

**SOUTHERN  
CALIFORNIA  
ASSOCIATION OF  
MARINE  
INVERTEBRATE  
TAXONOMISTS**



September/October, 2007

SCAMIT Newsletter

Vol. 26, No. 3



*Thrixacanthias penicillatus*. Sampled by LACSD during B'03 trawls.

---

	This Issue
<b>9 SEPTEMBER 2007</b>	<b>2</b>
<b>UPCOMING MEETINGS</b>	<b>2</b>
<b>15 OCTOBER 2007</b>	<b>4</b>
<b>ATTACHMENTS</b>	<b>6</b>
<b>LITERATURE CITED</b>	<b>6</b>
<b>SCAMIT OFFICERS</b>	<b>8</b>

---

## 9 SEPTEMBER 2007

The business portion of the September SCAMIT meeting was opened by attending President, Larry Lovell. He started by telling us of something he'd recently read in the Proceedings of the Biological Society of Washington. In Vol 120 no. 2, there was a mention that this publication has now finalized a contract to have its journals made available on-line. It will be available along with a collection of other journals under BioOne. To learn more about BioOne and to see if you belong to another organization that already subscribes, and therefore allows you access to other on-line journals, go to:

<http://www.bioone.org>

Don Cadien had the floor next. He announced that Edition 5 of the Taxonomic Listing is in its final phase. The deadline for submitting new/provisional species for addition to Ed. 5 has come and gone. Stay posted for the expected publication date. The Taxonomic Listing will be posted in the Members Only section of the website where it can be downloaded and printed by members in good standing. However, SCAMIT unfortunately is no longer in a financial position to provide a printed, spiral bound copy, free of charge to all its members. We will only be trying to recover the production costs for those who order a hard copy, bound version, and as of now Cheryl Brantley, our treasurer, is predicting less than \$10. Plans for Edition 6 are already underway and the hope is to have an added, "habitat" category in that future List.

A picture from the International Polychaete Conference in Portland Maine was passed around by Larry Lovell. There was a total of 12 SCAMIT members present at this conference which was a sizeable turnout and one of which SCAMIT should be proud.

Speaking of polychaete conferences, Ron Velarde then announced that the location for the next International Polychaete Conference is being proposed as Lecce, Italy. For those of you who love Polychaetes **and** Italy, this is your chance to really enjoy the "best of both worlds".

Megan Lilly then had the floor and mentioned that Philip Lambert has published a new edition of his guide to the brittle stars, sea urchins and feather stars of British Columbia, Southeast Alaska, and Puget Sound (Lambert 2007). There were a few things of concern during her initial review of the book. It was agreed that at a meeting to review the Echinoderm Chapter in the new edition of Light's Manual (Carlton 2007) we would also review Lambert's new Echinoderm book; date of

### UPCOMING MEETINGS

**July** - Due to the Bight '08 field sampling activities, there will be no SCAMIT meeting this month. Most of our regular membership will be on the high seas collecting.

**August 11** - City of San Diego Laboratory. A discussion/reminder of non-polychaete changes in Edition 5 of the SCAMIT species list.

**September 8** - LACSD Marine Biology Laboratory. A discussion/reminder of polychaete changes in Edition 5 of the SCAMIT species list

**November 10** - This date is currently open with a topic to be determined.

**December 6th** - We may not have a regular meeting in December, because.....back by popular demand, the SCAMIT Christmas Party at Cabrillo Marine Aquarium will be held again. Details to follow.



the meeting is pending.

With that we were introduced to Dr. Dave Pawson, the guest speaker for the day. Dr. Pawson had graciously prepared not one, but two wonderful presentations for his visit that day. The first presentation was given in the morning to the SCAMIT members in attendance for the echinoderm meeting. It was an overview of holothuroid anatomy, physiology and natural history. He had some beautiful video clips showing bizarre deep sea forms. In one clip, we were treated to a video of an animal called *Enypniastes* swimming and feeding. The animal has well-developed veils which seem to be the result of a fusing of the tube feet. These veils are undulated to create lift. The animal is almost always seen swimming in a vertical position. During the course of the video, the animal slowly lowered itself to the sea bottom where it proceeded to "stuff its face" at an alarming rate. The feeding tentacles were rapidly reaching for the sediment, grabbing a portion of mud, and then shoving said portion into the mouth. With many of the tentacles working at once, and shoveling mud as fast as it could, the animal was able to fill its entire gut in a matter of seconds. The sight made most of us laugh out loud. It reminded me of a small, greedy child shoving in birthday cake as fast as possible before being told they'd had "enough". Once the gut was full, the animal raised its body, "flapped" its veils, and resumed its vertical swimming behavior. Dr. Pawson said it is postulated that a sediment laden intestinal tract may act as ballast to help the animal maintain its vertical position in the water column.

We were treated to a second video of another deep-sea, swimming holothuroid, whose name I could not begin to spell or pronounce. This animal did not have swimming veils, but rather, large, elongate tube-feet which were modified for swimming. It initially reminded me of a very large polychaete the way it undulated through the water and appeared to have "parapodia", this obviously was not the case however.

Dr. Pawson touched on the subject of holothuroid fisheries. In many parts of Asia and Indonesia, holothuroids are considered a delicacy. In some instances, with rare species, they can fetch as much as \$140/lb, which can be equivalent to the cost of blue fin tuna. A bizarre thought to most of us "westerners". Sadly though, there is one species in particular, in Indonesia, which has been highly prized for food and it is now on the verge of extinction. It would appear that the holothuroid fishery is over-due for regulation.

Some of the deep water species are so rare with regards to sightings that they have only been seen in video and no specimens have ever been collected. One such species, *Peniagone leander* Pawson and Foell 1986, had to be described based only on photographs and video. Dr. Pawson was very hesitant to publish on a species for which he had no specimen to designate as a type. However, he was encouraged to do so by his peers at the Smithsonian Institution, as in this instance, photo and videos are currently the only information available on an animal which is obviously a new species.

Another new discovery that was quite unusual involved a deep-sea species of Molpadid, *Ceraplectana trachyderma* (Clark, 1908). Upon examination of specimens, it was discovered that their tentacles were coated with chitin, which previous to this, chitin was unknown in echinoderms. In fact, chitin is a material that has always been associated with protostomes, and this is the first discovery of its development/use in deuterostomes.

Speaking of strange chemistry, Dr. Pawson briefly discussed how some holothuroids, again with the Molpadids as an example, change their calcium carbonate ossicles into ferric phosphate, often as the animal grows and ages. This ability to change calcium carbonate into ferric phosphate is



unique to the Echinoderms. At this point no one knows how or why this feature has evolved.

As for reproduction, most holothuroids are seasonal spawners. They often have a pore near the anterior end of the body through which the gametes are released. During spawning season they will raise their bodies up off the sediment to send their gametes into the water column. Dr. Pawson had images showing this phenomenon.

With that, the first of Dr. Pawson's talks was over and we broke for an early lunch at the Museum Café. We returned by 12:00 for his second talk titled: "A distant mirror: deep-sea research on board the *Albatross* 100 years ago". Many other people from LACMNH joined us to hear this second presentation. It was another delightful and interesting lecture. He covered the history of deep-sea research and shared some insight into the lives of some famous historical researchers such as Alexander Agassiz, Walter Fisher, and Austin Clark. Dr. Pawson's talk was peppered with wonderful anecdotes and humor and was thoroughly enjoyed by all present. He was asked after the talk if he was working on a book detailing the history and lives of some of these famous researchers and his answer was in the affirmative. I, for one, look forward to the completion and publication of this book. If he writes as well as he lectures, it should be a wonderful read.

With that, many of the museum staff left and the remaining SCAMIT attendees spent the afternoon looking at specimens with Dr. Pawson and discussing holothurid taxonomy. It was noted that there is a paucity of young, "up and coming" individuals who are working on the systematics of this group. There is much to be done, but this is sadly the situation with taxonomy in general. There are not enough new recruits to the field to replace the "old guard" as they retire and leave their posts. Hopefully a new trend for students to again become interested in applied taxonomy and systematics will develop.

- M. Lilly

## 15 OCTOBER 2007

The October 2007 SCAMIT meeting dealt with mollusks and was held at the Los Angeles County Museum of Natural History. Our guest speaker for the day was Dr. James McLean.

Larry Lovell had the floor and discussed the new changes to SCAMIT's Publication Support Policy. A copy of the new Grant Guidelines, as well as a Publication Support application, are attached at the end of this newsletter.

Rick Rowe (who has since retired and moved to Oregon) was working on a project which involved scanning older SCAMIT newsletters. In their new pdf format they are now searchable and can be safely and easily electronically archived. They are currently being reviewed for OCR scanning errors and will be placed on the website as soon as possible. They will be available to all visitors of the SCAMIT website under the section of past newsletters.

Larry had the floor again and mentioned an interesting taxonomic organization in South Carolina named SERTC (Southeastern Regional Taxonomic Center). SERTC was created by the South Carolina Department of Natural Resources (SCDNR), with funding from the National Marine Fisheries Service. It is housed within the SCDNR's Marine Resources Research Institute as well as the College of Charleston's Grice Marine Lab. It is a very interesting organization and I urge



SCAMITeers to go their website and see some of the resources available and learn more about the organization. There arose a discussion as to the possibility of a “SWRTC”, as this region could use such a center to standardize, even further, the efforts of local taxonomists. Of course, there are always the issues of funding and support to consider, but in at least one instance, a taxonomic center seems to be succeeding. For more information on SERTC go to their website at:

<http://www.dnr.sc.gov/marine/sertc/>

Tony Phillips then had the floor and brought a nemertean problem (with apologies to those present who were strict “malacologists”), to the floor. For those interested, what we locally refer to as *Tubulanus nothus* is not the actual *T. nothus* of (Bürger, 1892). Tony had sent 5 or 6 specimens to the Smithsonian for examination. The conclusion is that our local *T. nothus* is an undescribed species. A provisional species designation and ID sheet are pending.

With the business meeting concluded, we moved on to the talk by Dr. McLean. He gave a detailed over-view of his pending publications and showed many wonderful plates and discussed a few of the upcoming changes to the systematics of our local molluscan fauna. Be afraid, be very afraid, as there will be over 400 new species described when his books are published. The book dealing with the southern fauna is scheduled to be out first and its impact will be great. I’ve copied below an abstract from the World Congress of Malacology, which provides a better idea of what to expect.

- M. Lilly

### **Updating the Gastropod fauna of the Northeastern Pacific**

McLean, James H

Natural History Museum of Los Angeles County, 900 Exposition Blvd.,  
Los Angeles, California 90007, USA, Email: jmclean@nhm.org

The northeastern Pacific marine mollusks were once considered well known, but we of the western U.S. now lag behind because a database approach to the entire fauna is years away, to be done by the next generation. Bivalves were monographed in 2000 by Coan, Scott, and Bernard, but no new species were included. A full revision of the shell bearing gastropods is underway, taking into account the large number of new species, and following recent advances in phylogeny and classification. Numerous new species result from deep sea sampling by the University of Oregon and Scripps Institution of Oceanography, and fishery monitoring expeditions along the Aleutian Islands from the Baxter collection and Roger Clark. With the exception of David Lindberg’s collaboration with patelliform limpets, I remain the only person committed to revision on a faunistic scale, so I am without collaborators to hasten the process. This is in contrast to the fauna of the northwestern Pacific for which there have been major checklists and well illustrated manuals produced by collaborating teams in Japan and Russia within the last eight years. Time is too short to begin with a checklist or with separate publication of the new species, so it is necessary to include them in my books. There are to be two separate but overlapping taxonomic manual/revisions, the first to treat the species from British Columbia south to central Baja California, the second to treat the north Pacific species from British Columbia and Alaska, west to Kamchatka, the Kurile Islands, and Hokkaido, considering that the north Pacific represents a continuous faunal region connected by the Bering Sea and the Aleutian Islands. The northwestern Pacific species can now be integrated with the northeastern Pacific species, thanks to the publication in 2006 of Kantor & Sysoev’s Illustrated Catalog of Russian gastropods. With the help of a part-time imaging assistant over the last five years, the working illustrations of about



400 half-page plates (for placement next to the text) for the southern book have been completed; work on the illustrations for the northern book is well underway. Publication of the first volume that treats 1400 species should be possible in two years.

- Reprinted (pp. 142-143) from: Abstracts, World Congress of Malacology, Antwerp, Belgium, 15-20 July 2007

Edited by K. Jordaeans, N. Van Houtte, J. Van Goethem & T. Backeljau

### ATTACHMENTS

This newsletter has two additional attachments to those I mentioned previously. First, you will find SCAMIT's annual treasury summary. Secondly, I've copied a flyer and membership application for SAFIT (Southwestern Association of Freshwater Invertebrate Taxonomists), a "sister" taxonomic organization. SCAMIT has now had two joint meetings with SAFIT and we are finding the relationship both enjoyable and beneficial. If any of you are interested in, or conduct, any freshwater research, please take time to review the information provided on SAFIT.

### LITERATURE CITED

- Carlton, J.T. 2007. The Light and Smith Manual. Intertidal Invertebrates from Central California to Oregon, Completely Revised and Expanded, Fourth Edition. University of California Press. 1001 pp.
- Lambert, Philip and William C. Austin. 2007. Brittle Stars, Sea Urchins and Feather Stars of British Columbia, Southeast Alaska and Puget Sound. The Royal British Columbia Museum. Victoria, Canada. 150 pp.
- Pawson D.L. and E.J. Foell, 1986. *Peniagone leander* new species, an abyssal benthopelagic sea cucumber (Echinodermata: Holothuroidea) from the eastern central Pacific Ocean. Bulletin of Marine Science 38(2): 293-299.



Please visit the SCAMIT Website at: [www.scamit.org](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	Larry Lovell (310)830-2400X5613	llovell@lacsd.org
Vice-President	Leslie Harris (213)763-3234	lharris@nhm.org
Secretary	Megan Lilly (619)758-2336	mlilly@sandiego.gov
Treasurer	Cheryl Brantley (310)830-2400x5605	cbrantley@lacsd.org

Hard copy 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 every two months and is distributed freely to members in good standing. Membership is \$15 for an electronic copy of the newsletter, available via the web site at [www.scamit.org](http://www.scamit.org), and \$30 to receive a printed copy via USPS. Institutional membership, which includes a mailed printed copy, is \$60. All new members receive password protected website access to the most current edition of "A Taxonomic Listing of Soft Bottom Macro- and Megainvertebrates ... in the Southern California Bight." 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  
900 Exposition Boulevard  
Los Angeles, California, 90007

## SCAMIT Treasury Summary 2007 – 2008

Below is the treasurer's report for 2007-08. As you can see our expenses for the year were more than our income, however that is due to the extra workshops SCAMIT organized this year, (i.e. SAFIT, Morphbank and Specify). These are not only of benefit to our members but also helps expose our organization to the greater science community at large. The figures below represent our current balances as of 6/16/2008 and our expenses to date since our newsletter is a little behind. SCAMIT is still spending almost twice as much for printing and mailing newsletters to hardcopy members as electronic members. We greatly appreciate the extra membership dues our hardcopy members pay to help us make up that difference. SCAMIT did not award any publication grants this year but as stipulated in our new grant policy (seen in this newsletter) we do have 25% of our budget (\$18,019.04) available for grants, which is currently about \$4,000. SCAMIT did host another holiday luncheon last December for all its members and we hope to host an evening event at the Cabrillo Marine Aquarium this year. Also, we are at an all time high for memberships (145). We keep growing every year. I know the income below doesn't reflect that but I'm confident renewal checks will keep trickling in. -Cheryl

### Account Balances (as of 6/16/08)

Checking	\$ 5,081.52
Certificate of Deposit	\$12,843.75
Cash	<u>\$ 93.77</u>
<b>Total</b>	<b>\$18,019.04</b>

### Income

2008 Membership dues	\$ 1,020.00
Interest from CD	<u>\$ 301.83</u>
<b>Total</b>	<b>\$ 1,321.83</b>

### Expenses

Electronic newsletter (website/domain name)	\$ 310.39
Hardcopy newsletter (printing/postage)	\$ 554.70
Workshop expenses	\$ 742.80
Holiday luncheon	<u>\$ 655.26</u>
<b>Total</b>	<b>\$ 2,263.15</b>

## SCAMIT's Taxonomic Publication Support Policy

1. The officers will decide at the beginning of each grant season whether there are sufficient funds to offer grants. The amount available for any grant season will not exceed 25% of the total moneys in the SCAMIT accounts as of the first day of the grant season. The available amount will be determined by the Treasurer. This policy is subject to change at the discretion of the duly elected officers.
2. If money is available, applications for publication support will be accepted between June 1<sup>st</sup> and December 1<sup>st</sup> of each year. An announcement to this affect will be posted on the members-only portion of the SCAMIT web site.
3. Accepted grants will be announced and the disbursement of funds will be completed prior to April 30<sup>th</sup> of the following year.
4. Support will be limited to publications that are pertinent to the purpose and goals of the Association as outlined in Article 2 of the constitution.
5. Disbursement of funds directly to the party or parties providing the professional services is preferred.
6. Funds shall only be granted in support of costs associated with the completion of works intended for publication in peer-reviewed journals.
7. Funds shall be offered for the defraying of costs to prepare a manuscript (e.g. typing, text processing), illustrations (e.g. drawings, photos, SEM) and journal page charges.
8. No support will be provided for travel, time, or any costs incurred in the development or conduct of the research leading to the preparation of the manuscript.
9. Authors receiving SCAMIT support shall agree to acknowledge that support in the publication.
10. Support is provided only to members in good standing.
11. Applications are available from the Secretary at:

**Megan Lilly, SCAMIT Secretary  
City of San Diego EMTS Laboratory  
2392 Kincaid Rd.  
San Diego, CA 92101-0811**

**Southern California Association of  
Marine Invertebrate Taxonomists**

**Publication Support Fund Application**

1. Authors(s) name:
2. Address:
3. E-mail:
4. Phone:
5. Title of manuscript:
6. Topic, scope, and size of manuscript:
7. Estimated date of manuscript completion:
8. Estimated date of submission:
9. Name and address of publisher to which it will be submitted:
10. Submit evidence that manuscript is complete or nearing completion. A folder containing a copy of the text, drawings or photos, and literature section would be adequate to determine the degree to which the paper is completed.
11. Submit an itemized list of all work for which you are seeking support. Include the names and addresses of those parties providing the services, with a written quotation of their fees.
12. All authors must sign and date this entire form and return it to the SCAMIT Secretary. This signature demonstrates the applicant's agreement to the terms and conditions contained within the application form.

1) Name:	2) Name:		
_____ Signature	_____ Date	_____ Signature	_____ Date
3) Name:	4) Name:		
_____ Signature	_____ Date	_____ Signature	_____ Date

13. Please return this completed form and any attached sheets to the SCAMIT Secretary:

**Megan Lilly  
City of San Diego Marine Biology Lab  
2392 Kincaid Rd.  
San Diego, CA 92101  
mlilly@sandiego.gov**

*Below is for official use  
only.*\_\_\_\_\_

Date received:

Date reviewed:

Comments:

Accepted: Yes / No

Grant Number:

Amount:

Payee (s):

Date:

Treasurer's Signature:\_\_\_\_\_ Date:\_\_\_\_\_

# Southwest Association of Freshwater Invertebrate Taxonomists



Promoting taxonomic standardization & collaboration throughout the southwestern United States



The Mission of the Southwest Association of Freshwater Invertebrate Taxonomists (SAFIT) is to promote a better understanding of the taxonomy and systematics of macroinvertebrates in support of the assessment of biotic conditions in the inland aquatic ecosystems of the southwest United States. Fundamental to this mission is the standardization of the identification and reporting of taxa. SAFIT fosters research, education, training and professional development of environmental scientists, as they pertain to inland aquatic macroinvertebrates.

## SAFIT Membership Benefits

- Annual Meetings with the latest updates in our field
- Taxonomic Training and Workshops
- Procedural Workshops Hazardous Materials Shipping, QA/QC and others
- Free or Reduced Fees at Workshops, Training and Fieldtrips
- Latest Literature Announcements
- Employment and Business Opportunities
- Members Email List
- Listing in Membership Directory
- Collecting Trips
- Collaboration Opportunities
- Access to Taxonomic Experts
- Opportunities to Participate in Establishing Taxonomic Guidelines for the southwestern US



# Application For SAFIT Membership

Please start my SAFIT membership for the year January, 20\_\_\_\_\_  
(Memberships apply to the calendar year.)

Payment in U.S funds drawn on U.S. bank is required. Checks and Money Orders should be made payable to the Southwest Association of Freshwater Invertebrate Taxonomists (or SAFIT).



Name \_\_\_\_\_ Dr / Prof / Mrs / Ms / Mr

Address \_\_\_\_\_

## Membership Category

Address \_\_\_\_\_

Regular Member (voting).....\$25

City\_\_\_\_\_ St\_\_\_\_\_ Zip\_\_\_\_\_

Student.....\$15

Tel. ( )\_\_\_\_\_ FAX ( )\_\_\_\_\_

Agency or Institution.....\$75

E-mail \_\_\_\_\_

I enclose my check or money order for \$\_\_\_\_\_

Mail this application to:  
SAFIT Secretary  
Dr. Kim Kratz  
17114 Tualatin St.  
Lake Oswego, OR 97035

Information for SAFIT Membership Directory (see codes listed below)

Employment: \_\_\_\_\_ (select all applicable codes)

Education: \_\_\_\_\_ (select all applicable codes)

**Professional Profile** (select three codes for each category, preferred first):

Taxa Group(s): \_\_\_\_\_

Primary Interest Area: \_\_\_\_\_

Habitat: \_\_\_\_\_

### Employment:

A – Academic  
C – Consulting  
F – Federal Government  
S – State/ Provincial/ Regional Government  
T – Tribal Government  
P – Private Industry

### Education:

B - Bachelor's Degree  
M - Master's Degree  
P - Doctoral Degree  
O - Other

### Taxa Group:

X01 - Aquatic insects/invertebrates  
X02 - Oligochaeta, Polychaeta, Hirudinea,  
Branchiobdellida, Acanthobdellida  
X03 - Zooplankton  
X04 - Crustacea  
X05 - Ephemeroptera  
X06 - Odonata  
X07 - Plecoptera  
X08 - Megaloptera, Neuroptera, Hemiptera  
X09 - Coleoptera  
X10 - Trichoptera  
X11 - Chironomidae  
X12 - Diptera: other  
X13 - Mollusca  
X14 - Other aquatic organisms

### Primary Interest Area:

A01 - Environmental impact assessment  
A02 - Toxicology / bioassay  
A03 - Fisheries biology  
A04 - Power plant / industrial impacts  
A05 - Taxonomy / systematics  
A06 - Primary / secondary production  
A07 - Nutrient / organic matter processing  
A08 - Life history / behavior studies  
A09 - Statistics / computer science  
A10 - Administrative  
A11 - Teaching

### Habitat:

H01 - Rivers/streams  
H02 - Lakes / reservoirs  
H03 - Marshes / estuaries  
H04 - Oceans  
H05- Wetlands  
H05 - Other