

A new species of *Lepidasthenia* (Polychaeta, Polynoidae) from Canary Islands

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Lepidasthenia medanensis sp.n., is described from subtidal sandy bottom and beds of *Cymodocea nodosa* on the south west coast of Tenerife, Canary Islands.

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Introduction

The polynoid scaleworms from Canarian coasts has been studied recently, when 18 species were recorded, one of which had previously been identified only at generic level as *Lepidasthenia* (Brito *et al.* 1991). This material (two specimens) was re-examined, resulting in one of the specimens being identified as new to science, the other is in poor condition. In samples recently collected in beds of *Cymodocea nodosa* at El Médano (Tenerife), another specimen of the new taxon was found.

Material and methods

The material was collected by SCUBA-diving from El Médano at the south west coast of Tenerife, in a shallow subtidal area (4 m) above a rocky and sandy bottom, and at 6 m on a community of *C. nodosa*. Material was fixed in 10% formalin and then preserved in 70% alcohol. Dissections of parapodia and elytra were mounted in glycerine jelly. Setae were examined with a scanning electron microscope. Figures were made using an interference contrast microscope (Nomarski) with a camera lucida. Further details are given in Núñez (1991).

Lepidasthenia Malmgren, 1867

Lepidasthenia medanensis sp.n. (Figs 3)

Lepidasthenia sp.; Brito *et al.* 1991: 181.

Type material. Holotype No. AN/0189, paratype No. AN/0190, from El Médano, Tenerife, Islas Canarias (11 November 1978, 28 March 1991). Deposited in the Museo Insular de Ciencias Naturales of Santa Cruz de Tenerife (TFMC).

Etymology. The specific name refers to the type locality (El Médano).

Description. Holotype ovigerous female, body elongated, flattened, tapering gradually anteriorly and posteriorly. Length 40 mm; width including parapodia and setae 6.5 mm; with 75 segments. Translucent whitish, with white opaque irregular cross-bars on the dorsum; reddish prostomium.

Elytra 29 pairs on segments 2, 4, 5, 7, 9, alternating

segments up to 23, 26, 29, 32, 35, then every three segments up to 74. Elytra overlap, but are not large enough to cover centre of dorsum; first pair cover the prostomium. Anterior elytra rounded (Fig. 2D), rest oval; elytral surface with granulated appearance, without tubercles or fringe of papillae. Most of elytron translucent, anterior pairs with a brown patch extending forwards from the elythrochore.

Prostomium bilobed, wider than long, without cephalic peaks, but with occipital fold papillae (Fig. 1A). Two pairs of eyes of similar size, anterior pair lying dorso-laterally at the widest part of prostomium, posterior pair dorsal. Three antennae inserted terminally; median antenna of moderate size, ceratophore inserted in anterior notch with two dorso-lateral small rounded papilla; style smooth, cylindrical with tapered filiform tip, twice the length of prostomium. Lateral antennae with ceratophores shorter and thinner than median ceratophore, styles similar in shape to median antenna and almost as long. Palps tapering, long, $5.5 \times$ length of prostomium. Distinct facial tubercle present between the palps.

Tentacular segment fused to prostomium, not visible dorsally; tentaculophores lateral to prostomium, achaealous, with 2 pairs of dorsal and ventral tentacular cirri; styles smooth, of similar shape to median antenna but longer. Second segment with first pair of elythrochores, sub-biramous parapodia, and ventral buccal cirri with styles of similar length and shape to median antenna (Fig. 2A). Dorsal cirri only present on segments without elytra, cirrophores large and cylindrical, with acuminate styles longer than setigerous lobes. Ventral cirri tapering, present on every segment, shorter than setigerous lobes.

Parapodia sub-biramous. Notopodium reduced to a small acicular lobe, on antero-dorsal side of neuropodium. Neuropodium well developed, with obliquely truncate presetal and postsetal acicular lobes of similar size (Fig. 2B, C). Elythrochores, cirrophores and neuropodium with disseminated spherical ciliated papillae on dorsal and ventral surfaces. Nephridial papillae well developed, beginning on the first setiger.

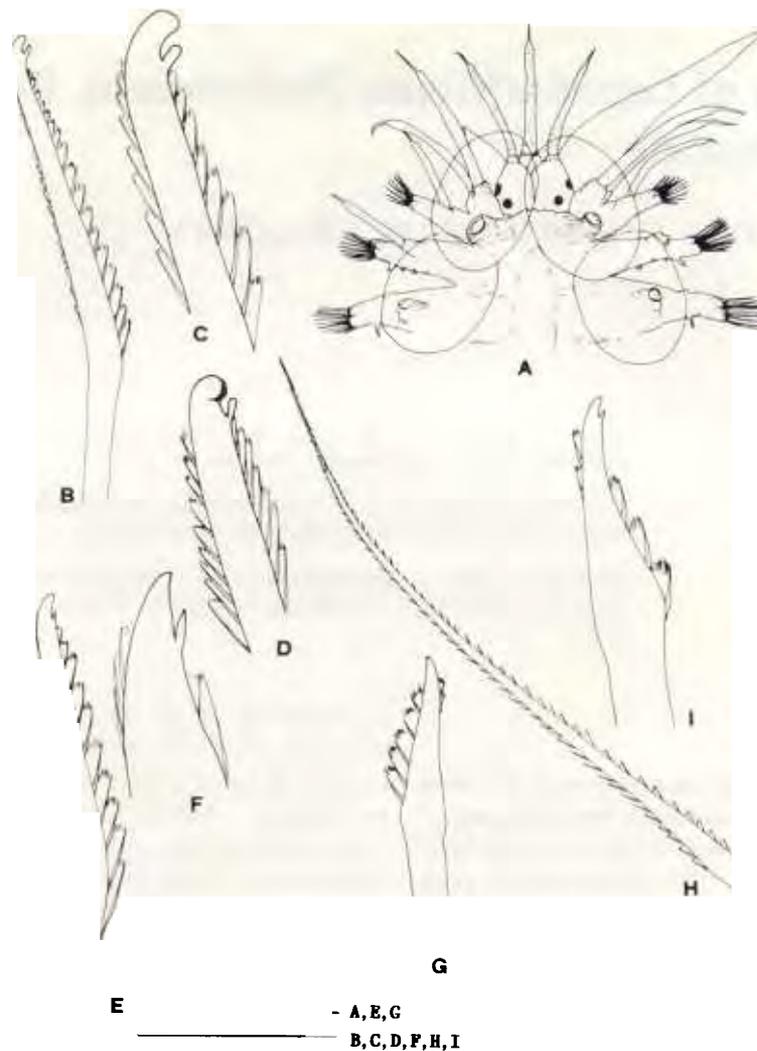


Fig. 1. *Lepidasthenia medanensis* sp.n.—A. Anterior end, dorsal view.—B–D. Neurosetae from first parapodium.—E–F. Upper neurosetae from middle parapodium.—G. Lower neurosetae from middle parapodium.—H. Upper neurosetae from posterior parapodium.—I. Lower neurosetae from posterior parapodium. Scale bars: A 1.4 mm; B 185 μ m; C–D 48 μ m; E 62 μ m; F 48 μ m; G μ m; H–I 185 μ m.

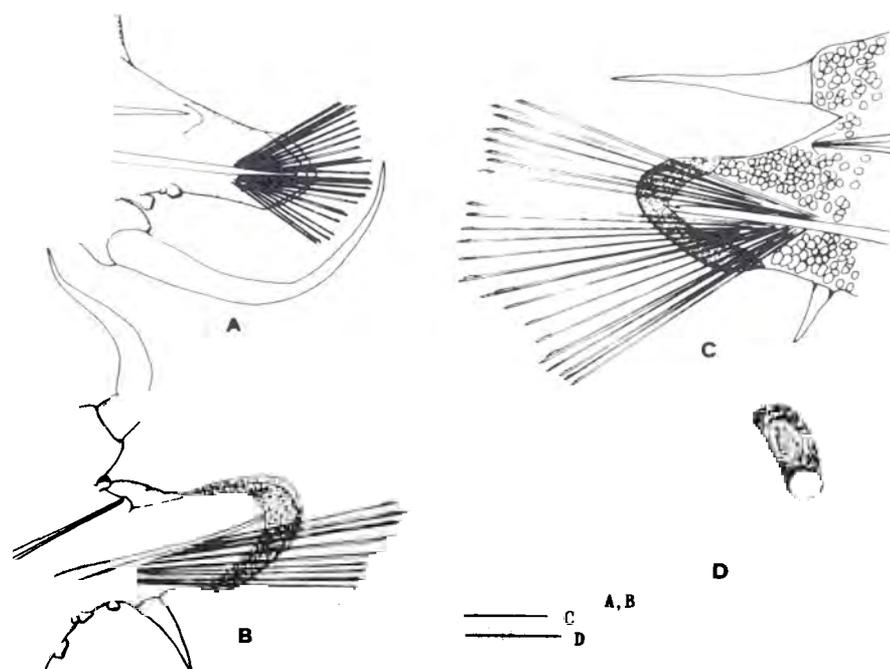


Fig. 2. *Lepidasthenia medanensis* sp.n.—A. First parapodium.—B. Anterior cirriferous parapodium.—C. Parapodium from middle segment with eggs.—D. Anterior elytron. Scale bars: A–C 0.5 mm; D 0.3 mm.



Notosetae absent. Neurosetae in two fascicles, 8–14 supra-acicular and 13–22 sub-acicular. Neurosetae of first parapodium with 9–24 rows of serrations and curved, rounded, bidentate tips (Fig. 1B–D). Rest of the parapodia include neurosetae of similar shape and size but acuminate bidentate tips or unidentate tips (Fig. 1E–G, I); serrations with pectinated plates (Fig. 3). In posterior feet, the supra-acicular fascicle includes long slender serrated setae with unidentate tips (Fig. 1H) Giant setae absent.

Pigidium small, anus terminal, two small anal cirri. Sexual products in 23–52 segments.

Remarks. Some species of *Lepidasthenia* have papillae scattered on dorsal and ventral surfaces of parapodia: *L. argus* Hodgson, 1900 (Tebble & Chambers, 1982), *L. mossambica* Day, 1962 (Day, 1967), *L. medanensis* sp.n. and a related genus *Nectochaeta grimaldii* (Marenzeller, 1892) (Fauvel, 1916, 1923); other species only have papillae on the ventral side of neuropodium—these are *L. maculata* Poots, 1909 (Fauvel, 1923), *L. brunnea* Day, 1960 (Day, 1967) and a related genus *Telolepidasthenia lobetobiensis* Augener & Pettibone, 1970 (Pettibone, 1970). *Lepidasthenia medanensis* differs from these species by its whitish colouration, shape of the body and distribution and shape of setae. *Lepidasthenia medanensis* is the only species of the genus with slender setae with unidentate tips in some posterior segments.

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Fig. 3. *Lepidasthenia medanensis* sp.n. (SEM photographs).—A–C. Tips of neurosetae showing the ciliated plates.—D. Bidentate tip of neuroseta. Scale bars: A 10 μ m; B 50 μ m; C 10 μ m; D 5 μ m.