



## Southern California Association of Marine Invertebrate Taxonomists

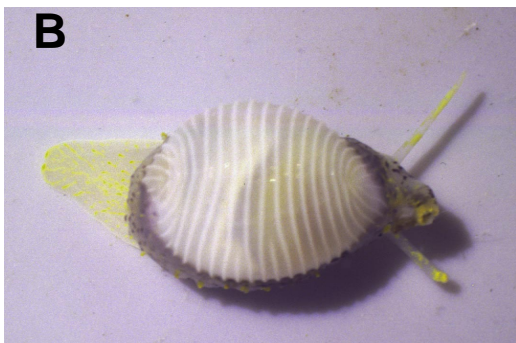
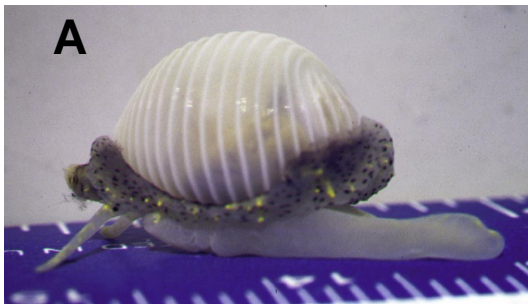
3720 Stephen White Drive  
San Pedro, California 90731

October, 1998

### SCAMIT Newsletter

Vol. 17, No. 6

<b>SUBJECT:</b>	Review of MMS Taxonomic Atlas Vol. 3 & 8
<b>GUEST SPEAKER:</b>	None - Don Cadien Discussion Leader
<b>DATE:</b>	Monday, 16 November 1998
<b>TIME:</b>	9:30 a.m. to 3:30 p. m.
<b>LOCATION:</b>	City of San Diego Marine Biology Lab 4918 North Harbor Drive #101 San Diego, CA



*Trivia ritteri* Raymond, 1903 collected with an otter trawl 7 miles WNW of Pt. Loma at a depth of 625 ft. A. lateral view, B. dorsal view. (Photos by Ron Velarde CSDMWWD)

#### Next Meeting

The next SCAMIT meeting will be on 16 November at the CSDMWWD Lab. We will be discussing the two most recent volumes of the Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel: Vol. 3 - Cnidaria, and Vol. 8 - non-gastropod mollusks. As in past meetings of this type the goal will be full annotation of the volumes with comments from members, as end-users, on the merits and deficiencies of the articles discussed. Specific corrections will be suggested, errors of commission and omission noted, and keys evaluated for ease of use and accuracy. The result will be forwarded to the authors for their consideration with the intent to have a joint meeting (probably two in this case) with the authors themselves. Don Cadien will be discussion leader.

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SCAMIT Newsletter in not deemed to be valid publication for formal taxonomic purposes.

### XMAS PARTY

The 1998 SCAMIT Xmas Party is scheduled for Saturday the 12<sup>th</sup> of December. We will be meeting again at the Cabrillo Marine Aquarium to renew old friendships, make new ones, and to share an evening in lovely surroundings. Although SCAMIT will provide a main meat dish and beverages, we will need you to flesh out our holiday table with pot-luck dishes of your preference. Vegetables, pasta, salads, dessert, appetizers etc. all are welcome. If things go as usual we will have a sumptuous repast of considerable diversity. To help assure the latter please contact Megan Lilly or Don Cadien to coordinate dishes. We will be calling to find out about how many to expect around the beginning of December, so try to have your plans fixed by then. Last minute additions are always welcome, last minute cancellations less so (they mean we don't get to see you, so we don't like 'em). We will make arrangements to have the Cabrillo Aquarium Book Shop open for the evening, so plan for some specialty shopping for the sea-life lovers on your list.

### NEW LITERATURE

During a recent meeting with Dean Pasko and Megan Lilly at San Diego to discuss sponges taken in the Bight'98 trawls it became evident that one of our problems in dealing with these organisms is a lack of familiarity with available literature. We might find ourselves reporting "sponge unidentified" with less frequency were we more familiar with papers addressing the fauna. With that in mind a concerted effort will be made to review the developments in sponge taxonomy over the past decade worldwide and bring the literature to your attention. That these citations have gone unnoticed by most in SCAMIT was apparent when the current Ed. 3 hierarchy was compared to that used by Hooper in his on-line review of world-wide sponge taxonomy available at:

<http://www.qmuseum.qld.gov.au/nature/explorenature/spongeident.html>

Much of the recent taxonomic literature dealing with this group has originated in journals and publications with no obvious relevance to our fauna. Researchers in Australia, France, Italy, the Netherlands, and in other non-US areas are making major contributions. They are conducting a thorough reevaluation of the sponges using modern tools, and phylogenetic analytic methods. While sponges are only a minor component of most SCAMITeers workload, we should endeavor to stay current in their taxonomy.

Several of these revisionary works were cited in the bibliography of Green & Bakus (1994). Another with local relevance is Van Soest et al 1991. This is one of a series of reports on the taxonomy of the genus *Acarnus*. The status of the locally occurring *Acarnus erithracus* was not changed here, but the discussion of the genus was worthwhile and enlightening. While addressing the west Atlantic region, Alvarez et al (1998) is a useful review of the Axinellidae, and their generic rediagnoses have relevance to our local fauna. More to come in future issues.

A major revisionary article on sabellid taxonomy has just been published (Knight-Jones & Perkins 1998). The genus *Sabella* is rediagnosed and restricted, most species previously placed there are transferred to *Bispira*.

Major revisionary works have been coming out in journals which have escaped my notice over the last few years. One such is the *Memoirs of the Museum of Victoria*. Two major review and revisionary articles appeared there in 1994 which SCAMIT members should be aware of. The first is a generic and above level examination of the thalassinid shrimp by Poore (1994). He erects several new families, and provides keys to genera in all the families world-wide. Character states used in his analysis are fully illustrated as well. The isopod family Gnathiidae was extensively reviewed by Cohen & Poore (1994). While the species descriptions included are all of new Australian



species, the discussion of the genera and the family as a whole applies world-wide. They propose to resurrect the genus *Caecognathia* from the synonymy of *Gnathia*, and would place two local species in the genus (*crenulatifrons* and *sanctaecrucis*). All other California gnathiids would remain in the genus *Gnathia*.

Although mentioned previously, Ponder & Lindberg (1997) is now in hand and can be evaluated. This huge paper, while not proposing a new "classification" provides information sufficient to allow readers to reach their own conclusions. The authors side with De Quieroz & Gauthier (1990) in viewing only taxa which can be defined in cladistic terms as having validity. They do not view a classification which uses a rigid set of hierarchical levels as necessary or desirable. Those of us who adopt such systematic concepts into an applied taxonomy do have use for a full hierarchical classification.

Integrating the findings of workers such as Ponder & Lindberg into a working hierarchy will be quite a challenge.

The comprehensiveness of their analysis is staggering, although they have included only morphological analyses and not molecular, ecological, or behavioral evidence. Characters derived from both adult and larval morphology are used, however. The authors use a suite of 117 characters to construct the matrix for their cladistic analysis. The nature and scoring of these characters are usually thoroughly discussed, although polarity assignments are often unsupported assertions. More than half of the paper is devoted to character description and evaluation.

The resulting cladograms (five different analyses were performed, with a few taxa eliminated in some) produced a strict majority-rule consensus tree (of 396 resulting trees). The authors provide names for the major clades in this tree. In large part this is in agreement with that proposed by Haszprunar (1988),

although differing in some details. Those with an interest in the higher classification and evolutionary history of gastropods are urged to get and peruse this paper. The extensive discussion and presented arguments are very thought provoking, and a valuable addition to the existing corpus of papers on the subject.

Several non-taxonomic articles of potential interest have come out recently. Coma et al (1998) discuss the growth and secondary production of a Mediterranean gorgonian species *Paramuricea clavata*. Data was gathered over a two year period by photographing and re-photographing the same organisms in situ. A total of 54 colonies were followed. Sokal et al (1998) consider the statistics and consequences of spatial autocorrelation within stations; and Cromey et al (1998) present a new mathematical model of organic solids sedimentation, and its effects on benthic communities.

Two marine related articles have graced the pages of Scientific American in the last few months, one discussing natural oil spills (Macdonald 1998), and the other one of my least favorite creatures - the hagfish (Martini 1998). In their usual style these articles are both easy access and packed with useful information.

### NOT GONE, NOT FORGOTTEN

While conditions in mainland nearshore waters seem to have veered away from El Niño towards La Niña influence, the southern Channel Islands seem to still reflect the tropical influence. Jack Engle recently wrote "...we continue to document new records of warm-water species at the Channel Islands. On October 9-11, we found a fair number (generally 2-6 seen per dive) of ornate fireworms (*Chloeia viridis*) near Willow Cove at Catalina Island. These spectacular worms were crawling on the surface of the stable sand habitat at 30-50 ft. depth. Several were seen apparently feeding on fecal material from bat rays. We have good photographs and collected



several individuals. Limited checking indicates this species ranges throughout the Gulf of California to Panama. If none have been found north of the Gulf, then this is a major range extension.” Anyone else have observations of these animals (or other warm-water faunal anomalies) to report? Contact Jack at [j\\_engle@lifesci.ucsb.edu](mailto:j_engle@lifesci.ucsb.edu) if you have seen these worms locally, he is very interested.

### MEETINGS

CWEA/SARBS Training Seminar “Recent Advances in Receiving Water Monitoring” to be held February 23-24 1999 at the Sheraton-Anaheim. A preliminary topics list and a registration blank are appended. For further information contact George Robertson, Orange County Sanitation District at Tel: (714)593-7468, or e-mail: [grobertson@ocsd.com](mailto:grobertson@ocsd.com). Several more meetings are on the horizon, and will be discussed in the next NL.

### KUDOS

Since SCAMIT Secretary Megan Lilly first assumed her new post in May of this year she has enjoyed the support and assistance of two co-workers in the performance of her duties. Kathy Langan-Cranford has assisted by taking notes for Megan at meetings which deal with annelid taxonomy. Megan has also grown to rely on the production help of Kelvin Barwick in creation and assembly of both the paper and on-line versions of the Newsletter. Kelvin seems to actually enjoy Page-Maker, and has wrestled numerous problems to the ground over the last months. Both Megan and the editor are very appreciative of the efforts these two have put out (and hopefully will continue to contribute) towards the production of the NL. Thank You to both Kathy and Kelvin for their efforts from Megan and Don. We might be able to do it without you, but the result would not be the same.

### NEW ADDITION

SCAMIT announces with great pride the arrival of a new SCAMITeer - Evan Thomas Pasko was born November 5 at 4:40 a.m., weighing in at 10 lbs 4 ounces!! He has been affectionately nick-named “Back Pack” by his big brother Sam (ask Dean). Congratulations to Dean and Francine. Perhaps he will aspire to a career in marine biology...

### 19 October MINUTES

The meeting began with Ron Velarde discussing the upcoming alien species workshop in Las Vegas. The dates are November 12 & 13 and will deal mostly with fresh water and terrestrial invasions. An alien species database is being created and information that would fill data set gaps is being sought. There was some discussion as to whether a copy of the SCAMIT species list would be useful to these efforts. We ultimately decided that sending them our list would serve little purpose as we do not annotate it to allow introduced species to be identified. To find out more about this topic check the website at:

<http://nas.er.usgs.gov/conference/>

Next Ron passed around a position announcement from Scripps Institute of Oceanography. They will be interviewing for a curatorial position in the Scripps Museum collections. Current curator Spencer Luke is apparently beginning to think of retirement. The job opening has recently been announced in the ASC Newsletter, and may be repeated on the SCAMIT website.

Don Cadien (CSDLAC) then took the floor and started by passing along Tom Parker’s (CSDLAC) suggestion of creating a permanent “positions available” site on the SCAMIT web-page. People browsing the web-page could periodically check for job announcements





relating to the fields of biology or marine sciences. The members present felt this was a good idea and it will be discussed with Jay Shrake, our web-master.

Don then passed around his latest findings in “new and useful” literature, and also went on to show a three-dimensional perspective view of Santa Monica Bay which he had downloaded from the USGS website:

[http://walrus.wr.usgs.gov/docs/projects/pac\\_maps/](http://walrus.wr.usgs.gov/docs/projects/pac_maps/)

This is a useful resource for SCAMIT members, and should be checked periodically to see what new maps have been made available. USGS has on-going mapping projects in the Bight, which will continue to produce new maps for some time.

Don called for people to notify Jay Shrake if they happen upon interesting or useful websites that they feel would be an appropriate link for the SCAMIT website. For example, he brought to our attention a researcher at the Virginia Institute of Marine Sciences (VIMS), Jeff Shields, who works on parasitic isopods and has established a website offering information on several groups, including dajids. That family is not included in the World List of Isopods maintained by the Smithsonian, and Jeff’s information is the most complete available on the web. By the way, the web address for Jeff is:

<http://www.vims.edu/~jeff/isopod.html>

There are lots of sites out there, a number not yet listed in our links. If you find something interesting and informative about marine inverts while surfing, capture the URL and send it in to the webmaster. Also don’t forget to explore what is already there. Some most unexpected resources will be revealed. (If hard copy readers get the impression that we are leaning more and more towards connected information, they’re right. That is the path we are currently on.)

A listing of emendations to the SCAMIT Edition 3 list were then passed around. The list currently is about 3 pages long, but there will be more in the future. Any comments for addition to this emend list can be posted directly to the website, e-mailed to Don (dcadien@lacs.org), or mentioned at a meeting. Users of the Ed 3 list will be constantly finding problems, please don’t save them up until the last minute, send them in while they are fresh in your mind. Remember, however, that our synonym/usage entries under each name are not exhaustive or complete. We are striving only to have all the variant forms under which a species may be encountered in locally used literature included.

An example of a new field ID aid used by CSDLAC taxonomists for identification of trawl caught shrimp was circulated. This simply consists of basic outline drawings of various shrimp species which are taken into the field and live coloration of unusual (or even routine) specimens are recorded with colored pencils. Color patterns of live animals can be extremely useful in identifications and this is a way of ensuring accuracy for both field and lab ID’s.

The upcoming SCAMIT Christmas party was briefly discussed (see the announcement above).

Tony Phillips (Hyperion), suggested a trip for nemertean taxonomists to the Santa Barbara Museum of Natural History in order to examine the recently acquired Coe collection which contains many types. A one or two day workshop would be conducted in order to standardize identifications of this difficult group of animals. Our previous nemertean workshop at Rancho Cuca was quite productive. A future one centered around examination of the Coe collection would be very useful, as interpretations of the literature leave so much to the imagination. Examination of Coe-identified material might help us sort out existing problems with literature



interpretations, and give us a better handle on the degree of variability within the group as seen through the eyes of its preeminent west coast taxonomist.

It was then announced by Don Cadien that SCAMIT will no longer be accepting orders for Lambert's book on Holothurians. "The books are closed", as it were, and he will now begin the process of actually trying to acquire the book for those who ordered it.

Just as a note, Mary Bergen, formerly of SCCWRP, is now working for the State Lands Commission. Those of you looking for help with difficult holothuroid IDs (yes, she's still working with sea cucumber taxonomy) can reach her at [Mary\\_Bergen@email.msn.com](mailto:Mary_Bergen@email.msn.com).

Jim Allen (SCCWRP) joined at this point to give us an update on the Bight'98 trawl efforts and what standards have been set at this point. Pelagic and fouling organisms will be eliminated, as well as hard substrate animals with the exception of Metridium and a few other animals which may attach themselves to a small rock on a soft bottom, but do not require a true reef. Infaunal animals, also, will not be considered with the exception of the heart urchins.

Jim would like to see the trawl ID's submitted to SCCWRP by November 15th. Unlike the SCBPP, which had a very uncertain and elastic schedule, the Bight'98 results are scheduled to be reported in a relatively short period. This cannot proceed until the trawl identifications are completed and the data submitted. The voucher collections will be examined to verify that name usage was the same across the participating groups, and once this QC step is complete, the data can be analyzed.

From there we finally got to the heart of the matter and started discussing actual animals encountered, comparing photographs taken, and voucher specimens kept. It was decided that a sponge meeting will be held at the City of San Diego's Marine Biology Lab with Don Cadien, Megan Lilly and Dean Pasko in order to compare and standardize identifications. It was felt that a similar meeting will have to be held with Cnidarian specimens, but who will attend, when and where were not decided at this point.

We made it through the Miscellaneous Taxa and Mollusks before breaking for lunch. In the afternoon Crustacea and Echinodermata were examined. With the exception of the newly sampled areas of San Diego Bay and the offshore islands there were no real surprises and few interesting catches from the Bight'98 trawls. Several participants remarked that the collections seemed bland to the point of disinterest. Because of the prevalence of hard bottom around the islands, and in San Diego Bay (in the form of oyster bioherms on the muddy bay floor) a number of species not normally seen were encountered. Not all of these will be included in the database for the soft bottom trawling effort, but we are doing our best to identify even those which will not be used.

#### **HOLIDAY BREAK**

It was decided by the members present at the November meeting that there will be no meeting in December. The Christmas party will serve as the forum for our monthly gathering. Taxonomic discussions will resume in January with the subject being unusual polychaetes being encountered in the Bight'98 benthic samples. Date and Location to be announced.



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**Bibliography**

- Alvarez, Belinda, Rob W. M. van Soest, & Klaus Rützler. 1998. A revision of Axinellidae (Porifera: Demospongiae) of the central west Atlantic region. *Smithsonian Contributions to Zoology* 598:1-47.
- Cohen, Brian F. & Gary C. B. Poore. 1994. Phylogeny and biogeography of the Gnathiidae (Crustacea: Isopoda) with descriptions of new genera and species, most from south-eastern Australia. *Memoirs of the Museum of Victoria* 54(2):271-397.
- Coma, R., M. Ribes, M. Zabala, & J.-M. Gili. 1998. Growth in a modular colonial marine invertebrate. *Estuarine, Coastal & Shelf Science* 47(4):459-470.
- Cromeey, C. J., K. D. Black, A. Edwards, & I. A. Jack. 1998. Modeling the deposition and biological effects of organic carbon from marine sewage discharges. *Estuarine, Coastal & Shelf Science* 47(3):295-308.
- De Quieroz, K. & J. Gauthier. 1990. Phylogeny as a central principle in taxonomy: phylogenetic definitions of taxa names. *Systematic Zoology* 39:307-322.
- Green, Karen D. & Gerald J. Bakus. 1994. The Porifera. IN: Blake, James A., Andrew L. Lissner, & Paul H. Scott (eds.). *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel, Volume 2*. Santa Barbara Museum of Natural History, Santa Barbara, Ca. 82pp.
- Haszprunar, Gerhard. 1988. On the origin and evolution of major gastropod groups, with special reference to Streptoneura (Mollusca). *Journal of Molluscan Studies* 54(4):367-441.
- Knight-Jones, Phyllis & Thomas H. Perkins. 1998. A revision of Sabella, Bispira and Stylomma (Polychaeta: Sabellidae). *Zoological Journal of the Linnean Society* 123(4):385-467.
- MacDonald, Ian R. 1998. Natural oil spills. *Scientific American* 279(5):57-61.
- Martini, Frederic H. 1998. Secrets of the Slime Hag. *Scientific American* 279(4):70-75.
- Ponder, Winston F. & David R. Lindberg. 1997. Towards a phylogeny of gastropod molluscs: an analysis using morphological characters. *Zoological Journal of the Linnean Society* 119(2):83-265.
- Poore, Gary C. B. 1994. A phylogeny of the families of Thalassinidea (Crustacea: Decapoda) with keys to families and genera. *Memoirs of the Museum of Victoria* 54(1):79-120.
- Soest, Rob W. M. van, John N. A. Hooper, & F. Hiemstra. 1991. Taxonomy, phylogeny and biogeography of the marine sponge genus *Acarnus* (Porifera: Poecilosclerida). *Beaufortia* 42(3):49-88.
- Sokal, Robert R., Neal L. Oden, & Barbara A. Thomson. 1998. Local spatial autocorrelation in biological variables. *Biological Journal of the Linnean Society* 65(1):41-62.



**Please visit the SCAMIT Website at: <http://www.scamit.org>**

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If you need any other information concerning SCAMIT please feel free to contact any of the officers e-mail address

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