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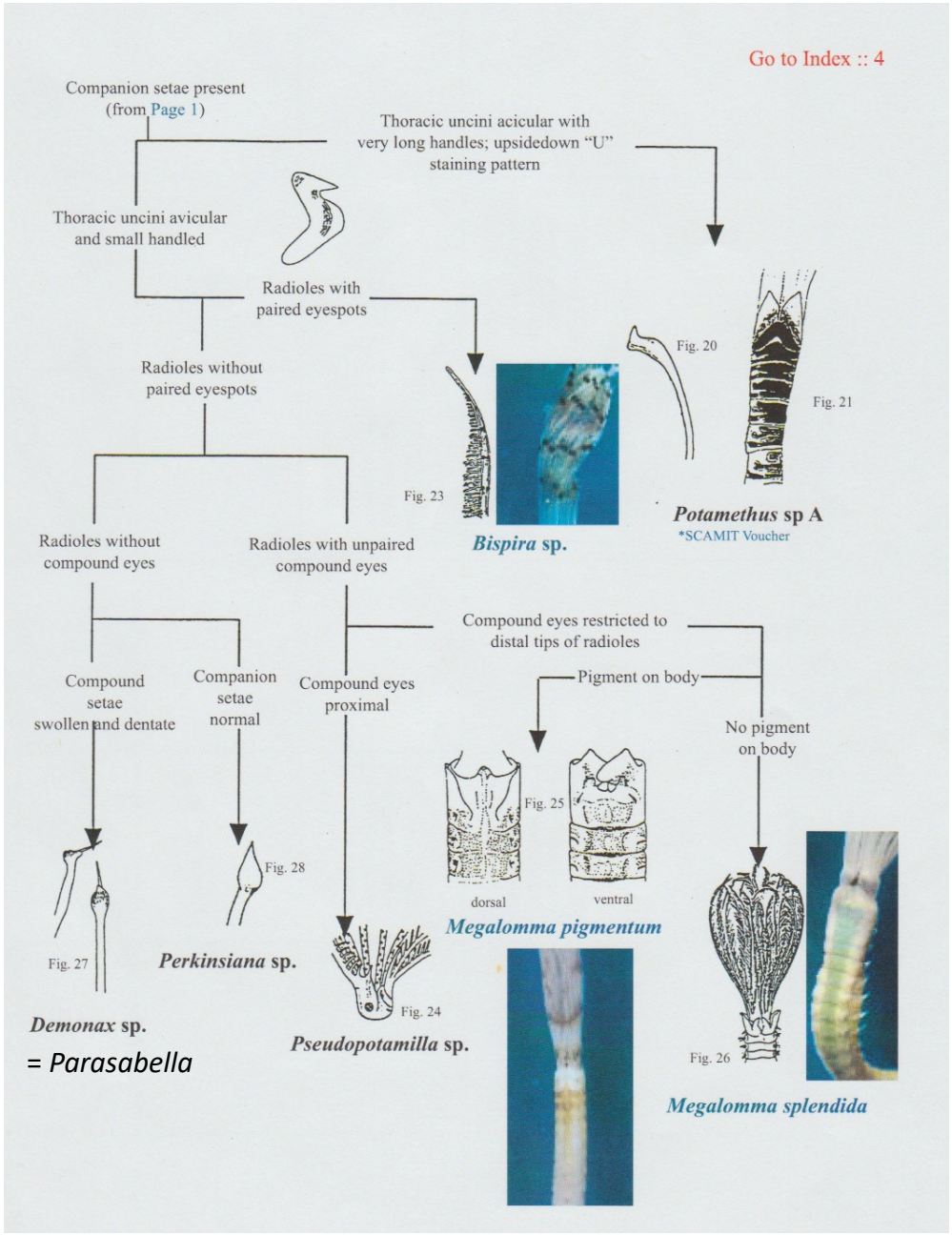
Dot's Nifty Sabellid
Picture Key
Ver. 2017



Potamethus sp.A SCAMIT Vol. 5, No. 6
Sabellidae

SCAMIT Code: MBC 45 Date examined: April 14, 1986
Voucher by: Leslie H. Harris (MBC)

SYNONYMY: Potamethus sp.A Harris
Potamethus sp.A Williams

LITERATURE: Hartman 1969
Knight-Jones 1983

DIAGNOSTIC CHARACTERS:

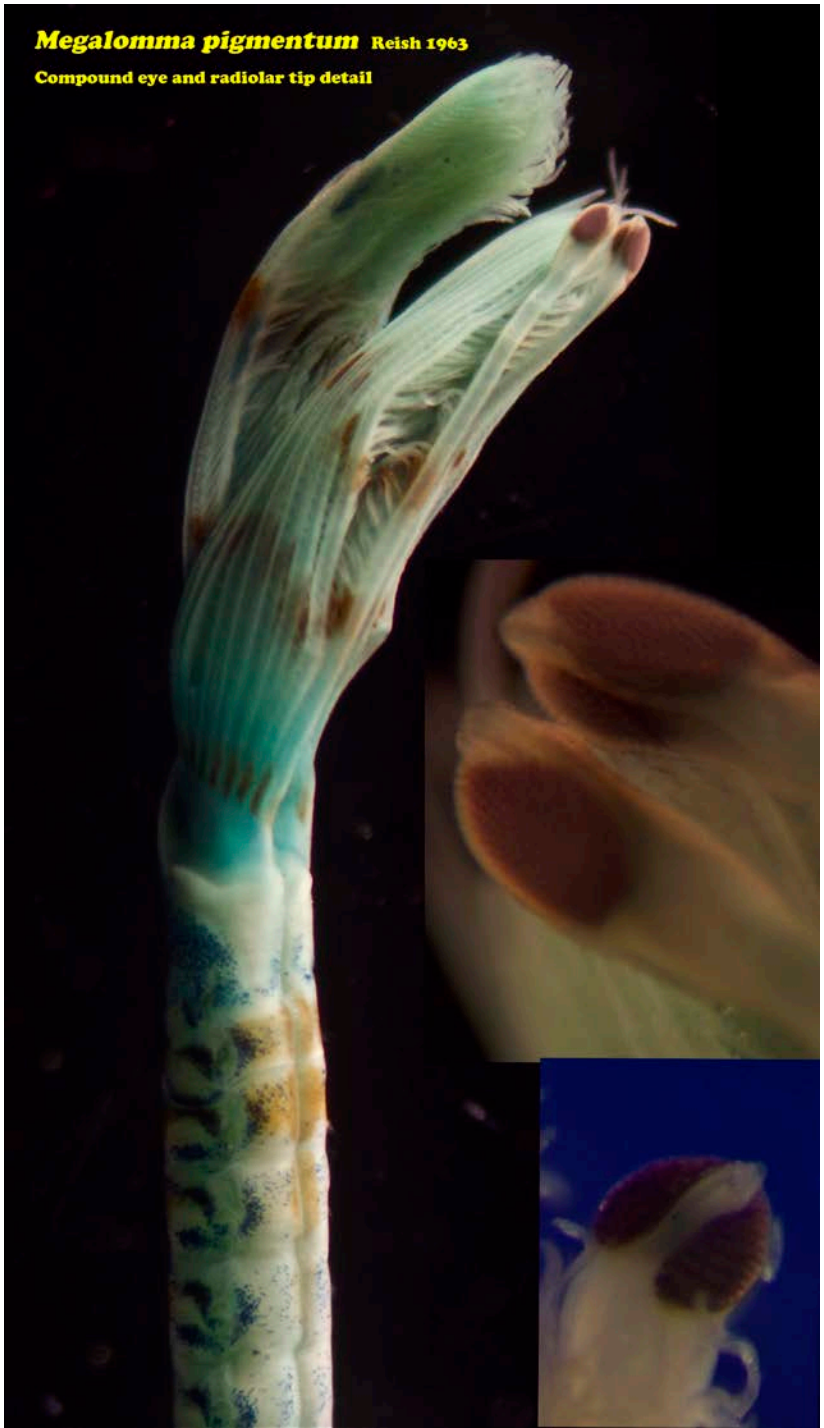
1. Body linear, small: ovigerous female 7.4 mm without branchial crown. Tube very thin, brown, made of silt, adheres tightly to body.
2. Eight thoracic setigers, 18-20 abdominal setigers.
3. Tentacular crown short, with 6-7 radiole pairs; pinnules short.
4. Collar low dorsally; forms pair of long triangular lobes ventrally.
5. Thoracic uncini avicular, long stemmed; companion (pennon) setae present.
6. Ventral shields in thorax.
7. Pygidium bi-lobed.

RELATED SPECIES:

1. Potamethus mucronatus (Moore 1923): 15 pairs of radioles, 49-57+ abdominal setigers, thoracic uncini with unusually high crest and exceptionally long stemmed, tube black, inhabits deep slope and abyssal depths.

REMARKS: This species is distinguished easily by the triangular collar lappels and the stain pattern. The companion setae are nearly invisible, very hard to see. The tube adheres to the animal, and is characteristically difficult to remove without damaging the animal.

Bispira sp


Megalomma pigmentum Reish 1963
Compound eye and radiolar tip detail

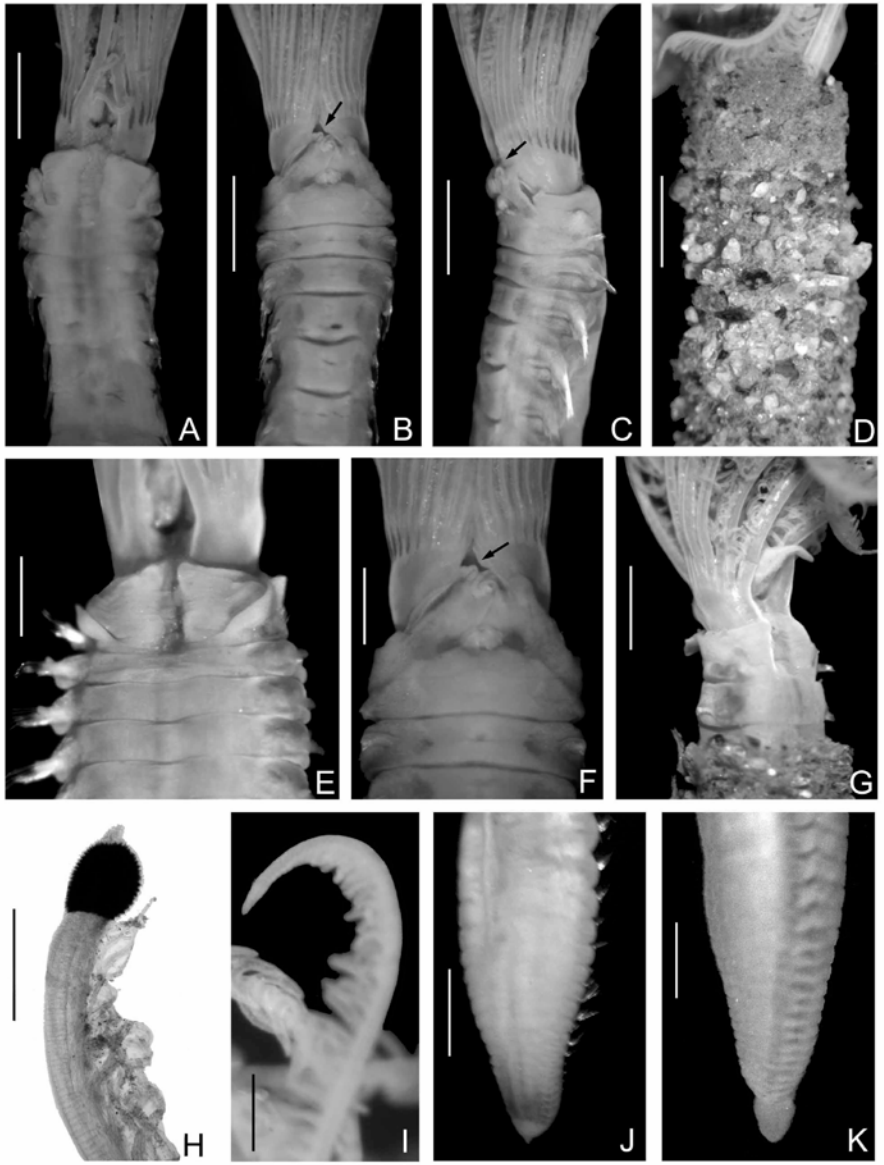


FIGURE 22. *Megalomma pigmentum* Reish, 1963. A) Anterior end, dorsal view; B) same, ventral view; C) same, lateral view; D) tube; E) collar, dorsal view; F) same, ventral view; G) same, lateral view; H) dorsalmost radiolar eye; I) lateral radiole; J–K) posterior abdomen. A–K) Specimens from Bahia San Quintín, México, ECOSUR. Ventral flanges in B–C, F as indicated with arrows. Scale bars: A–D) 1 mm, E–G, J–K) 0.5 mm, H–I) 0.2 mm.

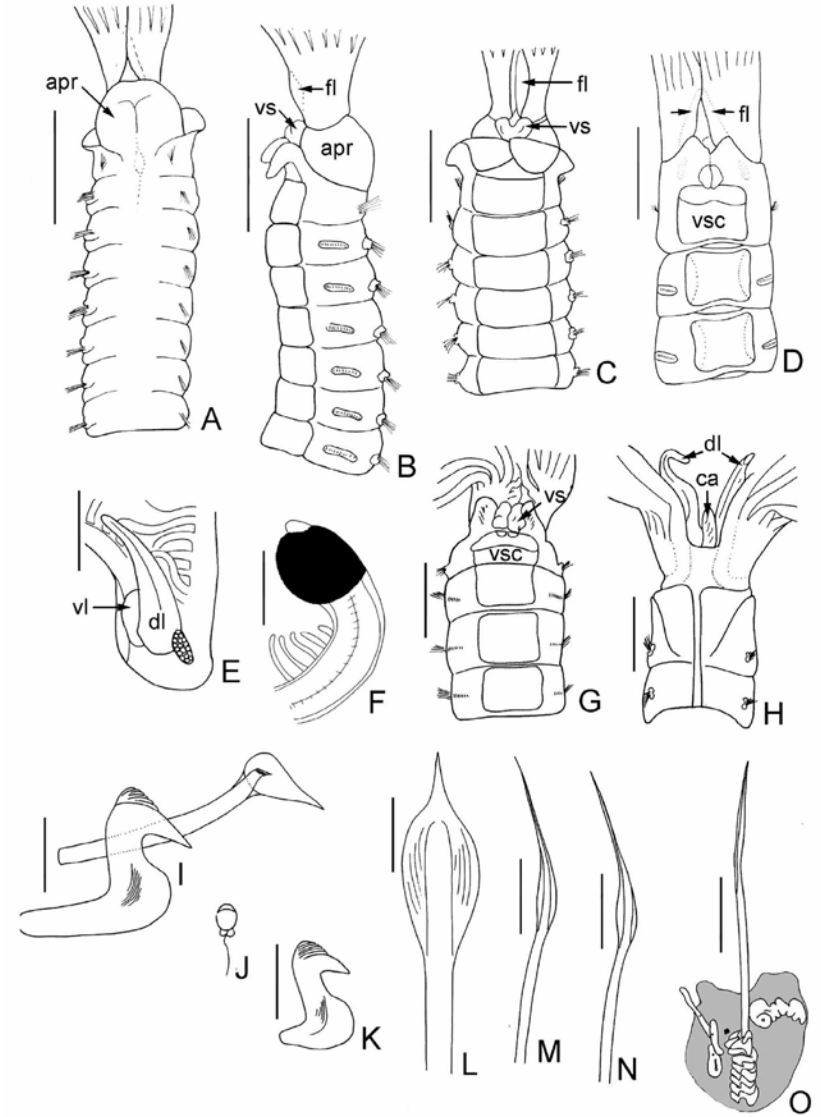


FIGURE 23. *Megalomma pigmentum* Reish, 1963. A, H) Thorax, dorsal views; B) thorax, lateral view; C–D, G) thorax, ventral views; E) dorsal and ventral lips; F) dorsalmost radiolar eye; I) thoracic uncini and companion chaeta; J) spermatozoon; K) abdominal uncinus; L) inferior thoracic chaetae type C; M–N) superior narrowly hooded thoracic chaetae; O) last abdominal chaetiger, nephridia and sperm tissue in grey. A–O) Specimens from San Quintín, México. Abbreviations: *apr* anterior peristomial ring, *ca* caruncle, *dl* dorsal lip, *fl* flange, *vl* ventral lip, *vs* ventral sacs, *vsc* ventral shield of collar. Scale bars: A–D, G–H: 1 mm; E: 0.5 mm; F: 0.25 mm; I, K–O: 40 μm; J: not scaled.


Megalomma splendidum
(Moore 1905)
VENTRAL VIEW
DORSAL

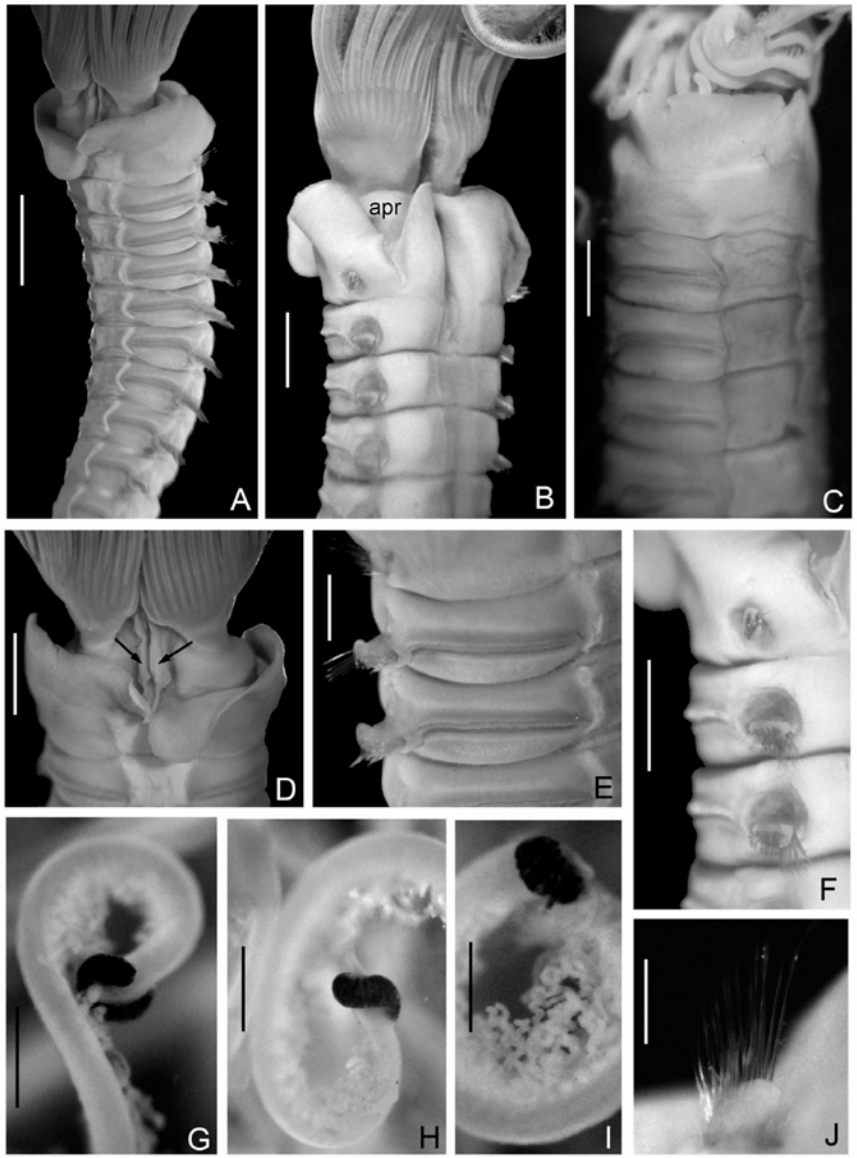


FIGURE 24. *Megalomma splendidum* (Moore, 1905). A) Body, anterior end, ventro-lateral view; B) anterior end, dorsal view; C) same, lateral view; D) collar, ventral view showing the parallel lamellae as indicated with arrows; E) thoracic torus and chaetigers; F) thoracic chaetigers; G–H) eyes from dorsalmost radioles; I) eye from 2nd dorsalmost radiole; J) abdominal chaetiger. A–J) Specimens from British Columbia, Canada, LACM, 003466. Abbreviation: *apr* anterior peristomial ring. Scale bars: A–B) 2 mm; C–F) 1 mm; G–J) 0.5 mm.

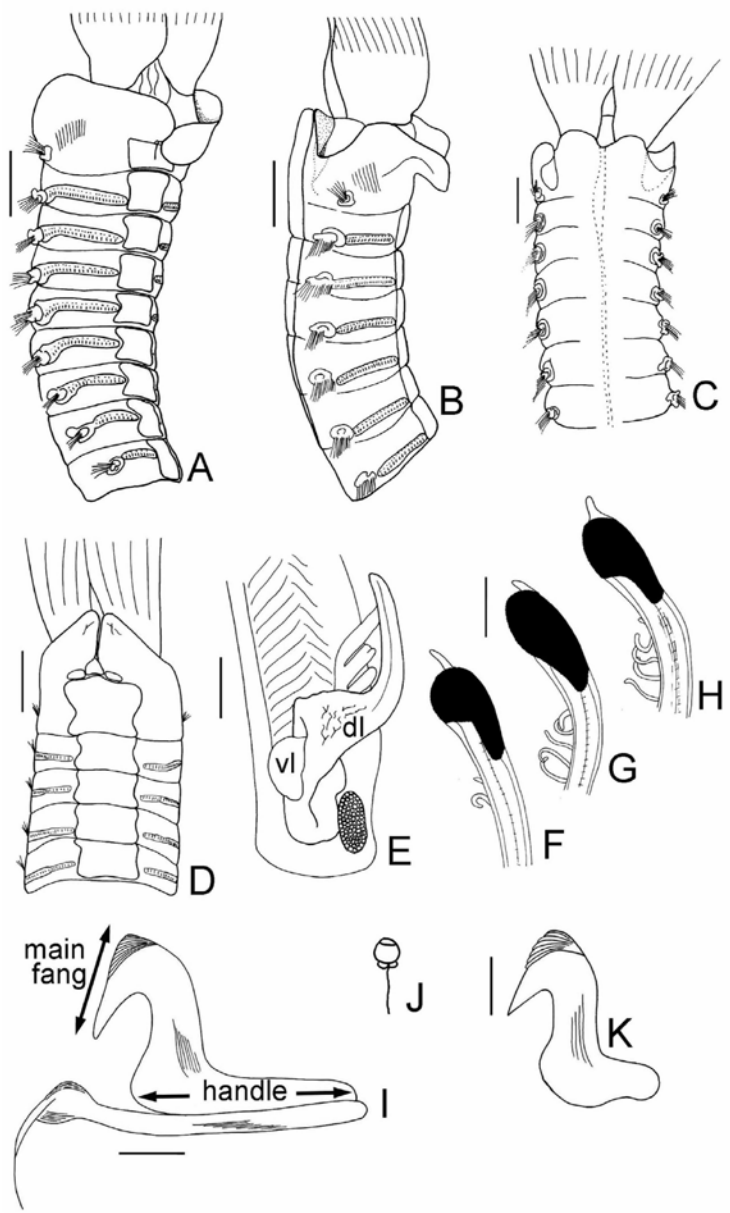
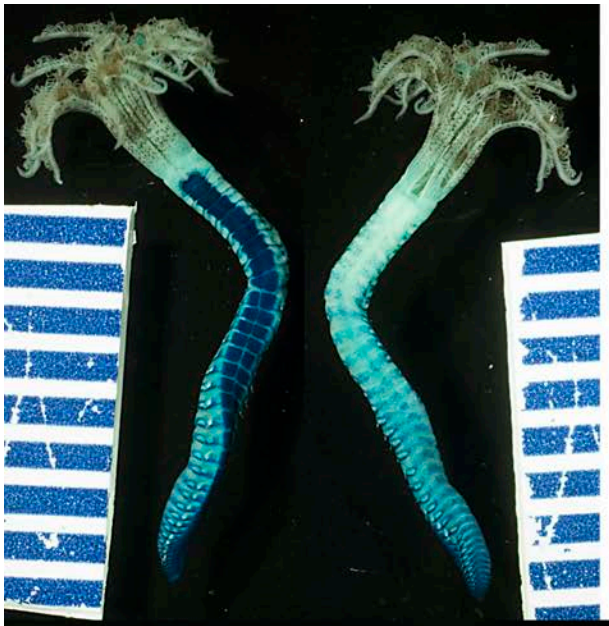


FIGURE 25. *Megalomma splendidum* (Moore, 1905). A–B) Thorax, lateral views; C) thorax, dorsal view; D) thorax, ventral w; E) dorsal and ventral lips; F–H) eyes from dorsal radioles; I) thoracic uncini and companion chaeta; J) spermatozoon; K) lominal uncinus. A–K) Specimens from British Columbia, Canada, LACM, 003466. Abbreviations: *dl* dorsal lip; *vl* ventral . Scale bars: A–C) 2 mm; D–E) 1 mm; F–H) 0.5 mm; I, K) 40 μm; J) not scaled.



Bight 2013
Sta. 9171
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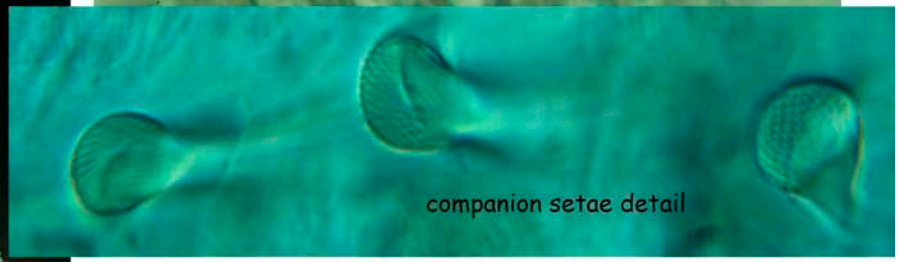
thoracic uncini and companion setae


companion setae from above


companion setae detail

Generic separation:

Demonax=Parasabella-
Abdominal Neuroseta in transverse row
Eyespots absent
Companion setae have dentate heads

Bispira-
Abdominal Neuroseta bunched together into a Partial spiral or 'C' or 'U' shape

Sabella-
Abdominal Neuroseta bunched together into a Partial spiral or 'C' or 'U' shape
Presence of dark eyespots between Neurosetae and uncini

Pseudopotamilla-
Companion setae without dentate heads

Dr. Kirk Fitzhugh and Leslie Harris (LAMNH) chaired the meeting on the Subfamily Sabellinae. The Genera emphasized were *Demonax*, *Bispira*, *Megalomma* and *Pseudopotamilla*. Kirk stated one reference that is helpful: Revision of *Demonax* Kinberg, *Hypsiconus* Grube, and *Notaulax* Tauber, with a review of *Megalomma* Johansson from Florida (Polychaeta : Sabellidae) by Thomas Perkins, 6 July 1984, Proc Biol Soc Wash, 97(2)84 p285-368. Kirk also mentioned another paper in progress by Thomas Perkins and Phyllis Knight-Jones that will be helpful when it is published.

Kirk then started the meeting by describing the differences among the Genera. *Bispira* and *Sabella* can be separated from *Demonax* by examining the abdominal neurosetae. *Demonax*'s neurosetae are in a transverse row; whereas *Bispira*'s and *Sabella*'s neurosetae are bunched together into a partial spiral or C-or U-shape. Another character that can be used is the presence (*Bispira*, *Sabella*) or absence (*Demonax*) of dark eyespots between the neurosetae and uncini. The eyespots are easiest to see on the abdomen though they are also on the thorax. *Demonax* can be distinguished from *Pseudopotamilla* by examining the companion setae. The companion setae of *Demonax* have dentate heads. Kirk also warned attending members that the character of spiral radioles may not be reliable and it appears to be age related.

The first Genus discussed was *Demonax*.. Material examined prior to the meeting included 3 taxa locally. *D. pallidus* (Moore, 1923) is the only *Demonax* that has unpaired eyespots on the radioles and the collar is high and membranaceous. *D.* sp. 1 has no eyespots on the radioles and the collar has only a midventral incision and margins are even except higher midventrally. *D.* sp. 2 differs from *D.* sp. 1 in that the collar margins are well developed and overlap, but there is a middorsal gap.

Bispira was the next Genus reviewed. *Bispira* is a diverse group in Southern California but not much work has been done. Kirk stated that there could be a systematic difference in the number of eyespots and the region of the crown where the eyespots begin. Leslie showed a unique staining pattern on the collar setiger (or setiger 1) of *Bispira*. The ventral shield arrangement stains in the shape of a big wide W. Five species were examined and discussed. Included in this newsletter is a brief description of each species.

Three species of *Megalomma* were examined. *M. splendida* (Moore, 1905) has V-shaped incisions dorsallaterally on the collar. *M.* cf. *splendida* dorsallaterally on the collar has a pair of deep, U-shaped (not V-shaped) incisions. Upon further examination Leslie determined that *M.* sp. 1 should be referred to *M. circumspectum* (Moore, 1923).

The last Genus discussed was *Pseudopotamilla*. *P. socialis* Hartman, 1944 fits Hartman's (1944) description well. *P.* sp. 1 has compound eyes that begin on dorsalmost radioles, 6-8 per radiole. The more lateral radioles have 2-4 eyes.

The next newsletter will have more detailed notes and illustrations from Kirk and Leslie concerning these Genera.

DIAGNOSES OF SPECIES EXAMINED:

Bispira sp. 1

Crown only partially spiralled. Paired eye-spots present on most radioles, 2-4 pairs per radiole. Eyes on dorsalmost radioles begin about ¼ up from base of crown; beginning higher up on more ventral radioles. Pigmentation of radioles begins where palmate membrane begins; radioles with 6-7 long pigmented bands, proximalmost band longest, following bands become shorter along length of radiole. Dorsally, collar is widely spaced, with 1 pair of ventro-lateral notches; midventral collar lobes higher than ventrolateral collar margins. *No pigment on thorax.*

Bispira sp. 2

Crown not spiralled. Paired eye-spots on radioles begin about Dorsal collar widely spaced, with one pair of ventrolateral notches. On dorsalmost radioles, eyespots on all radioles begin about ¼ up from base of crown; 4-5 pairs of eyes on each radiole. Radioles with 6 narrow pigment bands, proximalmost band without eyespots. Thorax dorsally pigmented. *Either side of dorsal midline of peristomium with dark brown pigment in a C- or U-shape. Inner margin of dorsal coller lobes with brown pigment. At bases of parallel lamellae are a pair of very dark brown pigment spots.* Collar lobes midventally are the same height as rest of collar.

Bispira sp. 3

Crown not spiralled. *On dorsal radioles, eyespots begin about ½ up from base*, but originate more proximally on more ventral radioles. Dorsally 3, ventrally 4 pairs of eyes on each radiole. Radiole pigment limited to around paired eyes. Middle ⅓ of crown with light brown pigment. Dorsal and ventrolateral collar margins at same height. Dorsally collar widely spaced. One pair of ventrolateral notches. No thoracic pigmentation. *Broad flanges on radioles more developed distally.*

Bispira sp. 4

Crown not spiralled. *Radiole eyespots begin just below level of palmate membrane*, slightly higher on more lateral and ventral radioles. *Up to 11-14 eyespots per radiole, most unpaired.* Narrow brown pigment bands associated w/ eyespots. Dorsally, coller widely spaced. One pair ventrolateral notches, v-shaped, deep (deeper than in *B.* sp. 2). Ventrally, collar is a little higher. No thoracic pigmentation.

Bispira sp. 5

Crown not spiralled. *Radiole eyespots begin well above palmate membrane, all eyes unpaired, located as a medial band on radioles.* Radioles with 3-4 ~~bands of~~ pigment, bands associated with each eye, 2-4 times longer than eye; another pigment band within area of palmate membrane present, without eyes. Collar with 1 pair of ventrolateral notches as narrow slits, not V- or U-shaped. Collar higher ventrally. No thoracic pigment.

cf. Sabella sp. 1

Branchial crown with no pigmentation or radiolar eyes. Short palmate membrane, low to base. Crown slightly inturned ventrally, but not spiralled. Collar widely spaced dorsally. Midventrally, collar is slightly higher and incised. Distal margin of collar appears to be glandular (does not take up stain). Abdominal neurosetal fascicles not in tight spirals, C-shaped.

Demonax pallidus

See Perkins (1984). *Unpaired eyespots on radioles.* Pigment present on outer margins of radioles. Collar high, widely spaced dorsally, *membranaceous.*

Demonax sp. 1

No eyespots on radioles; 13 narrow pigment bands located along inner margins of radioles. Collar orginates near middorsum, not widely separated. Collar with only midvental incision, margins even except higher midventrally. Five thoracic setigers. *Entire thorax & abdomen pigmented light to dark brown.*

Demonax sp. 2

No eyespots on radioles. Similar to *D.* sp. 1 in coloration & body dimensions, crown has similar pigment pattern. Five thoracic setigers. Collar distinctly higher ventrally, *middorsally the margins are well developed and overlap, but there is a middorsal gap.*

Megalomma splendida

Collar as described and figured, v-shaped. Two-3 pairs of compound eyes on crown.

Megalomma cf. splendida

Light pigment bands begin about ¼ up crown, 6 bands on each radiole, all fairly narrow. Five pairs of eyes on dorsalmost radioles. Dorsallaterally the collar has a pair of deep, U-shaped (not V-shaped) incisions. Collar distinctly higher ventrally. No pigmentation on thorax.

Megalomma circumspectum

Two pairs of compound eyes on 1st and 2nd pair of dorsal radioles, slightly spiralled, equal in size, short radiolar tip beyond eye. Radiole pigmentation begins just below half-way mark on radiole, 5 bands; proximalmost band broadest, more distal bands successively narrower. *Collar originates at dorsal midline, no gap; dorsolaterally incised down to base of collar; middorsal region of collar folded inward at incision.* Collar even in height to ventrum, then w/ 2 broadly rounded, overlapping lobes. No thoracic pigmentation.

Pseudopotamilla socialis

Fits Harman's (1944) description well. *First (dorsalmost) pair of radioles* and ventral radioles *without compound eyes, remainder of radioles with 1-2 unpaired eyes.* Branchial base flanges as narrow, even shelves, not incised. *Thoracic uncini of last setiger larger and fewer in number, as described by Hartman.*

Pseudopotamilla sp. 1

Compound eyes begin on dorsalmost radioles, 6-8 per radiole; more lateral radioles with 2-4 eyes; eyes absent on ventralmost radioles; eyes on radioles begin near base of crown. Branchial base flanges as narrow, even shelves, not incised. Brown or marone pigment bands on radioles, associated with eyes. Collar with V-shaped dorsolateral incisions. Collar slightly higher ventrally. Dorsal and ventral gaps of collar very narrow. No thoracic pigmentation.

NOTES ON SOME SABELLID SPECIES REPORTED BY SCAMIT MEMBERS

FABRICIINAE

Fabriciola berkeleyi Banse, 1956, from SF Bay: all specimens are *Manayunkia* species. If you don't see pygidial eyes, it ain't *Fabriciola*.

Fabricia ?brunnea Hartman, 1969: all these specimens are *Demonax* sp. While they do have pygidial eyes, don't rely on this feature alone to try and place an animal into one of the Fabriciinae genera. Pygidial eyes are seen throughout the Sabellidae. The two characters that give these specimens away are the presence of a branchial skeleton and thoracic companion setae with a dentate distal end. Neither of these characters are ever found in the Fabriciinae.

Fabricinuda (previously placed in *Fabricia* or *Fabriciola*) *limnicola*: this is an easy species to id, especially because of its pigmentation. See Hartman (1951) and Fitzhugh (1990).

SABELLINAE

Demonax medius (Bush, 1904), from Pt. Loma: this is a *Demonax* sp. but not *D. medius*.

Jasmineira sp. A Harris, from OCSD: bayonet setae absent; inferior thoracic notosetae with two rows of paleate setae; dorsolateral vascular coils present just below collar; distal ends of radioles distinctly inflated; multiple pairs of pygidial eye spots; caudal furca absent. I would consider this a species of *Fabrisabella*, which differs from *Jasmineira* by the presence of vascular coils and a palmate membrane, and the absence of bayonet setae.

Jasmineira sp. B Harris, from OCSD: bayonet setae present; vascular coils absent. Distal radiolar ends cirriform. Caudal furca present; pygidial eyes absent. Placement to genus is ok.

Megalomma pigmentum Reish, 1963, from OCSD: ok.

Megalomma splendida (Moore, 1905), from OCSD: without seeing Moore's types, the OCSD material does not fit his description with respect to the shape of the dorsal and ventral margins of the collar.

Myxicola infundibulum (Renier, 1804), from OCSD: ok, though probably not this species.

Oriopsis gracilis Hartman, 1969, from LA Harbor: agrees with paratypes. In her description, Hartman says a collar is absent. As shown by her illustration, there are two peristomial rings. Hartman missed, however, that the anterior peristomial ring is developed ventrally as a triangular lobe which is incised medially. You will often find in the literature where this lobe is referred to as a collar. This collar is not homologous to the membranous collar seen in most *Oriopsis* sp. See Fitzhugh (1989).

Potamethus sp. A Harris, from OCSD: ok.

Potamilla sp., from Pt. Loma: this is a very small specimen, but appears to be a species of *Perkinsiana* Knight-Jones, 1983.

Pseudopotamilla socialis Hartman, 1944, from Pt. Loma & Cojo Pt.: the specimen from Pt. Loma is not *P. socialis*, but is a species of *Pseudopotamilla*. *P. socilais* is readily distinguished by the presence of only a few faint compound eyes on several median radioles. The Pt. Loma specimen has very dark compound eyes starting on the first pair of radioles, down to ventro-lateral radioles. There are also distinct differences between the ventral margins of the collar between the two.

The specimen from Cojo Pt. is a *Bispira* sp. which appears to be different from the species identified above under *Sabella crassicornis*, especially with respect to pigmentation patterns.

Pseudopotamilla cf. intermedia Moore, 1905, from OCSD: the specimen does not agree with Moore's description.

Sabella crassicornis Sars, 1851, from Pt. Loma & San Onofre: the specimen from Pt. Loma is a *Bispira* sp. The San Onofre specimen is a *Demonax* sp. which is different from that above.

Sabella sp. A Williams, from Pt. Loma & OCSD: this is a species of *Demonax*.

Current Identification	Previous Identification(s)
**Demonax medius* (Bush, 1904)	
**Demonax pallidus* (Moore, 1923)	
Demonax pallidus (Moore, 1923)	*Demonax medius fide* Lovell
Demonax sp. 1	*Sabella* sp. A from Pt. Loma, *Demonax* sp. *fide* Harris
Demonax sp. 2	*Sabella crassicornis fide* Lovell
Bispira turneri Hartman, 1969	same
Bispira sp. 1	*Bispira turneri fide* Lovell
Bispira sp. 2	*Sabella crassicornis* from Pt. Loma
Bispira sp. 3	*Pseudopotamilla socilais fide* Lovell
Bispira sp. 4	*Sabella* sp. A, *Pseudopotamilla* sp. from Pt. Loma
Bispira sp. 5	*Pseudopotamilla* sp. from Pt. Loma
Megalomma pigmentata Reish, 1963	same
Megalomma splendida (Moore, 1905)	same
Megalomma cf. *splendida*	same
Megalomma circumspectum	(Moore, 1923) same
Pseudopotamilla socialis Hartman, 1944	*P.* sp. *fide* Lovell
**Pseudopotamilla ocellata* Moore, 1905	
**Pseudopotamilla intermedia* Moore, 1905	
Pseudopotamilla sp. 1	
cf. *Sabella* sp. 1	?*Sabella* sp.