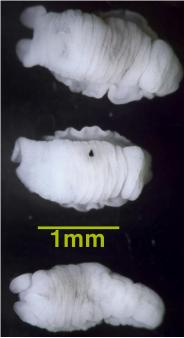


# Southern California Association of Marine Invertebrate Taxonomists

3720 Stephen White Drive San Pedro, California 90731

July, 1998	SCAMIT Newsletter Vol. 17, N	o.3
SUBJECT:	Problem Polychaete solutions	
GUEST SPEAKER:	None - Ron Velarde (CSDMWWD) Discussion Leader	
DATE:	Monday, September 21, 1998	
TIME:	9:30 a.m. to 3:30 p. m.	
LOCATION:	Worm Lab Natural History Musem of Los Angeles County 900 Exposistion Blvd. Los Angeles, CA	



There is no August Meeting scheduled. Please carefully note that the meeting announcement applies to the September meeting. At that time, and after two months to ponder the nature of the problems covered in July and their possible solutions, a second problem polychaete discussion will be held. Since this will be the "prove it" meeting, please bring any supporting references, data, specimens, etc. to aid in resolving contentious taxonomic issues. The Meeting will be held at the Natural History Museum with Hartman's types just down the hall for consultation if necessary.

*Philinoglossa* sp A - Station I-37(2), 7-16-97, 63 ft. (Image by K. Barwick CSDMWWD 13Aug98)

#### **BYLAW AMENDMENT**

The membership has voted to accept the proposed Amendment of the duties of the Vice President (modification of Bylaw 2 of the SCAMIT Constitution). The election period for this amendment, which closed at the end of May, was separate from the period for return of officer ballots. No nay votes were tabulated among the twenty or so members who responded (not all members voting in the officer elections chose to vote on the amendment issue as well). Although a unanimous vote was not required (a 2/3 vote would have been sufficient to carry the proposal) for the alteration of the Bylaw, it was accorded by the voting membership. In consequence the position of Vice-President will be divorced from the duties now carried out by the Newsletter Editor. Either prior to the 1999 Officer Election or concurrently with it the Executive Committee must appoint a Newsletter Editor. This may continue to be the Vice-President if the person elected to that office is willing to undertake the Editorship as well. Once appointed, the Editor will continue to serve until removed by request of the Executive Committee or until he(she) resigns.

## **BIGHT'98 SAMPLING**

Sample collection has begun for Bight'98. Both trawl and infaunal collections were made off Oxnard at regional stations by ABC Labs on Monday 12 July. The effort level has now apparently been stabilized at 404 infaunal sites and 378 trawl sites to be visited. At each site effort will vary, with a variety of different chemical and physical samples at each benthic station, and several different tissue sample collections at some trawl stations. Involved personnel who would like a more detailed presentation of the sampling requirements should review the Field Operations Manual (available from your Bight'98 coordinator). Non-participants should contact SCCWRP.

#### The SCAMIT Role

As in the SCBPP in 1994. SCAMIT will be functioning as a QA/QC organization. We have already begun acting in our QA guise by holding pre-standardization meetings such as the present one dealing with problem polychaetes, and earlier meetings on trawl invertebrates and the amphipod Photis. Such meetings will continue as part of the quality assurance effort under the Bight'98 program. As we proceed further into the project SCAMIT will continue to have meetings to address specific areas of taxonomic uncertainty arising from Bight'98 samples. We may need to resume meetings on an accelerated schedule to exchange information and experiences with the collected samples. If this is necessary it is likely that we will separate into polychaete and non-polychaete groups, with each holding one meeting a month. After sample completion and the sample exchange and reidentification of the QC program, SCAMIT (through a committee of members) will comment on the produced species list, and review identifications in the Bight'98 samples. We will offer our opinion on the validity of names in the database to those responsible for data analysis.

Taxonomists working on Bight'98 samples will also be tied together through a Taxonomic Discussion Group reflector. This is not open to non-participants, involving only those taxonomists working directly on Bight'98 samples. The reflector will be hosted by SCCWRP, but will be monitored by Dave Montagne at CSDLAC. Participants will be able to send descriptions of newly encountered animals, caveats about non-functional key couplets, commentary on observed character variability, or new range extensions to all other taxonomists involved in the project. Some of these same items will also be made available to the wider audience afterwards via the SCAMIT Newsletter. Significant findings and newly



erected provisionals will certainly reach the broader user base of the SCAMIT website after first emerging in discussion on the Bight'98 reflector.

## NEW LITERATURE

A different approach to an index of habitat degradation from that used in the BRI (Benthic Response Index) developed for the SCBPP data has been demonstrated by Roberts et al (1998). They pursued the "less is more" strategy, relying on the abundances of a small series of positive and negative pollution indicators in an area affected by dredge spoil disposal. They relied on enhanced abundance of the positive indicators, and reduced abundance or absence of the negative indicators. Their rationale was that it only cost roughly 1/4 as much to apply, and yielded the information on impact required. This bottom line approach to a special purpose indicator has value, but it cannot easily be extended to cover the full range of habitats we investigate in the Bight. The more exhaustive, but more informative type of index, such as the BRI, is still a plus when complex data from a broad area is to be evaluated.

Two more volumes in the continuing series Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel have been released - Vol. 3: The Cnidaria, and Vol. 8: The Mollusca Part 1. One additional volume on the polychaete worms is still to come, with an uncertain release date. Each of these volumes is multi-author. That dealing with cnidarians has two sections by Hochberg & Ljubenkov (1998a, b) and one by Fautin (1998). The mollusk volume covers all groups except the gastropods, which have previously been covered in Vol. 9. After a general introduction to the mollusks (Coan 1998), sections deal with the Aplacophora (Scheltema 1998), the Polyplacophora (Eernisse 1998), the Scaphopoda (Shimek 1998), the Bivalvia (Valentich Scott 1998), and the Cephalopoda (Hochberg 1998).

SCAMIT members have been exposed to some of this material in manuscript, but the real article is now out and available for our use. Five new aplacophores and two new bivalves are introduced in Vol. 8, including several taxa which had previous SCAMIT provisional designations. After a sufficient period has elapsed to allow calm examination of these two volumes, we will discuss them in detail at a meeting, and produce a listing of comments on their contents. A list of changes from current SCAMIT usage (in Ed. 3) is in preparation, and will be provided as an attachment to a future newsletter.

At the meeting member Larry Lovell brought a new hesionid description to the attention of the members (Dean 1998). The species, *Glyphohesione nicoyensis*, was taken from the Gulf of Nicoya, on the Pacific coast of Costa Rica. It was noted by Larry that Dean uses the spelling of *Ancystrosyllis* in his paper instead of *Ancistrosyllis*. The significance of this variant spelling was not resolved.

One other monographic type publication is now available as an electronic publication (hopefully it will migrate to printed status as well, allowing introduction of the copious illustration it needs and does not now provide) linked through the SCAMIT website. The document (Hooper 1997) is a guide to sponges which includes information on structure, natural history, nomenclature, taxonomy, and classification. If printed out it forms a 144 pg. downloadable document which deals with the phylum worldwide. It is particularly useful for higher level taxonomy, but also briefly diagnoses most genera worldwide. No species information is provided, and zoogeography is not covered. A key to orders is offered, but no keys are provided for family level or below. Even with these limitations this is a wonderful tool to have available, and I recommend it to the attention of all members. Those not wishing to follow the link on the SCAMIT website can



find this valuable summary of information on sponges directly at http:// www.qmuseum.qld.gov.au/nature/ explorenature/spongeident.html.

## GOOD THING/SMALL PACKAGE

The more odd habitats we encounter, the broader our knowledge of the local biota becomes. Case in point is the relict red sand substrate which occurs in scattered areas throughout the Bight. These are essentially nearshore relict riverine deposits of ironenriched sands, thus the red coloration. Existence of such substrate offshore cannot be completely ruled out, however, and some is available as deep as 60 m off Palos Verdes. We might expect outcrops of this sediment type as deep as the limit of glacial associated sea-level drop, approximately 118m in the southern California Bight.

This substrate is relatively coarse, and supports a community which differs radically in composition from those occurring nearby in both fine sand and silty bottoms. It roughly corresponds to what has been referred to in the literature as "shell sand" or "Amphioxus sand". One recent sample from this type of substrate collected off San Diego yielded something quite small, and also unreported from our area. In this sample, from 63ft depth, nine small snails were found which did not match any known member of the local fauna. They were given to Don Cadien (CSDLAC) for examination. After an initial dissection of one of the animals their identity became clear; they were the first known representatives of the cephalaspid superfamily Philinoglossacea taken in the Eastern Pacific. This doesn't preclude the possibility that other specimens have been taken in the past and left at unidentified Cephalaspidea because of their small size and lack of external characters. Hopefully this is the case, and the current brief description of these animals will elicit additional material from readers.

The animals have few external characters of a positive nature (presences) but they have many negatives (absence of structures). They are ovate-elongate "slug" shaped, lack a head shield, lack parapodia, lack external gills, lack a shell externally, lack rhinophores, lack oral tentacles, lack attenuated corners to the foot, lack posterior mantle lobes (although a similar structure is present), and lack surface eyes (although eyes are discernible deep in the tissue).

They are small, the nine specimens ranging from 1-2mm in length, and 0.5-1mm in greatest width. They appear to be partially contracted with the dorsum conspicuously wrinkled transversely, and are probably more elongate and narrower bodied when fully extended. Because of this partial contraction the sides of the foot project laterally beyond the sides of the dorsum. This might suggest parapodia, but is only an artifact of preservation. The foot is also slightly shorter than the dorsum, which overhangs it at the rear. Ground color of the preserved animals is a translucent tan, with darker reddish brown visceral mass showing through towards the middle of the animal.

Internally the animals lack a vestigial shell posteriorly, they lack jaws anteriorly, and they lack gizzard plates. The small radula, about 15 tooth rows in the dissected animal, has the formula of 2.1.0.1.2. This formula is shared with other described members of the group (although Thompson 1976 lists this as 3.0.3, apparently following Odhner 1952), as is the morphology of the individual teeth. The marginal teeth are somewhat laterally flattened and appressed, so that they almost appear to be one bifid tooth. They are attached to the lateral tooth adjacent to a strong low shoulder near the tooth base. The cusps of the marginals are simple, curved, and acute. They lack any denticles. The lateral tooth is more complex, larger and more robust than the marginals, and not flattened laterally. The tooth has a broad base, with a strong low shoulder laterally. The central cusp is strong, curved so that its tip is



slightly ahead of the base of the cusp, and dorsoventrally flattened towards the tip. Near the middle of the cusp it broadens into a medial flange which bears a series of small marginal denticles. From this flange distad the cusp is slightly scooped out, with the edges extending beyond the central line of the cusp. The appearance is very much like the lateral tooth of *Pluscula cuica* (Marcus & Marcus 1954, figure 8). There is no central tooth.

The group is one of those small interstitial groups about which little is known. There are two families in the superfamily, the Philinoglossidae and the Plusculidae. The later contains but a single species of a single genus, Pluscula cuica Marcus 1953. Two genera are assigned to the Philinoglossidae; Philinoglossa (with 5 or so species world-wide) and the monotypic Sapha (S. amicorum Marcus 1959). One other species, Abavopsis latosoleata Salvini-Plawen 1973, is either in a valid genus in the family Philinoglossidae, or in a subgenus within *Philinoglossa*. They are primarily distributed in the north Atlantic and Mediterranean, but Sapha amicorum comes from the Red Sea, and Philinoglossa marcusi Challis 1969 is from the Solomon Islands in the western Pacific. All these taxa seem to be separable from the new southern California species on the structure of the posterior end of the body. Pluscula has a vestigial shell retained internally near the posterior end of the animal, and has a foot much shorter than the dorsum. Philinoglossa is transversely truncate posteriorly without the lateral lappets or lobes present in our species. Sapha comes to a median point posteriorly. Abavopsis seems to retain a cephalic shield, and, like Philinoglossa, to lack the posterior lateral lappets of our species.

There may be notable differences in the structure of the internal organs between the local species and other described species in the group, but sectioning has not yet been performed. Details of described *Philinoglossa* species are provided by Hertling (1932), Marcus & Marcus (1954 & 1958), and Challis (1969); those of *Pluscula* by Marcus 1953, *Sapha* by Marcus 1959, and those of *Abavopsis latosoleata* by Salvini-Plawen (1973). In nearly all cases these are the original descriptions. Only *Philinoglossa helgolandica* has been treated by several different authors.

Anyone who thinks they might have additional specimens of this species please send the specimens to Don Cadien at CSDLAC, or bring them to a SCAMIT meeting. A voucher sheet on the species - called *Philinoglossa sp A* for now - is in preparation.

#### **JULY 20 MEETING MINUTES**

During the business meeting Larry Lovell circulated a list of sessions, chairs of sessions, and participants of the 6<sup>th</sup> International Polychaete Conference being held August 2-7, 1998 in Curitiba, Parana, Brazil. It can be accessed (see http://biodiversity.uno.edu/ ~worms/brazil.html) on the Annelida resources home page. Member Leslie Harris was in attendance, and should be able to give us a report on the conference at the September meeting.

Our meeting topic was creation of a standardized approach for selected taxa listed in Attachment 2, Table 1 of the SCBPP 1994 report. Our goal is increased consistency in identification of these taxa for the Bight'98 Project. Many of the taxa listed resulted from dropping species level identifications. With the addition of the MMS Atlas, SCAMIT voucher and identification sheets, and discussions such as these, we hope to identify more species consistently. In cases where we agree to back off to genus for certain problematic taxa, we need to develop a protocol to assure consistent recording of taxa.

We stressed the importance of retaining specimens that are unusual and accumulating rare specimens during this project. The time we invest now to save unusual specimens will help to solve taxonomic problems in the future.



We agreed to use the SCAMIT website to alert other taxonomists of encountered species not listed in the 3<sup>rd</sup> Edition of the SCAMIT Species List. Additionally we will send a brief e-mail to other polychaete taxonomists notifying them that there is new information regarding Bight'98 polychaetes at the SCAMIT website.

The first taxon on our list to be considered was Cossura spp. It was agreed that only specimens with over 10 setigers would be identified to species. Juveniles and specimens with 10 or fewer setigers will be left at Cossura sp. For specimens over 10 setigers, stain with methyl green and use Rick Rowe's sheet entitled "Cossura species of Pt. Loma" of August 1995 to identify Cossura sp A and C. candida. C. candida may represent a species complex; however, until more work is done, we will continue to use the methyl green staining pattern and point of antennal insertion to identify this species. Be on the lookout for C. pygodactylata which may be found in bays. If you get a species of Cossura that is not C. sp A or C. candida, use the MMS Atlas key to try to determine an identification. If your specimen does not match with any described species in the Atlas, call it Cossura sp, collect material, and make a provisional voucher sheet.

Levinsenia spp was the next taxa investigated. Warning: Do not use the MMS key for Levinsenia. Branchial length and number are not useful characters to separate L. oculata from *L. gracilis*. Larry offered to prepare a key for the September meeting; he's now requesting specimens of L. oculata. It would be helpful if we could get some specimens to him in advance to aid in the preparation of his key, but he also wants us to bring specimens to the September meeting. There are three species of Levinsenia that we can identify: 1) L. gracilis - the modified setae have a fringe along their edges, 2) L. multibranchiata - has very long, thin branchiae, and 3) L. oculata modified setae without fringe. L. oculata also is distinguished by its slightly inflated anterior end and its methyl green staining pattern; it has

paired spots just posterior to the notopodial lobes in the post-branchial region. A note of caution though; Larry has occasionally seen *L. gracilis* with some diffuse regional staining on the body (possibly due to the animal's reproductive state), so be careful to not confuse this with the distinct methyl green staining spots of *L. oculata*.

The next taxon addressed was Protocirrineris spp. Rick handed out identification sheets on Protocirrineris sp A and Protocirrineris sp B which contained beautiful digital images displaying characters that we can use to identify these species. These sheets are intended to compliment the voucher sheets prepared by Tony Phillips of May 17 (Protocirrineris sp A) and May 30 (Protocirrineris sp B). Rick warned that methyl green staining in P. sp B can be a problem, and his identification sheet contains some tips on how to get the best staining results. Rick also distributed an identification sheet on Aphelochaeta sp A SCAMIT 1998. It displays the methyl green staining pattern and other distinguishing characters. These sheets will surely help standardize our identifications of these problematic cirratulids that we encounter.

For identification of *Mediomastus*, we will use the same protocol as the Bight Pilot Project. We will identify *M. acutus*, even if we only have the anterior end. In *M. acutus*, there are long notopodial setae in the thorax, the prostomium is long and acute, and they are found in shallow water with coarse sediment. We will identify other *Mediomastus* spp only to the generic level, even if the specimen is complete.

*Ophelina* spp was the next taxa considered. The SCAMIT species list recognizes *O. acuminata* and *O.* sp SD 1. For *Ophelina* sp SD 1, use Rick Rowe's voucher sheet dated November 11, 1995. This species is distinguished by the ventral groove running the length of the entire body, having 32 setigers



(compared to about 50 in *O. acuminata*), and having a pygidium in the shape of an anal tube (compared to an open anal scoop in *O. acuminata*).

Ron Velarde has been looking at various specimens of Sthenelais and reviewing the literature. He has found the literature very confused in this genus. Ron believes we are getting two species in Southern California, S. tertiaglabra and S. verruculosa. S. tertiaglabra usually occurs in water deeper than 90-100 feet, while S. verruculosa is a more shallow water species. In Hartman 1968 (page 165, figure 6), S. tertiaglabra is figured with pseudo-articulated setae; these setae are also noted by Blake 1995 (page 198, MMS Atlas, Vol. 5, Part 2) and in the original description of this species. These setae are apparently unique to S. tertiaglabra. Ron thinks that S. verruculosa is a good species. Ron does not believe that we are getting S. fusca, and the characters that we now use to separate these species (S. tertiaglabra, S. fusca, and S. berkeleyi) are probably artificial. We have recorded S. berkeleyi from Southern California; this species has large papillae on its ventrum. Ron questions whether we are getting real S. berkeleyi or if our reports are S. *tertiaglabra*. There are still many questions to be answered; Ron will investigate these further and present more information at the September meeting.

The next genus tackled was *Drilonereis* spp. Keys for *Drilonereis* often use the presence or absence of mandibles as a character. Colbath 1987 reports that jaws in some Eunicoid Annelids may be shed occasionally. We agreed to use Leslie Harris' key for *Drilonereis* that appeared in the SCAMIT Newsletter, Vol. 14, No.11, March 1996. When using this key, substitute *Drilonereis* sp A for *D. nr. longa*. For small specimens, our protocol is to make a mount of the entire animal for better viewing of the jaw pieces and then take the animal through Leslie's key. If you cannot view the maxillae (specimen too small or maxillae missing), or if you cannot take the specimen through the key (it just doesn't fit any species), identify as *Drilonereis* sp. Specimens of *Drilonereis* that occur inside Cirratulids will be identified as *Drilonereis* sp A. Large specimens of *D*. sp A and complete specimens of other *Drilonereis* spp should be retained. We also agreed to keep track of animals that do not have jaws.

The next genus considered was *Fauveliopsis*. For complete specimens, we will use the key in Fauchald and Hancock 1981 which is based on setiger counts. The City of San Diego has been using F. sp SD 1 which they usually find at shallow stations with coarse sediment. Kathy Langan- Cranford will investigate F. sp SD 1 further to see if there are differences from the already described species and if so, what those differences are. Until then, CSDMWWD will use the published key in Fauchald and Hancock.

*Terebellides* spp were then examined. *T. californica* is our most common species of *Terebellides*. We will use Kathy Langan-Cranford's Trichobranchidae key (August 1, 1997) which includes a new illustration of *T. reishi*. If anyone gets a *T*. sp C, please pull it; we are not sure if we have seen a real *T*. sp C.

The key and illustration of *T. reishi* will be included with next month's newsletter.

Species of *Demonax* were considered next. Kirk Fitzhugh has looked at our specimens of *Demonax* previously and described *Demonax* sp 1. In general, we feel that published descriptions of other *Demonax* species are not detailed enough to provide confident identifications. If you get a specimen that is not *D*. sp 1, you may: 1) back off to spp or 2) use a published species name if you feel confident in doing so.

The next part of the meeting involved receiving several new handouts from Rick Rowe that will be very useful in tackling the Bight'98 samples as well as our regular monitoring samples. All of Rick's handouts included excellent digital



images. The first was a key to the Nephtyidae of Point Loma (adapted from Hilbig 1994). *Nephtys simoni* Perkins 1980 and *Nephtys* sp SD 2 fide Rowe 1997 are differentiated from *Nephtys ferruginea* Hartman 1940 and *Nephtys caecoides* Hartman 1938 in the key.

Rick's next handout was on *Polycirrus californicus*. It contained digital images of the methyl green staining pattern of the holotype which was provided by Larry Lovell. This species and *P*. sp A are our most commonly recorded species in this genus. Larry commented that *P*. sp A often comes in a thin tube with a tangle of branchiae stuffed inside the tube, but he has never seen *P*. *californicus* in a tube. We concluded that we should re-visit *Polycirrus* voucher sheets at the September meeting and go over individual protocols and practices used in identifying these species.

Rick distributed identification sheets on four species of Malmgreniella: M. nigralba, M. sp A, M. sp SD 2, and M. macginitiei. This is a difficult and confusing group, and Rick explained and showed with images, some of the distinguishing characters of these species. He stressed the importance of looking laterally at the cephalic peaks in determining their prominence. The specimen of *M. nigralba* (provided by Cheryl Brantley) is distinguished by: 1) the polygonal reticulation pattern on its elytra, 2) the short, broad, and rounded supraacicular lobe, and 3) the bracts of spinules extending onto the base of the secondary teeth of middle neurosetae. M. sp A also exhibits a polygonal reticulated pattern on the elytra but has bracts of spinules that only approach the base of the secondary tooth on middle neurosetae, a secondary tooth that is thin and nearly reaches to the end of the primary tooth, long, rounded supraacicular lobes, moderate cephalic peaks, and long dorsal cirri. M. sp 2 is very similar to M. bansei Pettibone 1993. It has bracts of spinules that do not approach the base of the long, thin secondary tooth in the middle neurosetae and long, thin supraacicular lobes. It lacks the

dorsal cirrophore pigment and has much longer dorsal cirri than illustrated in Pettibone's original description of M. bansei. Our local M. macginitiei fits the characterization of the species presented in the original description by Pettibone 1993 and by Ruff 1995 (page 147, MMS Vol. 5, Part 2). The prostomial peaks are well formed; the bracts of spinules do not approach the base of the moderate, sharply pointed secondary tooth; the supraacicular neuropodial lobe is triangular; the dorsal cirrus is very long; and the dorsal cirrophore, base of the dorsal cirrostyle, often the ventrum of posterior setigers, and the dorsum of the prostomium possess areas of dark pigmentation.

We then launched into discussing the remainder of the taxa listed in Attachment 2, Table 1 of the 1994 Bight Pilot Project report. For each taxa, we decided: 1) to what level we could take the identifications, 2) which species we could reliably identify, and 3) which references we would use to identify each of these taxa. The results of this discussion will be presented in tabular form in the next newsletter.

## **BIOASSAY ORGANISM ID**

President Ron Velarde (CSDMWWD) recently examined specimens of one of the required bioassay species *Eohaustorius estuarius* to verify their identity. He had some difficulty in reaching that identification for the specimens at hand (supplied from Oregon), and referred them (with a presumptive ID of *E. brevicuspis*) to Don Cadien for examination. In that process it became clear that the presence of a recent review of the genus (Bousfield & Hoover 1995) was not enough to make identification of these animals easy. Difficulties were encountered in application and interpretation of the key supplied in the above paper, and some basic information on variability with age is still lacking. The setation of these (not spines, but



robust setae following the classification of Watling 1989) animals is very complex, with presence/absence/size/location of setal rows of importance in the separation of species.

Bousfield has been a pioneer in work with haustoriid amphipods (see Bousfield 1965, and 1970), and may be so familiar with the animals that he feels some things do not need explanation. Others (like most of us) only see these animals infrequently, and do not have easy familiarity with their complex morphology. This is not provided by Bousfield & Hoover (op. cit.). A review of that paper and preparation of a supporting extension which will help us interpret its content is in progress (by D. Cadien, CSDLAC) but will not be available for some months. In the mean time please be critical of the identifications of the haustoriids you are supplied with for bioassays. Assure yourself that you are not dealing with mixed lots, and we will attempt to simplify the process of arriving at a correct and supportable identification in the near future. Please note this is not intended to deny the accuracy of identification from the providing supplier, but only to indicate that we find it difficult or impossible to verify this with currently available literature. We always have the responsibility of verifying identity of supplied test organisms; in this case we find we cannot, at present, do so.

#### **HESITATING ON HESIONIDS**

In his recent reassessment of generic and higher level taxonomy Pleijel (1998) mentions several changes in the family Hesionidae. His illustrations and discussion of the genus *Gyptis* help to demonstrate that *Gyptis brunnea* has undergone some taxonomic drift since its discovery by Hartman in 1961. See Table 1.

## INFORMATION TRANSFER MEETING

On 9 July an Information Transfer Meeting dealing with identifications of trawl fishes and invertebrates was held at SCCWRP. This meeting was part of the Quality Assurance program for Bight'98. A morning presentation on identification of invertebrates by Don Cadien (CSDLAC) was followed in the afternoon by a session covering fishes led by Dr. Jim Allen (SCCWRP). In the morning the emphasis was on process, attempting to cover the "how to" of field invertebrate identification. Approach was stressed; especially the need to know when to doubt your ability to correctly identify an animal in the field. This is particularly important with trawls as normal practice is to discard specimens which have been field identified. Once the specimen is gone, the identification must be accepted as valid or completely ignored; the possibility of

Table 1 —

	<i>Gyptis brunnea</i> characters	Author Source	
1)	With prominent lip glands	Pleijel illustrates; not mentioned by Hartman (1961) or Hilbig (1994a)	
2)	With central prostomial antennae	Pleijel; "lacking" in Hartman; "supposedly" with a 3 <sup>rd</sup> antennae centrally in Hilbig	
3)	Parapodial ventral cirri " articled", articulated, or smooth	Pleijel illustrates weak to smooth; Hartman illustrates smooth; Hilbig illustrates and mentiions " distinctly articulated"	
4)	Notopodial setae smaller and shorter than corresponding neurosetae	Pleijel does not mention this condition; Hilbig illustrates mostly similar lengths for setae, with only the inferior neurosetae as shorter; Hartman specifies the condition, but illustrates it only in the superior position of the fascicles	

- Tom Parker (CSDLAC)



July, 1998

reexamination and reidentification being no longer available. Attendance at the meeting was good, with representatives of all the field groups scheduled to participate in Bight'98 sampling present.

A brief overview of the areas of particular concern was provided which touched on those groups where SCBPP identifications had proven to be unstandardized, as well as those groups which had been misidentified during the "bucket test" prequalification exercise. Specimens of several of the problem groups were displayed, and Megan Lilly (CSDMWWD) provided a very helpful series of slides showing the field identification marks for local *Octopus* species. Fortuitously a fine *in situ* color picture of *Octopus californicus* is provided on the cover of Taxonomic Atlas Vol. 8 (see below).

A request for specimens has been received from Dr. Gordon Hendler at the Natural History Museum of Los Angeles County. He was reading the last NL and came to the description of our intercalibration cruise catches which included several echinoderms of interest to him. A hasty e-mail later I was alerted to a need for saving such materials for the museum. All groups which have not already completed their trawling please save duplicate material of species already vouchered for Dr. Hendler. It will be appreciatively received.

#### MORE EL NIÑO

As the current prolonged ENSO event expires to be replaced shortly by La Niña flow from the north, bringing cooler waters, and dryer conditions - biological stragglers from the south are still being recorded in local waters. Continuing our coverage of the incursion of *Stenorhynchus debilis*, the Pacific arrow crab, into our waters, we have a new northern record on the mainland. A single adult specimen was taken at the Redondo Beach Generating Station, and maintained in their culture facility there (notification courtesy of Jim Rounds, NHMLAC) in mid-July. Jim promises to keep a lookout for more individuals of this species, and also any other unusual catches at the station.

On a somewhat more delayed note, another specimen of the processid shrimp Processa peruviana was taken south of Pt. Loma in July of 1997 in 106ft. of water. This specimen is much smaller than the large individual taken off Palos Verdes. Ron Velarde (CSDMWWD) also pointed out a record from the past that may be referable to this species as well; Processa cf. bermudensis of Laughlin (described briefly in SCAMIT NL 7(3), August 1988). Although the distinguishing characters provided by Laughlin are strongly suggestive of P. peruviana, the specimen should be reexamined before we place his animal into the synonymy of that species. Laughlin's specimen was collected just under 10 years before the San Diego specimen, and came from 100m depth in Santa Monica Bay.



#### BIBLIOGRAPHY

- BLAKE, JAMES A. 1995. Chapter 6. Family Sigalionidae Kinberg, 1856. pp. 189-206 *IN*:
  Blake, J. A., Brigitte Hilbig, and Paul H. Scott (eds). Taxonomic Atlas of the Benthic
  Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol. 5, The
  Annelida Part 2. Polychaeta: Phyllodocida (Syllidae and Scale-Bearing Families),
  Amphinomida, and Eunicida. 378pp.
- BOUSFIELD, EDWARD L. 1965. Haustoriidae of New England (Crustacea: Amphipoda). Proceedings of the United States National Museum 117(3512):159-240.
- —. 1970. Adaptive radiation in sandburrowing amphipod crustaceans. Chesapeake Science 11(3):143-154.
- —, & Phillip M. Hoover. 1995. The amphipod superfamily Pontoporeioidea on the Pacific coast of North America. II. Family Haustoriidae. Genus <u>Eohaustorius</u> J. L. Barnard: systematics and distributional ecology. Amphipacifica 2(1):35-63.
- CHALLIS, D. A. 1969. <u>Philinoglossa marcusi</u> n. sp. (Mollusca: Opisthobranchia: Philinoglossacea) from the British Solomon Islands Protectorate. Transactions of the Royal Society of New Zealand, Biological Sciences 11(11):169-175.
- COAN, EUGENE V. 1998. Introduction to the Mollusca. Pp. 1-2 IN: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 8: The Mollusca Part 1; The Aplacophora, Polyplacophora, Scaphopoda, Bivalvia, and Cephalopoda. 250pp.
- COLBATH, G. K. 1987. Evidence for shedding of maxillary jaws in eunicoid polychaetes. Journal of Natural History 21:443-447.
- DEAN, HARLAN, K. 1998. A new species of Hesionidae, <u>Glyphohesione nicoyensis</u> (Annelida: Polychaeta), from the Gulf of Nicoya, Costa Rica. Proceedings of the Biological Society of Washington 111(2):257-262.
- EERNISSE, DOUGLAS J. 1998. 3. Class Polyplacophora. Pp. 49-73 *IN*: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 8: The Mollusca Part 1; The Aplacophora, Polyplacophora, Scaphopoda, Bivalvia, and Cephalopoda. 250pp.
- FAUCHALD, KRISTIAN and Danil R. Hancock. 1981. Deep-water polychaetes from a transect off central Oregon. Allan Hancock Foundation Monograph No.11, pp 37-38.
- FAUTIN, DAPHNE GAIL. 1998. 3. Class Anthozoa: Orders Actiniaria, Ceriantharia, and Zoanthinaria. Pp. 113-139 *IN*: Valentich Scott, Paul & James A. Blake (eds.).
  Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 3: The Cnidaria. 150pp.
- HARTMAN, OLGA. 1961. Polychaetous annelids from California. Allan Hancock Pacific Expeditions 25:1-226.
- —. 1968. Atlas of the Errantiate Polychaetous Annelids from California. Allan Hancock Foundation, University of Southern California, Los Angeles, 828pp.
- HERTLING, H. 1932. <u>Philinoglossa helgolandica</u>, n.g., n.sp., ein neuer Opisthobranchier aus der Nordsee bei Helgoland. Wissenschaftliches Meeresuntersuchungen, Abteilung Helgoland 19(2): 1-9.



- HILBIG, BRIGITTE. 1994a. 9. Family Hesionidae. Pp. 243-269 *IN*: Blake, James A. & Brigitte Hilbig (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol. 4: The Annelida Part 1; Oligochaeta and Polychaeta: Phyllodocida (Phyllodocidae to Paralacydoniidae). Santa Barbara Museum of Natural History, Santa Barbara, California. 377pp.
- —. 1994b. Chapter 13. Family Nephtyidae Grube, 1950. pp. 329-362 *IN*: Blake, J.A. and B. Hilbig (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol. 4: The Annelida Part 1; Oligochaeta and Polychaeta: Phyllodocida (Phyllodocidae to Paralacydoniidae). 377pp.
- HOCHBERG, FREDERICK G. 1998. 6. Class Cephalopoda. Pp. 175-236 *IN*: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 8: The Mollusca Part 1; The Aplacophora, Polyplacophora, Scaphopoda, Bivalvia, and Cephalopoda. 250pp.
- —, and John C. Ljubenkov. 1998a. 1. Class Hydrozoa. Pp. 1-54 *IN*: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 3: The Cnidaria. 150pp.
- , and —. 1998b. 2. Class Anthozoa: Subclass Octocorallia, Orders Stolonifera and Pennatulacea. Pp. 55-112 *IN*: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 3: The Cnidaria. 150pp.
- HOOPER, JOHN N. A. 1997. Sponge Guide: Guide to Sponge Collection and Identification (Version August 1997). 144pp. On-line electronic publication available at http://www.qmuseum.qld.gov.au/nature/explorenature/spongeident.html.
- MARCUS, ERNST. 1953. Three Brazilian Sand-Opisthobranchia. Universidade de Sao Paulo: Boletins da Faculdade de Filosofia, Ciencias e Letras 165(Zoologia 18):165-203.
- —. 1959. Eine neue Gattung der Philinoglossacea. Kieler Meeresforschungen 15(1):117-119.
- MARCUS, EVELINE DUBOIS-REYMOND, and Ernst Marcus. 1954. Über Philinoglossacea und Acochlidiacea. Kieler Meeresforschungen 10(2):215-223.
- —. 1958. Opisthobranchia aus dem Schill von Helgoland. Kieler Meeresforschungen 14(1):91-96.
- ODHNER, NILS HJALMAR. 1952. Petits opisthobranches peu connus de la cote Mediterraneenne de France. Vie et Milieu 3(2):136-147.
- PETTIBONE, MARIAN H. 1953. Some Scale-bearing Polychaetes of Puget Sound and Adjacent Waters. University of Washington Press, Seattle, Washington. 89pp.
- 1993. Scaled polychaetes (Polynoidae) associated with ophiuroids and other invertebrates and reviews of species referred to <u>Malmgrenia</u> McIntosh and replaced by <u>Malmgreniella</u> Hartman, with descriptions of new taxa. Smithsonian Contributions to Zoology 538:1-92.
- PLEIJEL, FREDERICK. 1998. Phylogeny and classification of Hesionidae (Polychaeta). Zoologica Scripta 27(2):89-163.
- RUFF, R. EUGENE. 1995. Chapter 3. Family Polynoidae Malmgren, 1867. pp. 105-166. *IN*: Blake, J.A., B. Hilbig, and P.H. Scott (eds). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel. Vol. 5: The Annelida Part 2; Polychaeta: Phyllodocida (Syllidae and Scale-Bearing Families), Amphinomida, and Eunicida. 378 pp.



- SALVINI-PLAWEN, Luitfried von. 1973. Zur kenntnis der Philinoglossacea und der Acochlidiacea mit Platyhedylidae fam. nov. (Gastropoda, Cephalaspidea). Zeitschrift für Zoologisches Systematik und Evolutionsforshung 11(2):110-133.
- SCHELTEMA, AMÉLIE H. 1998. 2. Class Aplacophora. Pp. 3-47 *IN*: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 8: The Mollusca Part 1; The Aplacophora, Polyplacophora, Scaphopoda, Bivalvia, and Cephalopoda. 250pp.
- SHIMEK, RONALD L. 1998. 4. Class Scaphopoda. Pp. 75-96 IN: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 8: The Mollusca Part 1; The Aplacophora, Polyplacophora, Scaphopoda, Bivalvia, and Cephalopoda. 250pp.
- THOMPSON, THOMAS EVERETT. 1976. Biology of Opisthobranch Molluscs, Volume 1. The Ray Society, London. 206pp.
- VALENTICH SCOTT, PAUL. 1998. 5. Class Bivalvia. Pp. 97-173 *IN*: Valentich Scott, Paul & James A. Blake (eds.). Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and The Western Santa Barbara Channel. Vol 8: The Mollusca Part 1; The Aplacophora, Polyplacophora, Scaphopoda, Bivalvia, and Cephalopoda. 250pp.
- WATLING, LES. 1989. A classification system for crustacean setae based on the homology concept. Pp. 15-26 *IN*: Felgenhauer, Bruce E., Les Watling, & A. B. Thistle (eds.).
  Functional Morphology of Feeding and Grooming in Crustacea. Crustacean Issues 6. A. A. Balkema, Rotterdam.

#### 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 <u>e-mail addr</u> President		((10)(02)(4002)				
	Ron Velarde	(619)692-4903 (210)820-2400 ant	rgv@mwharbor.sannet.gov			
Vice-President	Don Cadien	(310)830-2400 ext.	U			
Secretary	Megan Lilly	. ,	msl@mwharbor.sannet.gov			
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						
	· .					
	issues are also ava					

