Southern California Association of Marine Invertebrate Taxonomists

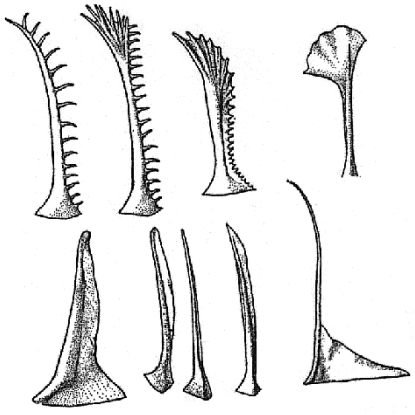
3720 Stephen White Drive
San Pedro, California 90731

December, 1997 **SCAMIT Newsletter** Vol. 16, No.8

NEXT MEETING:	Edition 3 of the Taxonomic List - Molluscs Edition 3 of the Taxonomic List -Annelids(Part2)
GUEST SPEAKER:	None
DATE:	12 January 98 and 26 January 98
TIME:	9:30am - 3:30pm
LOCATION:	Natural History Museum of Los Angeles County 900 Exposition Blvd., Los Angeles, CA 90011

JANUARY 12 MEETING

Our examination of sections of the SCAMIT list Ed. 2 continues in January with consideration of the mollusks. A copy of the draft of Ed. 3 embodying all known corrections, and the synonymy which had been added to that time was distributed at the December meeting (bring your annotated copy). Please come prepared to correct, add, subtract, emend, etc. the existing draft. Questions that require specimen examination may be answered by reference to the museum collections, but bring your own specimens if needed. Any additional changes arising after previous meetings on echinoderms, arthropods, and the "miscellaneous" phyla should be brought along as well. Time is running out for a complete revision ready by the end of February.



Mytilid periostracal hair types
(from Soot-Ryen 1955)

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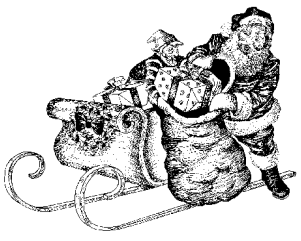
JANUARY 26 MEETING

This meeting will be a continuation of the December meeting on Edition 3 of our Taxa List for the annelida section. The meeting will be on the last Monday of the month due to the other SCAMIT meeting scheduled on the 12th and the Martin Luther King holiday. The meeting will follow the same format as other meetings reviewing this list. Members should come prepared with their own copies of the draft version marked with all their changes, additions and deletions. If you don't have one contact the secretary for a copy. IMPORTANT: Members adding new provisional species names to the list need to bring either a voucher sheet or written description of the animal for distribution thru the newsletter, which also means an electronic copy needs to be provided for inclusion on our website. (The only excuses accepted will be those handwritten by your mother.)

CHRISTMAS PARTY

Another scrumptious SCAMIT Christmas party was held on Saturday, December 13th at the Cabrillo Marine Aquarium. Several new and old members that haven't been able to attend previous years were there. It was great to catch up on old friendships and see how grown-up everyone's children are. The aquarium was especially festive with its marine life Christmas tree and dining amongst our sea-life friends is always a pleasure. Several of us were able to find a few stocking stuffers in the gift shop, which very kindly stayed open late for us. Santa John even made an appearance with treats for all those brave enough to sit on his lap. We thank Cabrillo once again for the luxury of using the aquarium for a wonderful party.



NEW LITERATURE

Since most of our monitoring always samples the same habitat, we lose track of the importance of habitat complexity in determining what we encounter. Jacobi & Langevin 1996 discuss the effects on mobile epifauna recruitment of habitat geometry and complexity. They examined recruitment patterns in artificial substrates of varying structure and complexity by experimental manipulation. They compared the impact of increases in complexity, increases in volume, increases in area, and increases in "intercepting area" (essentially surface exposed to the surrounding water mass) on the resulting abundance and diversity of microcrustaceans. They found that increases in folding complexity was the habitat complexity measure that accounted for the greatest increases in mobile epifauna.

Another application of sediment profile imaging is reported on by Nilsson & Rosenberg (1997). In this case they used the method to examine oxygen stressed fjord areas, relating the sediment profiles to benthic grab sampling "ground-truth" data. They found the method had considerable promise for monitoring the effects of low oxygen conditions on benthic communities. Especially in areas subject to seasonal anoxia or hypoxia, this approach could give much more rapid information on benthic conditions that a sampling of infaunal community by remote grab.

Patterns of recruitment in the bivalve *Spisula ovalis* were investigated on a large scale (David et al 1997). Their results tend to contradict earlier studies based on smaller scale sampling which have concluded that adult density was negatively correlated with larval recruitment success. They found that the study area received about ten cohorts of recuits annually, but that the spatial pattern of recruitment was very patchy. As a result the age structure of the population formed a spatial mosaic, with each cohort showing spatial autocorrelation. Most of this heterogeneity was independent of adult density in the settlement areas. At least for this species recruitment proved to be density independent

rather than density dependent.

Feeding biology of our large offshore anemone "*Metridium senile*" was investigated by Anthony (1997). The relative capture efficiency for various sized individuals under different current flow regimes was examined. The results indicated that under moderate to high flow smaller individuals were better feeders, while under low flow conditions the larger individuals excelled. Since many of our large local anemones reproduce by basal fragmentation, small individuals surrounding these large ones must be at a feeding disadvantage initially; only overcome by growth (at least where the adults are located in optimal flow sites).

CALIFORNIA GALATHEID CRABS

During the November trawl series off Palos Verdes conducted by CSDLAC several patches of rocky substrate were encountered. Species of galatheid crabs we do not normally see were taken in this habitat, prompting a review of the taxonomy and distribution of the group locally. The result is presented as a attachment to this Newsletter. Please forward any comments or corrections to Don Cadien at CSDLAC.

MINUTES OF DECEMBER 8 MEETING

This meeting gave the polychaete taxonomists a chance to review the annelid section of the draft version of edition 3 of the SCAMIT Taxa list. The first half of the list was reviewed by family group from Orbiniidae to Phyllodocidae. Comments were made as to which species names should be added or deleted and if the synonymies were correct. This process naturally generated much discussion as to the validity of several names on the list from previous editions. A few taxonomists are checking on these names to see if they should be dropped. A list of these questionable names is included below. All members might want to check and see if they have reported any of these animals in the last couple of years in their surveys from so. California. If so, please contact the secretary with any information you might have. We will try to complete reviewing of the annelid section at the January 26th meeting.

Questionable Annelid Names

Asclerocheilus californicus (Scalibregmatid)
Chaetozone gracilis (Cirratulid)
Chirimia biceps lacera (Maldanid)
Clymenopsis californiensis (Maldanid)
Pterocirrus californiensis (Phyllodocid)
Rhynchospio glutaea (Spionid)

Several changes were made to the draft copy of the list at the meeting. Many changes had already been implemented in the draft copy of the list due to publication of several volumes of the MMS Taxonomic Atlas, which had not been produced when SCAMIT published edition 2 of the Taxa List. These changes have been discussed in the last 2 volumes of the SCAMIT Newsletter as each volume of the MMS Atlas was reviewed. Since those changes were not readdressed at the meeting they will not be summarized here. Those major changes that were discussed at the meeting are presented here.

In the Paraonidae family it was decided that subgenera names should be added to the species of *Aricidea* following Blake 1996. It was also decided that what had been referred to in the past as *Allia ramosa* by some SCAMIT members should be considered *Aricidea* (*Allia*) sp. A SCAMIT 1996. A few new species names are being added because they have been reported in the last two years by SCAMIT taxonomists in various monitoring surveys. They are *Aricidea (Allia) quadrilobata* (Webster & Benedict 1887), *Aricidea (Allia) hartleyi* Blake 1996, *Aricidea (Acmira) rubra* Hartman 1963 and *Paradoneis spinifera* (Hobson 1972).

A few important changes for the Spionidae family include the addition of *Polydora cornuta* to our list. The previous synonymy of *Polydora ligni* with *P. cornuta* (Blake & Maciolek 1987) had been forgotten about in previous editions of our taxa list.

Another change to the list is with *Prionospio ehlersi*. It has been dropped and *Prionospio lobulata* Fauchald 1972 added. Several SCAMIT members have always disagreed with Maciolek's (1985) synonymy of *P. lobulata* with *P. ehlersi* and now the list has been changed to reflect that.

Three spionid provisionals on the list now have new names. Two of them based on new descriptions from Blake (1996) and the third from an older description by Day (1961). *Prionospio* sp. A and *Prionospio* sp. B of SCAMIT 1991 will become *Prionospio jubata* Blake 1996 and *Prionospio dubia* Day 1961 respectively. *Spio* sp. A of Lovell 1986 has also been described by Blake (1996) as *Spio maciolekae*.

In the Magelonidae the species *Magelona hobsonae* Jones 1978 is being added. It has recently been reported in San Diego.

As for changes in the Cirratulidae list, the animal that SCAMIT members have been referring to as *Aphelochaeta marioni* will now be listed as a SCAMIT provisional, *Aphelochaeta* sp. A and a voucher sheet will be issued in a future newsletter. New species names added to the list are: *Aphelochaeta phillipsi* Blake 1996, *Aphelochaeta petersenae* Blake 1996, *Aphelochaeta* sp. B, a new provisional that Tony Phillips (CLAEMD) is currently reporting from Santa Monica Bay (voucher sheet in an upcoming newsletter), two *Chaetozone* species reported by Rick Rowe (CSDMWWD), *C. hedgepethi* Blake 1996 and *C. spinosa* Moore 1903 and *Monticellina serratiseta* (Banse & Hobson 1968), also reported by Rick Rowe.

Three new names are being added to Maldanidae. *Axiothella rubrocincta* (Johnson 1901) has recently been reported in San Diego. Also, *Clymenella* sp. A of Harris 1985 has been added to the list. The provisional had not been included in previous editions of the Taxa List. Leslie's description has been re-typed and is atttached with this newsletter for those members that don't have it. The third addition is *Petaloclymene pacifica* Green 1997, which is the maldanid that has been referred to as *Euclymene grossa newporti* locally and, which, is being dropped from the list.

There is only one additional species being added to the list for the Opheliidae, *Ophelina* sp. 1. This is a provisional species whose voucher sheet was distributed to SCAMIT members in Volume 14(1) of the newsletter.

The last change to the Taxa List discussed at the meeting was under the Phyllodocidae. *Nereiphylla castanea* is being dropped and replaced with two provisional species, *Nereiphylla* sp. A and B, which more accurately describe these animals. Voucher sheets of these two species will be distributed in a forthcoming newsletter.

FLATWORMS

The following e-mail communique was received from member Dr. James Carlton, and is being passed on through the Newsletter because of its general interest. "I notice in the latest (November 1997) SCAMIT newsletter some discussion of southern California polyclad flatworms. We are having Professor John Holleman, now retired and living in the Sierra foothills, revise the polyclads for the Fourth Edition of Light's Manual (now renamed "Light and Smith": coverage roughly from Pt. Conception/Santa Barbara to the Oregon coast). John goes "way back" in the California flatworm world (did his grad work at Berkeley with Cadet Hand and Ralph Smith in the 1950s) and has finished compiling an extensive revision of Libbie Hyman's old polyclad flats of the west coast monograph. He came along with us on the latest San Francisco Bay Expedition (IV) a month or so ago and was a grand help. I think I can say that he's eager to see any and all west coast polyclad material, intertidal or subtidal; he has also worked in New Zealand while on sabbatical, knows the global scene, etc. I'd urge any SCAMIT members who'd like to have their material worked up contact Holleman: jholle2@GOLDRUSH.COM."

Given the problems most of us experience in

working with these animals, all help would be most welcome. Interested parties should follow up on Dr. Carlton's suggestion and contact Dr. Holleman. We all have material to submit for his inspection.

MY LIFE AS A BIOLOGIST
By Donald J. Reish

Chapter 3: "I begin to look to the future"

Let me introduce three life-long friends. First there was Miles and shortly afterwards there was John. We had moved to 12th Street when I was seven, and both of them lived nearby. We walked together to Franklin Grade School. We wore black leather jackets and black leather helmets which was the fashion of the time due to the influence of the Lindberg solo flight to Paris. Miles later became an auto engineer who specialized in auto exhaust; in fact he gave a seminar at CSULB (he now lives in Hawaii). John took over his family's furniture business, and then became a salmon fisherman out of Depot Bay, Oregon. He was the first of our group to go (he died 3 years ago). John and I met Bob the summer before Bob and I entered 7th grade. He did not join the circle until the 9th grade when we both delivered for the same paper. Bob earned a Ph.D. in Mathematics and after teaching at Arizona, Iowa State, Fresno State, he returned to Corvallis and taught at Oregon State. He always wanted to get back to Corvallis.

Going to junior high school brought some changes; for one thing I got my first pair of long pants! Yes, in those days getting the first pair of long pants (cords) was an event. Grade school boys wore knickers. A couple of days before the end of my 7th grade year, my pants wore out and my mother bought me a pair of denims. I was embarrassed; wearing denims in those days was a sign of your family being poor. I didn't wear my next pair of denims until college, but I spilled acid on those pants in organic chem lab. I didn't get my 3rd pair of denims until after I retired. Times do change.

During my earlier years, I never really gave much (or any) thought of what I was going to do when I grew up. I suppose I went through the common thought of being an M.D., but, if I did, it was just in passing. In the ninth grade, I took a math class and one of the assignments was to keep a personal expense record for a month. This fascinated me and I continued it for 6 months, a sufficient length of time to earn my business merit badge (I was a Boy Scout). We were required to write a major report in social science class on what we want to do when we grow up. I wrote on accounting and becoming a CPA. In fact two of us wrote on this subject; the other boy actually did become a CPA. In the 10th grade, I took accounting and I didn't like it. That was the end of my accounting career. After keeping personal records for 6 months, I have never done it since.

I also took general science in the 9th grade from my math teacher. (I ran into him some 50 years later at an anniversary reception for my friend Bob. We didn't talk about my 9th grade classes but about our experiences as scout masters.) I only remember one part of this science class. It was my initial introduction to the scientific method. I was given the assignment to prove or disprove that air occurs in soil. I had to devise an experiment to test this hypothesis. I put some soil in a glass jar of water and let it set for an hour or so. Air bubbles gathered on the side of the glass. I had boiled the water to remove dissolved air, showing that the bubles had come from the soil and not the water. However, I do not recall if I had set aside a jar of boiled water for a control. I'm not sure if I knew what a control was. I had to give an oral presentation in front of the class.

The newspaper business reentered my life in the 9th grade. As I mentioned, Bob and I delivered the Oregon Journal (now defunct). As a publicity campaign, one of my paper customers and I were featured in the paper. It was the first time my picture was published in a newspaper. I even received fan mail from a 14 year old girl; I never met her, but I remember her name! I also worked on the junior high newspaper, but not as a writer, but on the business side. I went out during school time to get ads for the school paper.

Next Time: High school and I become aware of different environments.

SCUM REMINDER

Just a reminder to those mollusk workers out there who want to join with their colleagues for a get together and information exchange. The second annual SCUM (Southern California Unified Malacologists) meeting is scheduled for Saturday, 10 January, in the Times Mirror Room of the Natural History Museum of Los Angeles County. Call ahead and notify Jim McLean or Lindsey Groves if you plan to attend (Tel: 213-763-3376)

PHYLOGENY CONFERENCES

There are two interesting gatherings scheduled for 1998 which should appeal to those interested in metazoan phylogeny. The constant recent ferment in this area caused by advances in cladistic methodology, and the accumulation of more and more sequencing data (as well as data of other types) has led to conferences in January (5th-7th) in Boston, and at Princeton in June (26th-28th).

The first is a session hosted by the Society for Integrative and Comparative Biology (formerly ASZ) focussed on "Evolutionary Relationships of Metazoan Phyla", with presentations by many prominent current workers. Kristian Fauchald and Greg Rouse are scheduled to present another chapter of the polychaete phylogeny controversy (immediately preceeded by Claus Nielsen, one of the major spokesmen for an alternative viewpoint in recent on-line exchanges via the Annelida newsgroup). The banquet address by Simon Conway-Morris "The Cambrian explosion: reconciling paleontological and molecular data" should be most interesting. Meeting information is available at http://www.sicb.org/public/meeting/index.html

The second conference is more concerned with methodology and is entitled "Estimating Large Scale Phylogenies: biological, statistical, and algorithmic problems." Information on the symposium is available from Dr. Junhyong Kim at: junhyong_kim@quickmail.yale.edu

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

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If you need any other information concerning SCAMIT please feel free to contact any of the officers.

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Volumes 1 - 4 (compilation)	$ 30.00
Volumes 5 - 7 (compilation)	$ 15.00
Volumes 8 - 15	$ 20.00/vol.

Single back issues are also available at cost.

L. Harris May 1985
re-issued for SCAMIT
Newsletter Vol. 16(8)

"Clymenella" sp. A

I have temporarily placed this into *Clymenella*. There are 2 problems with this arrangement.

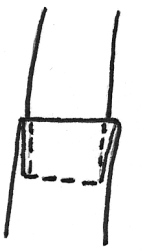
1) The specimen has distinct acicular spines in its first three neuropodia. The genus *Clymenella*, based on *C. torquata* (Leidy) was originally described as having rostrate uncini. Later authors have assigned to the genus certain species with acicular spines and so defined it, i.e. Fauvel 1927, "Ventral acicular setae in first setigers" Fauchald 1977 "...anterior neuropodia with acicular spines or strongly reduced uncini". Monro 1937 and Mangum 1962 (who examined holotype material and had a photo showing strongly developed rostrate uncini from an anterior neuropodium) have argued that since other genera such as *Praxillella* have both kinds of setal arrangements, and that due to variation in shape the difference between them is slight, this combination within one genus is okay. Clark & Dawson 1962, Arwidsson 1907, and Banse 1981, feel the type of anterior neurosetae is or should be a crucial generic character. I agree with this view, by which *C. complanata* Hartman, *C. californica* Blake & Kudenov, and *C.* sp. A do not belong to *Clymenella*.

2) Ignoring the problem with the neurosetae, *C. complanata* & *C. sp. A* should still be separated from the genus. The cephalic plate structure of *Clymenella* sensu *C. torquata* is similar to that of *Euclymene*: raised margin, distinct palpode, nuchal organs 1/2 - 2/3 length of plate, lateral and middorsal notches in margin, and curved folds posterior to nuchal organs. The cephalic plates of these two species are flat and smooth, either without a marginal flange or with a very narrow one, 1-2 deep transverse folds, indistinct, small palpode, and nuchal organs 1/4 of plate's length. I feel these definitely belong to a different group, maybe even *Isocirrus.*

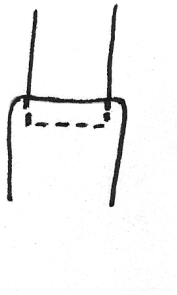
I've put this into "*Clymenella*" rather than *Isocirrus* however, almost solely on the basis of the collar on the 4th setiger. It is close to *I. planiceps* sensu Arwidsson 1907 except for the collar. *Isocirrus longiceps* (Moore) belongs to neither genus because it has a collar on setiger 4, a raised margin, no nuchal organs at all, and 4 - 5 transverse ridges on the plate. Another problem.

To distinguish a collar as opposed to a telescoped fold:

may be membranous



← anterior margin thin deep, tip of forceps can be inserted



thick margin ←

shallow, forceps don't go in very far

Collar

Telescoped (contracted) fold

"Clymenella" sp. A (con't.)

L. Harris May 1985
re-issued for SCAMIT
Newsletter Vol. 16(8)

[cephalic plate]

	# acicular spines	# setigers/ preanal	lateral flange	nuchal organs	transverse folds	shape	collar setiger 4	pygidium
Clymenella sp. A	set. 1 - 2 set. 2 - 2/3 set. 3 - 3/4	22 / 2+ flange	slight	short, >1/4 slightly curved	2 : 1 side to side, 1 shorter	round, flat	yes	~26 cirri, anal cone+/- , asperities
Clymenella complanata	set. 1 - 1 set. 2 - 1/2 set. 3 - 1/2	21 / 3+ flange (or 22/3+)	+/- (slight if present)	short, 1/4, slightly curved	1 side to side	round, flat	yes	22-30 cirri, anal cone +/-, asperities
Clymenella californica	set. 1 - 1 set. 2 - 1/2 set. 3 - 1/2	22-27 / 1+ flange	high, with lateral notches	long, 1/2 - 2/3	none	oval	variable: none to distinct	~22 cirri anal cone +/-, no asperities
Isocirrus longiceps	set. 1 - 1 set. 2 - 1/2 set. 3 -1/2	19 / 2+ flange	moderate, with crenulation	none	4 - 5 short	oval, sloping	yes	30 - 33, asperities
Isocirrus planiceps	set. 1 - 2 set. 2 - 2 set. 3 - 3	23 / 2+ (or 23/1+)	low, thick	short, 1/4 - 1/3	1 side to side	round - oval, flat	no	~20 cirri, anal cone no asperities