

PROVISIONAL SPECIES VOUCHER SHEET

Provisional Name: *Magelona* sp B

Taxon: Magelonidae

Taxonomist: R. Rowe

Authority: fide Harris & Rowe 2003

Date: 17Nov2003

Common Synonyms:

See Related Species and Comments below.

Specimen(s): STATION DATE DEPTH STORAGE LOCATION VIAL#

CSD Regional 2735 reps 1 & 2 17July2001 585ft. DLZ 2114

Additional specimens from Regional and Pt. Loma Outfall Stations (319 ft, 500 ft., & 378 ft)

Characters:

1. Anterior margin of prostomium rounded, crenulated, and with well formed horns (Figs. 1 & 6).
2. Setae of setiger 9 similar to the setae on setigers 1-8.
3. Dorsal median lobes (*dML*) and ventral neuropodial lobes (*vNL*) present on setigers 1-8 (Figs. 8 & 9).
4. Dorsal median lobes absent and ventral neuropodial lobes present on setiger 9 (Fig. 14).
5. Notopodial lateral lamellae (*nlLL*) large and broad on setiger 8 and reduced and digitate on setiger 9 (Fig. 10 & 14).
6. Neuropodial lateral lamellae (*nrLL*) as rounded lobe on thoracics, similar on setigers 8 and 9 (Figs. 9, 10, & 14).
7. Dorsal and ventral median lobes present in abdomen.
8. Superior and inferior lateral lamellae well developed in abdominal setigers
9. Methyl green staining pattern (Figs. 2, 3, 5, & page 3).
 - a. Stain is most intense in a ventral patch on setiger 5.
 - b. Relatively solid stain on thoracic setigers dorsally and ventrally.
10. Orange, pad like (?reproductive) tissue in dorsolateral position on abdominals in all specimens encountered (Figs. 3, 15, & 16).
11. Abdominal setigers with tridentate hooded hooks with upper and lower series in each fascicle facing each other (Figs. 4, 13, & 17).
12. Single arcuate seta embedded along median edge of both lateral lamellae in abdominal setigers with modified terminus resembling a vestigial hood (Figs. 11 & 12).

Figures:

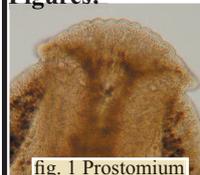


fig. 1 Prostomium



fig. 3 Setigers 7-12



fig. 4 Tridentate hook



(Figures 2, 3, 5, & 7 specimens methyl green stained)

Ventral view

Dorsal view

fig. 2 Anterior setigers

All images from two specimens collected at CSD Regional Station 2741 rep.2 23 July2001 500 ft. All images original by R. Rowe 2003

Related Species & Other Comments:

Leslie Harris found specimens of this taxon in samples from Todos Santos (165 & 188 meters depth), a short distance south of the U.S.- Mexico border. She emailed some comments and the figures of a stained specimen on 7Feb2000 (see figures on page 3). While the City of San Diego (CSD) staff had not recorded specimens similar to Leslie's figures at that time, in April 2001 specimens began to appear in some deeper (100 m +) CSD samples.

Magelona sp B is very similar to *Magelona berkeleyi* Jones 1971, a common species encountered in CSD samples. *M. sp B* differs in its possession of a regularly and obviously crenulated anterior prostomial margin, a narrower and more triangular prostomium, longer, digiform dorsal median and ventral neuropodial lobes, presence of a neuropodial lateral lamella on thoracics, lack of small lateral hooded hooks in abdominals (? arcuate setae instead), and methyl green staining through the entire thorax. The orange tissue areas located dorsolateral on the anterior abdominals of *M. sp B* appear to be composed of reproductive material.

Magelona berkeleyi stains solidly on the fifth, sixth, and seventh setigers, with speckling on the eighth (fig. 7). Also note that some specimens of *Magelona* will not uptake much stain and staining patterns can only be used generally for those individuals. Some specimens (usually small, <1.0 mm width) of *M. berkeleyi* have been found with irregular crenulations on the anterior margin of the prostomium. No large (>1.5 mm width) specimens of *M. sp B* have been found, although large specimens of *M. berkeleyi* have been observed. Those larger *M. berkeleyi* have the shorter, broader, more laterally rounded prostomium illustrated in Jones, 1971, not the more elongate, triangular, anteriorly rounded prostomium of *M. sp B*. Whether the crenulations, rounding of the anterior margin, and relative length and shape of the prostomia vary as a result of contraction has not been investigated.

Magelona crenulifrons Gallardo 1968 from Thailand has strong crenulations anteriorly and a similarly shaped prostomium (rounded anteriorly with well formed lateral horns), but has bidentate hooded hooks. See Nateewathana and Hylleberg 1991 for a description of *M. crenulifrons*. That publication compares species from Thailand including two new species, *M. petersenae* and *M. methae*, that have variously crenulated anterior prostomial margins.

(continued on following page)

Related Species & Other Comments (continued)

M. longicornis Johnson 1901, a SCAMIT species with some shallow, irregular crenulations, also has bidentate hooded hooks. *M. sp L* reported in Uebelacker and Jones 1984 has an irregularly crenulated anterior margin, the dorsal median lobes are broader based than *M. sp B*, and *M. sp B* does not have lateral pouches in abdominals.



Fig. 5 Anterior dorsal view methyl green stained

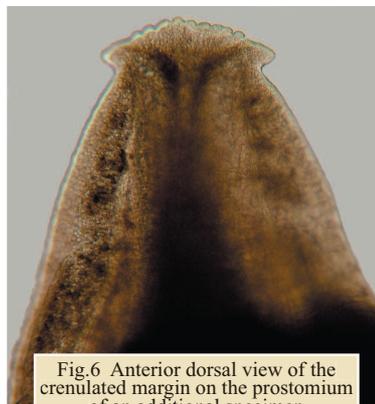


Fig. 6 Anterior dorsal view of the crenulated margin on the prostomium of an additional specimen

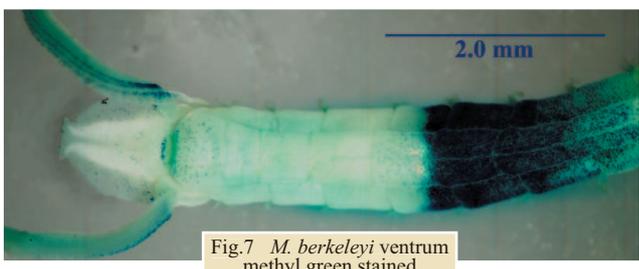


Fig. 7 *M. berkeleyi* ventrum methyl green stained

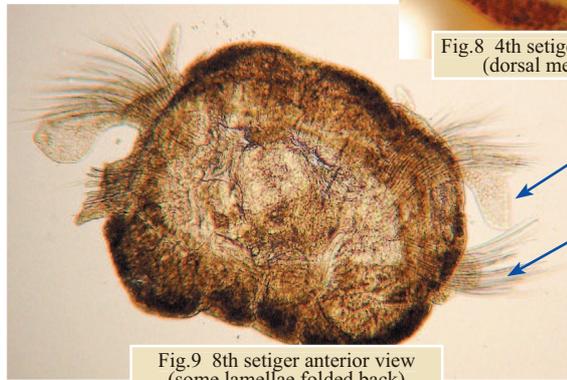


Fig. 9 8th setiger anterior view (some lamellae folded back)

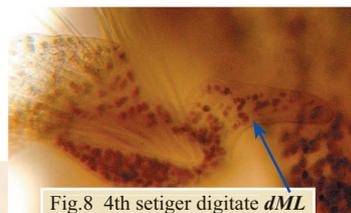


Fig. 8 4th setiger digitate *dML* (dorsal median lobe)

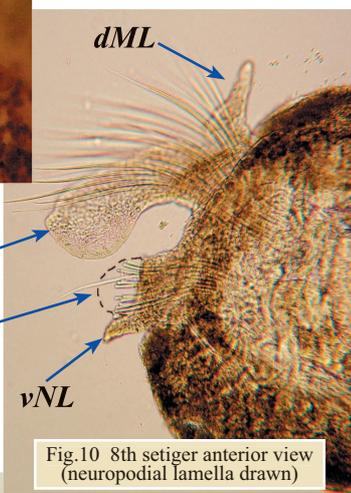


Fig. 10 8th setiger anterior view (neuropodial lamella drawn)

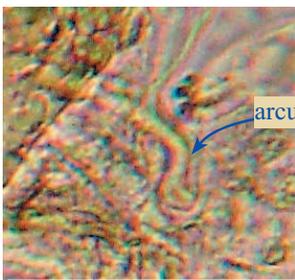


Fig. 11 Terminus of neuropodial arcuate vestigial hook

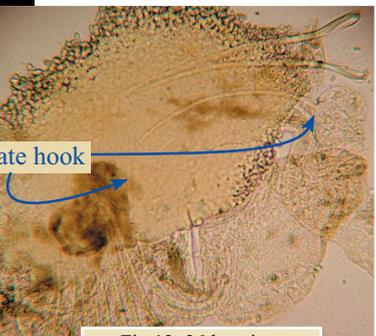


Fig. 12 26th setiger arcuate vestigial hook



Fig. 13 26th setiger notopodium

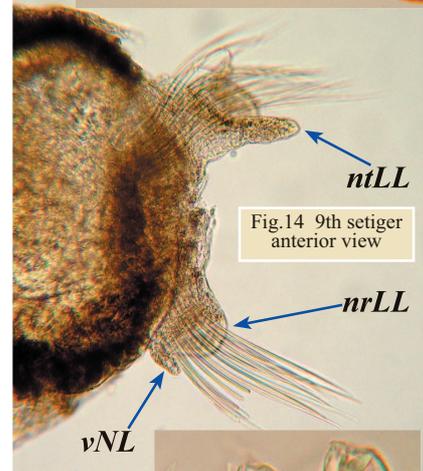
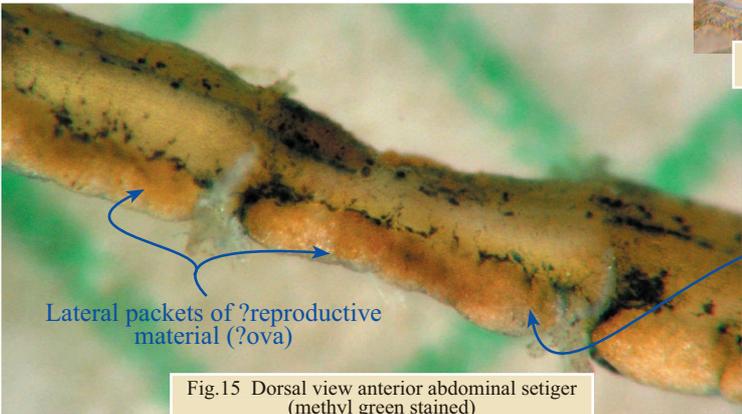


Fig. 14 9th setiger anterior view



Lateral packets of ?reproductive material (?ova)

Fig. 15 Dorsal view anterior abdominal setiger (methyl green stained)

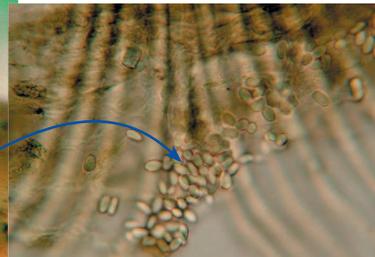


Fig. 16 ?Reproductive material from anterior abdominal setiger

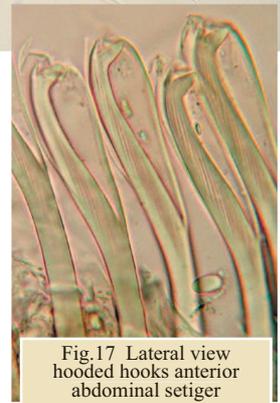
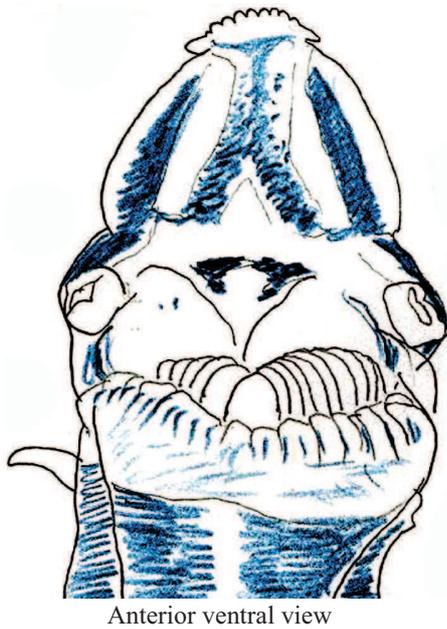
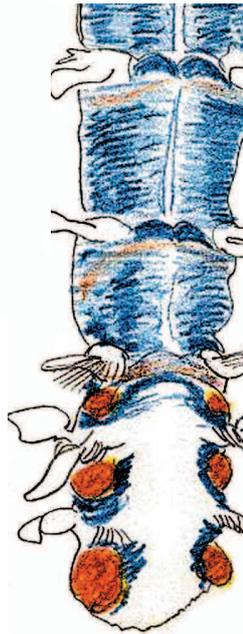


Fig. 17 Lateral view hooded hooks anterior abdominal setiger

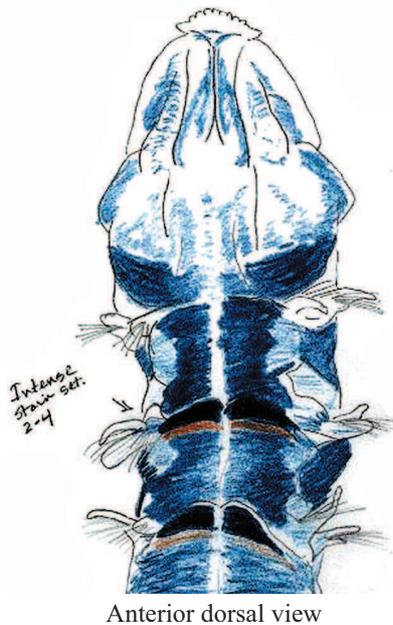
The following figures are from Leslie Harris. The methyl green stained specimen she has illustrated is one of several she found from the Todos Santos area south of the U. S.- Mexico border from 165 and 188 meters in coarse mud, mud, and clay sediments. Notice the similarity of Leslie's stain patterns to the City of San Diego specimens imaged on the previous pages (Fig.2, 3, & 5).



Anterior ventral view

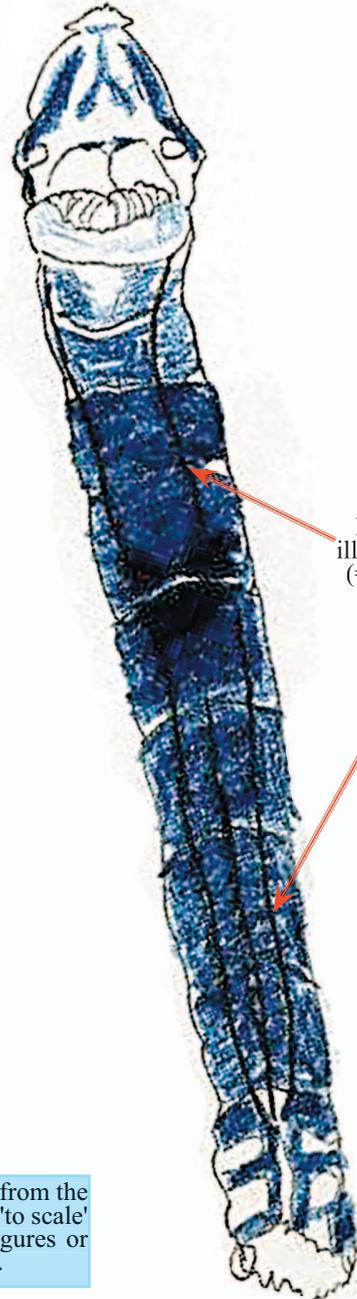


Setigers 7-11 showing transition from thorax to abdomen and lateral (?reproductive material), orange, abdominal pads



Anterior dorsal view

These figures have been resized from the original illustrations and are not 'to scale' either between the individual figures or to the original specimen.



Thorax and anterior abdominal segments in ventral view

Black lines used to illustrate the unstained (=white) lines on the original specimen (see Fig. 2 on the first page)

References:

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*. *Journal of the Fisheries Research Board of Canada* 28 (10): 1445-1454.

Nateewathana, A. & J. Hylleberg. 1991. Magelonid polychaetes from Thailand, the Andaman Sea, with descriptions of eight new species. *Ophelia Suppl.* 5:169-184.

Uebelacker, J.M. & M.L. Jones. 1984. Family Magelonidae Cunningham and Ramage, 1888. Chapter 7 In: J.M. Uebelacker and P.G. Johnson (eds.): *Taxonomic Guide to the Polychaetes of the Northern Gulf of Mexico*. Volume II. Barry A. Vittor & Associates, Inc. 7 vols.