

SOUTHERN
CALIFORNIA
ASSOCIATION OF
MARINE
INVERTEBRATE
TAXONOMISTS



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SCAMIT Newsletter

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Tryonia imitator (Pilsbry 1899)

Voucher no. 983004
 B' 98 Sta. 2253
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 San Diego Bay

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1-2 NOVEMBER 2007 HYDROBIIDAE WORKSHOP

The November 2007 SCAMIT meeting was a two-day workshop on Hydrobiid snails hosted by Weston Solutions Inc in Carlsbad California. SCAMIT was fortunate enough to have Dr. Hershler from the Smithsonian teaching attendees the fine intricacies of trying to speciate snails in the family Hydrobiidae.

There are no detailed notes on the two-day workshop as your Secretary was struggling mightily with the task of dissecting small snails and looking for delicate soft parts. However if you visit the Taxonomic Tools Section on the SCAMIT website you will find documents, images, and a PowerPoint presentation which deal with information covered at the workshop.

This meeting was a joint venture with our sister organization SAFIT (Southwest Association of Freshwater Invertebrate Taxonomists). Hydrobiid snails are mostly fresh water in habitat, but there are those species that exist in estuarine environs. It is here the worlds of SCAMIT and SAFIT overlap. Of particular concern is being able to identify *Potamopyrgus antipodarum*, the New Zealand mudsnail, which is an invasive known from much of the transmontaine west, including the Santa Monica Mountains. This animal, to the untrained eye, can be mistaken for the local, native hydrobiid, *Tryonia imitator*, which is a species of concern. For bioassessment and monitoring purposes the ability to recognize a foreign invasive species from an indigenous species is of obvious import. I think most attendees left the two-day workshop with at least the tools in hand to attempt this task.

Our gratitude goes to Dr. Hershler for his invaluable assistance in this matter and to Sheila Holt of Weston Solutions Inc for organizing the meeting.

CALCOFI MEETING - NOVEMBER 2007

It was with pleasure that I was able to attend the special symposium on the squid, *Dosidicus gigas*, at the annual CalCOFI meetings. The “Red Devil” or “Diablo Rojo” has been showing up in more northern climes with greater frequency in the last decade and has been seen in sporadically high abundances since 2003. This recent range extension phenomenon has led to a renewed interest in its biology and life history.

The first talk by Hatfield and Hochberg, looked at the historical range expansion of *D. gigas* and found evidence of the animal periodically moving northwards since as early as 1858. It would appear that historically *Dosidicus* has likely ranged north as far as Alaska during large, multi-year incursion events, such as those in 1910-1913, 1934-1936, 1974-1976, and 1997-1999.

UPCOMING MEETINGS

17 November 2008 - SCCWRP. A meeting of the Taxonomic Database Group. Guest Speaker - Deb Paul from Morphbank. Subsequent Morphbank workshops: 18 November (Tues) at CSD; 19 November (Wed) at LACSD; 20 November (Thurs), at OCSD. Contact Larry Lovell for more information or to sign up: llovell@lacsd.org.

6 December 2008 (Saturday) - Cabrillo Marine Aquarium. SCAMIT Christmas Potluck Party. Hours: 5:30 pm - 9:00 pm. Bring the kids! Santa will be there with bells on.

14 January 2009, Wednesday - Venue TBD. Discussion of the Amphipod chapter in Light's Manual and examination of problem specimens. Guest Speaker - John Chapman.



Another talk dealt with diet and life history. Gut content analyses of animals caught locally, showed a diet of hake, small pelagic flatfishes, rockfish (the heads are not consumed), sardines, northern anchovies, and market squid. Many individuals of these prey species were juveniles, but some were market size. There is concern about the potential impact of *D. gigas* on the market squid fishery. However, it is hard to predict with any accuracy whether or not an effect will be seen.

As for local mass strandings, they seem to happen frequently during the summer months and are often synchronous with the grunion runs, but the correlation is not one hundred percent. Another variable that was considered was local oceanographic conditions. However, no obvious correlation arose between the strandings and the occurrence of either El Niño or La Niña. However, the problem with this aspect of the study is that the presence of *D. gigas* is noted as the animals start to strand, which does not necessarily reflect when they arrived in the region. Preliminary data seems to suggest that the Mexican populations have been moving north. One conclusion is there are now established populations in the Southern California Bight that reside here year around, as evidenced by the presence of mature and spawning specimens.

There was a very interesting talk by Carmen Yamashiro which dealt with a southern population of *D. gigas* off the coast of Peru. In Peru there is an active fishery for this squid and many years of data have been collected with regards to their life history and biology. Large, healthy cohorts of *D. gigas* are associated with cold water temperatures and high salinity readings. During the strong 1997-1998 El Niño, the *Dosidicus* fishery suffered a crash. It seems however, that temperature and salinity affects have more of an impact on paralarvae survival and subsequent recruitment success, than on mature adult animals.

It will be interesting to see, as our world climate shifts and ocean conditions change and fluctuate, if large strandings of “The Red Devil” will be common place here in southern California as well as more northern regions.

- M. Lilly

13 DECEMBER 2007 – MORPHBANK MEETING

The meeting began with an update by member Wendy Storms (CSD). Wendy has been working on placing the SCAMIT Species List into an Access database. Once this project is complete it will be easier to “hang” information off a species name, such as ecology notes, digital images, keys, etc. The ultimate goal will be to have the SCAMIT Species List become a web-based interactive database, but for now Wendy works on the task of reformatting the list to work within the Access database program.

Tony Phillips (CLAEMD) then had the floor and announced that he had completed a rough draft of a key to the Polycladida from our SCB monitoring programs. He requested “testers” for his key. In other words, he would like people working on polyclad specimens to take them through his key and provide feedback on the process. If you are interested in being a “tester” for Tony, please contact him at: Tony.Phillips@lacity.org

Long time member and friend to many, John Ljubenkov, then had the floor with a special request. He sadly lost his home in the October 07 wildfires and much of his cherished literature was destroyed. He is asking any SCAMIT members who have extra reprints of papers concerning his areas of expertise (Mollusca and Miscellaneous Phyla) to please send them, so he can start



rebuilding his library. If you would like to make a literary donation and help John rebuild his literature collection, you can contact him at: ljubenko@pacbell.net.

Our speaker for the day, Katja Seltman, was then introduced by Rick Rowe. Katja currently works for the School of Computational Science at Florida State University. Katja presented an introduction to Morphbank and its benefits. Morphbank is an online repository for biological images of all types, from plants, to insects, to fish, to mammals, etc. They have poor representation of marine invertebrates and are interested in SCAMIT and its members using Morphbank as an image repository. They provide the advantage of storage space that is backed up nightly without having to take up hard-drive space on one's home or office computer. They also provide access to those images (should they be designated as "published" by the submitter) to the Morphbank user community.

Lunch was the SCAMIT Holiday Luncheon provided by SCAMIT. Megan Lilly and Kathy Langan of the City of San Diego Lab organized a great spread of food offerings with plenty of variety to go around. Thanks Megan and Kathy!!

After lunch the group moved upstairs to a room that had been set up with banks of computers and work spaces for personal laptops. Internet connections and WiFi were available for all to be able access Morphbank's website. Katja had already provided many of those attending with Morphbank usernames and passwords. Others were able to obtain their own that day. The afternoon was spent in loading images that members brought to the meeting. It was discovered that there was a learning curve in working with the user commands, but many were able to get a few images loaded on to the Morphbank website.

It is hoped that SCAMIT and Morphbank will be able to further develop a relationship that will benefit both organizations.

SAFIT ANNUAL MEETING – NOVEMBER 2007

I attended the meeting on The Los Angeles County Sanitation Districts' time in my capacity both as an LACSD employee and President of SCAMIT. My travel expenses were provided by SCAMIT. This was the second annual meeting for SAFIT and functioned largely as an organizational meeting.

SAFIT emerged two years ago from a California Department of Fish and Game sponsored taxonomic workgroup, California Aquatic Macroinvertebrate Laboratory Network (CAMLnet). Those who had been active participants in CAMLnet formed SAFIT. SAFIT is currently mandated to provide guidance to the California State Water Resources Control Board's Surface Water Ambient Monitoring Program (SWAMP). A Standard Taxonomic Effort (STE) document is maintained and distributed by SAFIT to provide guidance to, and standardization between, taxonomists working on SWAMP program samples.

President Joe Slusark [a taxonomist at the Aquatic Bioassessment Laboratory (ABL), a part of the Department of Fish and Game's Water Pollution Control Laboratory] called the meeting to order at 10:20. There were 20 persons in attendance. Most were from the Central California area, with some from as far away as Oregon and Southern California. Most were taxonomists who process freshwater bioassessment samples for private consulting companies or government agencies. There was a professor with three students from CSULB and one SWRCB employee (LA office). I report below on agenda items of interest.



SAFIT held two workshops last year (Hazardous Materials DOT shipment training and one co-sponsored with SCAMIT on hydrobiid snails). Joe discussed offering Hazardous Materials DOT shipment training in Southern California and I commented that the current certification of SCAMIT members would be expiring in the next year or so and that there would be interest. They announced several taxonomic workshops they have planned for 2008/2009. There is another joint SAFIT-SCAMIT workshop on estuarine arthropods to be jointly led by Christopher Rogers, SAFIT (Eco-Analysts) and Don Cadien, SCAMIT (LACSD) that is in the planning stages. I commented that as SWAMP, and particularly SQO State of California mandated sampling programs get implemented in coastal wetland areas, a workshop would be needed to provide taxonomist training in the resolution of oligochaetes.

SAFIT has acquired the domain name SAFIT.org and has a brief informational page posted. Future plans for the SAFIT website include general information about the organization and links to labs and websites of interest. When fully developed, their website will also have links to the STE document developed by SAFIT members and an online reference collection of biological images (developed by SAFIT members working at ABL) designed to assist in the identification of taxa cited in the STE. The SWAMP website currently provides a link to the STE document. (Secretary's note: As of this newsletter's publication, which is almost year after the meeting, SAFIT.org has accomplished most of the items listed above).

Ken Schiff (SCCWRP) reported that SAFIT has nearly completed the process of incorporation and obtaining non-profit 501-c-3 clearances with both the State of California and the Federal government. They will be accepting membership applications beginning January 1, 2008. The annual cost will be \$25 for Regular Members (voting), \$15 for Students, and \$75 for Agencies or Institutions.

Brady Richards (ABL) reported on the STE, the guidance document used by all taxonomists working on State Water Ambient Monitoring Program (SWAMP) samples. The revision released 28 Nov 2006 is the third version and contains updates in name usage and level of identification from the previous document released in 2003.

Much discussion was devoted to Quality Assurance (QA) of samples, including both sorting and taxonomic analysis. Currently ABL acts as the unofficial QA lab for freshwater samples in the state. Taxonomic certification programs and the pros and cons of the current program offered by the North American Benthological Association were also discussed. Both POTW's and SCAMIT have an interest in sample QA and I volunteered to be on the SAFIT QA workgroup. The workgroup will communicate via emails and conference calls to develop a QA guidance document that can be used by labs and State agencies to fulfill mandated QA requirements.

The creation of an education/outreach/student scholarship committee generated considerable discussion, resulting in four members volunteering to participate on that committee. As with SCAMIT, SAFIT members see the need for generating interest in the field, training new taxonomists, and providing assistance to students.



SAFIT has five officers that serve two-year terms. Election of two and then three officers in alternate years assures that there are always experienced officers present on the board.

My impression of the meeting and the organization was that much like SCAMIT, SAFIT is composed of a group of dedicated, experienced individuals who recognize the need for such an organization and have the desire to collectively push forward on the goals of their mission statement, "promoting taxonomic standardization and collaboration throughout the southwestern United States". As taxonomic organizations that work in differing watery realms, our faunas don't have much in common, but we do share in the goal of resolving taxonomic issues in estuaries where fresh and ocean waters meet and their respective faunas overlap.

Submitted by - Larry Lovell, Marine Biologist II
December 3, 2007

POLYCHAETE VOUCHER SHEET

Please see the attached voucher sheet on *Petaloclymene pacifica* produced by Larry Lovell and Karen Green

MARINE SPECIES IDENTIFICATION PORTAL

The following information was kindly provided by member Lisa Haney (LACSD).

Launched: Marine Species Identification Portal
(MarBEF/KeyToNature)

This is to announce the launch of the Marine Species Identification Portal (www.marinespecies.eu), an initiative of ETI BioInformatics under MARBEF (an EC funded network of Excellence) and KeyToNature (a project in the EC e-contentPlus Programme). This website provides open access to scientific information on marine species, including identification keys, to support the scientific community in activities such bio-monitoring programs, and to provide students and other interested parties with general information on marine biodiversity.

The Marine Species Portal unlocks information on 9,875 marine species and 5,545 higher taxa, most with descriptions and illustrations. A total of 7,932 taxa are keyed out in 52 identification keys. Furthermore 19,876 synonyms plus 2,782 vernacular names in English, and 8,389 names in 25 other languages, facilitate searching.

The information was compiled over a period of 10 years by a global network of collaborating taxonomists started with UNESCO support. Currently 31 species documentation projects are included; information on authors and other contributors can be found for each section under the menu item 'credits'. Most projects are also available on CD-ROM published in ETI's World Biodiversity Database series. The information and identification systems presented here were constructed using the Linnaeus II taxonomic data management package that is downloadable from the ETI website. Differences in geographic coverage and taxonomic treatments are the consequence of a decentralized, author-driven mechanism that ETI set up for species documentation; a process that is still ongoing.



The Marine Species Portal is very much a work in progress; other functionality such as dynamic maps will be added as well as more taxa. Your participation to improve, enhance and increase the content of this site is much appreciated and encouraged! If you have keys on missing taxa, hold better illustrations or more detailed descriptions, don't hesitate to contribute! This is your site; we merely facilitate the information sharing process! We are interested in your feedback to improve the information service.

Relevant URLs

Marine Species identification Portal: www.marinespecies.eu

MarBEF: www.marbef.org

KeyToNature: www.keytonature.eu

ETI: www.eti.uva.nl

Dr. Peter H Schalk
Managing Director

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Please visit the SCAMIT Website at: 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:

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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.

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, 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 VOUCHER SHEET

Species name: *Petaloclymene pacifica* Green 1997

SCAMIT Vol. 26 No. 4

Family: Maldanidae

Prepared by: Larry Lovell, LACSD and Karen Green, SAIC

SYNONYMY: *Euclymene grossa newporti*, not Berkeley & Berkeley 1941; Maldanidae sp A of CSD 1984; Maldanidae sp A of Phillips 1987; *Petaloproctus* type rear ends, of Green 1985 (SCAMIT voucher sheet Vol. 3, No. 12). Note: These are historical synonymies of usage in Southern California sampling programs.

LITERATURE: Green 1997; SCAMIT Newsletter 2001, Vol. 20, No. 5; Rodríguez-Villanueva, Martínez-Lara & Macías-Zamora 2003.

DIAGNOSTIC CHARACTERS:

1. Rostrate uncini in neuropodia setigers 1-3.
2. Paired **dorsal** pores present on setigers 7-9 (see figs. 2, 3), (**not in original description, not reported for Maldanidae; KG**). Pores are posterior to and slightly dorsal to the notosetae.
3. Methyl green staining pattern is present in pre and post-setal areas on setigers 4-7, with strong ventral staining patch on setiger 8 extending pre- and post-setal (see fig. 4).
4. Prostomium forms cephalic plaque with margins slightly incised posterolaterally and posteriorly (more pronounced in larger individuals). Nuchal organs long and parallel. Reticulate pattern visible on large individuals (see fig. 1).
5. Pygidium forms asymmetrical anal plaque; margin well developed with dorsal notch (see figs. 5, 6). Anus near ventral margin of plaque. Unfortunately pygidium is usually lost due to fragmentation, but can sometimes be found in the polychaete "fragments".

RELATED SPECIES AND CHARACTER DIFFERENCES:

1. *Axiothella* sp – Rostrate uncini in neuropodial setigers 1-3, dorsal pores absent, MG staining presetal on setigers 1-4 and pre and postsetal on setigers 5-8, symmetrical anal plaque with central anus and cirlet of pygidial cirri. Note: The taxonomy of the local species of *Axiothella* is poorly understood.
2. *Euclymeninae* sp A SCAMIT 1987 – Single acicular spines in neuropodial of setigers 1-3, dorsal pores absent, MG staining pattern on pre-setal areas only in setigers 4-7, MG ventral and lateral racing stripes present in early abdominal setigers, symmetrical anal plaque with central anus and cirlet of pygidial cirri.
3. *Praxillella pacifica* E. Berkeley 1929 – Neuropodial spines setigers 1-3, dorsal pores absent, MG staining pattern setigers 4-8 is solid with no post-setal stain on setiger 8, symmetrical anal plaque with anal cone and cirlet of pygidial cirri.
4. *Praxillella gracilis* (M. Sars 1861) – Neuropodial spines setigers 1-3, dorsal pores absent, prostomium with long thin anterior palpode, MG staining pattern setigers 4-8 is solid with no post-setal stain on set 8, symmetrical anal plaque with anal cone and cirlet of pygidial cirri.
5. *Petaloproctus* sp – no cephalic plaque, neuropodial spine on first setiger, dorsal pores absent, anal plaque asymmetrical.

COMMENT: Identification of anterior fragments (the condition of most specimens) is confirmed by presence of dorsal pores on setigers 7-9 and MG staining pattern on setigers 4-8. Presence of the unique pygidial sections in samples indicate occurrence of this species.

SCAMIT VOUCHER SHEET, cont.

Species name: *Petaloclymene pacifica* Green 1997

SCAMIT Vol. 26 No. 4

Family: Maldanidae

Prepared by: Larry Lovell, LACSD and Karen Green, SAIC

DEPTH RANGE: 10-200m

HABITAT & DISTRIBUTION: Silty-sandy sediments; Santa Barbara to NW Mexico.

ILLUSTRATIONS:



Figure 1. Head end, lateral view, MG staining.



Figure 2. Dorsal pores, set 7,8; MG staining.



Figure 3. Dorsal pore, set 9, MG staining.



Figure 4. Ventral MG staining area setiger 8



Figure 5. Pygidium, lateral view.



Figure 6. Pygidium, dorsal view.

Material examined: Figs 1-3, large specimen, LACSD Station 1B, 150m, July 2007; Figs 4-5, LACSD Station 6D, 30m, July 2007.