

# Southern California Association of Marine Invertebrate Taxonomists

September, 2003 **SCAMIT Newsletter** Vol. 22, No. 5

SUBJECT: Selected Polychaetes (*Polycirrus* spp, Magelonidae,

Lumbrineridae and Glycera spp)

GUEST SPEAKER: Polycirrus spp - Kelvin Barwick, Magelonidae -

Rick Rowe, Lumbrineridae - Larry Lovell, Glycera

spp - general discussion/Leslie Harris

**DATE:** 12 January 2004

TIME: 9:30 a.m. to 3:30 p. m.

LOCATION: LACMNH - Polychaete Room



Magelona sp B fide Harris & Rowe 2003 Anterior terminus detail, crenulated margin. City of San Diego, Regional SBOO 2741 rep.2, 23July2003, 500ft. Specimen in DLZ collection #214. This is the larger of the two specimens imaged from the sample. Imaged 29/30Sept2002, Sony707, Martin Microscope adapter, Nikon Optiphot 2 microscope by R. Rowe.

#### **AUGUST MINUTES**

The meeting was held at the San Diego lab. President Kelvin Barwick opened the business part of the meeting with the statement that all officers had been re-elected in this year's elections. Treasurer Cheryl Brantley announced that there are currently 107 members in SCAMIT. Most members have paid their dues which were due in May.

Larry Lovell (SIO) told us about a group of graduate students at UCSD who are interested in the taxonomy of micro-mollusks. One of the students, Benjamin Pister, is studying mollusk communities in the rocky intertidal community at Cabrillo National Monument in Pt. Loma. He will be presenting his work at the San Diego Shell Club meeting on August 21st. Larry would like to organize and sponsor a workshop on the taxonomy of micro-mollusks in order to assist Benjamin and the other students with their

research. Larry asked if anyone could help out. Kelvin offered to attend the Shell Club meeting and write up a short article for the SCAMIT newsletter.

Next, Ron Velarde announced some upcoming meetings. The 6<sup>th</sup> California Islands Symposium is being held December 1<sup>st</sup>-3<sup>rd</sup> at the Marriott in Ventura. The benthic working group from Bight'98 submitted an abstract for a presentation at this conference. The title is "Relationships in Benthic Macrofaunal Composition Between the Channel Island Shelf and the Mainland Shelf of the Southern California Bight" and was co-authored by J. Ananda Ranasinghe, Ronald G. Velarde, Donald B. Cadien, Tim K. Mikel, David E. Montagne, and Stephen B. Weisberg.

Larry Lovell has two new publications out. The first appears in the Proceedings of the International Workshop on the Polychaetes of the Andaman Sea; June-August 1997, Phuket Marine Biological Center Special Publication No. 24, 2002, and is titled "Paraonidae (Annelida:Polychaeta) of the Andaman Sea, Thailand". There were a couple of articles from other local polychaete workers as well. Karen Green has a paper on the capitellids and Kirk Fitzhugh, a paper on the sabellids. Larry noted that the publication was difficult to obtain, and he went through Wells Fargo Bank, San Francisco to successfully wire money to Thailand. The cost was \$25 plus an additional fee for wiring the money.

Larry's other publication, co-authored with Kent Trego, is titled, "The epibenthic megafaunal and benthic infaunal invertebrates of Port Foster, Deception Island (South Shetland Islands, Antarctica)", Deep-Sea Research Part II – Topical Studies in Oceanography 50(10-11):1799-1819, 2003. Larry explained that there were numerous problems in several papers in the original

published edition, and it is going to be completely re-published by Pergamon-Elsevier Publishers. Be aware that the original version (with errors) is still lurking on the web.

Rick Rowe and Sarah Douglass (CSD) have been working on a spell checker of the SCAMIT species list. Ron Velarde is currently proof-reading the non-polychaete groups, and Rick has proof-read the polychaetes. This custom spell checker can be used in Access and Word. Sarah is writing up instructions on how to use it and will distribute them on the SCAMIT list server.

With business complete, we started our taxonomic topic for the day, deeper water worms. Larry passed out a handout that included polychaetes sampled from Orange County stations that are 200m or deeper. There were 16 stations (depths 200-300m) that fit this criteria. The table included annual data (presence/absence) and cumulative counts of each species from 1985 through 2001. We discussed references and protocols that we will use to identify the more difficult species from the Bight'03 project starting with the most abundant.

Maldane sarsi had the highest abundance at 2,574. It was noted that Maldane californica, a similar species to M. sarsi, occurs in deeper water. Use Karen Green's paper in the 1989 proceedings of the polychaete conference for a reference.

Spiophanes fimbriata had the second highest abundance with 1,762 individuals. Follow Karin Meissner's work that was presented at the March 2003 SCAMIT meeting and described in the newsletter Vol. 21, No. 11. Karin described a new species from California that is similar to *S. fimbriata*. There was a discussion on chaetal spreaders and their effectiveness as a character. They can be difficult to observe on smaller specimens. Rick suggested cutting off a



parapod and mounting it on the compound scope. The nuchal organs are also a useful character to distinguish *S. fimbriata* from Karin Meissner's new species from California.

Paraprionospio pinnata had the third highest abundance with 1,541 individuals. We believe that *P. pinnata* is potentially a species complex. If anyone can demonstrate a difference between deep and shallow water forms, please let us know!

Melinna heterodonta: It was noted that juveniles of *M. heterodonta* and *M. oculata* are difficult to tell apart. A good character to use is the lack of branchial pigment in *M. heterodonta* and the presence of branchial pigment in *M. oculata*. In adult specimens of *M. heterodonta*, the branchiae are a greenish color and are thicker than in adult specimens of *M. oculata*. In addition, *M. heterodonta* is a larger species than *M. oculata*.

Myriochele gracilis: SCAMIT includes under this name specimens that would key to M. olgae in Blake 2000. Rick Rowe and other taxonomists at CSD use methyl green staining patterns to distinguish between several species of Oweniids. Rick will distribute these soon. CSD taxonomists are recording a few more M. pygidialis since they started using the staining patterns.

Scoletoma luti – S. tetraura complex: Rick commented that while he does not have a copy of the original description, Berkeley and Berkeley's 1948 Lumbrineris luti is illustrated with a much longer posterior postsetal lobe than he sees in his specimens. Leslie commented that S. luti does have long to very long posterior postsetal lobes. Not many Southern California specimens fit into it, although it does occur here. We agreed to continue to use S. tetraura complex, and use S. luti for those specimens with very long lobes. Be on the lookout for other species of Scoletoma.

Onuphis iridescens: We discussed whether pigment bands are present on the anterior setigers of this species. Rick commented that the pigment bands may be very diffuse in at least some specimens. Leslie commented that the presence of pigment bands is a misconception that goes back 30 years to Ida Duesberg formerly of OCSD. Leslie has examined the type material, questions the validity of the pigment bands, and noted that the identity of the banded species remains to be worked out.

Pista wui: Currently, different labs use different names for this species. There was a discussion about this at the second Pista meeting last spring. Two compact discs containing images of two P. wui specimens from the City of San Diego lab were passed out to each agency in attendance at the August 2001 SCAMIT meeting (see the newsletter Vol. 21, no. 4). Also distributed at that time was a compact disc with the Leslie Harris drawings of methyl green staining patterns of an additional nine "Pista" taxa that should be considered when identifying material from California. The nomenclature used on those compact discs is the result of the March 2001 SCAMIT Pista workshop and specimen exchange effort. We will discuss this at the September 2003 meeting to clarify name usage issues.

Glycera nana: Rick believes there are two forms and has images to support this. In one form (G. sp SD 2), the two presetal lobes are subequal in length. In the second form, the inferior presetal lobe is larger than the superior, and is very similar to what is illustrated in Boggemann 2002, page 90 for Glycera capitata. There was a discussion about whether to lump these forms or keep them separate. We decided to use G. nana to identify both forms for the Bight '03 project, but we'll look for these two forms and make comments on the data sheets.



Aphelochaeta glandaria: This is a problematic taxa. There is great variation in staining pattern, and we believe there is a continuum with A. glandaria at one end and A. sp A at the other. Many specimens exhibit staining patterns intermediate to these species. There was a discussion on whether we should change our convention from the Bight '98 project. We decided to identify this species complex using the following conventions: identify as A. glandaria the specimens that clearly match the staining pattern on the identification sheet of A. glandaria (no ventral stain), identify as A. sp A the specimens that clearly match the staining pattern on the identification sheet of A. sp A, and identify specimens that have intermediate staining patterns (ventral striping of a variable number of setigers) as Aphelochaeta spp. Cheryl Brantley and Rick Rowe will discuss, and hopefully have some images to illustrate, this problem at the September 2003 SCAMIT meeting.

Prionospio lighti: Larry commented that we may see some specimens with longer branchiae than usual, but don't confuse them with *P. multibranchiata* which occurs in shallow water. Leslie explained there is also *P. delta* and several undescribed local species with very long branchiae; some have branchiae that are so long and thin, they look like cirratulid branchiae. Do check other characters, and if you find unusual specimens, post the information to the Bight'03 Taxon List Server.

Lumbrineris sp: Use this designation for: 1) specimens with compound hooks in which the acicular color can not be determined, 2) juveniles, and 3) anterior fragments. At the deeper stations, be on the lookout for Lumbrineriopsis.

*Nephtys ferruginea*: Use staining pattern for small specimens. Larry noted that we are not using the name *N. signifera*, since we are following Lovell (1997) in considering it a junior synonym of *N. ferruginea*.

*Notomastus* sp A: This is our old *N. tenuis*. The voucher sheet, prepared by Rick Rowe, was distributed at the June 2001 SCAMIT meeting.

Phisidia sanctaemariae: This is our old Lanassa sp D.

Maldanidae: Use for anterior ends and juveniles. Leslie noted that anterior ends over 0.75mm in diameter can in most cases be easily identified using stain patterns.

Rhodine bitorquata: In addition to anterior ends, Larry also identifies median fragments. Others objected and adhere to the strict rule of counting only anterior ends.

Amphicteis scaphobranchiata: There was a discussion about lab protocols for distinguishing specimens of A. scaphobranchiata, A. glabra, and A. mucronata.

*Ampharete* sp: Use for damaged or very small specimens in which the abdominal setigers cannot be counted. *Ampharete* sp have 2 setigers with capillary setae anterior to the 1<sup>st</sup> unciniger.

Chaetozone "setosa": CSD taxonomists distinguish between Chaetozone sp SD 1, C. sp SD 2, C. hedgpethi, etc., but other labs use C. "setosa". Rick Rowe is waiting for Tony Phillip's input, after which Rick will create identification sheets on his provisional species.

Cossura candida: Leslie Harris has said there are 5-6 deep water species. We discussed our confidence in identifying *C. candida*. There is a paucity of information on deeper water Cossurids. Use methyl green stain pattern (and placement of the dorsal tentacle) to identify *C. candida* and *C.* sp A; otherwise when attempting to identify other species, please be sure to post a notice to the Bight'03 Taxon List Server. As a last resort, identify as *Cossura* spp.



*Pista bansei*: SCAMIT now uses *P. estevanica* Berkeley and Berkeley 1942 in place of *P. bansei*.

*Monticellina serratiseta*: Larry and Tony use this for old *Tharyx* sp B. Rick needs to discuss this with Tony.

Myriochele striolata: This is our old Myriochele sp M. The species name is misspelled in the SCAMIT Ed. 4 listing. There is only a single "i" in the name in the original publication.

Sternaspis fossor: Ron wondered if this name has changed and will check on it. For now, SCAMIT is following Petersen 2000.

Nereis procera: We had discussed this at a previous meeting. Leslie has examined the type specimen, and the paragnaths were much smaller than in the specimens we get. Rick volunteered to prepare a voucher sheet for our provisional species, Nereis sp A.

Malmgreniella nigralba: Use Rick's color identification sheet.

Polycirrus sp A (Phillips 1994): We discussed how we identify *P*. sp A and were all comfortable with it. If abdominal segments are not present, identify the specimen as *P*. spp. Larry offered to bring some specimens of *Polycirrus* spp to the next meeting for examination.

Glycera americana: There was a discussion about counting ridges on proboscidial organs. According to Böggemann 2002, the ridge count is one character that can be used to differentiate *G. pacifica* (three ridges) from *G. americana* (two ridges). We discussed whether everyone was willing to examine the proboscidial organs on their *Glycera* specimens. Rick volunteered to investigate this issue and post his findings on the Bight'03 Taxon List Server. If anyone finds specimens with only 2 ridges on the proboscidial organs (Böggemann's *G. americana*), please bring them to the next meeting.

Chaetozone commonalis: Rick previously examined some of Larry's specimens of *C. commonalis* and agreed with the identification. Rick cautioned us not to consider only posterior spines from the last couple of setigers during identification of this species (and others), because they often have morphology different from the rest of the abdominal spines.

Aricidea (Acmira) lopezi: Rick has an image of the setae that he will distribute.

Fauveliopsis glabra: There is a comparison of F. glabra with F. sp SD 1 in Volume 19, No. 9, (2001) of the SCAMIT newsletter.

Malmgreniella scriptoria: This scale worm has been collected on the heart urchin, Brisaster latifrons. Refer to the remarks in the MMS Atlas (Volume 5, page 153). Rick volunteered to produce a voucher sheet for this species.

*Brada pluribranchiata*: SCAMIT is not accepting Blake's synonym of *B. pluribranchiata* with *B. villosa* (Blake 2000).

Pherusa neopapillata and P. papillata: These two species appear to have their descriptions reversed in the MMS Atlas, Volume 7, page 17. Leslie has examined the holotypes. Refer to the discussion where SCAMIT reviewed this volume in the January 2001 SCAMIT newsletter, Volume 19, No. 9. In our sampling programs, we mostly encounter P. neopapillata. P. papillata might be associated with hard substrata.

*Travisia pupa*: This is a large and odoriferous species. Larry commented that length of the branchiae is not a reliable character although it is mentioned in the literature as such. The shape and count of the posterior lobes separate *T. brevis* from *T. pupa*.



Heteromastus filobranchus: Rick asked if anyone has the staining pattern(s) for this species. In the March 2001 newsletter (Vol. 19 No. 11), Tony Phillips commented that adults and juveniles stain differently. Leslie responded that she has the staining pattern of Southern California specimens.

Aphrodita sp: Larry is in the process of collecting specimens to attempt to sort out this group. Small specimens are problematic. Larry uses Rossi's key which you can find in the SCAMIT newsletter, Volume 14 No. 11. Ron believes *A. japonica* is a catch-all, and he can identify *A. refulgida* with confidence.

Malmgreniella sanpedroensis: Rick has good pictures and will put together a voucher sheet. Tom Parker noted that he has constructed a key for species of Malmgreniella.

Nereiphylla ferruginea: This identification remains questionable. Only some Nereiphylla with very long antennae and tentacular cirri can be referred to N. ferruginea. The others belong to undescribed species. Larry will see if he can possibly find this specimen.

Hesperonoe complanata: Only Orange County has reported this species. Rick Rowe (CSD) has reported *H. laevis*; there was some discussion as to whether *H. complanata* and *H. laevis* are the same species. Gene Ruff has used *H. laevis* for deep material. If/when anyone gets a specimen of Hesperonoe, please post the specimen information to the Bight'03 Taxon List Server.

Fauveliopsis armata: There is a discussion of this species and other species of Fauveliopsis in Volume 19 No. 9 of the SCAMIT newsletter.

Cirratulus cirratus: SCAMIT uses this binomial while recognizing that our species might be near *C. spectabilis*. Refer to the discussion in Volume 15 No. 7 (November 1996) of the SCAMIT newsletter. Leslie commented there are several undescribed species of *Cirratulus* here.

*Monticellina* sp 2: We were not sure what this is; Larry needs to talk to Tony about this and will report back to us.

Eclysippe trilobata: Rick suggested that we carefully examine specimens of *E. trilobata* from deep stations, since he has noticed some differences from the specimens collected in shallow water. Specifically, observe the relative setiger length of uncinigers 6,7,8, and beyond. Also, look closely for the presence/absence of transverse dorsal membranes on uncinigers 8-12 by first staining with alcian blue. Make notes during your identifications, and contact Rick if you observe any differences from our shallow water form. Leslie reported that she has collected an undescribed species of *Eclysippe* from deeper water.

Euchone velifera: Larry has some specimens, and the larger ones are obviously winged. E. velifera is similar to E. arenae.

Arcteobia cf anticostiensis: This species is characterized by having capillary setae in the notopodia. Larry has used Ross Duggan's older key to the polynoids to key it. Ron has suggested that there might be two forms with different types (arrangement of the bracts as in Harmothoe vs. Malmgreniella) of noncapillary notosetae. Larry will try to bring specimens to the next meeting.

*Tenonia priops*: Ron questioned these records because they are deep, and CSD has only recorded *T. priops* in shallow water. Cheryl Brantley checked these specimens, and they are correct.

Malmgreniella sp SD 2: There is some confusion over the use of this name. Some of the Southern California Bight specimens that have been referred to *M. bansei* were examined by Rick Rowe in 1998. Those specimens differed from *M. bansei* in several characters, and those differences are noted in



the color identification sheet for *M*. sp SD 2. Rick has seen a few more specimens in the last several years and continues to refer them to *M*. sp SD 2.

Aglaophamus eugeniae: Refer to the description in Fauchald 1972.

*Dipolydora bidentata*: There was a request to view specimens at the next meeting.

*Spiophanes bombyx*: The distribution of this species is highly sediment driven, and it is sometimes seen in deeper water.

Mesochaetopterus sp: Our convention is to use spp since specimens are usually quite damaged. Leslie commented there are undescribed species of Mesochaetopterus and Phyllochaetopterus in Southern California.

Myriochele heeri: The Berkeley and Berkeley 1942 and 1952 reports were synonomized by Blake 2000 with *Galathowenia oculata* but not with the original description.

Glycera branchiopoda: This record from Orange County Sanitation District may be *G. nana*. Refer to the SCAMIT newsletter Volume 21, No. 7, pages 3-4 for discussion. We might see *G. branchiopoda* in the deeper Bight 2003 samples. According to Leslie, this species is found deeper than 300m.

Goniada annulata: This species is described in Hartman's Atlas; it has distinctive lateral grooves on the prostomium.

Scoletoma sp A: Larry commented that S. sp A is seen most often in bays, but may be grain size dependent, and thus, occasionally found in deeper waters. Leslie has never seen it deeper than 60m.

Malacoceros punctata: Most SCAMIT members follow the Taxonomic Listing Ed. 4 where it is listed as *M. indicus*. Leslie prefers to use *M. punctata* and feels there is not enough justification to switch; however, she agreed with other members to use *M. indicus* for the Bight'03 project.

Microspio pigmentata: We agreed to make notes on the prostomial pigment of specimens that we encounter, since there is some variation in this character. Leslie noted that the only real variation is extent of density and area. There are undescribed species present, so if anyone sees something different, set it aside, and post the character information to the list server.

Magelona berkeleyi: Rick has updated Dean Pasko's 1991 key for the Magelonids and has made numerous changes. Magelona sp B fide Harris and Rowe in prep is a new species that is similar to M. berkeleyi. M. sp B has even crenulations on the anterior margin of the prostomium. The stain patterns are distinct for these species; however, Rick cautioned that sometimes specimens of Magelona do not stain. When specimens do uptake stain, M. sp B stains both dorsally and ventrally through the thoracic setigers. In contrast, M. berkeleyi stain usually starts at the middle of setiger 4 and continues back through the thorax. Rick will release a voucher sheet with the next newsletter.

Notomastus magnus: There was a question about distinguishing N. magnus from the similar N. latericeus. N. magnus has branchiae in the median to posterior abdominal setigers whereas N. latericeus does not. The complicating factor is that specimens we collect are often broken anterior to where the branchiae start. These species can be differentiated though by the shape of the anterior abdominal neuropodial and notopodial lobes which are triangular and pointed in N. latericeus and low and rounded in N. magnus. There is also a difference in stain pattern; N. latericeus has two bands of stain, one anterior and one posterior to the neurosetal



fascicles on the anterior abdominals (see Rick Rowe's 1995 voucher sheet), *N. magnus* has nondescript anterior dorsal stain on the anterior abdominals. In addition the papillar organs on the dorsum of *N. latericeus* often stain as round spots. Leslie commented these species are really not that similar, and it's highly unlikely that we have *N. latericeus* here.

Myriochele oculata: This is not in the SCAMIT Taxonomic Listing yet because it is a deeper water species. It is listed as Galathowenia oculata in the MMS Atlas, and we agreed to use G. oculata for Bight'03.

*Euchone limnicola*: It's unusual to see this species in deeper water. Larry will look for this specimen for the next meeting.

Jasmineira sp A: This is a specimen of Fabrisabella sp A (SCAMIT 1986) which was formerly designated as Jasmineira sp A (Harris).

Ron reported from a Bight'03 benthic group meeting the idea of having Lead Specialists for problematic taxa. These would be volunteer positions. The rationale is that the quality of data would be improved if one person looked at material from a variety of locations. Larry volunteered to be Lead Specialist for difficult and unusual specimens of Paraonidae, Nephtyidae, and Maldanidae. He added that he would be more than happy to let Leslie do the Maldanidae. Ron Velarde volunteered to be Lead Specialist for Sphaerodorids and Phyllodocids. Rick Rowe volunteered to be Lead Specialist for Polynoids. If anyone encounters difficult or unusual specimens of these taxa, please pass them on to the appropriate Lead Specialist. In addition, please let Ron know if you are interested in being a Lead Specialist. Leslie volunteered to take on the rest of the families with the exception of the Cirratulidae.

Larry suggested that we have a special section in the newsletter to document additions and updates to the SCAMIT species list. This would serve as our official notification of SCAMIT approved species name changes. It was suggested that this section be in the form of a box called "Updates to SCAMIT species list". This would allow all the labs to make species name changes concurrently. We will continue to discuss this idea further.

#### JOB OPPORTUNITY

Santa Barbara Museum of Natural History SEA CENTER DIRECTOR

The Santa Barbara Museum of Natural History is looking for a dynamic, creative marine biologist/educator to serve as the Director of our new marine science education center located on the water at historic Stearns Wharf in Santa Barbara, California.

The new Sea Center will be an interactive marine laboratory for the public, with visitors encouraged to participate in ongoing ocean sampling and analysis. The facility will initially have five primary areas of focus in the Santa Barbara Channel region; the intertidal (including sandy beach), human/ocean interactions, oceanography, applied marine research, and marine mammals. For further information on the facility go to: www.sbnature.org/seacenter/. For the exhibit plan go to: www.sbnature.org/ Sea\_Center\_plan.pdf (2 MB file). The new Sea Center will open to the public in December 2004.

This full time senior management position requires a person with excellent organization and people skills and strong connections throughout the marine science community. Higher degree in the marine sciences strongly preferred. Salary commensurate with experience. Submit resume and cover letter to: Santa Barbara Museum of Natural History, Human Resources - SCD, 2559 Puesta del Sol Road, Santa Barbara, CA 93105 or fax to 805-



569-3170. Applications will be accepted through January 15, 2004. The Santa Barbara Museum of Natural History is an Equal Opportunity Employer.

For application information go to www.sbnature.org/visitors/hr.htm or contact Diane Wondolowski at dwondolowski@sbnature2.org.

## **BIBLIOGRAPHY**

- Berkeley, Edith and Cyril Berkeley. 1942. North Pacific Polychaeta, chiefly from the west coast of Vancouver Island, Alaska and Bering Sea. Canadian Journal of Science, Ottawa. 20:183-208.
- Berkeley, Edith and Cyril Berkeley 1948. Canadian Pacific Fauna. 9b(1). Polychaeta Errantia. Pg. 100.
- Berkeley, Edith and Cyril Berkeley 1952. Canadian Pacific Fauna. 9b(2). Polychaeta Sedentaria. Pg. 41.
- Blake, James A. 2000. Chapter 5. Family Oweniidae Rioja, 1917. Pp. 97-127 *IN*: Blake, J.A., B. Hilbig, and P.V. Scott (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 7, The Annelida Part 4. Polychaeta: Flabelligeridae to Sternaspidae. 348 pp.
- Blake, James A. 2000. Chapter 1. Family Flabelligeridae Saint Joseph, 1894. Pp. 1-23 *IN*: Blake, J.A., B. Hilbig, and P.V. Scott (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 7, The Annelida Part 4. Polychaeta: Flabelligeridae to Sternaspidae. 348 pp.
- Böggemann, Markus. 2002. Revision of the Glyceridae Grube 1850 (Annelida: Polychaeta). Abhandlungen Der Senckenbergischen Naturforschenden Gesellschaft 555:1-249.
- Fauchald, Kristian. 1972. Benthic polychaetous annelids from deep water off western Mexico and adjacent areas in the Eastern Pacific Ocean. Allan Hancock Monographs in Marine Biology 7:1-575.
- Green, Karen D. 1991. *Maldane californiensis*, a new species (Polychaeta: Maldanidae) and a review of its relations. Bulletin of Marine Science Vol. 48(2):214-226.
- Hartman, Olga. 1968. Atlas of the errantiate polychaetous annelids from California. Allan Hancock Foundation, Los Angeles. 828 pp.
- Lovell, Lawrence L. 1997. A review of six species of *Nephtys* (Cuvier, 1817) (Nephtyidae: Polychaeta) described from the Eastern Pacific. Bulletin of Marine Science Vol. 60(2):350-363.
- Petersen, Mary E. 2000. Chapter 11. Family Sternaspidae Carus, 1863. Pp. 311-336 *IN*: Blake, James A., Brigitte Hilbig, and Paul Valentich Scott (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and the Western Santa Barbara Channel. Volume 7, The Annelida Part 4, Polychaeta: Flabelligeridae to Sternaspidae. 348pp.



## Please visit the SCAMIT Website at: http://www.scamit.org

## **SCAMIT OFFICERS:**

If you need any other information concerning SCAMIT please feel free to contact any of the officers at their e-mail addresses:

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 Volumes 5 - 7 (compilation)
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Single back issues are also available at cost.

The SCAMIT newsletter is published monthly and is distributed freely through the web site at www.scamit.org. Membership is \$15 for the electronic copy available via the web site and \$30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is \$60. All new members receive a printed copy of the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates ... in the Southern California Bight." The current edition, the fourth, contains 2,067 species with partial synonyms. All correspondences can be sent to the Secretary at the email address above or to:

# **SCAMIT**

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