



## Southern California Association of Marine Invertebrate Taxonomists

April, 2003

### SCAMIT Newsletter

Vol. 21, No. 12

<b>SUBJECT:</b>	Pre-Bight Information Meeting on Deeper Water Cnidaria
<b>GUEST SPEAKER:</b>	Discussion Leader - John Ljubenkov
<b>DATE:</b>	9 June 2003
<b>TIME:</b>	9:30 a.m. to 3:30 p. m.
<b>LOCATION:</b>	Dancing Coyote Ranch (contact Megan Lilly for directions)

#### APRIL MINUTES



***Prometor sp LA1 in situ***

**Photo: Tom Parker, CSDLAC Marine Biology Lab**

The morning began with Kelvin Barwick discussing upcoming meetings. June 9 will be a Pre-Bight information meeting on deeper water Cnidaria, and Taxonomic Nomenclature by John Ljubenkov at Dancing Coyote Ranch. Email or call Megan Lilly for directions. July 14 will be another Pre-Bight information meeting, this one on deeper water echinoderms, conducted by M. Lilly at the City of San Diego's Marine Lab. And finally, on August 11, Larry Lovell will hold a Pre-Bight information meeting on deeper water polychaetes. This meeting will also be held at the City of San Diego Marine Lab.

Next to have the floor was Don Cadien, who wanted to discuss the concept of "specialist taxonomy" for the upcoming Bight'03 project. He feels that this option benefited the data during the B'98 project and seems worthwhile to do a second time. He recommended the following groups be identified by a specialist -

all Anthozoa, which has subsequently been given to John Ljubenkov for ID, and the Aplacaphorans, which Don has volunteered to do with help from Kelvin Barwick. The following three groups were also suggested as an area for specialization - nemerteans, enteropneusts and polyclads. To date, Tony Phillips of CLAEMD has offered to do the polyclads. The nemerteans and enteropneusts will be tackled individually by each participating agency. A meeting to gather the nemertean workers for a pre-survey workshop is in the planning stages. We need to coordinate our efforts and decide what we can and cannot do to guarantee comparability of generated data for the regional effort.

The question of screen size for field processing of benthic samples was raised for consideration during the planning phase of Bight'03. LACSD has already run some trial tests using both 0.5mm screens and 1.0mm screens.

Comparison of the community retained on the two suggested the effort required for 0.5mm samples is greater than the benefit of the data gathered. A parallel test run by CSD reached a similar conclusion. CLAEMD was not able to perform a comparison, but found the 1.0mm fraction in their area in deep samples similar in quality and quantity to that seen in the other two areas. The reason that this option was considered at all is that declining community density with depth had the potential to make sampling in the newly added stratum of 200-500m a problem in multi-habitat comparisons. It was feared that catch would be too low on a 1.0mm screen to provide unbiased analytic results, with deep samples combining with inner harbor samples, to form a depauperate group in analysis. The results of the comparison allay these fears considerably, and show that adding the fraction of the community which passes a 1.0mm screen but is retained on a 0.5mm screen would not offer much additional resolution. A brief discussion then arose as to whether we shall be using the Bight Listserver established by SCCWRP for the last Bight project, or if we would be using the

SCAMIT listserv to distribute information and questions regarding the project. It was decided that we will probably use the SCCWRP Bight server and "CC" the SCAMIT listserv.

Ron Velarde (CSD) then proceeded to tell us about the Marine Bioinvasions Conference at Scripps that he attended and presented at, earlier in the month. According to Ron, the primary theme of the meetings was early detection; how to develop techniques to discover invaders quickly and dispose of them as effectively as possible.

A second theme was the biology of the invasions themselves; what vectors are being used for transportation and the actual life history and biology of the invaders? One interesting subject was the technique of "molecular detection", where molecular markers are used to identify an invader and its place of origin. For example, an invasive Whelk found in Chesapeake Bay was thought to have been introduced from Japan, which is its native habitat. However, molecular marker work revealed that the animals actually had come from the Baltic, where they had previously been introduced.

In addition to animals, algal invasions have become a big area of concern. In Hawaii invasive algae is harming coral reefs. And, we've all heard of the *Caulerpa taxofolia* scare and the damage it can cause in an environment.

### NEW SCAMITeer

SCAMIT Member Bill Power (LACSD) and his wife Kimberley had their 3<sup>rd</sup> child, a daughter, named Charlotte Ainsley. She was over 9 lbs at birth, which is pretty average for the Power kids. Younger siblings Mac and Darby are very excited by the birth of a new baby sister. All are doing well. A big "Congratulations" to the whole family.



### MEMBERSHIP RENEWALS

Just a reminder. The month of May is now our membership renewal month. For those of you that sent your checks in we greatly appreciate it and thank you very much. For those of you who have perhaps lost your calendars (or stylus for your palm pilot) would you please take a minute to write a check. SCAMIT greatly depends on your monetary contributions. We decided to switch to a single renewal month to make it easier for everyone to remember. We hope the small response we have received so far is just due to this transition phase. Please don't hesitate to let us know if there is some other reason why you aren't renewing other than forgetfulness (which we all suffer from at times and do understand). We welcome all feedback. It can only help us improve.

Thank you,  
Cheryl Brantley  
SCAMIT Treasurer

### BIGHT '03 INTERCALIBRATION

The first set of Bight'03 Intercalibration Trawls have finally been completed. The initial attempt on the 28 of March was memorable. On a blustery day with clouds rushing overhead we set out from Los Angeles Harbor with a full load of participants, about 21 including staff and guests, on the R/V Ocean Sentinel. The sea was rough, still suffering from recent storm events. Unfortunately, on our way out to our first trawl at 500m depth the weather freshened, and by the time we reached our selected trawl site the wind was howling with gusts in the 40-50mph range and heavy wind whipped surface chop. Although the vessel was being tossed about quite a bit (not to mention the participants, who were holding on for dear life) we set the net and did our first tow. Several of the participants were cheered by watching me get drenched by waves breaking over the side of the vessel and by water thrown over the cabin from waves breaking on the bow. I stayed out on deck because the cabin was not only very crowded,

but there was less to get thrown into in the open. I was soon wind-dried anyway. In that first tow, which was successfully retrieved, we had a fair selection of organisms from the middle slope depth stratum at 500m. These included the barrel anemone *Liponema brevicornis*; the lithodid crab *Glyptolithodes cristatipes*; the holothurian *Pannychia moseleyi*; the asteroids *Leptychaster* ? sp., *Thrissacanthias penicillatus*, and *Ceramaster leptoceramus*; the echinoids *Brisaster latifrons*, *Brissopsis pacifica*, and *Allocentrotus fragilis*; the cephalopod *Octopus californicus*; the galatheid crab *Munidopsis depressa*; and the shrimps *Bentheogennema burkenroadi*, *Spirontocaris sica*, *Pasiphaea californica*, *Pasiphaea emarginata*, and *Sergestes similis*. A selection of fish were also taken including both species of thornyheads, Dover sole, northern lamp-fish, California grenadier, Pacific hake, and dog-faced witch eel.

With conditions so rough that on-deck photography was like a keystone cops routine, and most people just happy to stay vertical we headed back into the dock for a very abbreviated day. After regrouping and selecting a day to complete this first intercalibration effort we went back to sea on 1 May. Conditions had improved markedly, and nearly the same complement of participants as on the first attempt experienced smooth sailing. We completed trawls at 200m, 140m, 80m, 60m, 40m, and 20m along a transect extending towards Angel's Gate along the west side of the San Pedro Sea Shelf. The invertebrate catch is listed in the attached spreadsheet. A second Intercalibration Trawl series will be conducted on 10 June at nearly the same sites. A trawl taxonomy meeting will also take place on 28 May at SCCWRP, where the identity of the encountered species, and those which might be reasonably expected to additionally occur, will be reviewed. We should be ready to tackle our trawling effort when we head out to sea during the index period later this year. A Quality Assurance bucket test is being created based on recently taken and archival specimens that



should verify our readiness. As in B'98, the voucher collection resulting from trawls will be reviewed by the team of Jim Allen (SCCWRP), Ron Velarde (CSDMWWD), and Don Cadien (CSDLAC).

- Don Cadien (CSDLAC)

### NEW KID IN THE BLOCK?

For several years we have been taking mudstone chunks from the bottom off Palos Verdes during our regular sampling. Tom Parker has been assiduous in breaking apart these soft blocks of bottom to search for burrowers living inside. He has extracted a number of polychaete species, and occasionally an interesting echiuran. Previous attempts to relax and preserve these delicate worms have not been successful; they have disintegrated in relaxant. In our most recent outing we encountered mudstone substrate at several stations again, and this time extracted echiurans with more success. Animals were preserved in formalin without relaxation in the field and did NOT drop their spoons in the process. With animals in hand in the laboratory it became possible to determine their identity. They belong to the genus *Prometor*, a bonelliid echiuran lacking a bifid spoon (see Stephen and Edmonds 1972). There are two local species; the generotype *P. benthophila* of Fisher 1948 and *P. pocula* of Hartman & Barnard 1960. They are included in Thompson's 1986 Key to the Echiura of Southern California, and are listed in his treatment of echiurans in Straughan and Klink 1980 (with reversed authorship for the two *Prometor*, unfortunately).

At first glance our specimens seem most closely allied to *P. pocula* (originally described as *poculum* but emended by Stephen and Edmonds) in that they have distally spatulate setae and a cucumber shaped body rather than pointed setae and a pear shaped body as in *P. benthophila*. They do differ in several respects, however, and I am treating them as new (*Prometor* sp LA1) until I can make a

definite connection with *P. pocula* by examination of the holotype at the Los Angeles County Museum of Natural History. Our specimens were sampled from 102m and 139m this time, but have been taken at 150m previously. The other species are known from limited material in much deeper water; 1670m (*P. pocula*) and 1955m (*P. benthophila*).

Our specimens are much smaller than either the types of *P. benthophila* (110mm body length) or the type of *P. pocula* (95mm body length), ranging from 8 – 14mm in body length. They also have much longer spoons, which are 1 1/4-4 times the body length preserved. Unlike the type of *P. pocula* as illustrated in the original description, the spoon does not increase markedly in width terminally, and also lacks the lobe-like expansions illustrated by Fisher (1949) for *P. benthophila*. In our specimens the spoon is nearly linear, expanding only slightly beyond the basal width over its length. The basal cup characteristic of *Prometor* is evident in the photograph of the live animal *in situ* and in our preserved material.

The present specimens have a structure not described by either Fisher or Hartman & Barnard, a lateral glandular opening atop a prominent, rounded tubercle near the top of the body. These paired tubercles (one on each side in each specimen) are undescribed in the other two species, and in the diagnosis and discussion of the genus provided by Stephen and Edmonds. Their function may become clear once full dissection is undertaken.

Perhaps the most interesting feature of these animals is their boring habitat. Their U-shaped burrows are almost certainly self-formed; they fit them perfectly as you can see in the *in situ* photograph (see cover photo). Neither of the local described species of *Prometor* is known from burrows. The worms are not visible from outside the burrow except as the spoon, which exits the burrow mouth and can be expanded over the adjacent surface, or into the water. A spoon from a second animal can be seen lower



in the photograph, and that of the animal whose burrow has been opened disappears out of the burrow mouth at the top. Living coloration is strongly reminiscent of *Arhynchite californica*, a dark red brown overlain by forest green anteriorly. The spoon is translucent white, with more opaque white margins.

If you happen to bring up bored mudstone in trawl sampling, you might make an effort to see if these guys are also present in your area.  
– Don Cadien (CSDLAC)

### SPECIMEN REQUEST

The following was received earlier. I am passing it along as an item of interest to all SCAMIT members. We could probably help out.

**WANTED: ALCOHOL-PRESERVED SPHAEROMATIDAE (CRUSTACEA, ISOPODA) SPECIMENS FOR MOLECULAR ANALYSES**

Regina Wetzer, Niel Bruce and Jody Martin, are working on an NSF-supported morphological and molecular-based phylogenetic and biogeography study of sphaeromatid isopods (ca. 97 genera and 670+ species). Our goals include accumulating taxonomic, literature, specimen, and other data and making this information available in web accessible databases at a website devoted to the group.

We are soliciting donations of sphaeromatid isopods from around the world preserved in 95-100% ethanol for the molecular work. Specimens for morphological studies are also welcome.

Coastal benthic habitats that are most productive include coral reef habitats (dead coral heads, coral rock and coral rubble), algae, sand, mangroves, sponges, oyster and barnacle tests, and similar. In temperate and cool waters, algae often have associated isopods. If

you are collecting in these habitats and can preserve specimens in ethanol, we would be most grateful to receive them. We will happily pay for shipping and acknowledge your donation.

We have an active collecting program (California, Baja California, Caribbean, Great Barrier Reef, East Africa, Seychelles) and as we collect and sort samples for sphaeromatids, we retain most of the associated fauna. We will gladly exchange invertebrate specimens with you.

At present any and all alcohol-preserved specimens are welcome. If you don't want to or cannot sort to family, we will happily accept all alcohol-preserved isopods.

For further information regarding priority regions, taxa or aids to identification of sphaeromatids please contact one of us.

Please direct your questions regarding habitats, collecting techniques to NLB or RW.  
Specimen exchanges: contact RW

Thanking you in advance for your sphaeromatid donations, Regina

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### BROKEN RECORD

Trawling is always a delight. The weather might be terrible, as it was when we attempted to do our first Bight'03 Intercalibration Trawl on 28 March, but as long as samples come aboard, it is wonderful. You never know when an animal new to you, or even just new, will turn up among the contents of the trawl net. Such was the case in a recent trawl on the slope off Palos Verdes at 486m depth. The catch was peppered with interesting things including the large sea-pens *Halipterus californica* and *Ombellula magniflora*, the seastars *Myxoderma platyacanthum* and *Thrissacanthias penicillatus*, and the ophiuroid *Asteronyx longifissus*. While happily processing these animals the real find showed up inauspiciously as a dirty little ball placed in the invertebrate tray. A closer look revealed this to be an *Eryonicus*, a deep sea lobster. We had Schmitt's 1921 Decapods of California with us, which has a fine plate of an animal identified as *Eryonicus agassizi* from off California. I thought...Great! a new record for the SCAMIT list. Not so.

While I was working on the animal later in the lab (cleaning off net gunk prior to preservation) Lisa Haney called me from home to relay a conversation she had just had with her husband, Todd, and Jody Martin of the Natural History Museum of Los Angeles County. They asserted that the animal was a larva of a polychelid lobster rather than a member of the family Eryonidae as indicated in Schmitt, having just published a paper on the larva in a recent review volume. The cautionary comments of Schmitt concerning capture of *Eryonicus* in midwater closing nets well away from the bottom makes sense if the thing is a larva living mesopelagically.

Sadly their statement concerning the larval nature of the animal is incontestable. The reptant family Polychelidae is represented off California by the genus *Stereomastis*, so this animal is probably the larva of one of the

described *Stereomastis* species. As a holoplanktonic larval form the animal is not reportable as part of our survey activities. Should anyone encounter it in deeper trawls for Bight'03 the same exclusion would apply. Despite the fact that the thing is about the size of a golf ball with a tail, it still doesn't qualify. My new record (at least for the SCAMIT list) is broken on the reporting rules. Ah, well, there is always another trawl..., and at least I got to see this striking larva in the flesh (we have it vouchered, and will bring it to a future meeting for examination by other SCAMIT members).

### JOB ANNOUNCEMENT

Position: Curatorial assistant  
 Job Number: 871  
 Issue Date: 16 May 2003  
 Closing Date: June 1, 2003 or until position is filled

The Department of Malacology at the Academy of Natural Sciences in Philadelphia has obtained funding to rehouse its dry Recent mollusk collection, America's second largest. A curatorial assistant is sought for the three-year period of the grant. The job offers a rare opportunity to work in all sections of one of the World's great systematic collections, and to gain experience with state-of-the-art archival rehousing.

Responsibilities:

- Move large cabinets between areas and transfer contents from old into new cabinets. Work involves standing for considerable periods daily.
- Rehouse specimens by replacing cardboard trays, vials and cotton with archival materials
- File specimens and documents
- Computerize incoming specimens
- Assist collection manger with other curatorial tasks.



Requirements: Bachelors degree; familiarity with basic computer operations. Experience with mollusks or in natural history museums preferred.

To apply, please send resume and cover letter including contact information for three references to:

Paul Callomon  
Malacology Department  
The Academy of Natural Sciences  
1900 Benjamin Franklin Parkway  
Philadelphia, PA 19103 - 1195

### BIBLIOGRAPHY

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

#### SCAMIT OFFICERS:

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

President	Kelvin Barwick (619)758-2337	<a href="mailto:kbarwick@sandiego.gov">kbarwick@sandiego.gov</a>
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Back issues of the newsletter are available. Prices are as follows:

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.

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

SCAMIT

C/O The Natural History Museum, Invertebrate Zoology

attn: Leslie Harris

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BASELINE TRAWLS

Depth (M)	20	40	60	80	140	200	500	
Transect	T6	T6	T6	T6	T6	T6	T6	
Acanthoptilum sp		1		1				
Addisonia brophyi						3		
Allocentrotus fragilis					40+	230	30	
Armina californica		1				1		
Armina sp A				1				
Astropecten ornatissimus					22			
Astropecten verrilli	10	50+		1				
Bentheogennema burkenroadi							2	
Brisaster latifrons						30+	10	
Brissopsis pacifica						17	80	
Cancer anthonyi	2							
Ceramaster leptoceramus							24+	
Cerebratulus californianus						1		
Dendrodoris fulva		1						
Glyptolithodes cristatipes							2	
Hemisquilla ensigera californica	2							
Kellettia kelletii	29							
Leptychaster? sp							1	
Liponema brevicornis							15	
Lophopanopeus bellus		3						
Lovenia cordiformis						1		
Luidia armata		1						
Luidia asthenosoma				1				
Luidia foliolata		1	1	1				
Lytechinus pictus		10+	400+	400+				
Mediaster aequalis			2					
Metacrangon spinosissima						1		
Metridium farcimen			2	1				
Molpadia intermedia					1			
Munidopsis depressa							1	
Nassarius insculptus				1				
Neocrangon resima						3		
Neocrangon zacaе						14		
Octopus californicus						2	1	
Octopus rubescens					1	1		
Ophiopteris papillosa		1						
Ophiothrix spiculata	2	50+						
Ophiura luetkenii		1	1	1	1			
Pagurus spilocarpus	1							
Pannychia moseleyi							35+	
Parastichopus californicus		3	2	2	2			
Philine alba				1				
Philine auriformis						1		
Pisaster brevispinus	3							
Pleurobranchaea californica						2		
Pyromaia tuberculata	2							
Rossia pacifica						2		
Schmittius politus						1		
Sicyonia ingentis					4			
Spatangus californicus				1		5		
Spirontocaris holmesi						9		

BASELINE TRAWLS

Spirontocaris sica							2	
Styela montereyensis	1							
Stylatula elongata	3							
Thesea sp B	2+	2						
Thrissacanthias penicillatus							1	
Travisia sp						1		
Urticina columbiana		3						

**SCAMIT MEMBERSHIP  
Renewal Form**

Dear SCAMIT Member:

Your membership expires this month. We hope that you are interested in continuing your SCAMIT membership. To renew your membership and continue to receive the newsletter, please fill out the form below and return it with a check or money order made out to SCAMIT in US dollars to the SCAMIT Treasurer:

Cheryl Brantley  
Marine Biology Laboratory  
County Sanitation Districts of Los Angeles  
24501 S Figueroa  
Carson CA 90745

Type of Membership:   \_\_\_ Individual e-mail membership, \$15.00 per year  
                              \_\_\_ Individual hard-copy membership, \$30.00 per year  
                              \_\_\_ Institutional membership, \$60.00 per year

Name:

Address:

Specialty:

E-mail:

Phone:

Would you like to be listed in SCAMIT's list of members who perform consulting work?

We maintain a comprehensive list of SCAMIT members, their areas of taxonomic expertise, and include their availability for taxonomic consulting work. This list is available for distribution to the SCAMIT membership at large to promote the exchange of taxonomic information.