

Newly Recorded Species of *Magelona* (Annelida: Polychaeta: Magelonidae) from the Egyptian Waters

Faiza A. Abd Elnaby^{1*}, Mohamed F. Nour Eldeen¹

National Institute of Oceanography and Fisheries, Alexandria, Egypt

*Corresponding author: faiza_abdelnaby@yahoo

ARTICLE INFO

Article History:

Received: Dec. 7, 2022

Accepted: April 19, 2023

Online: May 12, 2023

Keywords:

Polychaeta,
Mediterranean,
New record,
Magelonidae

BSTRACT

This article focuses on the study of polychaetes, particularly the species of *Magelona* along the eastern Mediterranean Egyptian coast. Samples were collected from 18 sites during September 2021 using a Van Veen grab. The following species were collected: *Magelona cf. falcifera* (Mortimer and Mackie, 2003), *Magelona equilamellae* (Harmelin, 1964) and *Magelona filiformis minuta* (Wilson, 1959) (Annelida: Polychaeta: Magelonidae), which were detected for the first time in the Egyptian Mediterranean waters. In the current study, these species were described in detail and provided with comprehensive data on their distributions; in addition, the presence of *M. cf. falcifera* was addressed, which is newly reported for the eastern Mediterranean waters.

INTRODUCTION

Magelonidae (shovel head worms) contains 77 species worldwide (Mortimer *et al.*, 2021; Parapar *et al.*, 2021), all are currently included in the genus *Magelona*, Müller, 1858 (Mortimer *et al.*, 2021), as the genera *Meredithia*, Hernández-Alcántara and Solís-Weiss, 2000 and *Octomagelona*, Aguirrezabalaga, Ceberio and Fiege, 2001 have been synonymized with *Magelona* by Mortimer *et al.* (2006) and Mortimer *et al.* (2021), respectively. Magelonids have a dorso-ventrally flattened prostomium and a pair of papillated palps. They are common in shallow water (<100 m), intertidal, subtidal muddy and sandy sediments, and sometimes they are found living inside tubes (Mortimer & Mackie, 2014; Mills & Mortimer, 2019; Mortimer, 2019) although there are also several deep-water species (e.g., occurring at 1,000–4,000 m deep) (Hartman, 1971; Aguirrezabalaga, Ceberio & Fiege, 2001). Most species have been described from temperate and tropical environments from the northern Pacific, northern Atlantic and western Indo-Pacific, and there are no species described from the Arctic or southern oceans (Parapar *et al.*, 2021). Adult *Magelona* individuals are thin, cylindrical organisms, often measuring less than 1mm wide, 1cm or more in length, and having more than 100 chaetigers. They are very fragile and fragment easily, thus being often found as incomplete specimens in preserved samples. Their body is divided into two regions. The

thorax includes the first 8–9 chaetigers bearing capillary chaetae; according to **Brasil (2003)** and **Mortimer *et al.* (2021)**, some species have similar chaetigers from 1-9; some have similar chaetigers from 1-7; however, chaetigers 8 and 9 differ, and some have similar chaetigers from 1-8 while only 9 differs.

This species is much shorter and sometimes bearing modified chaetae. All remaining chaetigers belong to the abdomen (**Jones, 1968**), which has a non-fixed number of segments, bearing uni-, bi-, tri- or multi-dentate hooded hooks. Magelonid parapodia are characterized also by having evident lateral lamellae, which are most often lanceolate or sub-lanceolate, and many species have foliaceous lamellae, with smooth or crenulate margins, varying in shape along the body, and they suffer modifications depending on the degree of arrangement of the segments. The key characters allowing to define the species of *Magelona* include the prostomial dimensions, the presence or absence of prostomial horns, the morphology of lateral lamellae in all thoracic chaetigers, the presence or absence of specialized chaetae of the posterior thorax, and presence or absence of lateral abdominal pouches.

Key contributions in the study of the taxonomy and systematics of the family are those of **Jones (1963, 1971, 1977, 1978)**, while **Fiege *et al.* (2000)** partially reviewed the history of the taxonomy of the European species of *Magelona*, and **Mortimer *et al.* (2020)** completed the review of the European magelonids, which is particularly relevant as it covers the Mediterranean. In addition, **Brasil (2003)** reviewed the terminology, which has recently been updated by **Mortimer *et al.* (2021)**, **Parapar *et al.* (2021)** and **Rouse, Pleijel and Tilic (2022)**. Moreover, species of *Magelona* have been recorded in different seas and oceans **Rouse (2001)**. They were recorded in several previous studies (**Gravier 1906; Moore, 1907; Ehlers 1908; Okuda, 1937; Hartman, 1944; Wesenberg-Lund, 1949; Fauvel, 1953; Day, 1962; Kitamori, 1967; Gallardo, 1968; Mohammad, 1973; Amoureux, 1983; Buzhinskaja, 1985; Nateewathana *et al.*, 1991; Fiege *et al.*, 2000; Hernández-Alcántara and Solís-Weiss, 2000; Aguirrezabalaga *et al.*, 2001; Mortimer & Mackie, 2003, 2006**), with only one apparently Pacific Panamanian waters *Magelona papillicornis* Müller, 1858.

On the other hand, twelve species were described from the Gulf of México, without being formally named (**Uebelacker & Jones, 1984**). While, in the Eastern Mediterranean coast of Egypt, only two species have been reported to date, *M. mirabilis* and *Magelona* sp., both were found in El Tina Bay (**Abd Elnaby, 2008**). Hence, the current study is the second to deal with *Magelona* in the Egyptian waters.

The study of marine benthic communities to obtain a biological map of the Egyptian coastline is a priority for the Egyptian National Institute of Oceanography and Fisheries of Alexandria (NIOF). Our study took advantage of this circumstance to analyze sediment samples at different sites along the eastern Mediterranean coast of Egypt looking for species of *Magelona*, which were morphologically described and illustrated by photos, while providing their updated geographical distributions and habitats.

MATERIALS AND METHODS

Seabed samples were collected at 18 sites along the Egyptian coast (Fig. 1) in September 2021 during a scientific strategy cruise carried out by the NIOF on board the “AL Yarmouk” research vessel. Sediments were collected with a Van Veen grab (13×18 cm), partially sieved through a 100 µm sieve and preserved in containers with 10% formalin/seawater solution for later taxonomic identification and counting. Organisms were sorted and identified to species level under a stereomicroscope and Olympus CX2 microscope, photographed with an EOS 1300D Canon digital camera and preserved in 70% ethanol. Specimens are deposited at the Taxonomy and Biodiversity of Aquatic Biota Lab, Marine Environment Division, National Institute of Oceanography and Fisheries (Alexandria Branch).

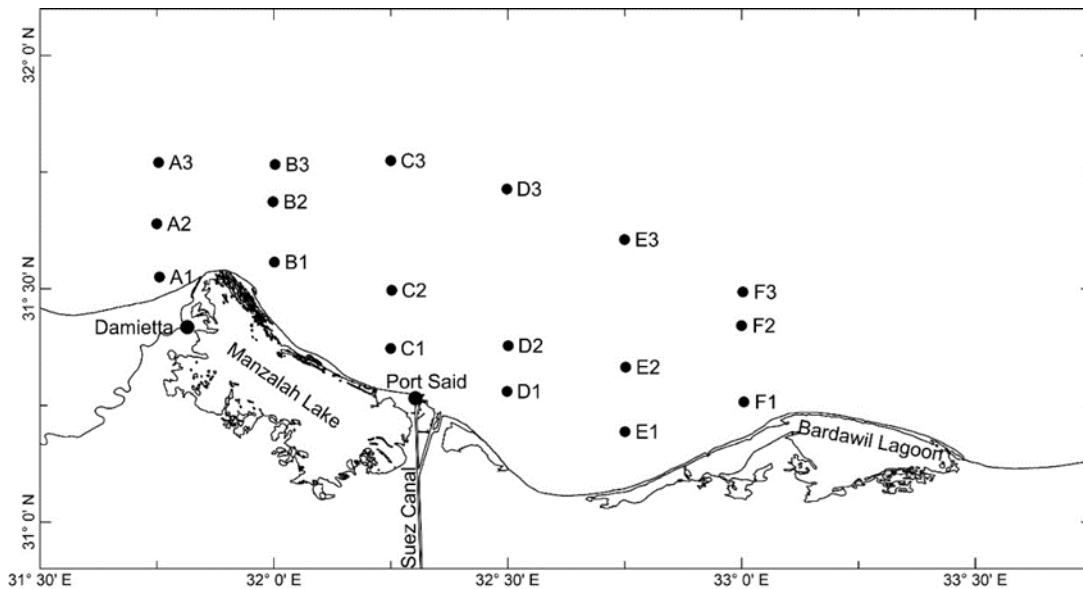


Fig. 1. Location of sampling stations

RESULTS

Systematics

Family: Magelonidae Cunningham and Ramage, 1888

Genus: *Magelona* F. Müller, 1858; emended by **Fiege et al. (2000)**.

Magelona cf. falcifera Mortimer and Mackie, 2003.

Figs. (2–3)

Magelona falcifera Mortimer and Mackie 2003: 167–169, Fig. 3

Magelona cf. falcifera Mortimer *et al.* 2012: 26, Figs. 9–10, 13K

Material examined. One complete specimen collected at station C3, 32.250 N, 31.774 E, 51 m, sandy mud.

Description. Body slender, 11 mm long, 0.26 mm wide for 58 chaetigers, slightly constricted at chaetiger 9. Prostomium slightly longer than wide, subtriangular; anterior margin, blunt, smooth, slightly dorsally bent, with two pairs of longitudinal dorsal ridges. Burrowing organ everted. Eyes and prostomial horns absent. Palps not observed. Achaetous segment slightly longer than first segment (Fig. 2A). Pygidium small, with two small, slender lateral anal cirri (Fig. 2B).

Parapodia from chaetigers 1–8 similar, having indistinct notopodial prechaetal lamellae, lacking dorsal superior processes and ventral neuropodial lobes, with neuropodial postchaetal lamellae lanceolate, long, with short narrow tips (Fig. 2C–E). Chaetiger 9 slightly narrower and thinner than preceding ones, with shorter parapodia having broad triangular neuropodial postchaetal lamellae with short narrow tips (Fig. 2F). All thoracic chaetae uni- or bilimbate capillary (Fig. 2C–F).

Abdominal chaetigers lacking prechaetal lamellae and having basally constricted, small, foliaceous lateral lamellae in anterior abdomen, shortening and becoming filiform posteriorly (Fig. 3G). Chaetiger 10 with five small bidentate hooded hooks in both rami; chaetigers 11–22 with one large sickle-shaped hooded hook in both rami, with a smooth crest, lacking secondary teeth, shortening posteriorly, and several smaller bidentate hooded hooks at the base of the long, slender lateral lamellae (Fig. 3H–J); from chaetiger 23 to posterior end, each ramus with 6–8 bidentate hooded hooks in two groups face-to-face (Fig. 3K, L), decreasing to four in far posterior chaetigers (Fig. 3M).

Discussion. The Egyptian specimens resemble *Magelona* sp. C of Uebelacker and Jones (1984); it was later described as *M. magnahamata*, *M. cf. falcifera*, *M. falcifera*, (Aguado and San Martín, 2003), *Magelona uebelackerae* (Hernández-Alcántara & Solís-Weiss, 2000) and *Magelona spinifera* (Hernández-Alcántara & Solís-Weiss, 2000) in having strong, enlarged, curved hooded hooks in the anterior abdominal segment, although those in *M. spinifera* are clearly only weakly curved. *Magelona* sp. C. from the Gulf of Mexico differs in having the largest sickle-like hooded hooks bidentate, *M. uebelackerae* in having sickle-like hooded hooks present up to chaetiger 36, 1–2 large hooded curved spines close to lateral notopodial lamellae and well-defined frontal horns, and *M. magnahamata* from Panama, which lacks modified chaetae in chaetiger nine and frontal horns, differs in having sickle-like hooded hooks long apical secondary tooth present in each anterior abdominal parapodial ramus (Aguado and San Martín, 2003).

The Egyptian specimen most closely resembles the specimens of *M. falcifera* **Mortimer and Mackie (2003)** and *M. cf. falcifera* described in **Mortimer et al. (2012)**. However, they differ in having sickle-like hooded hooks present until chaetiger 24, which are clearly less curved and smaller (Fig. 3K in **Mortimer and Mackie, 2003** and Fig. 3 H-J in this paper). The drawing in Fig. (2) shows sickle-like hooded hooks for the present study and **Mortimer and Mackie (2003)** (Diagrammatic image, Fig. 2). It is likely that the current specimen is an undescribed species, but having found only one, we have decided not to formally describe it in the meantime. At present, we do not have enough information to decide whether it could represent a new record of *M. falcifera* for the Mediterranean Sea and the Egyptian Mediterranean waters, which could have been introduced by ballast waters, or a new still unnamed species.

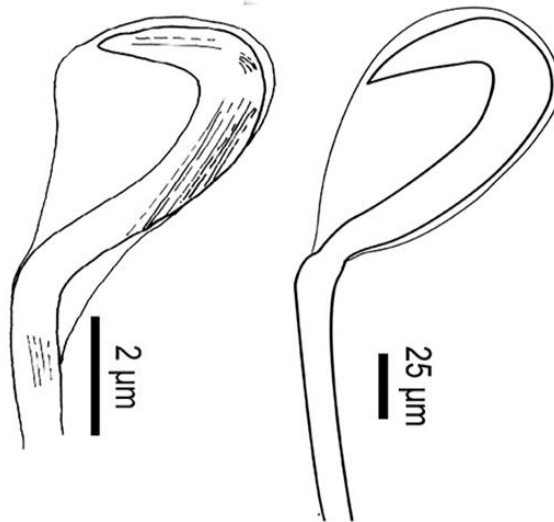


Fig. 2. Diagrammatic image showing the difference between the two sickle-like hooded hooks of *Magelona falcifera* redrawn from **Mortimer and Mackie (2003)** on the left and the current study on the right.

Magelona filiformis minuta Wilson, 1959

Figs. (4–5)

Magelona minuta **Mills and Mortimer (2018)**: pp. 543–555, Fig. (210).

Material examined. Six incomplete specimens, collected from station C3, 32.250 N, 31.774 E, 51 m deep, and E3, 32.750 N, 31.605 E, 52 m deep, sandy mud.

Description. A large incomplete specimen, 14 mm long, and 1 mm wide, with 32 chaetigers, other fragments less than 14 mm in length. Thin and cylindrical. Prostomium slightly longer than wide, sub-trapezoidal, with a smooth anterior margin; prostomial horns and eyes absent. Palps not observed (Fig. 4A). Notopodial and neuropodial postchaetal lamellae sublanceolate, with broad bases, triangular, similar in length in both

rami, smooth-edged; prechaetal lamellae indistinct (Figs. 4B–F, 5G). Thoracic parapodia lacking dorsal superior lobes and ventral neuropodial lobes. Parapodia of chaetiger 9 similar to those in 1–8 but with prechaetal lamellae more vertically positioned, notopodial lamellae longer than neuropodial and having only simple capillary chaetae (Figs. 4B–F, 5G–H). Lateral lamellae of abdominal parapodia large, slender foliaceous, with long constricted bases, gradually shortening towards posterior end (Fig 5H–J). Abdominal hooded hooks bidentate, variable in size, 6–8 in anterior parapodia (Fig. 5K) in two groups face-to-face, then two groups of 4–7 in most posterior abdominal chaetigers, also face-to-face; angle between main fang and shaft axis right-angles; accessory tooth rather slender, as a curved extension of shaft axis (Fig. 5L); hood transparent, fully surrounding hook tip, not leaving an opening through which hook tip might protrude. Pygidium not observed.

Discussion. Our specimens fully agree with the species redescription in **Mortimer and Mills (2018)**.

Magelona equilamellae Harmelin, 1964

Figs. (6–8)

Magelona equilamellae **Mortimer et al. (2020)**: p. 91–99, Figs. 1-5, Table1.

Material examined. Two incomplete specimens, 0.6 mm long, 1.5 mm wide, 28 chaetigers. Collected from stations C3 (32.250 N, 31.774 E, 51 m depth) and E3 (32.750 N, 31.605 E, 52 m depth) in sandy mud.

Description. Body large, with pigmented dorsal band (anteriorly), thorax wider than abdomen in dorsal view, constriction at chaetiger 9 not obvious, and distinct glandular areas in abdomen, as accumulated broad, speckles on both sides (Fig. 6A). Prostomium wider than long, subtriangular, with smooth anterior margin, lacking horns, with one pair of longitudinal ridges closed medially, divergent at either end besides very faint indistinct lateral prostomial ridges (Fig. 6A). Palps long (one broken) reaching chaetiger 14, arising ventro-laterally from prostomium base, heavily papillated, with non-papillated region reaching chaetiger 2; papillate region with long digitiform papillae, giving palps a “feathery” appearance. Buccal region large, swollen. Achaetous region behind prostomium large, approximately twice as long as chaetiger 1 (Fig. 6A).

Chaetigers 1–9 with similar slender, smooth-edged, triangular lamellae. Chaetiger 1-8 with triangular notopodial prechaetal ridges and slender triangular postchaetal lamellae with pointed tips. Neuropodial postchaetal lamellae triangular, first ones in prechaetal position, becoming entirely postchaetal from chaetiger 7. (Figs. 6, 7). Chaetiger 9 with

similar notopodia from chaetigers 1–8, with neuropodial lamellae more triangular, distinctly lateral, with low inferior postchaetal ridges terminating in minute triangular processes (Fig. 7J). Thoracic capillary chaetae longer in neuropodia than in notopodia. Abdominal chaetigers with narrow-pointed triangular lateral lamellae, approximately equally sized in both rami, but longer than thoracic lamellae (Figs. 7K–L, 8M–O); hooded hooks tridentate, all similar in size, in two groups face-to-face (Fig. 8P–R), 8–10 in each ramus on median chaetigers.

Distribution. Originally described from the Mediterranean coasts of France, western and Eastern Mediterranean, Adriatic Sea and Greece (**Dando *et al.*, 1995; Arvanitidis, 2000; Faulwetter, 2010; Koulouri *et al.*, 2015**), Tunisia (**Ayari *et al.*, 2009**), Turkey (**Çinar *et al.* 2014**) and Portugal (**Sousa, 2016**).

The description of *M. equilamellae* as a new species by **Harmelin (1964)** was based on the presence of a thoracic pigment band and tridentate abdominal hooks and the absence of specialized thoracic chaetae (**Brasil, 2003**). The species differs from *Magelona cincta* Ehlers, 1908, which has digitiform noto and neuropodial lamellae (**Mortimer & Mackie, 2009**). It also differs from *Magelona alleni* Wilson, 1958, which has sub-equal abdominal lamellae (equal in *M. equilamellae*) and a prostomium with a narrower distal end (broader, with lateral margins much thicker than the anterior margins in *M. equilamellae*) (**Mortimer *et al.*, 2020**). *Magelona japonica* Okuda, 1937 has a distinct thoracic pigmented band similar to *M. equilamellae*, but has a prostomium bearing horns. Prostomial horns are absent in *M. equilamellae* like in *Magelona variolamellata* Bolívar and Lana, 1986, but this species differs in the shape of the lamellae of chaetiger 9 and in lacking dorsal and ventral processes in abdominal chaetigers (present in *M. variolamellata*). Our finding represents the first report of the species for the Egyptian Mediterranean waters.

REFERENCES

- Abd-Elnaby, F.A.** (2008). New recorded species of Magelonidae and Maldanidae (Annelida: Polychaeta) from EL-Tina Bay, Mediterranean coast of Egypt. *Egypt. J. Aquat. Biol. and Fish.*, 12 (4): 119-141.
- Aguado, T. and San Martín, G.** (2003). A new species of *Magelona* Müller, 1858 (Polychaeta: Magelonidae). *Proceed. Biol. Soc. Wash.*, 116 (3): 542-547.
- Aguirrezabalaga, F.; Ceberio, A. and Fiege, D.** (2001). *Octomagelona bizkaiensis* (Polychaeta: Magelonidae) a new genus and species from the Capbreton Canyon (Bay of Biscay, north-east Atlantic). *J. Mar. Biol. Assoc. Unit. King.*, 81 (2): 221-224.

Amoureux, L. (1983). Annélides Polychètes du golfe d'Aqaba (Mer Rouge). Description d'un genre nouveau et de deux espèces nouvelles. Bull. Mus. Hist. Nat., Paris, (Series 4) 5 (3): 723-742.

Arvanitidis, C. (2000). Polychaete fauna of the Aegean Sea: inventory and new information. Bull. Mar.Sci., 66 (1): 73-96.

Ayari, R.; Muir, A.; Paterson, G.; Afli, A. and Aïssa, P. (2009). An updated list of polychaetous annelids from Tunisian coasts (Western Mediterranean Sea). Cah. Biologie Mar., 50: 33-45.

Bolívar, G.A. and Lana, P.C. (1986). Magelonidae (Annelida, Polychaeta) do litoral sudeste do Brasil. Nerítica, 1: 131-147.

Brasil, A.C. (2003). Filogenia de Magelonidae Cunningham & Ramage, 1888 (Annelida-Polychaeta) com base na morfologia externa. PhD Thesis, Setor de Ciências Biológicas-Zoologia, Universidade Federal do Paraná, Curitiba.

Buzhinskaja, G.N. (1985). Polychaeta of the shelf off south Sakhalin and their ecology. Akademia nauk Zoologicheskii Institut Issledovania fauna morei, 30 (38): 72-224.

Çinar, M.E.; Dagli, E. and Sahin, G.K. (2014). Checklist of Annelida from the coasts of Turkey. Turk. J. Zool., 38: 734-764.

Dando, P.R.; Hughes, J.A. and Thiermann, F. (1995). Preliminary observations on biological communities at shallow hydrothermal vents in the Aegean Sea. Geolog. Soc., Lond., Special Publications, 87 (1): 303-317.

Day, J. H. (1961). The Polychaet [sic] Fauna of South Africa. Part 6. Sedentary species dredged off Cape coasts with a few new records from the shore. J. Linn. Soc. Lond., 44(299): 463-560., available online at <https://doi.org/10.1111/j.1096-3642.1961.tb01623.x>.

Day, J.H. (1962). Polychaeta from several localities in the western Indian Ocean. Proceed. Zool. Soc. Lond., 139 (4): 627-656.

Ehlers, E. (1908). Die bodensässigen Anneliden aus den Sammlungen der deutschen Tiefsee-Expedition. 1-168. IN: Chun, Carl (Ed.). Wissenschaftliche Ergebnisse der Deutschen Tiefsee-Expedition auf dem Dampfer "Valdivia" 1898-1899. 16 (1): 1-168, plates I-XXIII.

Faulwetter, S. (2010). Checklist of marine Polychaeta from Greece. Aristotle. University of Thessaloniki. Assembled in the framework of the EU FP7 PESI project.

Fauvel, P. (1953). Annélides polychètes non pélagiques. Expédition Océanographique Belge dans les eaux côtières africaines de l'Atlantique Sud (1948-1949). Résultats Scientifiques, Institut Royale des Sciences Naturelles de Belgique, 4 (4): 1-56.

Fiege, D.; Licher, F. and Mackie, A.S.Y. (2000). A partial review of the European Magelonidae (Annelida: Polychaeta): *Magelona mirabilis* redefined and *M. johnstoni* sp. nov. distinguished. J. Mar. Biol. Ass. Unit. Kingd., 80: 215-234.

Gravier, C. (1906). Sur les annélides polychètes de la Mer Rouge (Sabellides). Bull. Mus. Hist. Nat., Paris, 12 (1): 33-43.

Harmelin, J.G. (1964). Étude de l'endofaune des "mattes" d'herbiers de *Posidonia oceanica* Delile. Recueil des Travaux de la Station Marine d'Endoume, 35 (51): 43-105.

Hartman, O. (1944). Polychaetous annelids from California, including the descriptions of two new genera and nine new species. Allan Hancock Pacific Expeditions, 10 (2): 239-307.

Hartman, O. (1971). Abyssal polychaetous annelids from the Mozambique Basin off southeast Africa, with a compendium of abyssal polychaetous annelids from world-wide areas. J. Fish. Res. Board of Canada, 28(10): 1407-1428. <http://dx.doi.org/10.1139/f71-219>.

Hernández-Alcántara, P. and Solís-Weiss, V. (2000). Magelonidae from the Mexican Pacific and Northern Gulf of Mexico, with the Description of a New Genus (*Meredithia*) and Four New Species. Bull. Mar. Sci., 67: 625-644.

Jones, M.L. (1963). Four New Species of *Magelona* (Annelida, Polychaeta) and a Redescription of *Magelona longicornis* Johnson. American Museum Novitates, 2164: 1-29.

Jones, M.L. (1968). On the Morphology, Feeding, and Behavior of *Magelona* sp. Biol. Bull., 134: 272-297.

Jones, M.L. (1971). *Magelona berkeleyi* n. sp. from Puget Sound (Annelida: Polychaeta), with a Further Redescription of *Magelona longicornis* Johnson and a consideration of recently described species of *Magelona*. J. Fish. Res. Board of Canada, 28: 1445-1454.

Jones, M.L. (1977). Redescription of *M. papillicornis* F. Müller. In Essays on Polychaetous Annelids in Memory of Dr. Olga Hartman; Reish, D.J., Fauchald, K., Eds.; Allan Hancock Foundation: University of Southern California: Los Angeles, CA, USA, pp: 247-266.

Jones, M.L. (1978). Three New Species of *Magelona* (Annelida, Polychaeta) and a Redescription of *Magelona pitelkai* Hartman. Proc. Biol. Soc. Wash., 91: 336-363.

Kitamori, R. (1967). Magelonidae (Polychaetous annelids) from Japan, including the description of a new species. Bull. Tokai Reg. Fish. Res. Laborat., 50: 49-54.

Koulouri, P.; Dounas, C.; Arvanitidis, C.; Koutsoubas, D. and Tselepides, A. (2015). A field experiment on trophic relations within the benthic boundary layer (BBL) over an oligotrophic continental shelf. Estuarine, Coast. Shel. Sci., 164: 392-407.

Mills, K. and Mortimer, K. (2018). Redescription of *Magelona minuta* Eliason, 1962 (Annelida), with discussions on the validity of *Magelona filiformis minuta*. Zoot., 4527 (4): 541-559.

Mills, K. and Mortimer, K. (2019). Observations on the tubicolous annelid *Magelona alleni* (Magelonidae), with discussions on the relationship between morphology and behaviour of European magelonids. J.Mar. Biol. Assoc. Unit.Kingd., 99 (4): 715-727.

Mohamed, M.B.M. (1973). New species and records of polychaete annelids from Kuwait, Arabian Gulf. Zool. J. Linn. Soc., Lond., 52: 23-44.

Moore, J.P. (1907). Descriptions of new species of spioniform annelids. Proceed. Acad. Nat. Sci. of Philadelphia, 59: 195-207, plates XV-XVI.

Mortimer, K. and Mackie, A.S.Y. (2003). The Magelonidae (Annelida: Polychaeta) from the Seychelles, with the description of three new species. Hydrobiol., 496: 163-173.

Mortimer, K. and Mackie, A. (2006). The Magelonidae (Annelida: Polychaeta) from the Seychelles 2: description of four additional species, three new to science. Scient. Mar., 70 (S3): 125-137.

Mortimer, K. and Mackie, A.S.Y. (2009). Magelonidae (Polychaeta) from Hong Kong, China; with discussions on related species and redescriptions of three species. In: Maciolek, N.J. and Blake, J.A. (Eds.) Proceedings of the Ninth International Polychaete Conference. Zoosympos., 2: 179-199.

Mortimer, K.; Cassa, S.; Martin, D. and Gil, J. (2012). New records and new species of Magelonidae (Polychaeta) from the Arabian Peninsula, with a re-description of *Magelona pacifica* and a discussion on the magelonid buccal region. Zoot., 3331: 1-43.

Mortimer, K. and Mackie, A.S. (2014). Morphology, feeding and behaviour of British *Magelona* (Annelida: Magelonidae), with discussions on the form and function of abdominal lateral pouches. Memo. Mus. Victoria, 71: 177-201.

Mortimer, K.; Mills, K.; Jordana, E.; Pinedo, S. and Gil, J. (2020). A further review of European Magelonidae (Annelida), including redescriptions of *Magelona equilamellae* and *Magelona filiformis*. Zoot., 4767 (1): 89-114.

Mortimer, K.; Fitzhugh, K.; Brasil, A.C. and Lana, P. (2021). Who's who in *Magelona* phylogenetic hypotheses under Magelonidae Cunningham and Ramage, 1888 (Annelida: Polychaeta). PeerJ, 9: e11993

Müller, F. (1858). Einiges über die Annelidenfauna der Insel Santa Catharina an der brasilianischen Küste. Archiv für Naturgeschichte, 24, 211-220.

Nateewathana, A. and Hylleberg, J. (1991). Magelonid polychaetes from Thailand, the Andaman Sea, with descriptions of eight new species. Ophel., 5: 169-184.

Okuda, S. (1937). Spioniform polychaetes from Japan. Journal of the Faculty of Science, Hokkaido University, 6: 217-254.

Parapar, J.; Mortimer, K.; Capa, M. and Moreira, J. (2021). On the Systematics and Biodiversity of the Palaeoannelida. Divers., 13(2): 13-44.

Rouse, G. and Pleeijel, F. (2001). Polychaetes. Oxford university press.

Rouse, G.; Pleeijel, F. and Tilic, E. (2022). Annelida: Oxford University.

Sousa, P.M.R. (2016). Evolução das comunidades de macroinvertebrados bentônicos do estuário do Tejo nas últimas duas décadas: efeitos das alterações nas redes de saneamento básico e/ou resultado das alterações climáticas? MSc Thesis, Faculdade de Ciências, Universidade de Lisboa, Lisboa.

Uebelacker, J.M. and Jones, M.L. (1984). Family Magelonidae. In Taxonomic Guide to the Polychaetes of the Northern Gulf of Mexico; Uebelacker, J.M., Johnson, P.G., Eds.; Barry A. Vittor & Associates: Mobile, AL, USA, 2: 7.1-7.29.

Wesenberg-Lund, E. (1949). Polychaetes of the Iranian Gulf. Dan. Sci. Invest. in Iran 4: 247-400.

Wilson, D.P. (1958). The polychaete *Magelona alleni* n. sp. and a re-assessment of *Magelona cincta* Ehlers. J.Mar. Biol. Assoc.Unit. Kingd., 37(3): 617-626.

Wilson, D. P. (1959). The polychaete *Magelona filiformis* n.sp. and notes on other species of *Magelona*. J. Mar. Biol. Assoc.Unit. Kingd., 38(3): 547-556.

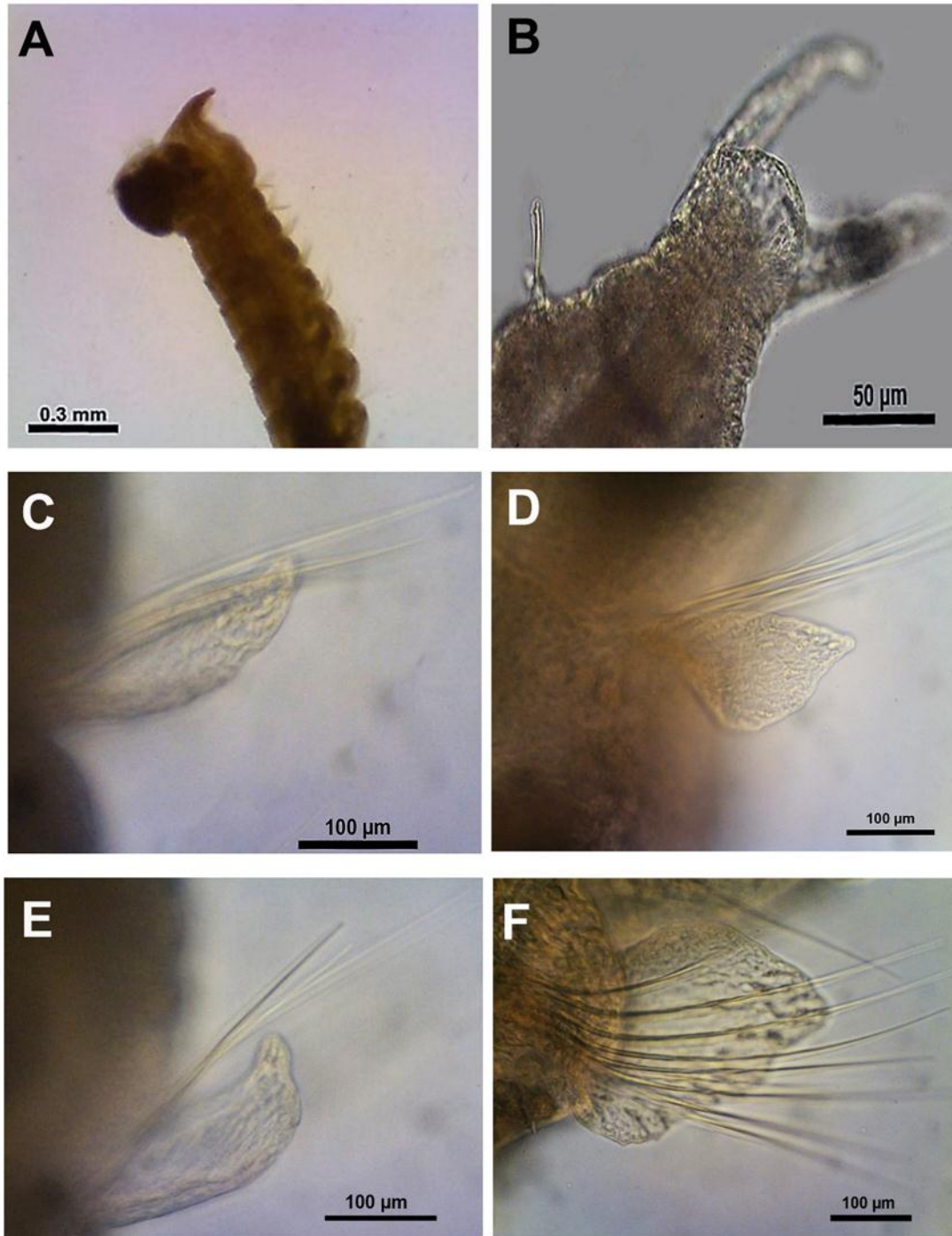


Fig. 2. *Magelona cf. falcifera* A. Anterior end (ventro-lateral view). B. Posterior end (dorsal view). C–E. The same neuropodial postchaetal lamellae of chaetigers 1–8 (anterior views). F. Neuropodial postchaetal lamellae of chaetiger 9.

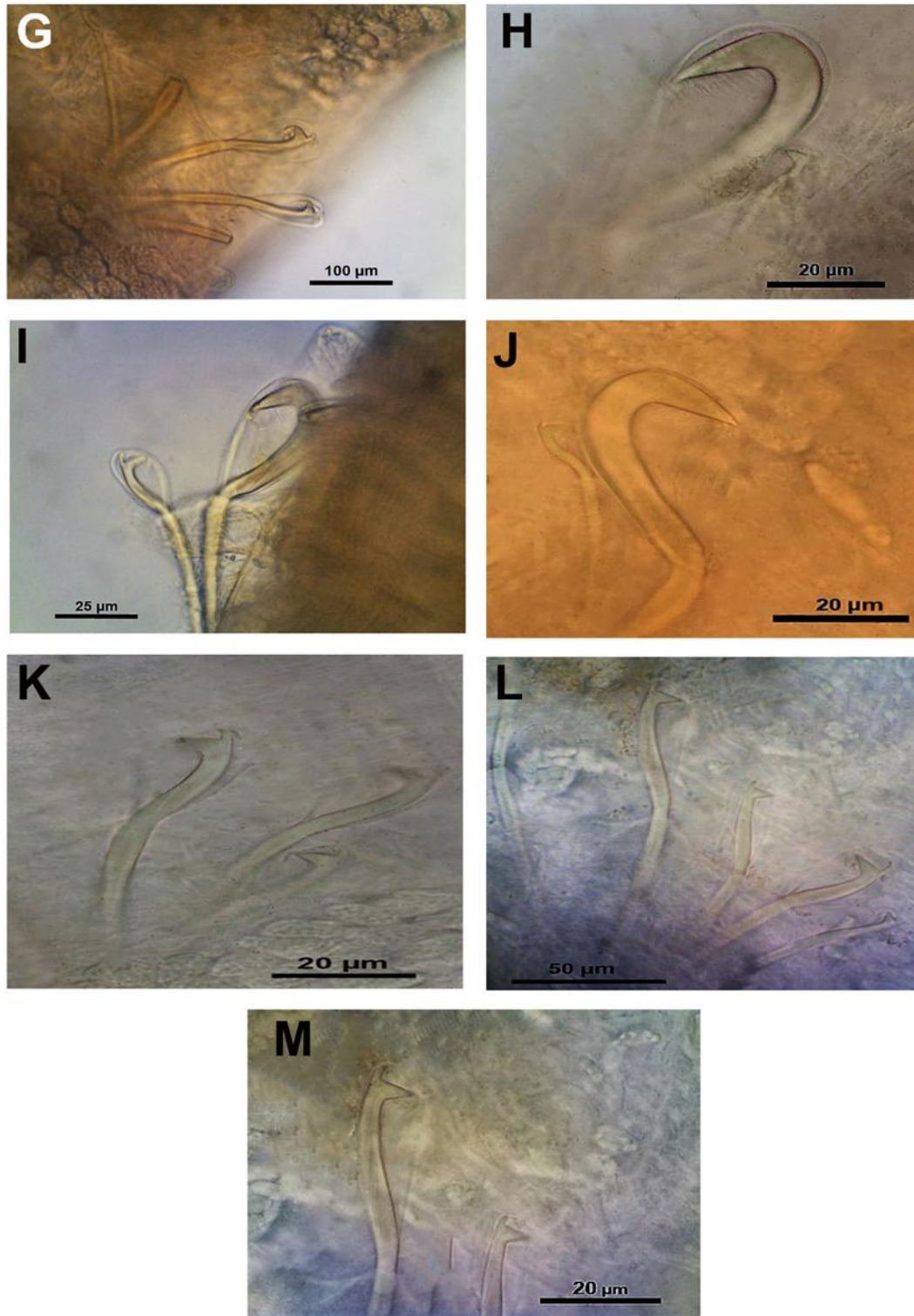


Fig. 3. *Magelona cf. falcifera* G. Anterior abdominal parapodia 10. H– J. Abdominal hooded hooks from chaetigers 11–22. K. Hooded hooks in the same direction. L. Hooded hooks face-to-face. M. Hooded hooks from a posterior abdominal chaetiger.

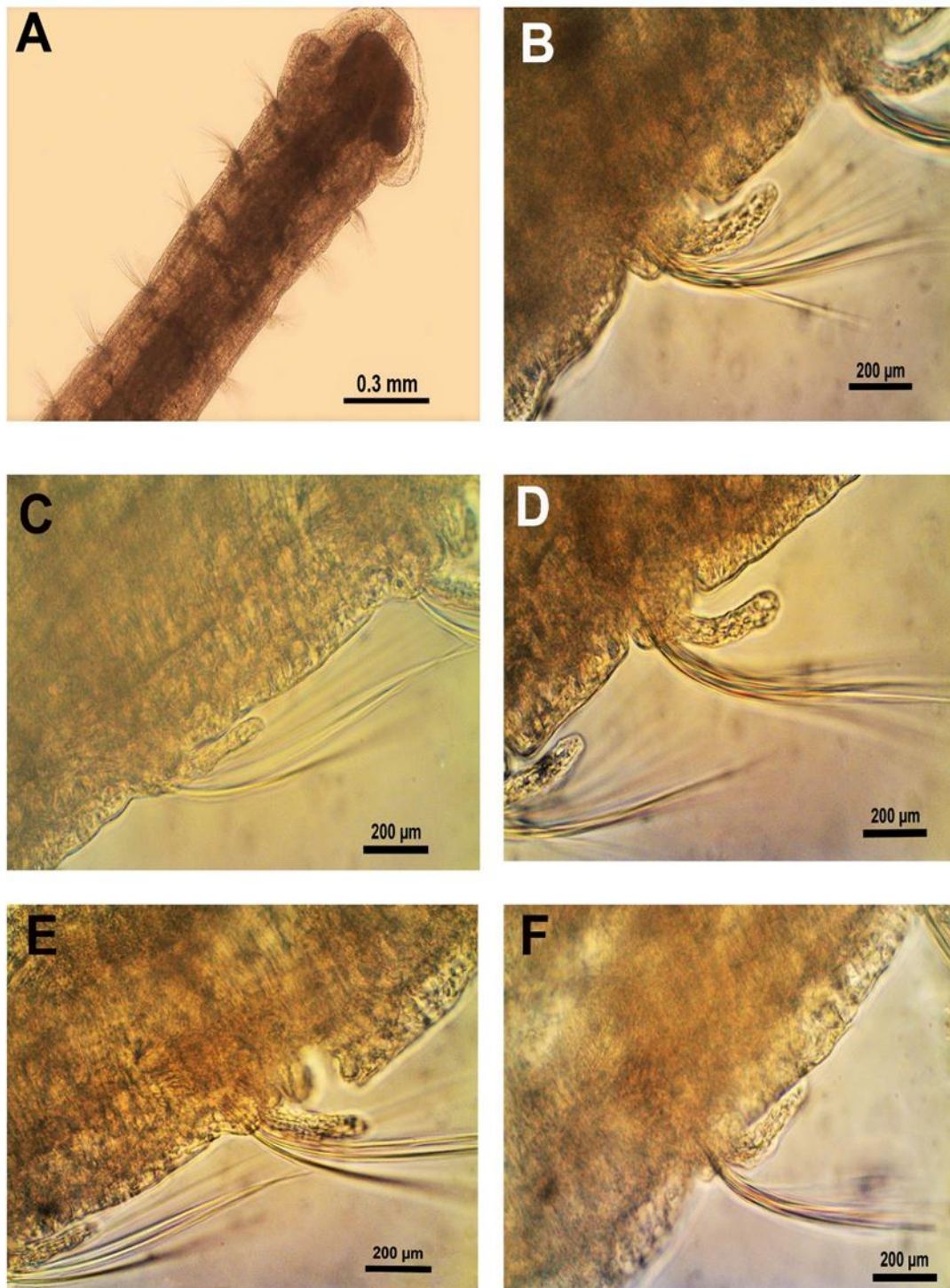


Fig. 4. *Magelona filiformis minuta* A. Anterior end. B–F. Notopodial lamellae from chaetiger 1-7.

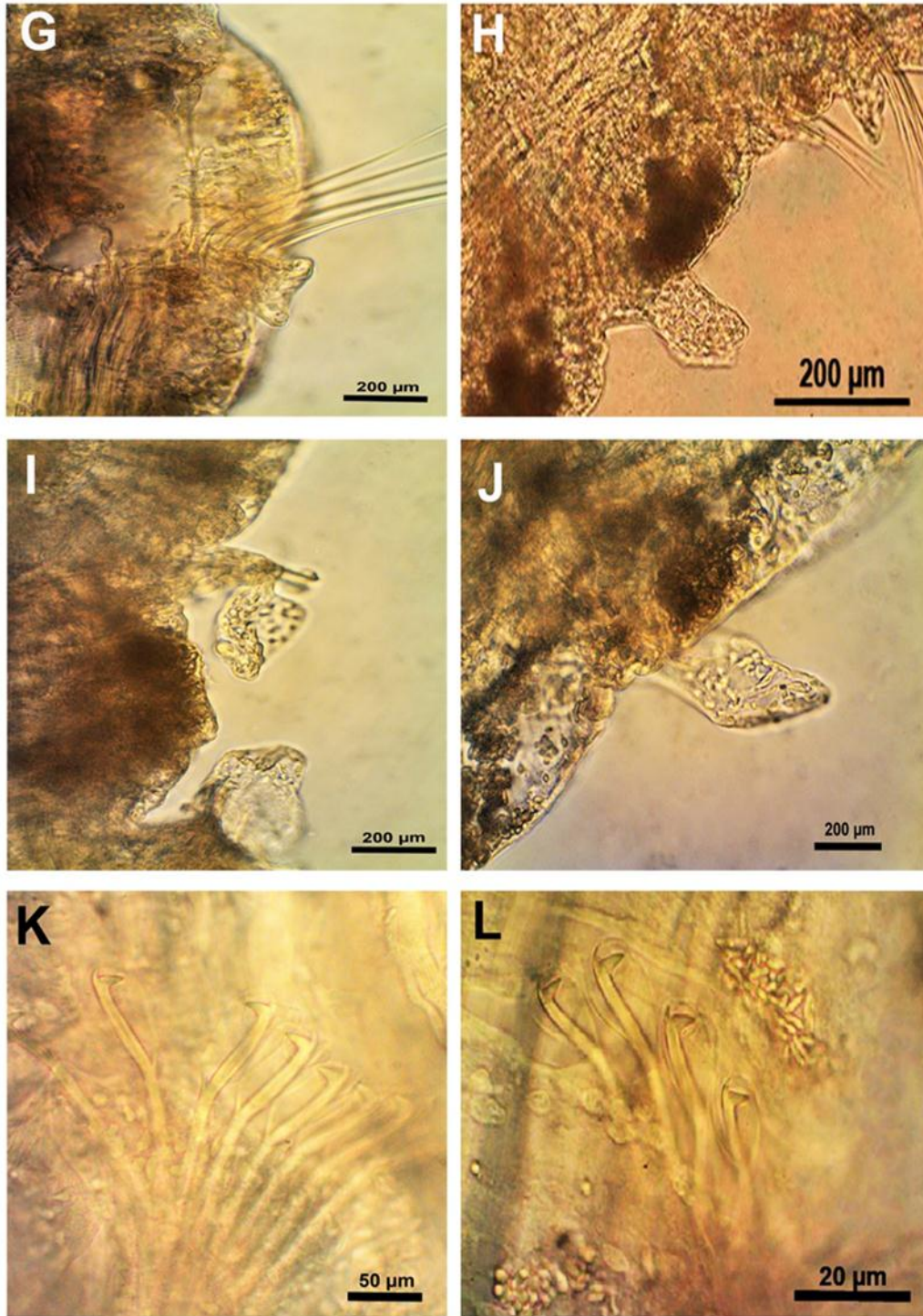


Fig. 5. *Magelona filiformis minuta* Wilson, 1959 (G) Lamellae from chaetiger.8, (H) Lamellae from chaetigers. 9-10, (I) Same from chaetiger 11, (J) Same from chaetiger 17, (K) Bidentate abdominal hooded hooks, face-to-face orientation, (L) Bidentate abdominal hooded hooks.

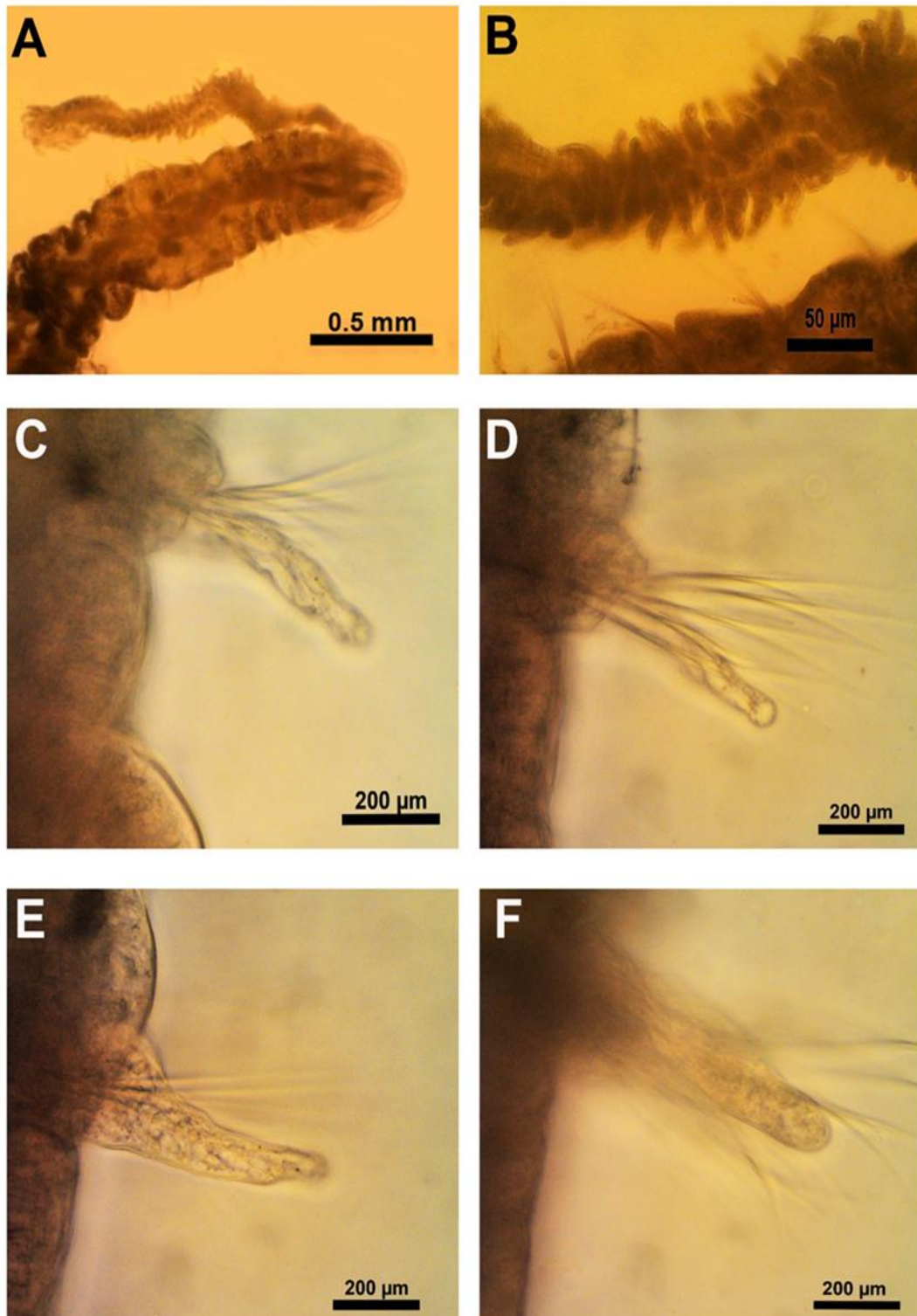


Fig.6. *Magelona equilamellae* A. Anterior end (dorsal view). B. Palp with papillae. C–F. Thoracic lamellae, with capillary chaetigers.

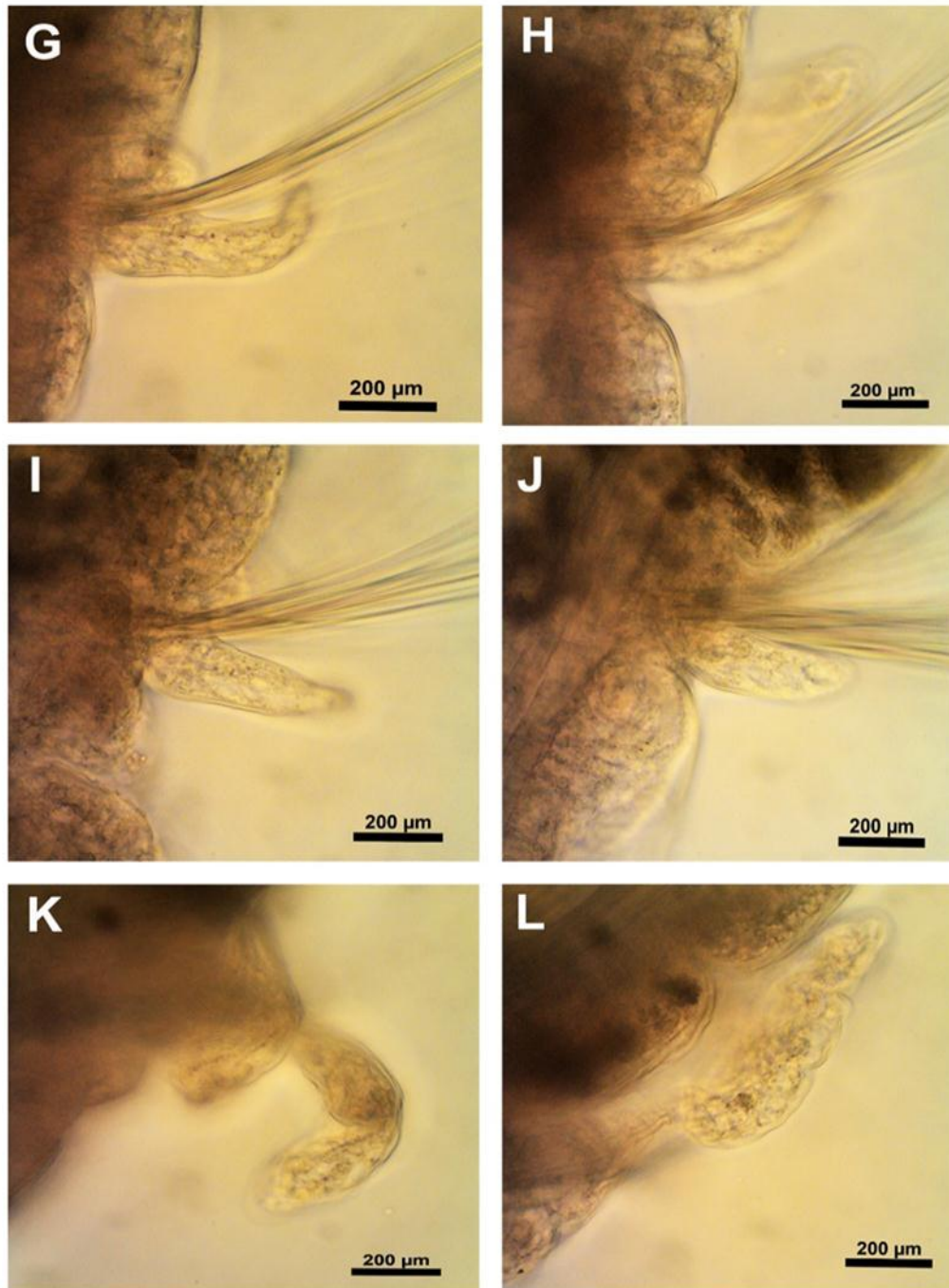


Fig. 7. *Magelona equilamellae* G–J. Same thoracic notopodial lamellae. K–L. Abdominal parapodia with neuropodial lamellae.

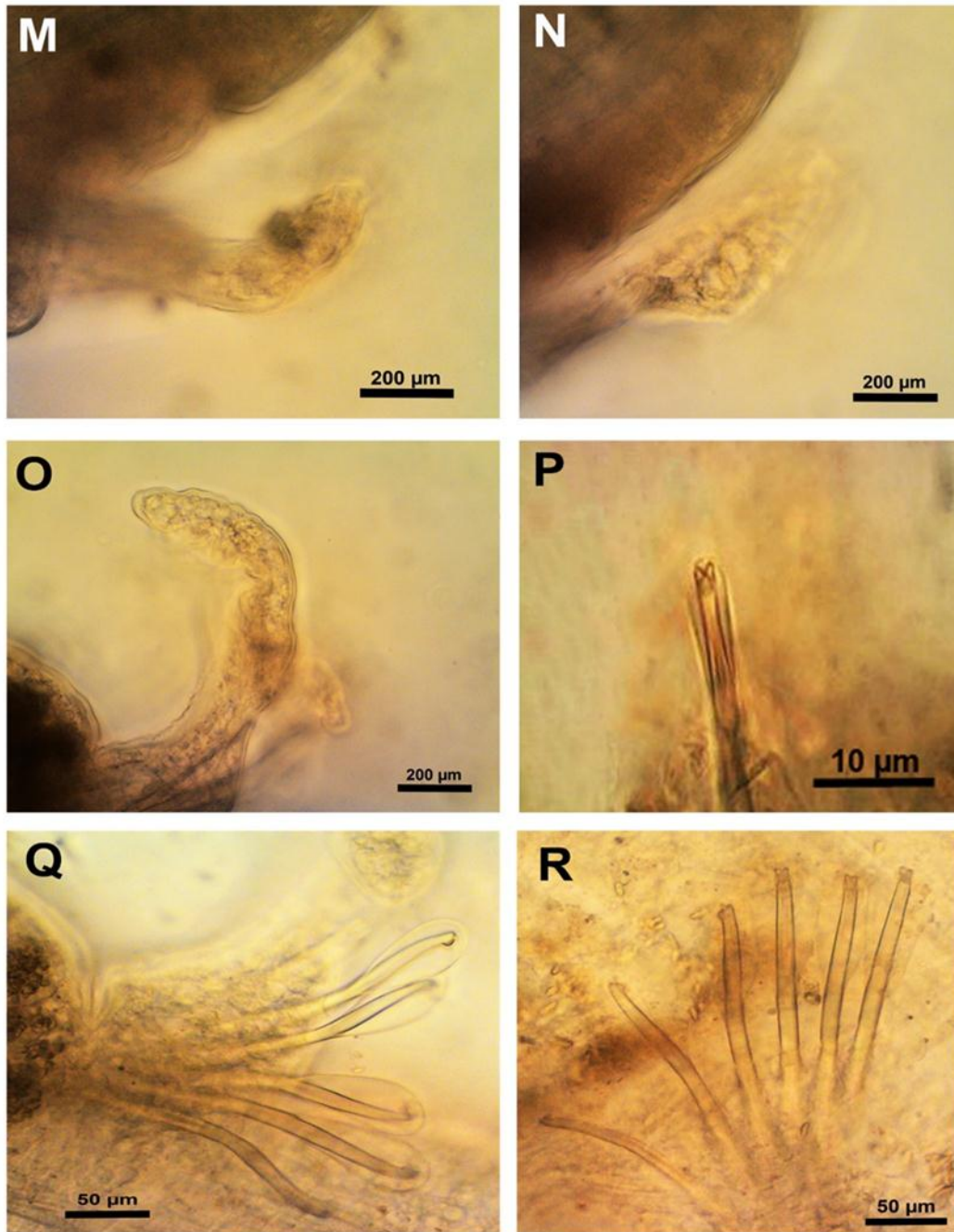


Fig. 8. *Magelona equilamellae* M–O. Same abdominal parapodia with long lamellae. P–R. Anterior view of abdominal tridentate hooded hooks.