



**Southern California Association of  
Marine Invertebrate Taxonomists**

3720 Stephen White Drive  
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November, 1997

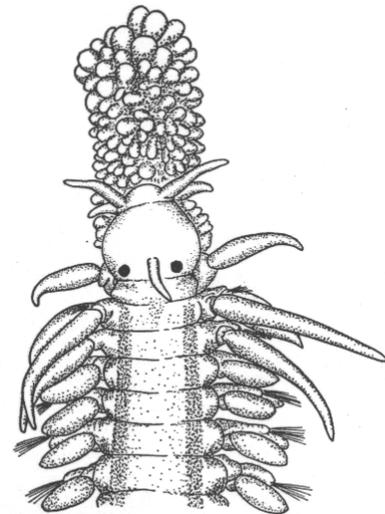
**SCAMIT Newsletter**

Vol. 16, No.7

<b>NEXT MEETING:</b>	Review of Annelida for Ed. 3
<b>GUEST SPEAKER:</b>	None; Larry Lovell Discussion Leader
<b>DATE:</b>	8 December 1997
<b>TIME:</b>	9:30am - 3:30pm
<b>LOCATION:</b>	1036 Buena Vista Drive, Vista, Cal. (Contact Secretary for Map or Directions)

**8 DECEMBER MEETING**

Our preparation for publication early next year of Edition 3 of the SCAMIT Taxonomic Listing of Benthic Invertebrates will continue at this meeting. We have already covered the arthropods, the echinoderms, and the "minor" groups (sponges, cnidarians, ectoprocts, entoprocts, sipunculids, echiurans, hemichordates, platyhelminthes, nemerteans, phoronids, and brachiopods). Dealing with annelids will be a larger task, and may require two meetings. Necessity for a second gathering on Ed 3 draft annelid changes will be determined at the 8 December meeting. Please come prepared with literature, controversial specimens, etc., as well as any new records or corrections to be implemented in Edition 3. Larry Lovell may have most literature available, but please assume that if you expect to use it you should bring it.



*Eulalia bilineata* (from Imajima & Hartman 1964)

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FUNDS FOR THIS PUBLICATION PROVIDED, IN PART, BY THE  
ARCO FOUNDATION, CHEVRON USA, AND TEXACO INC.

*SCAMIT Newsletter is not deemed to be a valid publication for formal taxonomic purposes.*

### TV EXPOSURE

Member John Ljubenkov was seen locally on a television news program out of San Diego in early November. The segment dealt with introduction into Mission Bay of a small anemone from the Gulf of California (*Bunodeopsis* sp), now established in huge numbers on the fronds of the bay's eelgrass beds. The anemone is formidably provided with nematocyst batteries all along the tentacles, and gives a noticeable sting to the unwary.

John was shown diving in the bay and recovering some of the small animals, which were then taken to the City of San Diego Municipal Wastewater Department's marine lab on San Diego Bay for some macrophotos of the species on their imaging equipment. The results were spectacularly detailed for a television presentation. An ecologist at Scripps Institution was also interviewed, and commented on the nature of biological invasions.

Unfortunately the story did not receive wider circulation so we could all enjoy it (but John has a video). The story was accurate and informative; generally a model of the type of journalistic coverage of environmental issues we would all like to see.

This animal was first mentioned in Newsletter Vol. 14(12) back in April 1996, which puts us a bit over 1 ½ years ahead of the Evening News. All the News, all the Time is your Newsletter's motto.

P.S. - There are a few other good things on TV. Earlier this month PBS, on it's Nature series, showed a wonderful program on cephalopods called "Incredible Suckers". If you missed it try and find it in the future, or borrow the tape from a friend or from the library. Truly SPECTACULAR, it covered a wonderful spectrum of tidbits on cephalopod biology, and was superbly photographed. Some of the footage came from the Monterey Submarine Canyon, including the first live video images of *Vampyroteuthis*, and an encounter with a large *Moroteuthis robusta* at 1200m!

### YOU ARE WHAT YOU EAT?

Member Megan Lilly (CSDMWWD) reported finding a rather unusual appearing benthic tunicate. It was a *Eugyra arenosa californica*, not uncommon in some parts of their sampling area, but had abnormal organs. Instead of the normal branchial basket, gonads, intestines etc., this animal just had a whitish blob inside. Upon removing this blob Megan was surprised to find it a small specimen of *Okenia* sp A, a local nudibranch. This animal had consumed virtually all the contents of the tunic, leaving the exterior undamaged. No sign of entry was present, and Megan surmised that the animal had been sucked in as a tiny larva, then ate it's captor from the inside out.

Other species of *Okenia* are reported as predators on solitary ascidians from hard substrates in European waters, but there are no previous literature reports of predation on soft-bottom tunicates. *Okenia* sp A has been taken on several occasions over the past 15 years, nearly always in association with worm tube caps or hydroids growing on them. Given the reported propensities of it's congeners, the food of this species had remained a puzzle till now. Additional observations of this relationship would be most welcome, so please examine your benthic solitary tunicates with care for more *Okenia*.

This observation also helps settle the possible synonymy of *Okenia* sp A with *Okenia adspersa* from western Europe. This had been suggested, but never verified. Given the utilization of a different type of food resource by *Okenia* sp A (soft vs hard substrate prey), the proposed synonymy becomes less likely.

### NEW LITERATURE

Member Tim Stebbins sent along the following new literature notice for inclusion in the Newsletter. Similar submissions from any member are more than welcome, and serve to broaden the coverage offered by the editor.

### Brachyuran Crabs of Pacific Mexico

by  
Michel E. Hendrickx

The third volume in a series of books dedicated to the study of the decapod crustaceans of the Pacific coast of Mexico is now available. The monograph, 178 pages long, includes up-to-date data and new information related to the following primitive families of marine crabs: Dromiidae, Dynomenidae, Homolidae, Cyclodorippidae, Raninidae, Dorippidae, Calappidae and Leucosiidae. The book includes an identification key to the Brachyura families of the region, plus separate keys to the genera and species of the families listed above. A total of 49 species in 25 genera is covered. Data related to habitat, distribution and taxonomy are provided, along with distribution maps and illustrations of each species.

The book includes a number of species that have been reported for the Southern California Bight (see SCAMIT 1996). These include the dromiid *Cryptodromiopsis larraburei* (listed as *Dromidia larraburei* in SCAMIT 1996), the cyclodorippids *Deilocerus decorus* and *D. planus*, the homolid *Moloha faxoni* (listed as *Paramola faxoni* in SCAMIT 1996), the calappid *Platymera gaudichaudi*, and the leucosiids *Randallia bulligera* and *R. ornata*.

As for the two previous volumes on the shrimps of Pacific Mexico (see SCAMIT NL 16#4), the book is written in Spanish and was published with the support of both the CONABIO (Comision Nacional para el Uso y el Aprovechamiento de la Biodiversidad) and the Instituto de Ciencias del Mar y Limnologia, UNAM, Mexico. It is available free of charge from the author (except for mail cost). For further details please contact:

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Sometimes titles which do not on their face appear relevant can surprise you with their utility. Such is the case with a new monograph on caridean shrimps of the Albatross Philippine Expedition of 1907-1910 (Chace 1997). The paper covers six families, but the only one of interest to local workers is the Hippolytidae. Dr. Chace provides a checklist to the world species of the family, giving generic transfers, synonymies, and valid species (with locality information). He also provides a generic key encompassing all the world genera; very useful in this day of species introductions. Generic keys to *Lysmata*, *Saron*, *Tozuema*, and *Thor* are also provided, but as only one of these (with a single species) occurs in the northeastern Pacific, these have little local applicability.

The variations in mouthparts with growth in decapods were examined by Loya-Javellana & Fielder (1997). They studied the freshwater crayfish *Cherax quadricarinatus*, but the trends in this animal are worth noting. They may or may not be echoed in the marine species we examine, but we can at least be alerted to possibilities. The authors drew links between the observed changes in mouthpart armature, and changes in feeding ecology. One of their more interesting observations was replacement of setae of one type with setae of another type at a particular location with growth. The authors also provide a useful source for references to previous reports dealing with other decapod groups.

Two recent short papers address nomenclatural changes in caprellids. Larsen (1997) erects a new species of *Metaprotella*, provides a key to the genera of the Protellidae, and reviews generic level characters within the family. Serejo (1997) synonymizes a species of *Hemiaegina* with the broadly distributed *Hemiaegina minuta*. This species, though not yet reported from southern California, should be watched for. It's wide distribution suggests anthropogenic transport, and we may have it introduced locally at some point.

Apropos the subject of our meeting Baeza et al (1997) describe a new polyclad from Chilean waters, and discuss the systematics of the Pseudocerotidae.

Their new species is in that family, and is apparently most closely related to a California form, *Pseudoceros luteus*. They treat this later species as *incertae sedis* based on comments in Newman & Cannon (1994) which indicate that it probably does not belong in *Pseudoceros s.s.*. I have not had the opportunity to review their papers, which deal with pseudocerotids from the Indo-Pacific. They erected four new genera (Newman & Cannon 1996a & b), one of which (*Tythoso ceros*) is home to the new species of Baeza et al (1997).

At present we have only *Pseudoceros sp* on the SCAMIT list, although large specimens of "*P. luteus*" has been seen by the Editor on the Ventura Outfall pipe, and several other pseudocerotids occur in the area. The animals are not rare, but their habitat is poorly sampled by monitoring programs. They can usually be easily separated by color pattern when live, but preserved specimens (as with most other polyclads) generally require reproductive system examination for certain identification. Baeza et al provide a useful introduction to recent pseudocerotid taxonomy, and, augmented by Newman & Cannon's papers, should allow us to examine the local species more critically.

#### MINUTES OF THE NOVEMBER 17 MEETING

As the meeting was devoted to changes to the draft of the SCAMIT Taxonomic Listing Edition 3, we dug right in after an initial business meeting. Comments were received from all attendees, and changes and additions were made to the list.

The sponges *Trikentrion flabelliformis* and *Stelletta estrella* were added to the list based on specimens taken during November by CSDLAC in trawls. A new solitary hydroid, *Corymorpha sp A* was added by John Ljubenkov from about 30m depths off Goleta. John is preparing a voucher sheet on this species so that it can be added to the list.

It was mentioned at the meeting that *Dendrophyllia oldroydae* had just been taken in trawls by CSDLAC. After the specimens were examined in

the laboratory the field identification was corrected to *Lophelia pertusa*, also new to the list. This species, long known as *Lophelia californica* locally, had often been observed by remote cameras and/or from submersibles in the Pt. Conception/Pt. Arguello region, but had not previously been recovered in POTW monitoring programs within the Bight. *Coenocyathus bowersi*, another caryophylliid coral was also added, based on November CSDLAC trawl specimens.

Several anemones were added to the list. The edwardsiid *Edwardsia californica* was added from CSDMWWD collections, as was Anemone #49. John Ljubenkov added *Stephanauge annularis*, and *Amphianthus californicus* (which displaces *Amphianthus sp*). During the earlier cnidarian meeting John had taken specimens identified by others as *Cactosoma arenaria* and *Zaolutus actius* for review. So far he does not have definite results, but preliminary examination casts both IDs into question. He will report his results once his examination is completed. During our discussion it was decided to change the current "Anemone" designations to "Anthozoa". Thus Anemone #49 will become Anthozoa #49 in the Ed. 3 list.

Records of earlier provisional species were added to the synonymies of taxa on the list including; *Isoedwardsia sp A* and *sp B* under *Scolanthus sp A*, and *Athenaria sp A* and *Halcampidae sp A* under *Halcampa decemtentaculata*. The synonymy of *Halcampa duodecemcirrata* with *Halcampa decemtentaculata* indicated by Hand (1955) was rejected. John Ljubenkov has numerous specimens in hand of a species which matches the description of *Halcampa duodecemcirrata* fairly well, and these definitely differ from *H. decemtentaculata*.

The nomenclatural status of the species described as *Planocera burchami* by Heath and McGregor in 1913 proved to be a thorny issue. This was anticipated because of the differing treatments of the species by two recent monographers, Faubel (1983) and Prudhoe (1985). Faubel erected a new genus *Koinostylochus*, with *burchami* as type. He differentiated it from other callioplanids on the basis

of reproductive anatomy; the basis of his entire classification. Prudhoe, on the other hand, found that the existing genus *Discosolenia* was an appropriate home for Heath & McGregor's species.

Both Prudhoe and Faubel treat *Discosolenia washingtoniensis* of Freeman 1933 as a synonym of *burchami*. Faubel makes no explicit reference to the status (or existence) of *Discosolenia* (other than in the synonymy of *washingtoniensis*), and may have overlooked the genus. Although not with unanimity, the group decided that the appropriate path was to consider Faubel's *Koinostylochus* either a full synonym of *Discosolenia*, or (based on presence of spermaducal bulbs in *Discosolenia* s.s. and of a seminal vesicle in *Koinostylochus*) as a subgenus of *Discosolenia*. Polycladida sp B Phillips 1987 § was added to its synonymy.

*Stylochus californicus* Hyman 1953 was added based on collections made by CSDMWWD, and a number of earlier provisional species were placed in the synonymy of *Plehnia caeca*, *Stylochus exiguus*, *Paraplanocera oligoglana*, *Leptoplanidae sp A*, *Parviplana californica*, and *Pleioplana iniqueta*.

We also found that a species which had been initially thought to be a leptoplanid was actually a rhabdocoel flatworm, rather than a polyclad flatworm. This was one of the taxa benefitting from the new imaging system at the Pt. Loma lab. Now that the kinks are worked out, very useful and detailed images are being produced. It greatly simplified our examination of the rhabdocoel to have sharp images from a color printer to circulate for examination at the meeting. The order Rhabdocoela and the species *Rhabdocoela sp A* will be added to Edition 3.

There were few changes to the draft coverage of the nemerteans. A misspelling of *Ototyphlonemertes* was corrected, a question as to the correct authorship of *Amphiporus cruentatus* was raised, and *Tetrastemma signifer* was added to the list by Dean Pasko (CSDMWWD).

In the remaining groups there were even fewer changes. Two new records were added from the

CSDMWWD collections, *Sipunculus nudus* and *Nephasoma eremita*, and generic level identifications within the Hemichordata were introduced. The later were discussed initially at the first meeting on Volume 14 of the Taxonomic Atlas series, and specimens of all four generic taxa recorded were examined at that meeting. As a last note, the asteroid *Henricia aspera* has been recorded by CSDMWWD since the echinoderm meeting in October, and will be added to the Ed. 3 list.

As usual when we visit Dancing Coyote Rancho, the participants all were delighted by the natural surroundings. We thank our hosts John and Julie Ljubenkov for again allowing us to meet in such a congenial environment. Members who have yet to attend a meeting there should attempt to make one in future (oh, yes, we'll revisit them again!).

### ASTEROID EPIDEMIC

A recurrence of the asteroid "wasting disease" noted on several occasions in the past has been noted during diving investigations off the Palos Verdes Peninsula by member Dave Montagne (CSDLAC). The disease, believed to be caused by a marine *Vibrio*, starts as a small lesion somewhere on the animal's surface (presumably at a site of injury), and rapidly enlarges until all the soft tissues are consumed. The resulting piles of ossicles are very characteristic, and can be seen on the bottom in areas not swept by strong currents. Dave is preparing a summary of his observations for the Newsletter. In the mean time, anyone with additional information on the scope or severity of the epidemic in their area please contact the Editor.

It has been suggested that this epidemic has also affected echinoids in the Southern California Bight. During recent trawls numerous specimens of *Lytechinus pictus* were taken with partial or complete spine loss at depths shallower than 30m off Palos Verdes. I surmise that these individuals were suffering from *Vibrio* infections, but have no microbiological evidence to support this conjecture. The syndrome is highly correlated with water

temperature, and in periods of strong El Niño conditions, echinoderms in shallow warm waters are much more strongly affected than those in the cooler depths.

### NORTH FOR THE HOLIDAYS

It seems that consequences of El Niño are everywhere to be seen. During our November trawl series off Palos Verdes we did not see what I had expected, a large influx of *Pleuroncodes planipes* - the Tuna Crab or Pelagic Red Crab, which so frequently signals intrusion of southern water masses inshore. We did see other harbingers of macrobenthic community change. Among the additions to the area were two small shrimp, both pandalids, and both described from off Baja California by Chace (1937).

One of the two, *Pantomus affinis*, has been taken previously by CSDMWWD off Pt. Loma, although the most recent published report (by Hendrickx 1996) does not discuss the species. We took a dozen of these at one of our 137m sites off Palos Verdes. They are surprisingly like *Spirontocaris holmesi* in coloration, and in pigment pattern. They are slightly less robust, but unless their rostrum is intact, could easily be mistaken for the more common hippolytid at a casual glance. Looking closer one sees that the rostrum appears broken above the orbit. It is not; it is articulated. This character sets this genus off from all others. Several *S. holmesi* were taken in the same trawl that yielded the *Pantomus*, so caution is advised.

The second species was a bit larger, and although still similar, would be difficult to confuse with any *Spirontocaris*. This was *Plesionika beebei*, a species not recorded from California by Wicksten in either 1978, 1983 or 1989 papers covering specifically pandalids or the offshore decapod community as a whole. According to Hendrickx and Navarrette (1996) the northern range limit for *P. beebei* is Punta Tosca, Baja California. Like all other members of the genus this has a long very narrow rostrum. *P. beebei* is easily separated from other eastern Pacific species by a combination

of periopod and rostral characters in Wicksten's key (1978). The single specimen taken was a mature male with an 11mm carapace length.

During this trawl series three pandalids were taken: *Pandalus platyceros*, *Pantomus affinis*, and *Plesionika beebei*. Only the first belongs to the "normal" (ie. non El Niño) fauna. More about other southern intrusions later. -Don Cadien (CSDLAC)

### ATTACHMENTS

During the same November trawls two specimens of the prostrate gorgonian *Thesea sp B* were taken which still maintained a basal attachment. Previously all specimens trawled by CSDLAC had been loose on the sediments, with no basal attachment; a sparsely branched growth in a single plane along the sediment surface. (One specimen, taken during benthic grab sampling, was in multiple planes - the main stalk ran parallel to the sediment surface and just below it, with lateral branches extending up and out into the water.) Inquires at the November meeting indicated that the experience of other agencies was much the same. Apparently no one has previously seen the basal attachments of this species.

The structures were unremarkable; thin, flat adhesive disks of tissue fully covered with surficial spicules matching those of the main portion of the colony, and of the same color. Underneath this surface was a disk of the same dark tough wood-like material that forms the central axis of the colony. The basal attachment was not thickened to add strength, and probably only persists until the colony has begun to spread across the bottom.

Their fragility was reinforced by the separation of both colonies from their bases during preservation. The linear portions of each colony were rather small, no more than 8 inches in length. One of the attachment plates was on a small sedimentary rock fragment, the other on a medium sized shell (good sized *Crepidula*). It may be that all the colonies taken during our trawls are actually "rooted" to small

attachment points prior to encounter with trawling gear, and are broken during collection.

## MY LIFE AS A BIOLOGIST

By Donald J. Reish

### Chapter 2--I become an editor!

Many things happened during the summer of my ninth year besides chasing butterflies. I received a baseball bat, a soft ball, a mitt and a baseball cap for my birthday. I also had a birthday party and invited 3 boys and 1 girl. Two of us liked the same girl. The baseball equipment became the start of the neighborhood Saturday morning work-up which extended into high school. We would go over to the lower campus of Oregon State (a block away) and start the game with 3 or 4 of us. We gradually ended up with about 10-20. The lower campus was our playground. It was 10 blocks of trees and grass. We also played football, but more of that in a later chapter.

With the butterfly collection increasing in size, my companion and I started going to the Oregon State Museum of Natural History. It was a hodge-podge of a museum with no real organization. They had an extensive butterfly collection which helped us learn the names of what we collected. However, I did not have any concept of a scientific name. There was also a human skeleton in one corner which I avoided looking at! The two of us went to the museum 2 or 3 times a week in which we concentrated on a section.

We then got up the idea of putting out a newspaper. I was the editor and he was the reporter. Additional people got involved including my brother who did a comic strip (he is very artistic). We published one issue which was hectographed. My mother kept a copy of the paper; hopefully it is mixed up with the papers and pictures my mother left my brother and me. I then continued to put out a paper by myself which was hand printed. I made one copy and a person had to pay 2 cents to read it. My interest in being an editor continued in the fourth grade. We had a class newspaper and I was the poetry editor; however, I had difficulty in distinguishing between

being a poetry and a poultry editor! My teacher was also correcting me.

More happenings that summer included a trip to Nelson, B.C., my mother's hometown (Steve Martin's "Roxanne" was filmed there). My grandfather was still alive; the last time I saw him. I mostly played with my cousins whose parents had a cottage on the lake. This was my first real trip; I had been as far as Portland up to then (85 miles). The change in the ecological environments (wet to dry to mountains) did not make any real impression on me. The day before we took the train to Canada, I rode my first two wheeler. My mother dashed out the house to get me off the bike; she was afraid I might get hurt and we couldn't go on the trip.

As I mentioned in Chapter one, Corvallis was a good place to grow up, even during the depression when there was 25% unemployment. My father had work during the summer at the local cannery, but not always work in the winter. My mother taught piano lessons in the schools and at home. She also played in PE classes at the college. The presence of Oregon State undoubtedly influenced my life in other ways as well.

The physics department of the college set up their telescopes during the summer, and I can remember looking at Venus, Mars and the Moon. Their telescopes were not strong enough to see the rings of Saturn; I have yet to see them through a telescope. I used to wander through the engineering buildings and shops. We played hide and seek in the mechanical engineering labs for years and we never were kicked out.

I took swimming lessons at the college during the summer and on Saturday in the winter. As I mentioned in Chapter 1, I would go through the Ag barns. We would sneak into the football games (it was easy), and in the spring we would watch track meets then turn around and see a baseball game. Getting into the basketball games was more difficult; we would go to the men's gym a hour or two before the game and sit on the stairs. No one ever asked us to leave. It would have been a mess if the gym ever

caught on fire. My friend and I would go to the homecoming events and listen to Oregon State football games on the radio. I liked the campus environment, and it definitely played a role in my wanting to become a professor. I think the main influences of the college on me were its intellectually stimulating atmosphere, the parade during commencement, and the fact that most of the college faculty lived in the nicest houses.

The next chapter will discuss my junior high school days and my initial ideas of what I want to do when I grow up.

#### PLEASE JOIN US AT CMA

The date (Saturday 13 December) of our Christmas Party is rapidly approaching. We hope you can join

us at the Cabrillo Marine Aquarium this year between 6 and about 9:30. Main course and beverages will be provided by SCAMIT, but if you plan to attend please bring a dish of some kind for the pot-luck. We know from past experience that no one will leave hungry! Please contact Cheryl or Don (at CSDLAC) to coordinate dishes, and to advise us how many (and of what ages) will be in your party (Santa wants to know).

If you play we would appreciate you bringing your instruments for some holiday musical cheer. Bring voices too, but we are trying to arrange for carolers to visit us as well. The gift shop will be open for our shopping pleasure (unusual marine theme gifts) so factor them into your holiday shopping plans. Call Cheryl or Don for directions or questions.

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