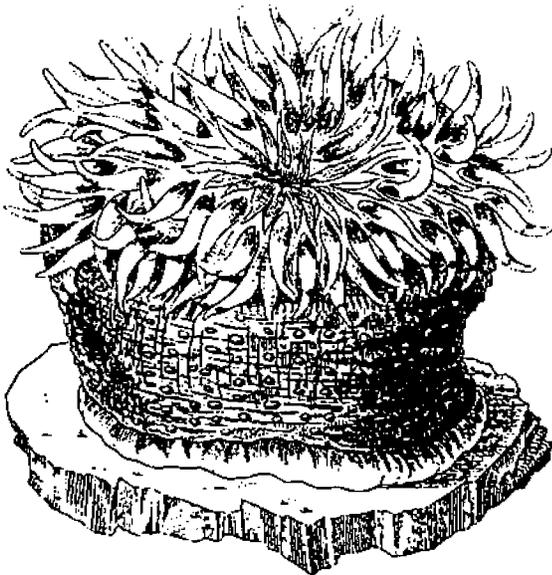


October, 1997

## SCAMIT Newsletter

Vol. 16, No.6

<b>NEXT MEETING:</b>	Review of "Other" Phyla for SCAMIT List Ed. 3
<b>GUEST SPEAKER:</b>	None/John Ljubenkov - Discussion Leader
<b>DATE:</b>	17 November 1997
<b>TIME:</b>	9:30am - 3:30pm
<b>LOCATION:</b>	Dancing Coyote Ranch, 20355 Hwy 76 Pauma Valley, Ca. (Contact Secretary for a map)



*Urticina crassicornis* (from Landsborough 1852)

### 17 NOVEMBER MEETING

Having dealt with arthropod and echinoderm sections of the SCAMIT Taxonomic Listing ED3 in our two previous meetings we move on to the "other groups". As usual this includes all phyla except the big four (Annelida, Arthropoda, Mollusca, and Echinodermata). A copy of the current status of the Ed 3 draft was distributed at the October meeting for use as a working draft for the November meeting. If you have provisional species additions to the existing list please try to complete voucher sheets for exchange at the November meeting. These species can then be added. Come prepared to discuss, add to, subtract from, and correct the draft as it now stands. All participants welcome!

---

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.*

### UPCOMING GATHERINGS

An announcement of the Second Annual Gathering of Southern California Unified Malacologists (SCUM) has been received. The inaugural meeting, held this year in San Diego, attracted 21 people. This one is likely to have a higher attendance since, from all accounts, the inaugural meeting was much enjoyed by the attendees.

This time the meeting will be held on 10 January 1998 in the Times Mirror Room of the Natural History Museum of Los Angeles County, hosted by Dr. Jim McLean and Lindsey Groves of the Malacology Section. All interested in either recent or fossil mollusks are invited. The meeting is largely a good excuse to meet and informally exchange information on mollusks. Informal presentations are welcomed, and needed equipment (ie. slide projectors) will be provided. Those interested in attending should contact the meeting hosts prior to the meeting so they can plan (chairs, coffee, donuts, etc.) appropriately. After the meeting the museum's research collections will be available for inspection.

The 27th Annual Benthic Ecology Meeting is scheduled for 12-15 March 1998 in Melbourne, Florida. Session topics are to include spacial ecology, chemical ecology, life history dynamics, competition, applied ecology, invasive species, techniques, trophic interactions, animal-sediment interactions, molecular ecology, ecosystem function, larval ecology/recruitment, and hydrodynamics. Abstract deadline is December 15, 1997. Additional information is available from Dr. Junda Lin, Organizing Committee, Florida Institute of Technology at [jlin@winnie.fit.edu](mailto:jlin@winnie.fit.edu). You can get more complete information from the meeting website: <http://www.fit.edu/AcadRes/biology/benthic/>.

The dates and venue for the Second International Isopod Conference have now been set. It will take place 16-18 July 1998 at the Institute for Systematics and Population Biology, University of Amsterdam, The Netherlands. It will immediately precede the International Crustacean Conference

taking place in Amsterdam 20-24 July. Abstracts are due by 31 March 1998. Information and registration forms for the Isopod Conference are available from Dr. Brian Kensley, NHB-163, Smithsonian Institution, Washington, D.C., 20560. He can also be reached at Tel: 202-357-4666; Fax: 202-357-3043; or e-mail: [KENSLEYB@NMNH.SI.EDU](mailto:KENSLEYB@NMNH.SI.EDU).

### OPPORTUNITY KNOCKS AGAIN

Announcements of two opportunities were forwarded by Dr. Tim Stebbins, editor of the Crustacean Society Newsletter, *The Ecdysiast*. He felt they might be of interest to members who might not otherwise see them. One is for a replacement to Dr. Arthur Humes, who is retiring from his position of Editor of the *Journal of Crustacean Biology* (enquires to Dr. Les Watling at [watling@maine.maine.edu](mailto:watling@maine.maine.edu)), and the other is for Research Fellowships and Internships at the Smithsonian Institution. The notices are provided in full on the attachment.

### ASC'S TRED SURVEY

The Association of Systematics Collections (ASC) is in the process of trying to gather together information on taxonomic resources and expertise (TRED) in the United States. They are interested in getting information on the abilities, education, and current responsibilities of the respondents. They are also interested in the nature, location, and availability of faunal lists and/or taxonomic databases. Limitations can be placed on the availability of any of the information submitted, so you do not lose control of your information by participating. SCAMIT was requested to provide a list of members, but declined in favor of your privacy. If you are interested in participating in the TRED survey you can respond to them via fax: 202/835-7334, via e-mail: [asc@ascoll.org](mailto:asc@ascoll.org), or on the internet at <http://www.ascoll.org/survey/>. I plan to join in and feel it is to both our mutual and individual advantage to increase knowledge of available taxonomic resources. Good Luck to the

## ATTACHMENT

### EDITOR, JOURNAL OF CRUSTACEAN BIOLOGY

Dr. Arthur Humes, present Editor of the *Journal of Crustacean Biology*, the official journal of The Crustacean Society, will be retiring at the end of 1998. Applications are invited from candidates interested in succeeding him as editor of this premier journal in the field of crustacean biology, as are nominations of qualified individuals. Appointment to this unsalaried position carries with it service as an Officer on the Board of The Crustacean Society.

Qualifications include extensive experience with scientific writing, access to a large science library (either within one's home facility and/or online), and broad familiarity with varied subdisciplines of crustacean biology. Residence within the United States is not a prerequisite. Candidates outside North America must have access to modern modes of electronic communication and computer-based networks.

Enquiries and Nominations/applications should be sent to:

Dr. Les Watling

JCB Editor Search Committee

Darling Marine Center

Walpole, ME 04573 USA

E-mail: [watling@maine.maine.edu](mailto:watling@maine.maine.edu)

(formatted documents can be sent using MIME or BinHex encoding)

### SMITHSONIAN INSTITUTION RESEARCH FELLOWSHIPS AND MINORITY INTERNSHIPS

The Smithsonian Institution announces its research fellowships for 1998 in the fields of (among others) History of Science and Technology, and Biological Sciences. The Fellowships are awarded to support independent research in residence at the Smithsonian in association with its research staff and using its resources. Graduate student fellowships of ten weeks, and senior, predoctoral and postdoctoral fellowships of 3-12 months are awarded. Mailing deadline for applications is January 15, 1998.

Internships to participate in research and museum-related activities for 10 weeks in summer, fall and spring are available to U.S. minority undergraduates and beginning graduate students. Mailing deadline for applications is Feb.15, 1998.

For further information and application materials, write: Smithsonian Institution, Office of Fellowships and Grants, 955 L'Enfant Plaza, Suite 7000, MRC 902, Washington DC 20560, or e-mail [siofg@ofg.si.edu](mailto:siofg@ofg.si.edu). Please indicate the particular area in which you propose to conduct research and give the dates of degrees received or expected.

TRED, and to the National Biological Service which commissioned it. - the Editor

**A PLAGUE OF SNAKES OR LURED BY GOLDEN HAIR?**

By Tom Parker

**WEBSITE UPDATE**

For those of you who haven't visited the website in the last month the September SCAMIT newsletter has been put on-line as a PDF file and seems to working fine. At least as far as we can tell and from the feedback we have received so far. Members should be aware that the free Adobe Acrobat Reader will allow you to view any PDF file from any other website not just the SCAMIT site. The Reader allows you to print the entire file or particular pages may be printed so that only information pertinent to your particular field of study need be printed from the newsletter. This is all accomplished by using the simple pull down menus from the top of the screen just like in other Windows applications. There is also a Help menu, which as with most Help menus is somewhat "helpful". For those of you needing further assistance, please don't hesitate to contact the newsletter staff (Don Cadien and Cheryl Brantley) if you have any problems. If PDF files are going to be a successful way of distributing our newsletters we need them to work easily for all members. Those members who do not have access to a computer may find that their nearest public library provides free Internet access with printing available on paper that you provide or a small fee is charged per sheet. We understand that there are a few members that may still need a hardcopy of the monthly newsletter and we should not have a problem filling those few requests. However, if you are able to print out a copy of the newsletter from either an office machine or home computer please do so and not only save SCAMIT the printing costs but the mailing as well. Treasurer Ann Dalkey will be inquiring about this issue with your next renewal notice. Also, this will save another valuable resource, Ann Dalkey's own personal time. I'm sure Ann has better ways to spend her free time than stuffing and mailing envelopes, which is something she has been doing since SCAMIT's creation. Let's all try and give her a break.

Seemingly distinctive morphology in polychaetes has led taxonomists to cosmopolitan identifications. Unfortunately, this often leads to a plague of widespread error and the task of re-identifying specimens from various regions. The name *Loimia medusa* has been used around the world and locally in Southern California. It is recognized by its distinctive uncinat teeth, anterior lobes, oral tentacles, and dendritic branchia. True to the etymology as a plague-of-snakes-for-hair ("loimia" is a form of the Greek for plague; Medusa originally had golden hair, turned to snakes as punishment); cosmopolitan use of this name is a taxonomist's plague.

In 1988 Hutchings and Glasby noted their suspicions that cosmopolitan reports of the species *L. medusa* Savigny 1865 were incorrect. They re-examined Australian specimens reported as *L. medusa* and concluded that none were, belonging instead to other *Loimia* species. In 1995 they redescribed *L. medusa* based on a neotype. A neotype was necessary as no type specimens were extant. Savigny's original description also lacked figures and a description of the lateral lobes and peristomium; it's brevity facilitating many misidentifications. The neotype's features are listed below to help sort out your *Loimia* specimens and the local (mis)use of *L. medusa* (SCAMIT List Ed. 2).

- eye spots.....small patches
- peristomial lobe.....large, directed anteriorly, with ventral scoop
- branchial branches.....thin main branches with short dendritic branches segment 2 branchia longest
- oral tentacle color.....small red dots

**lobes shape and size**.....large, ear shaped, directed forward  
**notosetae**.....smooth tipped, narrow winged, uniform length in fascicle  
**uncini, number of teeth**.....4-5  
**large ventral glandular pads**.....to segment 12  
**anal papillae present/absent**.....absent  
**habitat**.....sandy/coral rubble  
**depth/location**.....<38 m Red Sea/Iranian Gulf  
**tube material**.....irregular shell and sand fragments bound loosely  
**size**.....<32 mm long  
**nephridial papilla**.....not seen

*Petricola carditoides*. Most of the remaining species are not nestlers, and have less extensive synonymies as a result.

A second case of mistaken molluscan identity came to light in the same issue (Roth 1997). The cause of the rarity of the tiny marine gastropod *Aclis californica* was discovered. It was actually a land snail, *Allopeas gracile*, transported into the ocean. This little hitchhiker is often intercepted in shipments of goods from tropical America, Asia, and the Pacific. There are reportedly established populations nearby in Arizona, and Mexico, but none in California. How the shell of the holotype collected on San Clemente island got there is not known.

In the June 1997 Newsletter (Vol. 16 #2) we discussed a paper by Meyer and Bartolomaeus (1996) using evidence from setal structure to suggest that the polychaetes were paraphyletic. At the time we commented that the evidence was interesting, but too sparse to be persuasive. New evidence (McHugh 1997) supports the previous assertions of parafyly, and also the idea that pogonophorans are only specialized annelids, and not a separate phylum. The author's analysis also places the echiurans among other annelid groups, indicating their lack of segmentation is a derived rather than a primitive condition. McHugh's analysis is based on sequencing of the gene called elongation factor 1 $\alpha$ , reputedly very conservative and useful for investigations of deep divergences with the metazoa. It was also used by Kojima et al (1993) in analysis of the relation between vestimentiferans and annelids.

Increasing use of electron microscopes for investigation of surface microstructure of invertebrates reveals a wealth of detail, but little understanding of function. One such morphological fine structure is the type II microtrich sensilla of amphipods. Systematic investigations of these structures has yielded opinion as to probable function, but all answers are as yet speculative. Steele and Steele (1997) continue their investigations of the nature and distribution of these putatively sensory

**NEW LITERATURE**

In the latest edition of the Veliger (Vol. 40 #4) Gene Coan polishes off another genus of Eastern Pacific bivalves prior to the publication of the monograph (Coan, Scott & Bernard MS) now in its final stages. The target this time is the venerid genus *Petricola*. Although there are only three Californian species, the genus is very speciose in the Panamic. During preparation of this article he reexamined the holotype of *Psephis* [now *Petricola*] *tellimyalis* and found it to be a juvenile *Halodakra subtrigona*. The species we had been calling *P. tellimyalis* thus required a new name, and *Petricola hertzana* Coan 1997 is the result. The status of the other two species previously reported from California, *P. carditoides* and *P. californiensis* remains unchanged. Preliminary indications that the genus *Rupellaria* was the appropriate home for these two species (as in Coan, Scott & Bernard MS) are here reversed. Coan gives a thorough accounting of the convoluted nomenclatural history of that protean nestler

microstructures, this time concentrating on variation in spacing, size, and location of microtrichs in a variety of taxa. Their investigations so far suggest that the function of the structures is chemosensory rather than the mechanosensory one first suggested by Platvoet (1985). Much experimentation will be required before these preliminary speculations can be proved or disproved. Current investigations of the structures are still heavily biased towards an accumulation of information on occurrence in various taxa, since only a few species have yet been examined in the detail necessary to accurately depict the nature and distribution of the structures.

#### NEWS FROM TEXAS

Member Mary Wicksten recently sent along an e-mail missive with interesting commentary on the local *Neocrangon* species, and some of her other activities. It is reproduced below.

"I just got the latest SCAMIT newsletter with the notes on *Neocrangon zacae* versus *N. resima*. Before someone goes running off and tries to define the species based on one specimen, please compare the type of *N. zacae* with material from Baja California and farther south. It is possible that there truly is an *N. zacae*, but it usually ranges from southern Baja California south, and that the cool temperate species is *N. resima*; OR that the two overlap in southern California, OR that *N. resima* ranges north from Pt. Conception, and that there are one or two similar species in southern California, OR that there is only one species that ranges from Monterey Bay south, and the variation is related to latitude. Note that latitudinal variation is known in *Pandalus danae* and *Heptacarpus sitchensis*, and has been suggested in *Crangon alaskensis*. Be careful, because Chace indicated that "*N. zacae*" ranged north to Monterey Bay. Anyone wanting to take on the project really should look at lots of material from at least three areas: Monterey Bay and central California; southern California; and southern Baja California and farther south. The LACM has gallons of material available for examination. I'd recommend going all-out and

doing an analysis of variation or cluster analysis, if needed.

I've been looking at some new specimens from the vicinity of La Paz, Baja California, and comparing them to previously examined material. So far, it looks like *Synalpheus lockingtoni* usually ranges from the Farallon Islands to Magdalena Bay. I have one specimen from Puerto Peñasco, in the northern Gulf of California. Other specimens previously thought to be *S. lockingtoni* have turned out to be different species. Based on color patterns and rostral morphology, I think that the common *Lysmata* of the Gulf of California is likely to be distinct from *L. californica* and *L. intermedia*, and will have to be described as a new species. I'll keep you posted. The La Paz area is rich in shrimp; students and I came up with 54 species in one week, including previously-collected material.

Negotiations on publication of all or parts of my lengthy decapod manuscript continue at a glacial pace [based on a later message they are again broken off]. The paper on the new *Pagurus* sp. is undergoing some slight revisions, but has been accepted for publication."

#### OCTOBER 7th MEETING MINUTES

This meeting was a follow up to the May 1997 meeting discussing the chapters of Volume 14 of the MMS Taxonomic Atlas Series. At that meeting we noted points of disagreement with the authors, additional range information, corrections of typographic and other errors, and comments on the content of the individual chapters. Only the echinoderm chapters were to be addressed during our second meeting. Authors or co-authors of all the echinoderm chapters had agreed to participate beforehand. At the last minute Dr. Andy Lissner (SAIC, La Jolla), who was co-author on the asteroid and echinoid chapters (Lissner & Hart 1996 a and b) was unable to join us. Dr. Mary Bergen (SCCWRP), author of the holothuroid chapter, and Dr. Gordon Hendler (NHMLAC) who authored the crinoid and ophiuroid chapters were in attendance.

Copies of the previous comments were given to the authors, in case they had not seen them in the Newsletter. Each also received a copy of the current draft of the echinoderm portion of the SCAMIT Taxonomic Listing Ed. 3 for their comment.

We began our examination with the crinoid chapter (Hendler 1996a), which was felt to be a model of completeness, and a wonderful source of information on the species considered. Limitations of time prevent such thorough treatments of most groups, since they contain many more species.

Our examination of the ophiuroids started with a query to Dr. Hendler about the lack of a key in the section (Hendler 1996b). He indicated that he had no objection to keys per se, but that the coverage of the chapter did not lend itself to such construction. Only a small section of the ophiuroid fauna was covered in the text since the collections on which the chapter was based were similarly limited in coverage. The only useful alternative would have been production of a key to the entire regional fauna; a task too big for the present project.

In our initial run through of the chapters we had found little to discuss in the ophiuroids, we did feel that there was an error on page 137. We thought that the statement "Generally with 5 oral papillae" should read 4 instead. Dr. Hendler demonstrated to us that there is indeed a small distal 5th papilla in the adults, and that the statement was correct.

We also hoped for some elaboration of his statement on pg. 148 that "distinctions between nominal *Amphiura* and *Amphioplus* species with 4 pairs of oral papillae can be baseless". In response he directed us to the discussions of this situation in two of his papers; Hendler 1978 and Hendler 1988. He suggested that we read these in lieu of a discussion of this issue at the meeting.

With regard to the synonymy of *Amphioplus hexacanthus* with *Dougaloplus amphacanthus*, which most of us had found the most interesting part of the chapter, our discussion was limited by the absence of specimens. Dr. Hendler had looked

forward to a large selection of animals he could examine to try and determine what it was we had been calling *Amphioplus hexacanthus*. At least a portion of these records refer to intact specimens with complete discs which lack the dorsal disc armature of *D. amphacanthus*. While we all have professed to have seen many of these, none of us produced any except for Megan Lilly (CSDMWWD) who brought 2 small individuals. The question must remain moot for the moment, until Dr. Hendler is provided with the appropriate material. We were, however, still able to discuss the variability of some of the structures of interest with regard to age and disc regeneration.

It is not impossible that *Dougaloplus* specimens with regenerated discs lack the typical dermal spines of normal adult specimens. That these spines are variable was reinforced by consideration of several specimens brought by Megan which showed varying morphology in these spines. They currently discriminate between normal *Dougaloplus amphacanthus*, with long tapering spines, and *Dougaloplus sp A*, with short spatulate or spiny spines. Some animals had the typical tapering spines usually illustrated for *D. amphacanthus*, while others were much blunter, sometimes with spatulate tips, or with the stubby tips divided. The presence of more than one species is possible, but the spine type seemed to vary even within a single animal, so that on a disc where most of the spines were typically long and tapering, a few were shortened, even truncated, and tended toward distal spatulation or digitation. Tony Phillips (CLA-EMD) indicated that the same sort of spine morphology had been seen in some Santa Monica Bay specimens.

Don Cadien asked if the difference in the oral shield shape between *Amphioplus hexacanthus* and *Dougaloplus amphacanthus* might not serve to distinguish between individuals lacking discs or with regenerated ones. Dr. Hendler responded that the shapes of oral shields were quite variable, and tended to change in all species between juvenile and adult. Once again, the morphological variability of these structures is often visible within a single animal, with oral shields varying from

nearly oval to "shield-shaped" on a single specimen. Dr. Hendler said that arm spine morphology was probably more conservative and reliable a character than most others used to distinguish local species. He pointed out that the distinctive hooked basal arm spines of both *Amphioplus hexacanthus* and *Dougaloplus* species had alerted him to a potential problem with *A. hexacanthus*.

He feels that much is missed working on preserved specimens, and that as much examination of live material as possible be undertaken. Neither CSDLAC nor CLA-EMD encountered the animal they had called "*Amphioplus hexacanthus*" with enough frequency to provide live material. Ron Velarde, Kathy Langan, and Megan Lilly of CSDMWWD thought they might find them reliably enough in one area to locate and collect living material for him, and vowed to try.

We had also indicated in our earlier discussion that the members present had not seen the sort of extensive pigmentation described for *Ophiuconis bispinosa* by Dr. Hendler. Our preserved specimens ranged from ivory to grey to tan, but not were extensively maculated with darker pigment. He confirmed that the handling of the material at the museum does differ from that used by the various agencies. Specimens were put directly into ethanol, without prior formalin fixation. This might explain the differences, but usually (in our experience) animals put directly into ethanol tend to lose color more rapidly and more profoundly than do those initially fixed prior to preservation.

The question was raised if parasitism of ophiuroids resulted in predictable changes in their appearance. Dr. Hendler was not sure how to respond as there are several types of parasites known from ophiuroids which might have differing external effects. The question had been intended to address possible changes from parasitism by ascothoracid barnacles, which had been taken from the genital bursae of specimens of *Dougaloplus amphacantha* off Pt. Loma in collections made in the early 1980's by MBC. The preliminary identification of the parasites had been

*Gorgonolaureus*, which was, according to Dr. Hendler, a new record of this parasite if correct. The potential for effect might largely be in terms of disc regeneration in damaged parasitized individuals. No guesses were made, however, on what such an effect might be.

Comments on the holothurian section (Bergen 1996) were fairly limited. We inquired of Dr. Bergen if she had been able to modify the key to include *Paracaudina chilensis*, the only Southern California Bight species not included in the key. The press of other affairs had prevented this, and it remains a desideratum for the future. She agreed with the two other comments on the contents of the chapter which were mentioned in the March SCAMIT Newsletter (Vol. 15#11).

She asked for feedback on the use of the key, and found out that since we had had it available we had not really had call to use it. Key testing will proceed as we continue to sample and find things to try it on. Sampling for the regional monitoring in 1998 will undoubtedly provide the most severe test to that date.

Although we did not directly address either asteroids or echinoids because of the absence of Dr. Lissner, a few comments on the groups did surface. Ron Velarde, who had been unable to attend the first meeting, noted several things which had escaped our collective notice.

◆ Pg. 190 - in Figure 8.6 both specimens are shown in the same orientation. In Figure 8.7 immediately below it, dorsal surfaces of *Brisaster latifrons* and *Brissopsis pacifica* are compared. To avoid confusion it should be noted that the two are in opposite orientation, so that *Brissopsis* has its anterior end uppermost in the figure, and *Brisaster* has its posterior end uppermost.

◆ Pg. 192 - in Figure 8.9 *Brissopsis pacifica* is on the left and *Brisaster latifrons* on the right rather than as indicated in the caption.

Incorrect information on the distribution of *Astropecten ornatissimus* was offered in the earlier review. A specimen of this species was taken during the SCBPP at Station 815 off Ventura.

Another specimen was taken in Santa Monica Bay during the SCBPP, so the earlier northern range limit at San Pedro has been exceeded several times.

Specimens of *Poraniopsis inflata* were taken by CSDMWWD sampling off Pt. Loma, well within the geographic and bathymetric range given by Lissner & Hart in Vol. 14. The starfish was field identified as *Poraniopsis jordani* based on its similarity to a figure in Gotshall & Laurent (1979). No such animal has been described. The name is probably due to a *lapsus* in which the species name of *Pteraster jordani* was recalled and used in the genus *Poraniopsis*. There is some indication that a second species of *Poraniopsis* may exist off our coast, but only one is named so far, *P. inflata*. It is likely that both of the color morphs illustrated by Gotshall & Laurent (one as *P. inflata* and one as *P. jordani*) are *P. inflata*. The largest of the Pt. Loma specimens was brought to the meeting and examined by attendees.

We also examined specimens of a small echinoid which had been initially identified as *Lovenia cordiformis*. The specimens were taken from deeper stations, and those doing QA on the samples doubted this was correct. Although the specimens did have more elongate primary spines when collected, they were clearly not *Lovenia* based on test shape. They were interpreted as juveniles, probably of *Spatangus*. The tests were extremely fragile, having been prepared with bleach to remove spines, and reveal plate patterns. Megan commented that several previous examples had been completely dissolved during preparation, and that considerable attention was necessary to prevent complete solution of the test. Tony Phillips echoed this, having experienced the same sorts of rapid losses with small material himself.

Participants spent some meeting time reviewing the draft of the Taxonomic List Ed. 3, but few corrections were offered. Several additions to the list were necessary, including the *Poraniopsis* discussed above. Hopefully more corrections and additions, particularly to the synonymies, will come to light as participants have a longer time to examine the draft.

As the meeting ended Dr. Hendler reiterated his interest in unusual specimens of echinoderms, and in as many specimens as possible of those species which are currently indeterminate (such as the *Dougaloplus* variants, and the taxon we had been calling *Amphioplus hexacanthus* prior to Vol. 14). Any such material should be taken or sent to him at the Natural History Museum of Los Angeles County (but call first @ 213-763-3526. Dr. Bergen is likewise interested in any unusual holothuroid specimens, although lately her time for taxonomy has been severely restricted by other activities. Send or take material to her at SCCWRP in Fountain Valley.

### LARGE WORM ALERT

Sometime ago the Newsletter carried an item about an aphroditid polychaete approaching 12 inches (30 cm) in length. This seemed rather large to many local workers and a specimen of such size has never been produced to confirm the initial report. Now, however, an enormous capitellid has been collected by CSDLAC. This *Notomastus* specimen is complete and easily measures 18 inches (45 cm) in length. This far exceeds the published accounts for *Notomastus* specimens listed by Hartman. The prostomium is retracted but clearly shows two well developed pigment patches in the position of "eyes". It has long biramous capillary setae in all 11 of the thoracic segments. The thoracic dermis is well areolated. It lacks branchial structures other than flatish pads in the abdomen and the gut is full of sand grains and urchin spine fragments. The hooded hooks lack greatly expanded hood structures and possess a major tooth surmounted by approximately 3-4 minor teeth. This may not be the largest capitellid specimen collected but you may wish to keep your meter stick handy in case you collect one of similar dimensions.

- Tom Parker



The SCAMIT Newsletter has previously published a series of personal memoirs from Dr. Olga Hartman from the archives of the Polychaete Collection (then at USC, now at the Natural History Museum of Los Angeles County) entitled "Travels With Olga". We have been offered a chance to once again view the life of a prominent polychaetologist from a very personal perspective. Dr. Donald J. Reish here inaugurates a series of memoirs on his life, his development as a biologist, and his relationship with many of the members of SCAMIT as mentor, advisor, and friend. In this initial installment we see his family background, early exposures to the natural world, and perhaps the germ of later development into the world's premier worm-runner.

## MY LIFE AS A BIOLOGIST

By Donald J. Reish

### Preface

Several of my former students have asked me to write an autobiography. I looked over the SCAMIT membership list and discovered that about 25% are former students of mine and I have been associated professionally with another 25%. The SCAMIT Newsletter seemed to be a good place to write about my life as a biologist. Don Cadien suggested that I write about a page for each newsletter; I have no idea of how many issues it will take. I will try to emphasize as you read from chapter to chapter how people and small events affected my life and, in turn, affected many of the SCAMIT members.

### Chapter 1--Early beginnings

My father was born in Kansas where he became a farmer. He later took out homesteads first in North Dakota, and then in Alberta, Canada, becoming a Canadian citizen. My mother was born in British Columbia; her father had migrated to Canada from Tennessee, her mother from Wisconsin. They were married in Spokane

and lived in British Columbia. Later they moved to Alberta and Mom attended Normal School (later the University of Alberta) and trained as a teacher. She started teaching in a one room school house at the age of 17, while Canada was in WW1. She then moved to a school near my father's homestead. They met and married and my brother Gene was soon born in Medicine Hat. (I used to tease my brother that he could never become President of US, but I could!).

After many years of good wheat harvests, they had 3 successive years of crop failure. The family left the farm, and that was the last farming for my dad. They moved to Kansas where he first worked in a store and later became a Fuller Brush man. But mother couldn't stand the Kansas heat and they moved to Nelson, British Columbia (her home town). He sold Fuller Brushes there too. They then moved south to Oregon, first to Dallas then to Corvallis. My mother said no more moving, we are staying here. I was born 3 months later.

Corvallis was a good place to grow up. It was a small college town, home of Oregon State University. There was an intellectual environment and the college was an influence on my life as you will read. My first recollections are of the summer after I received a child's hoe, shovel and rake for my 3rd birthday. I remember digging in the dirt at the vacant lot next door. My father planted a Douglas fir in front of that house and in the passing years I would look to see that tree; I still do (last time 1996). We moved to another house which had a big yard. We lived there from my age 3 to 7. My dad had a vegetable garden, and we also raised rabbits and chickens for food. I remember plucking the chickens and shelling peas. My brother Gene is more than 4 years older, and he would take me to nearby Oak Creek where we would catch crayfish and build dams (he is still building them!). We also went to the college cow barns and green houses, where I always looked for the orange and banana trees. I thought it would be great to have your very own orange tree (I now do). I started

grade school where Mrs. Gowan was my teacher. She grew different plants in the classroom including a small wheat garden and demonstrated the effect of the position of light on the growing pattern of the wheat. Years later I ran into her on a bus trip from Bend to Corvallis. We had a great time; it turns out that she had a masters in Botany!

We moved two more times in Corvallis, and then in 1944 to California. Things began to happen along biological lines the summer between 3rd and 4th grade. I began a butterfly collection (not a very good one), and a teenager with a fantastic butterfly collection gave me two cecropia moth caterpillars. They ate only one particular kind of leaf, which grew on only one tree in town. Each day I would ride my tricycle (I got my first 2 wheeler at age 12) to collect the leaves. One day

they built their cocoons. Unfortunately, I did not put a stick in the jar for them to climb on when they hatched. That was my last effort to raise caterpillars as a boy; but I did it later when our kids were growing up. That summer also saw my introduction to annelids. My brother was a born salesman, and still is. He went to the campus at night and collected night crawlers which he then sold as fish bait. I do not know how successful he was, but he figured that cutting the worms in two would get him twice as many. As a grad student at USC, I gave a seminar on Libbie Hyman's doctoral dissertation which involved regeneration of oligochaetes. She found that there was a critical segment number where you did indeed get two worms. She didn't work with this species. [Next time: I become an editor and more on Oregon State.]

#### BIBLIOGRAPHY

- BERGEN, MARY. 1996. Chapter 9. Class Holothuroidea, including Keys and Descriptions to all Continental Shelf Species from California. Pp. 195-250 IN: Blake, James A., Paul H. Scott & Andrew Lissner (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 14: Miscellaneous Taxa. Santa Barbara Museum of Natural History, Santa Barbara, California. 305pp.
- COAN, EUGENE V. 1997. Recent species of the genus *Petricola* in the eastern Pacific (Bivalvia: Veneroidea). *The Veliger* 40(4): 298-340.
- COAN, EUGENE V., Paul H. Scott, Frank R. Bernard. MS. Bivalve Seashells of Western North America. Santa Barbara Museum of Natural History: Santa Barbara, California.
- GOTSHALL, DANIEL W., Laurence L. Laurent. 1979. Pacific Coast Subtidal Marine Invertebrates. Sea Challengers: Los Osos, Ca. 107pp.
- HENDLER, GORDON. 1978. Development of *Amphioplus abditus* (Verrill)(Echinodermata: Ophiuroidea). II. Description and discussion of ophiuroid skeletal ontogeny and homologies. *Biological Bulletin* 154(1): 79-95.
- . 1988. Ophiuroid skeleton ontogeny reveals homologies among skeletal plates of adults: A study of *Amphiura filiformis*, *Amphiura stimpsoni* and *Ophiophragmus filograneus* (Echinodermata). *Biological Bulletin* 174(1): 20-29.
- . 1996A. Chapter 5. Class Crinoidea. Pp. 85-95 IN: Blake, James A., Paul H. Scott & Andrew Lissner (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 14: Miscellaneous Taxa. Santa Barbara Museum of Natural History, Santa Barbara, California. 305pp.
- . 1996B. Chapter 7. Class Ophiuroidea. Pp. 113-179 IN: Blake, James A., Paul H. Scott & Andrew Lissner (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 14: Miscellaneous Taxa. Santa Barbara Museum of Natural History, Santa Barbara, California. 305pp.

HUTCHINGS, PATRICIA A., and Christopher J. Glasby. 1988. The Amphitritinae (Polychaeta: Terebellidae) from Australia. *Records of the Australian Museum* 40(1):1-60.

---. 1995. Description of the widely reported terebellid polychaetes *Loimia medusa* (Savigny) and *Amphitrite rubra* (Risso). *Mitteilungen aus dem hamburgischen zoologischen Museum und Institut, Hamburg* 92(Supl):149-154.

KOJIMA, S. J., M. Hasegawa, S. Murata, S. Ohta, H. Seki & N. Okada. 1993. Close phylogenetic relationship between Vestimentifera (tube worms) and Annelida revealed by the amino acid sequence of elongation factor-1 $\alpha$ . *Journal of Molecular Evolution* 37:66-70.

LANDSBOROUGH, D. 1852. *A Popular History of British Zoophytes, or Corallines*. Reeve and Co., London. 404pp.

LISSNER, ANDREW, and Debra Hart. 1996a. Chapter 6. Class Asteroidea. Pp. 97-112 IN: Blake, James A., Paul H. Scott & Andrew Lissner (eds). *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 14: Miscellaneous Taxa*. Santa Barbara Museum of Natural History, Santa Barbara, California. 305pp.

---. 1996B. Chapter 8. Class Echinoidea. Pp. 181-194 IN: Blake, James A., Paul H. Scott & Andrew Lissner (eds). *Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Volume 14: Miscellaneous Taxa*. Santa Barbara Museum of Natural History, Santa Barbara, California. 305pp.

McHUGH, DAMHNAIT. 1997. Molecular evidence that echiurans and pogonophorans are derived annelids. *Proceedings of the National Academy of Sciences* 94(15):8006-8009.

MEYER, K., and T. Bartolomaeus. 1996. Ultrastructure and formation of the hooked setae in *Owenia fusiformis* delle Chiaje, 1842: Implications for annelid phylogeny. *Canadian Journal of Zoology - Revue Canadienne de Zoologie* 74(12):2143-2153.

PLATVOET, DIRK. 1985. Side-line organ in gammarids (Crustacea, Amphipoda). *Beaufortia* 35:129-133.

ROTH, BARRY. 1997. "*Aclis californica* Bartsch, 1927: a land snail misinterpreted (Gastropoda: Pulmonata: Subulinidae). *The Veliger* 40(4):364-366.

STEELE, VIRGINIA J. & Donald H. Steele. 1997. Type II microtrich sensilla of amphipods: variations in external morphology and distributional patterns. *Canadian Journal of Zoology* 75(7): 1155-1165.

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

**SCAMIT OFFICERS:**

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

			<u>e-mail address</u>
President	Ron Velarde	(619)692-4903	rgv@sddpc.sannet.gov
Vice-President	Don Cadien	(310)830-2400 ext. 403	cbrantley@lacsds.org
Secretary	Cheryl Brantley	(310)830-2400 ext. 403	cbrantley@lacsds.org
Treasurer	Ann Dalkey	(310)648-5544	cam@san.ci.la.ca.us

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.