

July, 1995

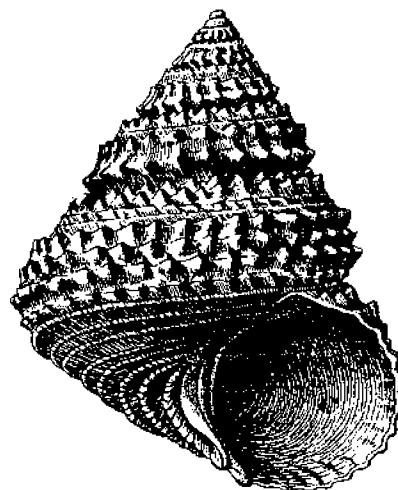
SCAMIT Newsletter

Vol. 14, No.3

NEXT MEETING:	SCBPP QA/QC Conflict Resolution
GUEST SPEAKER:	none
DATE:	August 21 (Polychaete) and August 22 (Non-polychaete)
TIME:	9:30am - 3:30pm
LOCATION:	SCCWRP, 7171 Fenwick Lane, Westminster (Both meetings)

AUGUST MEETINGS

The data submission deadlines for SCBPP benthic data are looming, and so we are scheduled for two QA/QC conflict resolution meetings in August. The meeting for QA/QC resolution in polychaete taxa will be held at SCCWRP on Monday, the 21st of August, and the meeting for the non-polychaetes will be held on Tuesday, the 22nd of August, also at SCCWRP. Differences should be resolved over the telephone (where possible) prior to 21 August. Meeting time will be devoted to examination of specimens with contested identifications. The polychaete staining patterns meeting originally scheduled for August has been postponed until Monday the



Cidarina cidaris (from Dall 1890)

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ARCO FOUNDATION, CHEVRON USA, AND TEXACO INC.
SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.

25th of September to allow several vacationing members to attend.

NEW SCA "MITE"

Member Tom Biksey (Baker Environmental) and his wife Germaine became the proud parents of Michael Alexander Biksey on the afternoon of May 3. He was 7 pounds 2 oz. and 20 1/4" at birth. This announcement came a bit slowly, but Pennsylvania is a bit distant. Our congratulations to both Tom and Germaine.

NEW LITERATURE

The members attention was drawn to several new papers at the July 17th meeting. A paper by member Eric Vetter (Vetter 1995) reporting on high crustacean secondary production in nearshore areas of detrital accumulation recently appeared in Marine Ecology Progress Series. His data suggest that areas of natural detrital accumulation are important "hot spots" of secondary production, which is exported by fish predation to a wider area.

Orensanz et al (1995) investigated the breeding biology of *Cancer gracilis* and found it rather complex. This species is often encountered during both benthic and trawl sampling in the Southern California Bight, and additional information on its biology is most welcome.

An article which may prove to apply to taxonomy of one of our local mollusk species appeared in the latest issue of the *Veliger*. Valdes and Ortea (1995) revise some of the northeast Atlantic species of the nudibranch genus *Okenia*, one of which may occur in southern California. We have had a

provisional species (*Okenia sp A*) for several years, which is very similar to *Okenia aspersa* from European waters. It was suspected that the two might be the same, but the limits of variability of *O. aspersa* were unclear. The waters are now even muddier since Valdes and Ortea synonymized *O. aspersa*, *O. pulchella*, *O. modesta*, *O. ascidicola*, *O. inaequalis*, and *O. caudata* with *O. quadricornis*. Most of these synonymies have been suggested in the past, but usually not without argument from other workers. Unfortunately, the authors examined but a single specimen of *O. quadricornis*, which was not the type.

There are several new articles of interest to polychaete workers and other biology-morphs. Vovuelle et al (1995) address quinone-tanning of polychaete tubes and present detailed methods and results. They also closely relate anatomy, tube construction, and histochemistry in some Sabellids. The halogenated process of setal tanning in other polychaetes is also discussed.

A new SEM study of *Glycinde armigera* has been published. This paper (Smith et al 1995) provides new insight into the complexity and possible function of the proboscideal papillae.

Finally, for those dedicated who appreciate being paid for their work: There is a new comprehensive survey of fishery biologists on a state by state basis. The lowest minimum salary? Florida. The highest maximum salary? Michigan and Idaho. If you think you might start packing, get all the data first (Brouha et al 1995).

AMERICAN MALACOLOGICAL UNION MEETING

The 1997 meeting of the American Malacological Union will be held in Santa Barbara on June 22-27 at the Radisson Hotel.

This meeting will be held jointly with that of the Western Society of Malacologists. The two major symposia scheduled are: 1) Deep-Sea Mollusca convened by Jerry Harasewych from the National Museum of Natural History and 2) Traditional vs. Phylogenetic Systematics convened by Gary Rosenberg from the Academy of Natural Sciences in Philadelphia. There will also be a special session on the benthic cephalopods of the North Pacific chaired by Eric Hochberg from the Santa Barbara Museum of Natural History.

The optional field trips will include a tour of fossil formations of the Santa Barbara area, a cruise to the Channel Islands, and an in-depth tour of the Santa Barbara Museum of Natural History. The nightly cost at the Radisson Hotel will be \$109 based on double occupancy. After the meeting there will be a two-week long workshop sponsored by the Santa Barbara Museum of Natural History that will focus on the marine, freshwater and terrestrial mollusks of southern and central California.

For more information about this workshop contact Paul Scott at the Santa Barbara Museum of Natural History (805) 682-4711, ext. 319 or inverts@sbnmh.rain.org.

EMPLOYMENT OPPORTUNITY

The City of San Diego is accepting applications for marine biologist. A list will be developed that the City will hire from for the next two years. Currently there is one opening for a marine biologist in the area of data management and reporting. For details please see the attached flyer.

RETIREMENT

Dr. C. Allan Child has retired from his position with the Smithsonian Institution as of

the beginning of the year. He is interested in continuing with taxonomy in his retirement, and is available for consulting work. As a world authority on pycnogonid taxonomy and biology he should be in demand. We wish him well in his retirement.

Heterophoxus REDUX

Member Carol Paquette (MBC) took time prior to the meeting to closely examine a series of *Heterophoxus* "*oculatus*" specimens, counting epimeral setae, and posterior setae on article 6 of periopod 6. These closely followed the patterns found by Dean Pasko (CSDMWWD) and reported in the last issue of the Newsletter. She examined 60 animals from a variety of locations and depths, ranging in size from 8mm to 1.9mm in length. Based on her comments a few of the animals can be identified as *H. affinis* or *H. ellisi*. The majority are either *H. oculatus* or *H. conlanae*.

Epimeral setal counts varied between the left and right 3rd epimera of most specimens. The difference was usually just a single seta, but in one case it was 12/8. None of the animals had counts which reached the nominal 20 for *H. oculatus*. The highest count was on a 6mm animal with 13/16. As reported previously, smaller animals have fewer epimeral setae; the 1.9mm specimen had none.

Counts of posterior setae on article 6 of periopod 6 varied both in number of setal groups, and in number of inserted setae in each group between the left and right legs of most animals. Again, both number of groups and setae per group tended to increase with age (size). Only two of Carol's specimens had a triply inserted group. Unfortunately, she did not check for dorsal setation on the pleon in her specimens. Jim Roney (CLAEMD) had noticed the fuzz on his *Heterophoxus* specimens at Hyperion. A request will be

made of Dr. Jim Thomas at the Smithsonian for examination of the holotype of *H. oculatus* to verify the epimeral setal count given by Holmes (1908), and the number of setal groups on the posterior margins of the sixth articles of the sixth pereopods. We will also request that the holotype be examined for presence of dorsal fuzz on the pleon. This fuzz seems to be the only unequivocal character separating *H. oculatus* and *H. conlanae* at this time.

Carol has also provided us with a voucher sheet for her *Ampelisca nr. brevisimulata*, which is attached. Perhaps more of these animals will be recognized in our collections now that a voucher sheet is available.

Octopus veligero AT LAST!

Member Megan Lilly (CSDMWWD) reports that they have finally found an additional specimen of *O. veligero* off Pt. Loma. She examined the specimen in the field and found it to differ only subtly from *O. rubescens* in color pattern. The dark markings which were suggested as useful field characters to distinguish *O. rubescens* and *O. veligero* were not seen at this time. However, the animal was viewed out of water and it has been suggested by Dr. Eric Hochberg that distinguishing markings can be observed more clearly if the animal is resting in sea water. It is possible that the dark markings are preservation marks and may not serve as field characters. She confirmed the identification by dissection of the preserved animal when she visited Dr. Hochberg in Santa Barbara. Megan is also working up a report on her maintenance of and observations on living *Octopus* at the CSDMWWD Lab for a future issue of the Newsletter.

INVASION IN FULL SWING

We have been tracking the spread of the introduced cephalaspid mollusk *Philine auriformis* through the Southern California Bight. Gosliner (1995) has recently reprised it's history in northern California, but it's appearance in the south is too recent to have reached publication (except in the Newsletter). The spread of these animals has been very rapid, even if there have been multiple introductions. They are now taken routinely from Santa Monica Bay to off Pt. Loma, and have begun showing up in Los Angeles-Long Beach Harbor (Cindy Fuller, MEC). Snails taken in Los Angeles Harbor were very large, reaching a weight of nearly a gram each. A recent trawl at about 150m off Palos Verdes yielded well over a thousand specimens of various sizes. Given the selectivity of the net, the offshore population must be immense.

Preliminary gut analyses have indicated that the animals are probably indiscriminate carnivores. They reportedly feed on small clams in their native New Zealand (Rudman 1970), and California animals have had *Parvilucina*, ophiuroids, forams, *Pectinaria*, and other cephalaspids in their guts.

Member Cindy Fuller (MEC) reported recently that at least one local fish had begun to make use of the abundant food represented by these muscular and nearly shell-less mollusks. Ed Basmajian (also MEC) found a Pacific sand dab taken off Orange County in August had a gut stuffed with *Philine*.

We are trying to document the rate and path of spread of this animal. Any observations or information on the course of this invasion would be very useful. Members with data please contact Don Cadien (CSDLAC), the unofficial clearinghouse for invasion lore.

Other northern California invaders may be heading our way, the crabs *Eriocheir sinensis*

and *Cancer maenas*. Wanted posters for these illegal aliens are attached.

CORRECTION

There was a mistake made in the last newsletter vol. 14 no. 2. on pg. 10 in the last paragraph. The sentence that reads, "The biggest problem seems to be the counts associated with the subdistal papillae on the proboscis." should say, "distal papillae", not subdistal. Also, the two species that are being synonymized in Larry Lovell's paper are *Nephtys signifera* with *Nephtys ferruginea* and *Nephtys parva* with *Nephtys cornuta*, not *Nephtys caecoides*. This paper will be in the Proceedings of the 5th International Polychaete Conference from China, which will hopefully be out next year. The secretary apologizes for these errors. All members should feel free to notify the newsletter staff about any mistakes that have been made in the newsletter. The newsletter will only improve with more input from its members.

MINUTES FROM JULY 17 MEETING

The meeting was well attended, and after a recap of the nature of the SCBPP reanalysis process by Dave Montagne (CSDLAC) we proceeded to examine individual problems. Unfortunately, not all the specimens were available at the meeting, so the discussions tended to remain general rather than specimen specific. A number of specific changes did result from examination of voucher or other representative specimens. A sample with CSDLAC as Lab A and CSDMWWD as Lab B was almost completely resolved. As part of examination of this sample nemerteans were compared. These had been identified differently by the two labs. By mutual agreement their identifications were dropped

to a higher taxonomic level. It is likely that this solution to conflict in nemertean IDs will be adopted often during the QC process.

Despite circulation of keys to the Families of Ophiuroids, genera of the family Amphiuridae, and species within the genus *Amphiodia* prior to beginning the survey, problems in application still surfaced. Because of the way the family key was structured, small specimens which should have been allocated to the family Amphiuridae based on paired infradental papillae ended up identified as Ophiuroidea unidentified in some samples. A global change to the San Diego database will cure this; but one of many global data changes which will be necessary before the survey data is fully comparable.

Most of the differences between the original and reanalytical labs fell into the category of apparent error - error based on the precision of the identification. These are the sorts of error which can easily be resolved between the parties involved.

Since there still seems to be some uncertainty as to the nature of the process the following brief summary was prepared:

- a) samples are exchanged
- b) reanalysis lab identifies samples
- c) original lab provides original data to reanalysis lab
- d) reanalysis lab prepares Quality Control Discrepancy Report
- e) reanalysis lab sends copy of report to original lab
- f) reanalysis lab calls original lab for discussion of items on the discrepancy report
- g) differences are worked out over the phone; or
- h) samples are prepared for examination at a subsequent SCAMIT meeting to permit differences to be resolved or
- i) the labs cannot reach agreement, and the problem is submitted to the Benthic Specialist for summary resolution

j) once resolution is reached (by one of the above three paths) a resolution report is prepared by the reanalysis lab, and submitted to the benthic specialist (cc: original lab) and k) original lab must prepare Request for Taxonomic Change forms (if needed) and submit them to the database administrator (Mary Bergen of SCCWRP).

Anyone with questions about the process or its application should contact either Ron Velarde (CSDMWWD), Don Cadien or Dave Montagne (CSDLAC).

MINUTES FROM JULY 28 MEETING

The meeting opened with Larry Lovell and Leslie Harris reporting to members on the Fifth International Polychaete Conference held in Qingdao, China, July 2-7, 1995, which they attended. Approximately 150-200 people attended the conference. There were several other SCAMIT members in attendance, including Dr. Don Reish, Karen Green, Sheila Byers, and Dr. Amelie Scheltema. There were four days of talks and poster presentations. The Talks were organized around plenary sessions on Evolution and Systematics, Reproductive Ecology, Meiofaunal Polychaetes, and Polychaetes as Marine Pollution and Fouling Test Organisms. All the talks were well received and some were quite controversial. Dr. Reish gave a plenary session talk reviewing the use of polychaetes as marine pollution indicators. Larry Lovell presented a talk on his recent findings in the genus *Nephtys* and Karen Green presented a poster describing a new genus and species of Maldanidae from southern California. Sheila Byers presented a poster reviewing the family Oweniidae in British Columbia. There was also a special session in memory of the late Dr. Ralph Smith presented by Dr. Colin Hermans. There were mid-conference excursions to the Laoshan Mountains, to the

beach (collecting polychaetes), and to the First Institute of Oceanography. The Conference Banquet featured a 10 course Chinese meal and entertainment ranging from folk dancers, musicians, and singers to a magic act in which Pat Hutchings almost lost her fingers!!! The hospitality was wonderful, the food great, and the beer cheap! Congratulations to the Chinese for a conference well done.

The conference participants voted Dr. Kristian Fauchald, of the Smithsonian Institution, President of the International Polychaete Society for the next three years. Three presentations on possible locations for the next conference in 1998 were given, they were: Woods Hole, Mass, USA; the island of Helgoland, Germany; and Parana, Brazil. Unfortunately, the time frames of the Woods Hole and Helgoland proposals (April, '98 and September, '98, respectively) meant that those who work at universities would have a difficult time attending. The Brazilian schedule followed the time frame of previous conferences. The participants voted on Brazil for the next conference. It will be in July or August 1998. Dr. Paulo Lana will be organizing the conference. You may E-mail him at <lan@ccc.ufpr.br> with questions or to be put on the mailing list. Paulo indicated there would be a post-conference tour to the Amazon River as an option. Expect the first announcement the latter part of 1996. Make your plans and start saving your cruzeiros.

There were two post-conference tours offered for the Qingdao conference, one to Beijing and a second to Xian and Beijing. Leslie, the Lovells, Karen and Dave Green, and Sheila Byers were part of the second tour with a total of 40 other polychaetologists and family from about nine countries. The tour lasted six days and nights. The first 24 hours were spent on a train traveling 1200 miles from Qingdao inland to Xian. They spent two nights in Xian, where they visited the Terra Cotta soldier tomb and museum and the Wild Goose

Pagoda. The tour then flew to Beijing for three nights. They toured the Summer Palace, Forbidden City, Temple of Heaven, Ming Tomb, and Great Wall, and got to see a performance of the Beijing Opera. It was a fun and interesting group to travel with and everyone got to know one another better.

After the post-conference tour Leslie and the Lovells stopped in Japan for six nights. The Lovell's friend Ko HIRAMA, who lives in Tokyo, acted as traveling companion while they were in Japan. He had been an ESL student of Jacqueline Lovell in San Diego. Ko had helped with arrangements for Leslie and Larry to visit Dr. Minoru Imajima at the National Science Museum in Shinjuku-ku District, Tokyo. Dr. Imajima hosted a meeting for them all, greetings were made, tea and soft drinks were served, and loan material for Leslie and Larry was processed. Leslie will be examining specimens of *Neriphylla castanea* (Marenzeller, 1879) from Japanese waters and Larry will be reviewing type material from Dr. Imajima's papers on the families Paraonidae and Nephtyidae (with Takeda). Dr. Imajima honored them with a private tour of the Natural History Museum (only open the afternoon of the first Wednesday of each month). Dr. Imajima retired in March, 1994, but he works at the museum every day and is actively publishing. He encourages the use of the museum collections and welcomes interaction with other polychaetologists to resolve problems of common interest.

Leslie and the Lovells spent three nights in Kyoto where they were able to stay on the grounds of a 900 year old Buddhist temple and experience some of the local Gion Festival. They had met Dr. Isao Hayashi, from Kyoto University, at the polychaete conference and had arranged to visit his laboratory while in Kyoto. He turned out to be quite the host in Kyoto, knowing about transportation and restaurants, taking them to temples, the Gion Festival parade, and special shopping requests.

Leslie and Larry got to spend one afternoon in Dr. Hayashi's laboratory at the University and examined a few specimens in the families Syllidae and Nephtyidae. They were very honored for Dr. Hayashi to have spent so much time escorting them. It made for a special weekend in Kyoto.

Proceedings from the 1st International Polychaete Conference in Sydney, Australia are available free of cost due to a surplus of extra copies. Anyone interested should contact Larry Lovell at (619) 945-1608. He will be placing a southern California order with Pat Hutchings in the very near future.

Also, a recent correspondence with Dr. Don Reish has informed members that some copies of the Proceedings from the 3rd International Polychaete Conference in Long Beach are available, also free of cost. Those of you interested should contact:

Dr. Donald Reish
Department of Biology
Calif. State Univ., Long Beach
Long Beach, CA 90804-3702
Fax: (310) 985-4846

Dr. Reish also noted that a second edition of the *Marine Life of Southern California* was printed the end of July. It has been greatly expanded, especially with the larger organisms.

SCAMIT's *Harmothoe* sp. A has been recently described by Gene Ruff (Private consultant in Washington State). He has put it in a new genus because of the shape of its superior and inferior neurosetae. This new genus will appear in the upcoming Polynoidae chapter of the MMS atlas.

The rest of the meeting was spent discussing and trying to resolve some of the discrepancy problems with the polychaete taxa that have developed from the QA/QC reanalysis of the

SCBPP samples.

The first group discussed was Cossuridae. It was decided that the *Cossura* ids. will have to be left as *Cossura* spp. for the SCBPP. Because our *Cossura* problem (see newsletter vol. 14 no.1) was not discovered until some agencies had already finished their cossurid ids. we can not go back and change these without having to look at all the specimens again. With regards to the *Cossura* methyl green stain patterns that we commonly see in the southern California area, SCAMIT is planning on trying to reproduce illustrations of these 2 different patterns on a color xerox for distribution to members. This should help in the differentiation of our two common species in the future.

The next group discussed was Maldanidae. There are many discrepancies between agencies in identification of Maldanids. This is mainly due to the numerous juveniles of this family that were found in the samples and how they were treated by the different agencies. Ids. of Euclymeninae, *Praxillella pacifica*, "*Euclymene grossa newporti*", and *Axiothella rubrocincta* will most likely drop back to Maldanidae to keep the data uniform. There will be more discussion of this problematic group at the next meeting after all agencies involved in the SCBPP have completely finished their QA/QC reanalysis.

Another problematic group discussed at the meeting was Lumbrineridae. Because many of the lumbrinerids found in benthic samples in So. Calif. are small juveniles or anterior fragments each agency tends to identify them differently. Also, the degree to which taxa level the identifications are made is inconsistent amongst the various taxonomists that work with the lumbrinerid group. To keep the data uniform amongst the agencies for the SCBPP many of the ids. will have to be put into one of 2 groups. It was decided at the meeting that group X would include

lumbrinerid species with composite setae and group Y would include lumbrinerid species with simple setae.

Group X will include:

Lumbrineris cruzensis
Lumbrineris limicola
Lumbrineris californiensis
Lumbrineris latreilli
Lumbrineris japonica
Lumbrineris index
Lumbrineris Group I and II of SCAMIT

Group Y will include:

Lumbrineris tetraura
Lumbrineris sp. A and B of Harris
Lumbrineris Group III and IV of SCAMIT

It was decided that a few lumbrinerid ids. would stay as they are since these animals are so distinct and reported consistently by all agencies. These include:

Ninoe sp. A of Harris
Eranno lagunae
Lumbrinerides platypygos
Lumbrineris bicirrata

Other problematic groups will be discussed at the next meeting. Those members attending should bring to the meeting any specimens that need to be examined for SCBPP QA/QC resolution.

LITERATURE CITED

- BROUHA, P., J. Esson, W. Harris, S. Monseur. 1995. A comparison of agencies' fisheries biologist salaries: 1987, 1990, 1994. *Fisheries* 20(6):14-18.

SCAMIT CODE: none

Date examined: 12 June 1995
Voucher by: Carol Paquette

SYNONYMY: none

LITERATURE: Barnard, J. L. 1954. Amphipoda of the Family Ampeliscidae collected in the Eastern Pacific Ocean by the *Velero III* and *Velero IV*, Allan Hancock Pac. Exp. Vol. 18, No. 1.

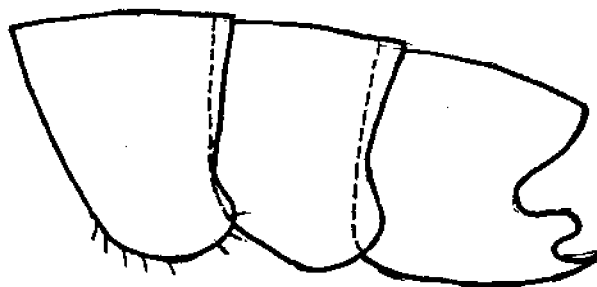
Dickinson, J. J. 1982. Studies on amphipod crustaceans of the Northeastern Pacific region, I. 1. Family Ampeliscidae, Genus *Ampelisca*, Nat. Mus. Canada Publ. Biol. Ocean., No. 10.

DIAGNOSTIC CHARACTERS:

1. Postero-ventral corner of pleonal epimeron 2 rounded.

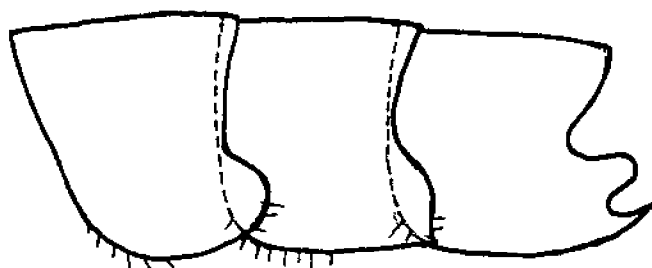
RELATED SPECIES AND CHARACTER DIFFERENCES:

Resembles *Ampelisca brevisimulata* as described by Dickinson in all respects other than pleonal epimeron 2 (although mouthparts have not yet been compared). Barnard did not describe pleonal epimeron 2 in his original description.



Ampelisca nr. *brevisimulata*

9.0 mm female



Ampelisca brevisimulata

9.0 mm female

Left pleonal epimera 1, 2, and 3 (left to right)

Both specimens from Goleta Sta. B1, rep 4, 90 ft, 4 October 1994

DEPTH RANGE: 30 to 90 m

DISTRIBUTION: Goleta to Newport Beach, California

NOTES: The two individuals compared here are both 9.0 mm females with brood lamellae but not gravid. *Ampelisca brevisimulata* and *A. nr. brevisimulata* frequently occur together as well as with *A. pacifica*, *A. pugetica*, *A. agassizi*, *A. cristata*, and *A. careyi*. *Ampelisca* nr. *brevisimulata* occurs in about half the samples from off Newport Beach. The proportion of *A. nr. brevisimulata* to *A. brevisimulata* in these samples is about 1:3. In the shallower, more northern locations, *A. nr. brevisimulata* occurs in less than 4% of the samples, and the proportion of the two taxa is about 1:5.