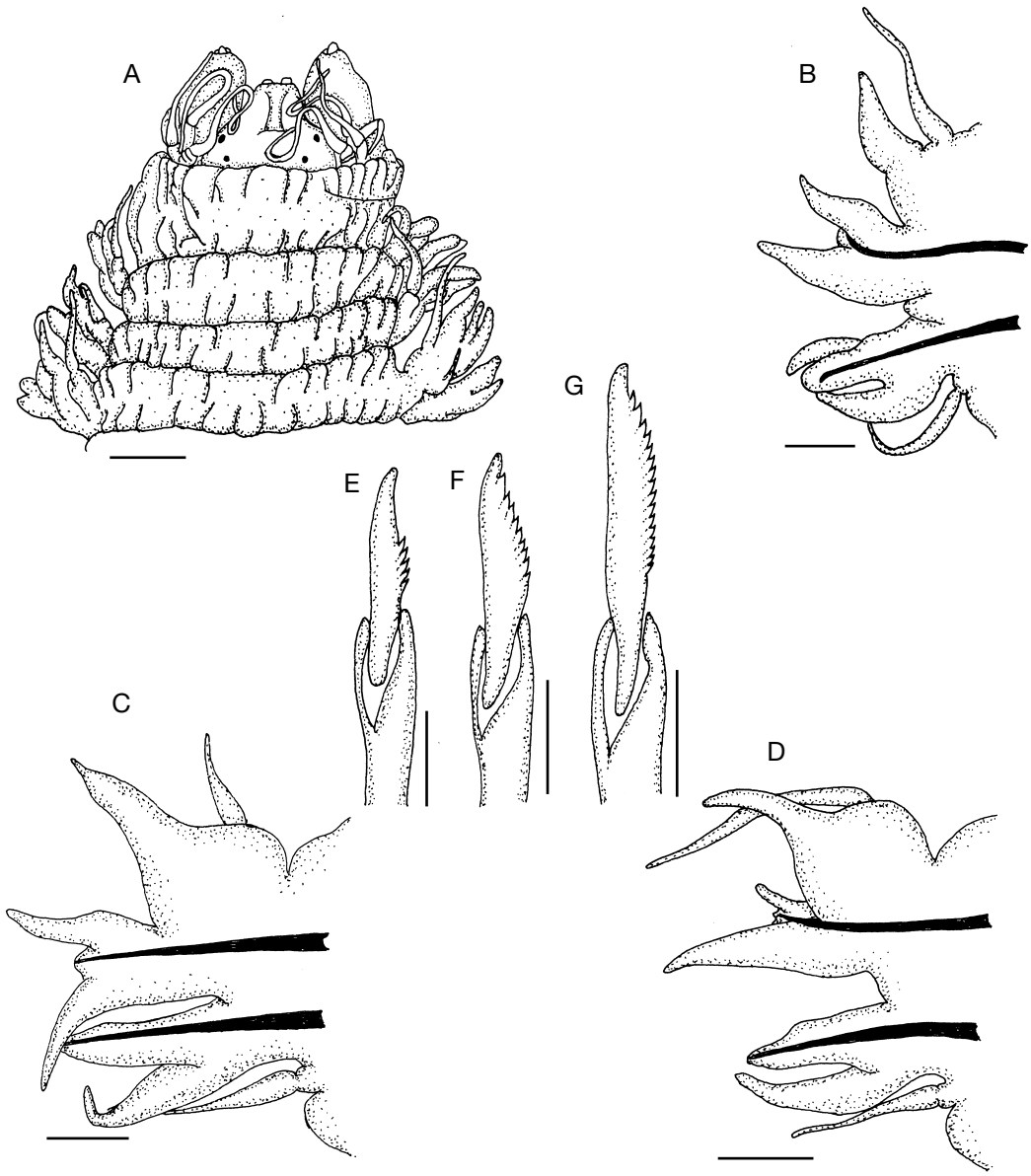

FIG. 1. — *Leonnates crosnieri* n. sp.; **A**, anterior region, dorsal view; **B**, setiger 10, anterior view; **C**, setiger 30, anterior view; **D**, setiger 58, anterior view; **E**, neuropodial supracicular sesquigomph falciger from anterior parapodium; **F**, neuropodial infracicular sesquigomph falciger from middle parapodium; **G**, notopodial homogomph falciger from posterior parapodium. Scale bars: A, 1 mm; B-D, 300 µm; E-G, 30 µm.

DESCRIPTION

The holotype is a complete specimen with 89 setigers, 51 mm long and 7 mm wide including parapodia, without evident pigmentation. Prostomium wider than long, with a pair of frontal antennae directed ventrally, biarticulate palps spherical with conical palpostyles. Two pairs of small eyes in trapezoidal arrangement, anterior

ones bigger. Peristomium longer than next two segments, four pairs of short tentacular cirri, longest pair reaching setiger two (Fig. 1A).
Pharynx with paragnaths and papillae in maxillary ring, only papillae on oral ring: I = 0; II = 10 paragnaths; III = 5 papillae in line; IV = 8-10 paragnaths; V = 0; VI = 18-19 papillae in group; VII-VIII = 4 lines of papillae. Mandibles smooth, without teeth.
Anterior parapodia with notopodium formed by dorsal and ventral ligule, as well as superior lobe subequal, dorsal cirri thin inserted basally; neuropodium with postsetal lobe longer, ventral ligule subulate. Ventral cirri thin (Fig. 1B). Middle parapodia with dorsal ligule longer than in anterior parapodia, superior lobe digitiform, median ligule thin; neuropodium with reduced postsetal lobe, ventral ligule subulate (Fig. 1C). Posterior parapodia similar to median ones, but with superior lobe reduced to a small digitiform process (Fig. 1D).
Notosetae in anterior and middle parapodia with homogomph spingers; in posterior parapodia with both, three or four homogomph spinigers and a homogomph falciger with long blade, with 14 to 18 small teeth in their internal margin, superior tooth blunt (Fig. 1G). Supracicular neurosetae in anterior parapodia only sesquigomph falcigers, blades basally toothed (Fig. 1E); setae in middle and posterior parapodia similar to the anterior ones, and homogomph spinigers. Infracicular neurosetae in anterior parapodia only two homogomph spinigers, accompanied by numerous sesquigomph falcigers with toothed blade in the whole internal margin (Fig. 1F); in middle and posterior parapodia only sesquigomph falcigers similar to anterior ones.
Pygidium with terminal anus and two short anal cirri.

REMARKS

The species of *Leonnates* can be separated by the presence and development of parapodial structures in two groups: those with only dorsal and median ligules (two structures), and those that also present the superior lobe markedly developed (three structures); most species belong to the last group: *L. crinitus* Hutchings & Reid, 1991, *L. crosnieri* n. sp., *L. indicus* Kinberg, 1866, *L. niestraszi* Horst, 1924, *L. nipponicus* Imajima, 1972, *L. persicus* Wesenberg-Lund, 1949, and *L. stephensoni* Rullier, 1965; *L. jousseaumei* Gravier, 1901 was synonymized with *L. indicus* by Qui & Qian (2000).
Leonnates crosnieri n. sp. is close to *L. indicus*; however, they can be separated by the number of papillae in area VI, as well as in the distribution of the superior lobe of parapodia along the body. In the new species, area VI has 18-19 papillae in group, and superior lobe is present throughout the body; in contrast, *L. indicus* has eight or nine papillae in area VI, and lacks superior lobe in posterior parapodia, also in this species the notopodial homogomph falcigers is present only in a few posterior parapodia, in *L. crosnieri* n. sp. these falcigers are present in middle and posterior parapodia.

Genus *Neanthes* Kinberg, 1866

Neanthes philippinensis n. sp.
(Fig. 2)

TYPE MATERIAL. — **Philippines.** MUSORSTOM 3, stn 142, 11°47'N, 123°02'E, 25 m, 6.VI.1985, holotype (MNHN-POLY 76), 5 paratypes (MNHN-POLY 77), 3 paratypes (UANL 5079), 3 paratypes (ECOSUR), 2 paratypes (NMP).

ETYMOLOGY. — The specific name refers to the Philippine Islands, where it was found.

DISTRIBUTION. — Known only from the type locality, Philippine Islands.

DESCRIPTION

The holotype is a complete specimen, 26 mm long, 4 mm wide including parapodia, with 74 setigers. Prostomium longer than wide, two pairs of eyes in trapezoidal arrangement, distal ones smaller than proximal ones; a pair of cirriform frontal antennae. A pair of biarticulate palps, with conical palpostyles. Peristomium longer than next two segments, with four pairs of short tentacular cirri, longest reaching setiger 4 (Fig. 2A).
Pharynx with brown jaws, each with six teeth; paragnaths as: I = 3 cones in line; II = 9 cones in

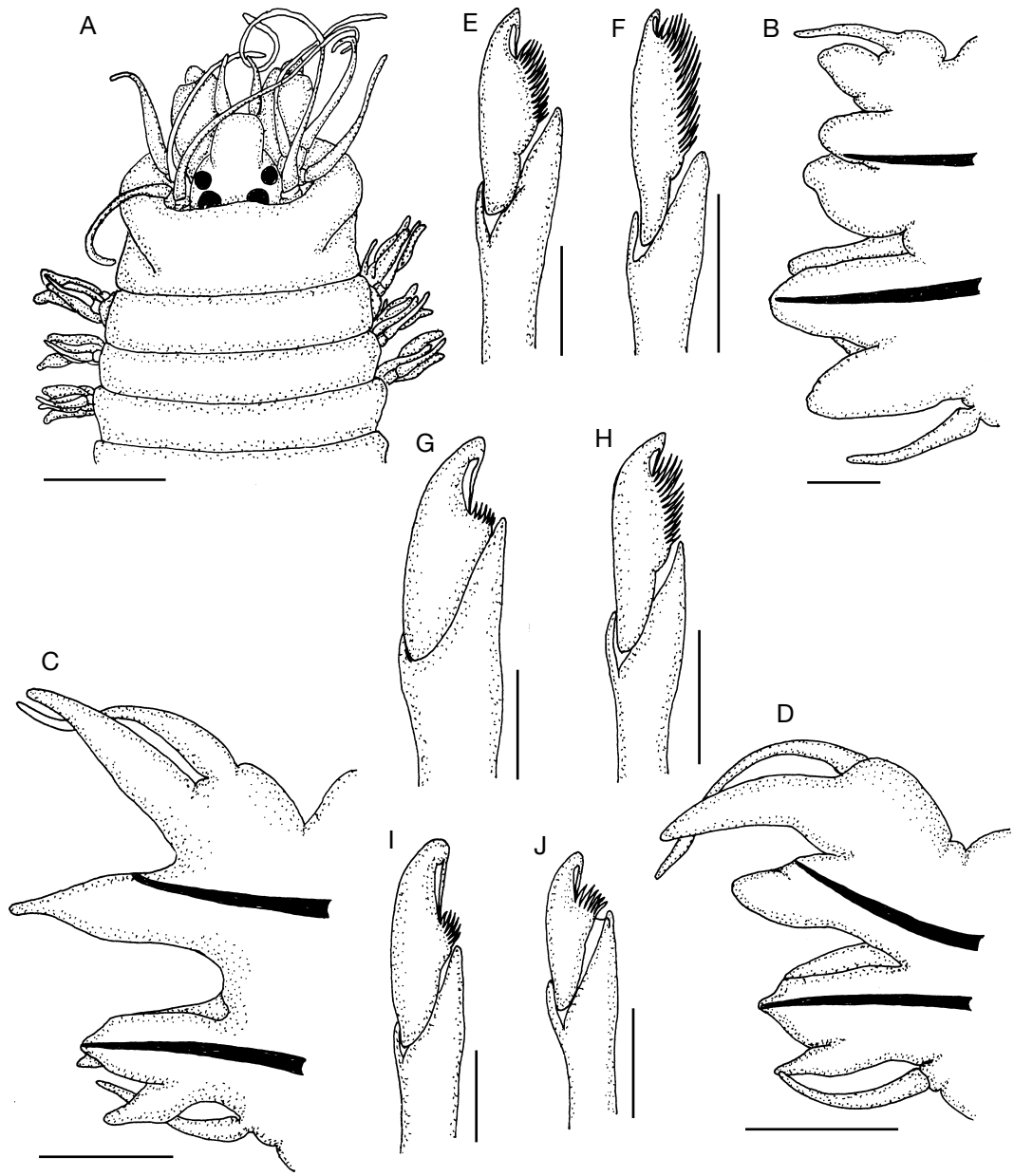

FIG. 2. — *Neanthes philippinensis* n. sp.; **A**, anterior region, dorsal view; **B**, setiger 10, anterior view; **C**, setiger 46, anterior view; **D**, setiger 65, anterior view; **E**, neuropodial supracicular heterogomph falciger from anterior parapodia; **F**, infracicular heterogomph falciger from same; **G**, neuropodial supracicular heterogomph falciger from mid-anterior parapodia; **H**, neuropodial infracicular heterogomph falciger from same; **I**, neuropodial supracicular heterogomph falciger from middle parapodia; **J**, neuropodial infracicular heterogomph falciger from the same. Scale bars: A, 1 mm; B-D, 250 µm; E-J, 30 µm.

line; III = 5 cones in group; IV = 9 cones in line; V = 0; VI = 3 cones in line; VII-VIII = 5 cones in line.

Parapodia of first two setigers uniramous, thereafter biramous. Anterior parapodia with short dorsal and median ligules, last one swollen basally, superior lobe rounded distally; neuropodium with a postsetal lobe rounded anteriorly, ventral ligule conical. Dorsal cirri thin, smaller than ventral ones (Fig. 2B). Median parapodia with subequal notopodial dorsal and median ligules, superior lobe not seen; neuropodium with conical postsetal lobe, presetal lobe thin, ventral ligule short, slightly subulated. Dorsal cirri longer than ventral one (Fig. 2C). Posterior parapodia with dorsal ligule longer than median one; postsetal lobe mammilliform distally, triangular ventral ligule (Fig. 2D).

Notosetae homogomph spinigers throughout the body, with long thin blade, 23 in anterior, 17 in middle-anterior, seven in median and five in posterior setigers. Anterior neuropodia have in supracicular position 11 homogomph spinigers and three heterogomph falcigers (Fig. 2E); infracicular setae are six heterogomph spinigers with short thin blade, two heterogomph spinigers with short wide blade, nine heterogomph falcigers with dentition along inner margin of the blade, a short apical tooth directed downwards (Fig. 2F), and three heterogomph spinigers with short wide blade. Mid-anterior neurosetae in supracicular position eight homogomph spinigers and three thick heterogomph falcigers with six short basal teeth in the inner margin (Fig. 2G); infracicular ones, four heterogomph spinigers and nine heterogomph falcigers (Fig. 2H). Neurosetae of middle parapodia in supracicular position, four homogomph spinigers and two heterogomph falcigers (Fig. 2I), infracicular ones three heterogomph spinigers and three heterogomph falcigers (Fig. 2J). Posterior neuropodia each with two heterogomph spinigers and two heterogomph falcigers; infracicular ones a heterogomph spiniger and three heterogomph falcigers.

Pygidium terminal with a pair of long and thin anal cirri.

REMARKS

Neanthes species are currently grouped following Fauchald (1972) and Wilson (1984) proposals which rely on the parapodial lobes development, notably the notopodial ligule, and on the presence or absence of falcigers. *Neanthes philippinensis* n. sp. belongs to group II B 1, because it has falcigers, smooth parapodia and its notopodial ligule is slightly longer than other parapodial ligules or lobes. This group contains 43 species which could be subdivided by paragnath patterns in pharynx areas VII-VIII and by the number of notopodial structures; thus, *N. philippinensis* n. sp. like *N. agulhana* (Day, 1963), *N. kerguelensis* (McIntosh, 1887) and *N. nanhaiensis* Wu, Sun & Yang, 1985, have a single row of paragnaths in area VII-VIII, and anterior notopodia are provided with dorsal and middle ligules as well as a superior lobe. The more closely related species to *N. philippinensis* n. sp. is *N. kerguelensis*; however, they differ in several features: dorsal cirri in *N. kerguelensis* have not the basal swollen characteristic of *N. philippinensis*, blade of falcigers distally blunt without accessory sharply bent distal tooth, and area VI of pharynx with only one paragnath, although in some occasions this does not appear (Wilson 1984). We examined two syntypes and 17 specimens of *N. kerguelensis* deposited in The Natural History Museum (London), and observed the presence of one small paragnath on each area VI; furthermore, area I in these specimens has only one paragnath, and only one of the syntypes (1885.12.1.170) shown the paragnaths in line on area I, while in *N. philippinensis* n. sp. three paragnaths in line are present.

N. bongcoi (Pillai, 1965), another species described from the Philippine Archipelago, differs from *N. philippinensis* n. sp. by having neuropodial falcigers provided with long, distally rounded blade, and two paragnath rows with six paragnaths each in pharynx area VII-VIII; as has been stated above, in *N. philippinensis* n. sp. the pharynx area VII-VIII has a single row with four or five paragnaths. The paratype of *N. bongcoi* deposited in The Natural History Museum (London) differs hardly of type species described by Pillai,

all pharynx arrangements are different (I = 5 cones in group; II = 21 paragnaths in triangle; III = 23 in oval group; IV = 29 in crescent group; V = 0; VI = one big cone in each side, and a small cone in the inner basal part of area VI; VII-VIII = 52 in two rows). For this reason we think that this paratype corresponds to a species different from *N. bongcoi*, which has not been described yet. Other species provided with few paragnaths in area VII-VIII are *N. dawydovi* (Fauvel, 1939), *N. galetae* Fauchald, 1977, *N. maculata* Wu, Sun & Yang, 1985, and *N. unifasciata* (Willey, 1905). However, all these species have notopodia with only dorsal and middle ligule throughout the body. The three analyzed specimens show variation in the pharyngeal arrangement: Area I = 1-3 cones; II = 8-11 cones in line; III = 3-5 cones in group; IV = 6-9 cones in line; VI = 2-3 cones; VII-VIII = 4-5 in line. Jaws with four to six teeth.

Neanthes pleijeli n. sp.
(Fig. 3)

TYPE MATERIAL. — **New Caledonia.** LAGON, stn 737, 22°08.4'S, 166°59.1'E, 49-50 m, 12.VIII.1986, holotype (MNHN-POLY 72).

ETYMOLOGY. — This species is named in honor of Fredrik Pleijel (MNHN) because of his important publications on taxonomy of Polychaeta in general and his support to this research.

OTHER MATERIAL EXAMINED. — **Philippines.** MUSORSTOM 3, stn 111, 14°00.1'N, 120°19.4'E, 178-190 m, 2.VI.1985, 1 specimen (ECOSUR).
Wallis et Futuna. MUSORSTOM 7, stn 498, 14°00'S, 177°00'W, 108-140 m, 10.V.1992, 1 specimen (UANL 5080).

DISTRIBUTION. — Western Pacific Ocean.

DESCRIPTION

Holotype incomplete posteriorly, with 40 setigers, 35 mm long, 7 mm wide including parapodia. Prostomium pentagonal in shape with two pairs of eyes in trapezoidal arrangement, a pair of short frontal antennae. Biarticulate palps with spherical palpostyle. Peristomium as long as first setiger, with four pairs of tentacular cirri, the longest reaching setiger 6 (Fig. 2A).

Pharynx with brown jaws, each with five teeth; paragnaths as: I = 2 cones in line; II, III, IV, V, VI without cones; VII-VIII = 6 cones in line.

Parapodia of first two setigers uniramous, thereafter biramous. Anterior notopodia with dorsal and median ligule distally conical, median ligule with a swollen base, superior lobe rounded, similar in length to the other two notopodial ligules. Neuropodium with postsetal lobe expanded, rounded distally, presetal lobe longer than postsetal one, conical distally. Dorsal and ventral cirri subequal (Fig. 3B). Mid-posterior parapodia with dorsal and median ligule elongate, superior lobe reduced. Neuropodium with postsetal lobe mamilliform, ventral ligule subulate. Dorsal cirri longer than ventral one (Fig. 3C).

Notosetae homogomph spinigers troughout the body, with long thin blades. Anterior supracicular neurosetae homogomph spinigers and heterogomph falcigers, last one with short blade; infracicular setae heterogomph spinigers in superior position, heterogomph falcigers with longer blade in middle position (Fig. 3D), and heterogomph spinigers in inferior position. Mid-posterior parapodia with supracicular neurosetae homogomph spinigers and two simple hooks with an apical tooth directed downwards (Fig. 3E); infracicular setae heterogomph and homogomph spinigers in superior position, heterogomph falcigers with short blade marginally toothed, with an apical tooth directed downwards in middle position (Fig. 3F), and in inferior position heterogomph falcigers with long blade, similar to those of anterior parapodia.

Pygidium unknown.

REMARKS

The presence of a simple supracicular neuroseta is a rare feature in *Neanthes*. In fact, this has been a traditional feature to separate *Hediste* Malmgren, 1867 from *Nereis* Linnaeus, 1758 and some species in *Platynereis* Kinberg, 1866. However, these simple setae show a completely or almost completely fused blade with the handle making nonsensical any comparison of this new species with anyone in those genera. It remains to be evaluated if that feature should be regarded as a primitive

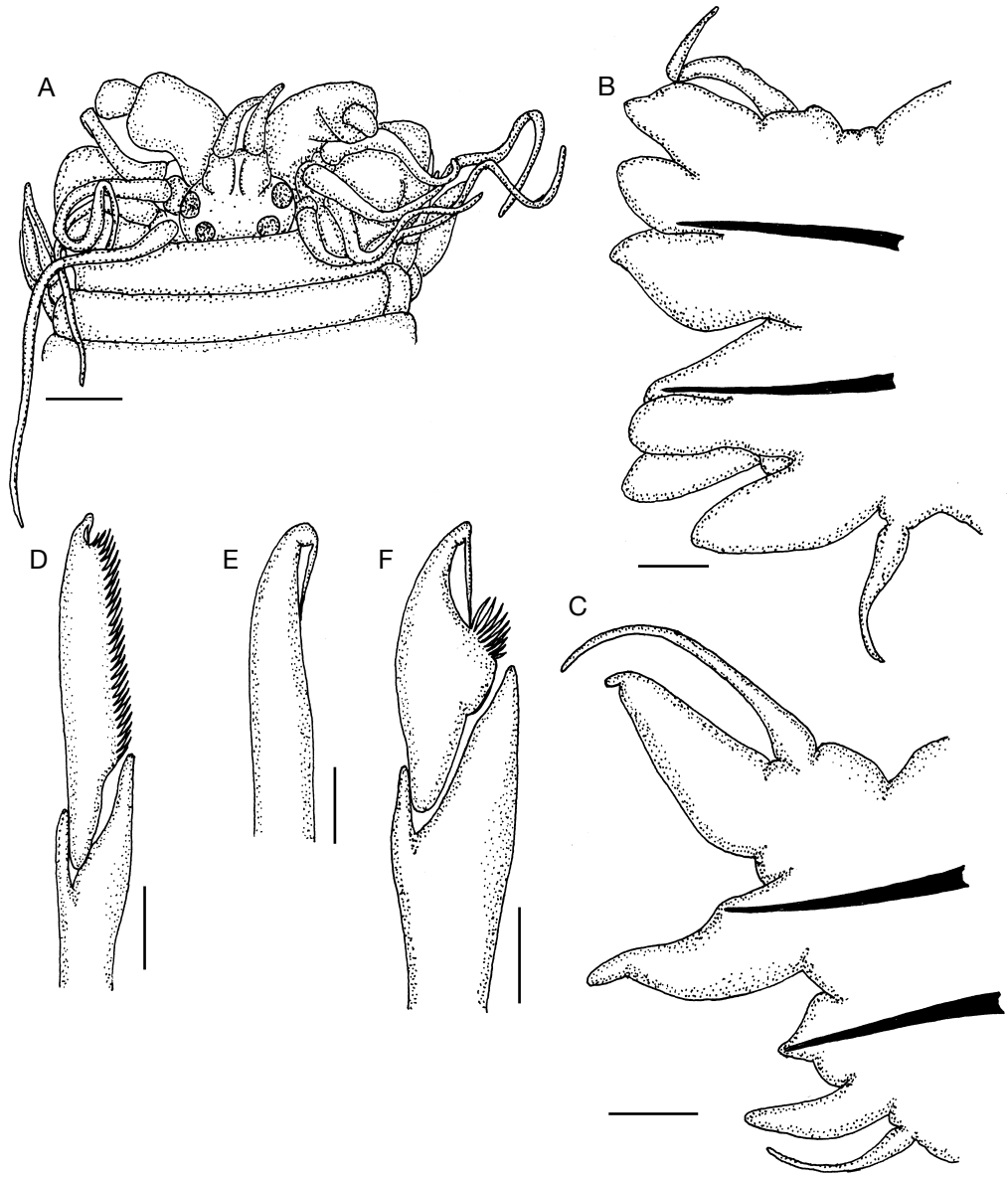

FIG. 3. — *Neanthes pleijeli* n. sp.; **A**, anterior region, dorsal view; **B**, setiger 10, anterior view; **C**, setiger 35, anterior view; **D**, neuropodial infracicular heterogomph falciger from anterior parapodium; **E**, neuropodial supracicular simple seta from mid-posterior parapodia; **F**, neuropodial infracicular heterogomph falciger from same. Scale bars: A, 1 mm; B, C, 300 µm; D, F, 15 µm; E, 30 µm.

or derived feature, but that is beyond the scope of this paper. It must be added, however, that the presence of a simple seta has been employed by Hartmann-Schröder (1985) to define her subgenus *Simplisetia* in *Ceratonereis* Kinberg, 1866, and that she also transferred *Neanthes anchylochaeta* Horst, 1924 to her new subgenus. Within that perspective, *Neanthes pleijeli* n. sp. might belong there too. Nonetheless, these two species differ from any other species in that grouping by

having paragnaths over the pharynx oral ring, rendering its placement in those taxa inadequate since they belong to *Neanthes*.

Neanthes pleijeli n. sp. is closely related to *N. anchylochaeta* but they differ principally in pharyngeal arrangement: *N. anchylochaeta* present in area I = 3 cones in line; II = 8-9 cones in line; IV = 8 cones in line; VI = 0-1 cone; VII-VIII = 3 cones in one line spread. In *N. pleijeli* n. sp. area I = 2 cones in line while areas II, III, IV, V, VI lack cones and VII-VIII = 6 cones in line. Fauvel (1953) recorded *N. anchylochaeta* from India, but his specimens were different from Horst's (1924) specimens because of the presence of three cones in line in pharynx area III.

Genus *Nicon* Kinberg, 1866

Nicon pettiboneae n. sp.
(Fig. 4)

TYPE MATERIAL. — **Loyalty islands.** W Lifou, S baie du Santal, CALSUB, stn PL9, 20°53'S, 167°03'E, 588 m, 27.II.1989, holotype (MNHN-POLY 75), 1 paratype (UANL 5081).

ETYMOLOGY. — The species is named to honor the great polychaetologist Marian H. Pettibone, who dedicated part of her work to the study of nereidid polychaetes.

OTHER MATERIAL EXAMINED. — **New Caledonia.** SW île des Pins, CALSUB, stn PL19, 22°46'S, 167°20'E, 410 m, 10.III.1989, 1 specimen (ECOSUR).
Philippines. MUSORSTOM 3, stn 99, 14°01'N, 120°19.5'E, 181-189 m, 1.VI.1985, 1 specimen (UANL 5082).

DISTRIBUTION. — Known only from New Caledonia region and the Philippine Islands.

DESCRIPTION

The holotype is an incomplete specimen 2 mm long and 0.5 mm wide including parapodia, with 46 setigers. Prostomium pentagonal, with two pairs of eyes in trapezoidal arrangement, and a pair of short frontal antennae. A pair of biarticulate palps, with conical palpostyles. Peristomium longer than next two segments, with four pairs of tentacular cirri, longest reaching setiger five (Fig. 4A). Pharynx without paragnaths or papillae. Anterior parapodia with subequal dorsal and median triangular ligules, superior lobe missing, neuropodia formed by a subconical postsetal lobe, ventral ligule globose. Dorsal cirri inserted medially, longer than ventral one (Fig. 4B). Median parapodia with dorsal ligule shorter than median one, superior lobe missing, postsetal lobe expanded basally, ventral ligule triangular. Dorsal and ventral cirri subequal (Fig. 4C). Posterior parapodia with short dorsal ligule (Fig. 4D).

Notosetae homogomph spinigers troughout the body. Supracicular neurosetae of anterior parapodia are one homogomph spiniger with long thin blade, one sesquigomph falciger with longer blade similar to that of spinigers, but with a short apical tooth directed down, a sesquigomph falciger with normal blade; infracicular ones, three sesquigomph falcigers similar to last one, with the inner margin of the blade dentated, and a short apical tooth directed downwards (Fig. 4E), and three heterogomph falcigers (Fig. 4F). Supracicular neurosetae in median parapodia include three homogomph spinigers and a heterogomph falciger; infracicular ones a homogomph spiniger, one sesquigomph falciger and three heterogomph falcigers. Supracicular neurosetae in posterior parapodia three homogomph spinigers and one heterogomph falciger (Fig. 4G); infracicular ones two sesquigomph falcigers (Fig. 4H) and three heterogomph falcigers.

Pygidium unknown.

REMARKS

Hutchings & Reid (1990) list nine species of *Nicon*: *N. abyssalis* Hartman, 1967, *N. aestuariensis* Knox, 1951, *N. japonicus* Imajima, 1972, *N. maculata* Kinberg, 1866, *N. moniloceras* Hartman, 1940, *N. polaris* Hartman, 1967, *N. rotunda* Hutchings & Reid, 1990, *N. sinica* Wu & Sun, 1979, and *N. yaguinae* Fauchald, 1977. Two of these species (*N. abyssalis* and *N. polaris*) are poorly known and their generic affinities are doubtful. Since that publication, no other species has been described. Most species have been described from the Pacific Ocean with some probably spurious records from other localities. *Nicon pettiboneae* n. sp. differs from other

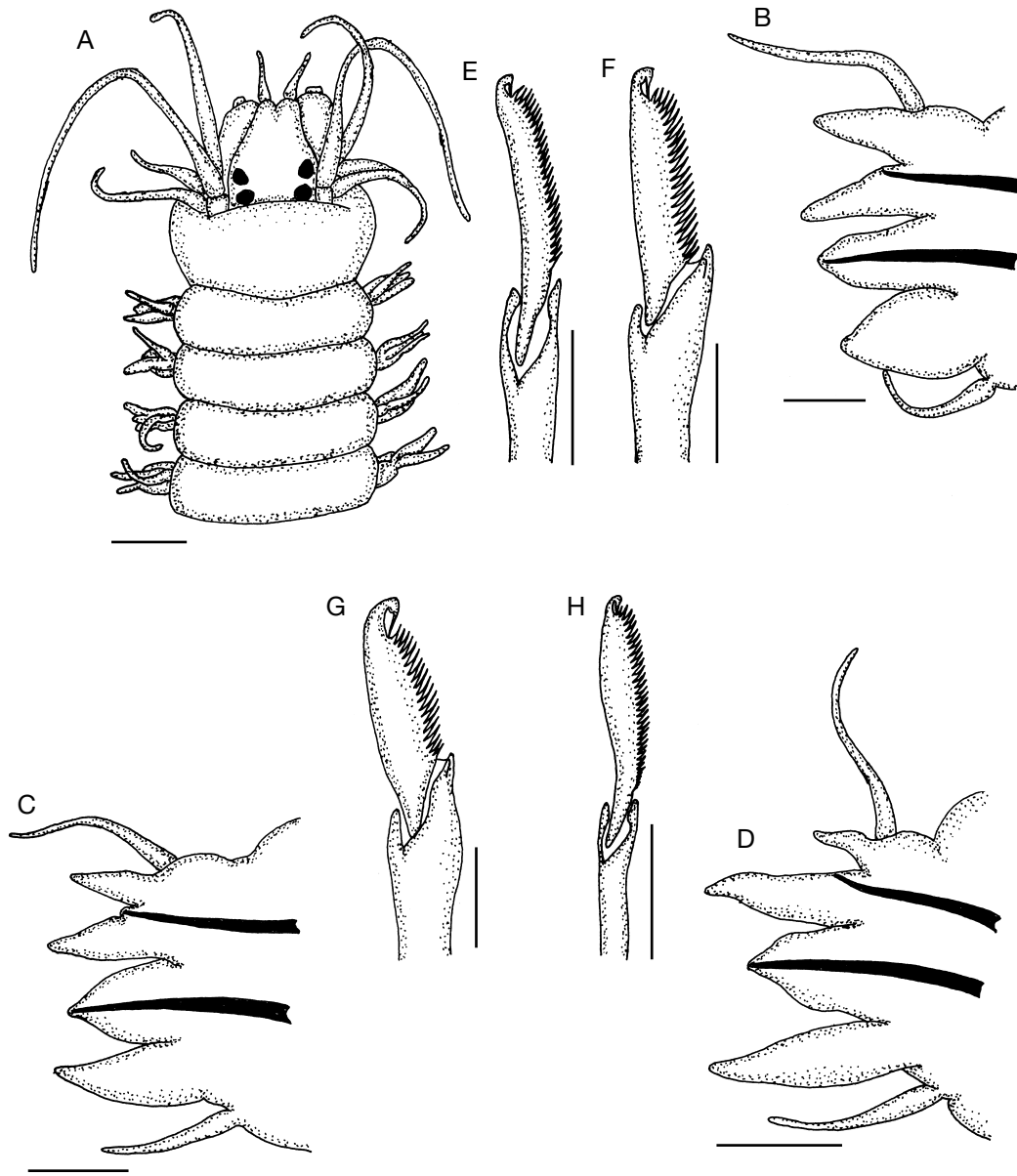

FIG. 4. — *Nicon pettiboneae* n. sp.; **A**, anterior region, dorsal view; **B**, setiger 10, anterior view; **C**, setiger 29, anterior view; **D**, setiger 45, anterior view; **E**, neuropodial infracicular sesquigomph falciger from anterior parapodium; **F**, heterogomph falciger from same; **G**, neuropodial supracicular heterogomph falciger from posterior parapodia; **H**, neuropodial infracicular sesquigomph falciger from same. Scale bars: A, 0.1 mm; B-D, 100 µm; E-G, 15 µm; H, 30 µm.

species by the presence of neuropodial infracicular sesquigomph falcigers in all parapodia. Only *N. moniloceras* and *N. pettiboneae* n. sp. share reduced dorsal ligule on posterior setigers, but they differ in the annulations of tentacular cirri, and the shape of falcigers.

Acknowledgements
We thank Drs Alain Crosnier (MNHN) and Fredrik Pleijel (MNHN) who promoted the funding to SISV for the separation of the MUSORSTOM specimens in the MNHN. Dr Helmut Zibrowius facilitated us information on some localities of the study. We are indebted to Torkild Bakken and Robin Wilson for their useful comments on this paper. We thank Alexander Muir, Miranda Lowe and Andrew Cabrinovic of The Natural History Museum for access to the type material and other specimens of *N. kerguelensis* and *N. bongcoi*.

REFERENCES

FAUCHALD K. 1972. — Benthic polychaetous annelids from deep waters off Western Mexico and adjacent areas in the Eastern Pacific Ocean. *Allan Hancock Foundation, Monographs in Marine Biology* 7: 1-575.

FAUVEL P. 1953. — *The Fauna of India including Pakistan, Ceylon, Burma and Malaya. Annelida Polychaeta*. Indian Press, Allahabad, xii + 507 p.

HANLEY J. R. & BURKE M. 1991. — Polychaeta Polynoidae: Scaleworms of the Chesterfield Islands and Fairways Reefs, Coral Sea, *in* CROSNIER A. (ed.), Résultats des campagnes MUSORSTOM, volume 8. *Mémoires du Muséum national d'Histoire naturelle* 151: 9-82.

HARTMANN-SCHRÖDER G. 1985. — Revision der Gattung *Ceratonereis* Kinberg (Nereididae, Polychaeta) (mit besonderer Berücksichtigung der Arten mit eingeschnittenem Prostomium). *Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut* 82: 37-59.

HARTMANN-SCHRÖDER G. 1998. — Remarks on *Tibiana* and description of species of *Eunice* with zigzag-shaped tubes (Polychaeta: Eunicidae). *Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut* 95: 45-58.

HARTMANN-SCHRÖDER G. & ZIBROWIUS H. 1998. — Polychaeta associated with Antipatharia (Cnidaria: Anthozoa): Description of Polynoidae and Eunicidae. *Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut* 95: 29-44.

HORST R. 1924. — Polychaete Errantia of the Siboga-Expedition. Part 3. Nereididae and Hesionidae. *Siboga-Expeditie Leyden* 24: 145-198.

HUTCHINGS P. & REID A. 1991. — The Nereididae (Polychaeta) from Australia – *Leonnates*, *Platynereis* and *Salomononereis*. *Records of the Australian Museum* 43: 47-62.

SALAZAR-VALLEJO S. I. 2000. — Polychaetes (Polychaeta) in the Muséum national d'Histoire naturelle collected mainly during ORSTOM cruises. Web page: http://www.ecosur-qroo.mx/Bentos/wbentos/Documentos/Polychaetes-ORSTOM.doc

QUI J. W. & QIAN P. Y. 2000. — Revision of the genus *Leonnates* Kinberg, 1866 (Polychaeta: Nereididae), with descriptions and comments on other species described in *Leonnates*. *Proceedings of the Biological Society of Washington* 113 (4): 1111-1146.

WILSON R. S. 1984. — *Neanthes* (Polychaeta: Nereididae) from Victoria with descriptions of two new species. *Proceedings of the Royal Society of Victoria* 96 (4): 209-226.

Submitted on 28 December 2001;
accepted on 17 October 2002.