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SCAMIT Newsletter

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Cover Photo: Branchiomma sp B, LH-03-0233. Photo by Leslie Harris.

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The SCAMIT newsletter is not deemed to be a valid publication for formal taxonomic purposes.

# 21 JULY 2014, BIGHT'13 ECHINODERM FIDS, LACSD

Attendees: Chase McDonald, Larry Lovell, Fred Stern, Don Cadien, Terra Petry (LACSD); Megan Lilly, Nick Haring (CSD); Laura Terriquez (OCSD); Greg Lyon (CLA-EMD); Tony Phillips, Dean Pasko (DCE).

#### Business

We had a brief discussion about the publication grant funding and whether some of those monies could be used for alternative uses, such as the costs of attending a professional meeting. There was no resolution on that

# **UPCOMING MEETINGS**

Visit the SCAMIT website at: www.scamit.org for the latest upcoming meetings announcements.

topic, but we continued a discussion on how to utilize the money that SCAMIT received from the CBRAT work with the EPA, as well as the funds that OCSD provided several years back to support the development of the taxonomic toolbox. Members from the major Publically Owned Treatment Works (POTW) who participate in CTAG (the technical advisory committee to each of the SCCWRP Commissioners) have been discussing this taxonomic toolbox effort with the SCCWRP leadership too.

Larry reminded everyone about the discussion of how to handle Bight'13 nematodes based on an email that Dean sent out to the Bight'13 list server. Nematodes should be noted, but need not be counted. However, they should not be dumped into the grunge as that will be going to Dr. Susan Kidwell's lab (University of Chicago).

#### **Echinoderm Specimen review**

Tony shared a few slides of odd specimens. He had two species of *Amphiodia*, which had long pointed middle oral papillae. Tony was curious to know if others had seen them. The specimens have three oral papillae, but with a middle tooth larger than the others – about  $\frac{1}{2}$  the width and twice the length – and distally tapered. This was present on all the jaws in four specimens. These specimens were from a Mission Bay Bight'13 sample. There was nothing unusual about the other characters (e.g., aboral disc). There were no spines/forks on the disc cap, making the specimens more similar to *A. psara* than *A. urtica* or *A. digitata*. Tony initially thought they might be *A. psara* because of some patches of dark pigment on the arms; but there was no pigment on the disc. The arm plates and spines also matched *A. urtica* well. Nick proposed that perhaps there is some plasticity to the jaw structure based on their food selection and environment. Larry brought up the idea of the whether these papillae may represent replaced papillae; but Tony said that he did not know of any such replacement.

Megan reviewed the specimens and found some distal arm plates that were rectangular with a slight notch medially. It couldn't be *A. psara* because of the pointed arm spines, some of which had the hyaline point; *A. psara* has blunt arm spines. In addition, the aboral disc plates were small and numerous. There was some discussion of *A. digitata*. Megan suggested that her first guess might be *A. urtica*. However, the arms were extremely long and tangled.

Tony then brought out Don Cadien's voucher sheet for *Amphiodia* sp A. At least one of Tony's specimens appeared to be similar to *Amphiodia* sp A based on the extended and curved arm spines and normally broadened oral papillae, although it was missing its disc cap; but the several specimens with disc caps present had the long oral papillae which is not a feature in *Amphiodia* 



Don then arrived and examined the *Amphiodia* specimens from Mission Bay. Don suggested that they did not belong to *Amphiodia* (*Amphispina*), the subgenus to which *A. urtica* belongs. This could be *A. periercta*. It differs from *Amphiodia* sp A in the absence of hyaline forks or spines along the genital slits and/or on the ventral disc cap. But D'yakonov (1966) describes *A. periercta* as having marginal scales that are denticulate, paired tentacle scales, and radial shields that touch distally. We reviewed the original description, which showed all three oral papillae as completely even and similarly sized, rather than having the distal one much larger and the middle one elongate, and about half the number of marginal disc scales as Tony's specimen. The conclusion was that Tony's specimens represent a new, variable species that is not represented by any of the current taxa on the SCAMIT species list.

The specimens were given to Don Cadien, who took them to Gordon Hendler at the LACMNH. Here are his comments:

"To follow up on the puzzling Amphiodia, I recently examined small specimens of Amphiodia periercta that, although they are not the types, I am confident are the real thing. It seems that the species from Mission Bay is not an Amphiodia species that has been reported from the West Coast, but I have not yet looked into the possibility that it is a species introduced from elsewhere. I hope that the population can be sampled again so that fresh, intact animals can be examined, photographed, relaxed, and preserved. It would be fascinating to know more about the species."

Megan then brought out specimens of *Ophiura leptoctenia* to show the relatively long and pointed spines of the arm combs. This is in contrast to the more commonly seen *O. luetkenii*, which has short blunt spines comprising the arm combs. These specimens came from a deep water Bight station (Station 9441).

Next a discussion ensued on the two genera, *Amphioplus* and *Dougaloplus*. These two amphiurids are primarily separated by the presence (*Dougaloplus*) or absence (*Amphioplus*) of superficial structures (blunt or tapered spines) on the dorsal disc. Therefore specimens that lack a disc cap (but have the proper oral papillae pattern – four pair, 2<sup>nd</sup> pair are buccal scales) have to be left at the family Amphiuridae.

Megan then brought out a specimen of *Amphioplus strongyloplax* for review. This species lacks any dorsal disc cap structures and also lacks hyaline cross-bars/teeth on the arm spines. In contrast, *Amphioplus* sp A (which is the more commonly seen species) possesses hyaline cross bars/teeth on the tips of some arms spines but also lacks spines on the dorsal disc. The presence of hyaline cross bars/teeth on some arm spines is a character which is shared with the genus *Dougaloplus*, giving another reason why if a disc cap is lacking, the animal needs to be left at the family Amphiuridae. For a good image of hyaline teeth on arm spine tips see Hendler 1996.

As for juveniles, Megan feels specimens of *Amphioplus* that are  $\leq 3 \text{ mm}$  (disc size) need to be left at genus since the hyaline teeth on the arm spines don't seem to be apparent at that size and are needed to differentiate the two species. As for juvenile *Dougaloplus*, if the disc cap spines are too small to determine whether they are ultimately going to be tapered/acute (*D. amphacanthus*) or blunt/rounded (*Dougaloplus* sp A), then the ID needs to be left at *Dougaloplus*. sp.

Laura brought a specimen of *Brissopsis* sp LA1 that Megan quickly confirmed. For comparison we retrieved OCSD's *B. pacifica* voucher which also turned out to be *Brissopsis* sp LA1. This lead to additional discussion of the confusion between *Brissopsis*. sp LA1, *B. pacifica*, and

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Brisaster latifrons. Don suggested that Brissopsis sp LA1 may represent a hybrid between Brissopsis pacifica and Brisaster latifrons. The variation that Megan and others have noticed in Brissopsis pacifica could support this hybridization hypothesis. Alternatively, Megan worked with Dr. Mooi at Cal Academy for a few days and found specimens in the collections from the early 1900's that were Brissopsis sp LA1 but had been misidentified as B. pacifica. Dr. Mooi feels there is a possibility that Brissopsis. sp LA1 is indeed an undescribed species of Brissopsis, but much more time and effort needs to be put in to this project before a definitive answer can be had. B. *pacifica* has a kidney-bean shaped subanal fasicole that was not present in the OCSD voucher specimens, and they had somewhat elongate petaloids. Brissopsis sp LA1 petaloids reach to the end of the test, whereas they are shorter on *B. pacifica*. Megan has noticed a lot of variation in these characters and has tended to error towards *B. pacifica*, placing relatively few specimens into Brissopsis sp LA1. Additionally, to date specimens of Brissopsis sp LA1 are being collected in deep waters, >400m. Work on the echinoids continued as Laura brought out several specimens for review, with Nick, Megan, Laura and others attempting to distinguish among several specimens. Nick suggested that the plates dorsal to the periproct leading to the petaloids differed between the species. There are readily visible and relatively large plates in *Brissopsis* sp LA1 and apparently obscure or smooth in *B. pacifica*. The character appears to have promise but needs to be verified by application, and may be difficult to apply in the field, often necessary when trawling.

We then moved on to a beautiful specimen of *Ophiosphalma jolliense* that Fred Stern brought forward. The lateral arm plates had 1–3 short arm spines and only the first three segments had tentacle pores/scales, confirming the identity of Fred's specimen.

Having gone through all the interesting ophiuroids and echinoids, we examined a holothuroid that Megan had available. This provided an opportunity to perform a demonstration of tissue dissections and ossicle mounts. Once the tissue had dissolved, Megan provided some excellent ossicle mounts for viewing. The specimen turned out to be *Pentamera pseudocalcigera*. Megan then dissolved tissue from *P. ridgida*, which has a long tail and more rigid white body, where the supporting tables have very low spires and a few large teeth.

The meeting quickly concluded with those in attendance heading for the freeways, and a tortuous way home.

# 28 JULY 2014, BIGHT'13 MISCELLANEOUS PHYLA FIDS, LACSD

Attendees: Larry Lovell, Chase MacDonald, Don Cadien, Terra Petry (LACSD); Megan Lilly, Wendy Enright, Nick Haring, Laura Terriquez, Ken Sakamoto, (OCSD); Greg Lyon (CLA-EMD); Matt Hill (EcoAnalysts).

#### Business

Larry opened the meeting by announcing that the next two meetings would be covering polychaetes (Aug 4 and Aug 18) and both would be held at LACNHM. There was continued discussion about the idea of Bight voucher collections review, and whether Bight'13 and earlier Bight survey vouchers should be considered. Such an endeavor would be a large undertaking, and perhaps a random subset of the vouchers could be considered, making sure that problem taxa are specifically selected. This effort should also include a review of new provisional taxa from Bight'13 work.



Larry asked for a list of newly erected provisional species and newly reported described species.

Dr. David Drumm tentatively offered to host a meeting on tanaids, perhaps as early as September.

We then passed around some old gorgonian specimens from Big John, with several of the gorgonians being pulled for Dr. Beth Horvath to review.

#### **Specimen review**

## Echiura

Specimens of *Listriolobus pelodes* were reviewed. EcoAnalysts had a specimen from 8m off Campus Point. This specimen, along with one from OCSD were reviewed and confirmed. Megan brought up the point that we have a very diverse array of external forms for *L. pelodes* ranging from translucent with easily viewed longitudinal muscle bands to opaque, papillated white forms. She feels there may even be another species of *Listriolobus* (possibly undescribed) but has yet to gather the mental fortitude to create a provisional species for the form that is white/opaque and papillated. It was good to be a little careful when entering new terrain like that offered by the randomized Bight surveys.

#### Nemertea

*Carinomella lactea* from CSD was examined and its musculature was indeterminate. Upon closer review, the specimen may have had just one layer of circular muscle sandwiched between longitudinal muscle layers, with the lateral nerve cord (LNC) embedded within the outer layer but a second layer could not be ruled out and it was left at Palaeonemertea. However, another specimen of *Carinomella lactea* from OCSD Station 1 (47m) was confirmed.

We then examined three specimens of *Zygeupolia rubens* brought by EcoAnalyst's Matt Hill; however, these were determined to be unidentifiable Palaeonemerteans.

A tubulanid from a 154m OCSD station was reviewed and confirmed as Tubulanus polymorphus.

# Sipunculida

Megan brought her specimen of *Nephasoma cf pellucidum* from an 87m Point Conception station. Dean Pasko found a similar specimen in one of his samples though in a much shallower habitat (Bight'13 Station 8033, 8.1m). The specimen may become a new provisional *Nephasoma* sp SD1 Lilly. It is characterized by a pair of saclike nephridia located near the anterior portion of the trunk; the introvert has rings of small hooks, a single row of 12–14 simple tentacles, small (not dark) papillae on the surface of the trunk. Both Megan and Dean independently keyed their specimens to *Nephasoma pellucidum* using Bruce Thompson's key to the Sipunculids (Thompson 1985) and Cutler 1994. However *N. pellucidum* is described as having uniformly distributed dark papillae that gave both Megan and Dean reason to pause. A provisional identification sheet is included in this Newsletter.

Megan had another specimen, this one from Channel Islands Harbor (Bight'13 station 8426, 4m), which was even more difficult to identify. Despite being large animals, there were no hooks or tentacles present making it impossible even to get to the proper Order, and was left as Sipuncula sp FID.

## 4 AUGUST 2014, BIGHT'13 POLYCHAETE FIDS, NHMLAC

Attendees: Bill Furlong, Larry Lovell, Brent Haggin (LACSD); Ricardo Martinez-Lara, Veronica Rodriquez, Ron Velarde (CSD); Kelvin Barwick, Rob Gamber, Ernie Ruckman (OCSD); Greg Lyon (CLA-EMD); Chip Barret (EcoAnalysts); Tony Phillips, Dean Pasko (DCE); Leslie Harris (NHMLAC).

#### Business

The business portion started with short introductions since there were one or two new members at the table. Larry announced that there would be another polychaete meeting in two weeks, which elicited some discussion about whether there would be enough material for another meeting so soon. Kelvin suggested moving the second polychaete meeting to September 22 instead of the August date. All in attendance approved that suggestion, and the meeting date was changed but the venue remained at the NHMLAC, Polychaete Collection room.

Another Misc Phyla meeting was scheduled for September 8 to continue FIDs from the July 28 meeting.

Larry announced that David Gillett (SCCWRP Chair of the Bight'13 Benthic Committee) has revised the due date for Bight'13 data submission to the end of September, with identifications being completed at the end of August. There will likely be a Bight Benthic Committee meeting in late September to address data, data submission, and scheduling of the various QA events.

Dr. Susan Kidwell of the University of Chicago will be out in September to pick-up grunge from Bight'13 samples. The QC of the grunge has been completed, with all but one or two samples meeting the QC criteria. There was renewed discussion of external sort QC as a Bight '18 recommendation.

Dean mentioned that although the newsletters from past Bight meetings have not yet been published, they have generally been compiled and are in various stages of review or production. Unfortunately, the two meeting per month schedule along with the Bight'13 taxonomic responsibilities, have slowed the process of newsletter production considerably. Dean offered that he would be happy to share the draft minutes of any meeting if taxonomists needed the information to supplement their own notes. Also, while there were a lot of provisional species disseminated at the last polychaete meeting, these will not be put on the SCAMIT website unless the authors specifically request that they be made public, acknowledging that most individuals intend these presentations to be for Bight'13 taxonomists and not for broader distribution until they receive more review.

Kelvin mentioned that Dr. Danny Tang of OCSD has asked for specimens of *Terebellides californica* (Polychaete: Trichobranchidae) infected with ecto-parasitic copepods. Kelvin and Danny found an interesting specimen among their Orange County survey samples that Danny believes may represent a new species. He would also be interested in seeing any polychaete-associated copepods found in the SCB. For those unfamiliar with these crustaceans Danny recommends Kim et al (2013).

#### Specimen review

Larry brought two species of orbiniid, *Scoloplos acmeceps* and *Leitoscoloplos* sp A, and noted that some *Leitoscoloplos pugettensis* records may be in question if people are not carefully looking for neuropodial spines. Small specimens of *Scoloplos* may have only a few inconspicuous



spines and might be mistaken for *Leitoscoloplos*. There is a difference in the ventral staining that should be considered. *Leitoscoloplos* sp A exhibits slight segmental MG banding and *S. acmeceps* does not. Branchiae start from setiger 9 (juveniles) – 13 in *Leitoscoloplos* sp A and from setigers 14–16 in *S. acmeceps*. Larry has been documenting the start of branchiae for the last couple of years for *Leitoscoloplos* specimens in harbors, bays, shelf, and slope depths and habitats. He finds that most specimens have branchiae starting from setigers 9–12, which he has been calling *Leitoscoloplos* sp A. He has seen only a very few specimens with branchiae beginning on setiger 13–15, which he has called *L. pugettensis*. There was some lively discussion about the utility of the flattened vs. rounded nature of the thorax of the two genera, *Leitoscoloplos* vs. *Scoloplos*, respectively. Kelvin dissented on the utility of this character and Tony and Leslie agreed with him since they've seen both shapes in both genera. Others thought that the shape of the thoracic segments could be used as a tool for rough sorting specimens into taxa lots.

Larry again took the opportunity to remind everyone to vial their Bight'13 cirratulids and oligochaetes separately; the same applies to *Photis* (Amphipoda: Photidae)

Leslie used Eusyllis habei and Aricidea (Allia) antennata to show the usefulness of Shirlastain-A, an orange dye used in the textile industry. Later in the day she demonstrated the dye's effect on cirratulids. As first noted by Mary Petersen, Shirlastain-A creates a light stain that works well for displaying surface structures of polychaetes. Shirlastain-A comes in liquid form, and a small amount can be pipetted into a petri dish for use. Leslie has experimented with a variety of uniformly white worms, mostly spionids, paraonids, orbiniids, Sphaerosyllis, etc., which can have hard-to-see appendages. It took only a few seconds in the Shirlastain for the worms to turn bright orange; the edges of the appendages (median antennae, branchiae, papillae, parapodial margins, etc.) became darker orange-brown and stood out from the main body. It worked incredibly well for detecting branchial scars, which is good news for cirratulid IDs! She also tried putting a few orange worms into methyl green, and they did show the correct methyl green stain patterns albeit darker and duller due to the blend of orange and green/blue. The color didn't last very long so it's not permanent and can even be used with type material. Like methyl green, you can add alcohol to dried Shirlastain-A in a dish to get a usable solution again. Leslie was given about 100 mL, which she believes will last her a lifetime. It may be useful with other animals as well. The dye is available in a 500 ml bottle for \$98 or \$160 for a gallon, and a little goes a long way. Those interested may contact Susan Miller, sales coordinator for SDL Atlas, LLC (email: smiller@ sdlatlas.com, telephone: 803-329-2110 extension 21). The order information is 200941 M030A Shirlastain-A: fiber identification stain.

#### OCSD

Kelvin showed pictures of a phyllodocid, *Nereiphylla* sp SD1 (= *Nereiphylla* sp 3 Harris). Leslie discussed the fact that this was not *N. castanea*, since the latter species does not appear to occur on this coast. *N. castanea* occurs off the Sea of Japan and has a brick red body and dorsal cirri that are large and touch dorsally. Tony mentioned that he has seen *Nereiphylla* sp SD1 as far north as Oxnard. *Nereiphylla ferruginea* Cmplx, also found in SCB samples, consists of several species that key out to *N. ferruginea* but differ in length of the tentacular cirri, pigment patterns, and shape of the dorsal and ventral cirri. True *N. ferruginea* have strikingly long tentacular cirri and are rarely seen in our samples. Leslie has recorded several undescribed *Nereiphylla* along this coast.

Kelvin also showed photos of the anterior section of *Rhynchospio arenicola* (Spionidae) and its hooks. The specimen was from Bight'13 station 9171, 16m.



Next was a capitellid from Bight'13 station 9133, 787m. It had six setigers with capillary setae. Kelvin initially called it *cf Heteromastus* sp. CSD has recorded *Heteromastus filobranchus*, as has OCSD, but this specimen was not the same. Leslie determined it to be *Neomediomastus glabrus*, which had not been reported by the monitoring programs previously. Descriptions can be found in Hartman, 1960 (as *Mediomastus*), Hartman, 1969 (as *Neomediomastus*), and the MMS Atlas (Blake 2000). We were then treated to images of what Kelvin called *Dipolydora ? bidentata*, with stout acicular spines in the posterior notopodial lobes. The images were so clear that Tony noted that the acicular spines appeared to have small nodules, a characteristic found in *D. barbilla*. The group confirmed the ID to be *D. barbilla* by comparison to the illustrations in the MMS Atlas (Blake 1996).

Kelvin then showed a picture of *Cossura pygodactylata* that was tentatively confirmed. The specimen came from Bight'13 station 9185, 145m. Larry mentioned that he and Tony have considered the possibility that *Cossura* sp A is actually *C. pygodactylata*, but had only recently found a few complete individuals for comparison. Their specimens come from San Francisco Bay, the type locality for *C. pygodactylata*.

#### DCE

Larry showed *Branchiomma* sp 1 Harris 2009 (Sabellidae) from SD Bay samples, which has paired external stylodes on the radioles. This was initially found in LA/LB harbors by both Tony and Leslie, then later again in San Diego Harbor by Leslie. In San Diego they co-occurred with the Caribbean species Lumbrineris perkinsi Carrera-Parra, leading to the suspicion it might also be Caribbean in origin. They have colorful bodies (like species of *Bispira*). Leslie then discussed two recent papers on *Branchiomma*, which disagree on the importance of stylodes as a species character. Tovar-Hernandez and Knight-Jones (2006) considered stylode shape and size important along with proportion of crown to body size, proportion of dorsal lips to crown length, and details of the thoracic uncini. In contrast, Capa et al (2013) found that stylode shape and size along with other morphological characters showed great intraspecific variability and species identification based purely on morphology was "elusive". The latter paper recommended the use of molecular markers to confirm identifications. Based on that, our new Branchiomma will have to remain an unknown provisional for now. Leslie added to the discussion with pictures of *Branchiomma* sp B Harris (cover image) from the Caribbean that she originally thought could be the similar to the specimen Larry brought. They turned out to be different however, and considering the findings of Capa et al (2013) our specimens will remain as Branchiomma sp 1.

Leslie then showed her illustrations of *Megalomma coloratum* (Chamberlin 1919). The species has been underreported from the SCB, but Larry had recently found specimens in the LACSD collection that had been misidentified as either *M. pigmentum* or *Megalomma* sp. The brown coloration around the prostomium and yellow band on setiger 3 are distinctive. It is not usually found in soft bottom samples; Leslie has collected it in SCB intertidal and fouling surveys.

Larry brought an odd *Polydora* sp from the Regional Harbor Monitoring Program (RHMP) for review. The modified setae are bifid, simple superior and inferior spines; it has an occipital antenna, large falcate spines in the posterior notopodia, and a distinctly cupped pygidium. Leslie had previously identified similar specimens as *Polydora hoplura* Claparede, 1870. It matches published descriptions of *P. hoplura* as well as those on the web at:

http://www0.sun.ac.za/polychaete/index.php/genera-key/25-p-hoplura/16-p-hoplura

http://www.annelida.net/nz/Polychaeta/Family/Spionidae/polydora-hoplura.htm.



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Larry then showed some Euclymeninae specimens from San Diego Bay and the RHMP survey, that may have been reported previously as *Petaloclymene pacifica*. These specimens have different staining on the ventrum of setiger 8 (a double stain rather than the single thick band found in *P. pacifica*), and darkly staining setigers 2 and 3 like *P. pacifica*. However, they also have pores just behind the setae of setigers 7, 8, and 9. After some review, we decided to call it *Petaloclymene* sp DC1. We then reviewed the *P. pacifica* SCAMIT voucher sheet with photos and contrasted the two taxa.

The group also reviewed some other specimens of *Praxilella pacifica* for confirmation of differences noted above.

# LACSD

Bill and Leslie reviewed a scaleworm that he had called *Eucranta cf anoculata*. [He had shared this information on the SCAMIT list-server earlier this year]. Bill had corresponded with Ruth Barnich regarding her paper (Barnich et al 2012) for confirmation. This same species has been reported from CSD and OCSD. Ron reviewed the specimen in order to confirm that they were indeed seeing the same species in San Diego. Leslie brought out a museum specimen which was in poor condition but still useful especially for setal comparison. We were able to confirm Bill's specimen as *E. anoculata*. Larry also shared specimens of *Mediomastus* sp 6 Harris 2009. These specimens were not from the Bight'13 survey, but from 6m of water off the Chevron El Segundo outfall in Los Angeles. A sheet for this species was distributed in February 2013. It is much more robust than other *Mediomastus* found in the SCB. It is distinguished by having a pale band on setiger 1 (and/or setiger 2), along with a dark staining triangular patch dorsally on the prostomium, and banding of the anterior margins of the abdominal setigers immediately following the thorax.

Larry had a deep-water cossurid (660m) that he could not match to any of our common species. The specimen stained with dark dorsal and ventral "shoulders" just behind the setal lobes of the anterior setigers, but this breaks up after setiger 8. Oral papillae were present. Leslie brought out her drawings of the methyl green stain pattern of *Cossura rostrata* Fauchald 1972 taken from the holotype, and through further examination of the specimen, they resolved that Larry's specimen was indeed *C. rostrata*, and we had yet another addition to the SCAMIT Species List.

# CSD

Ron then directed the discussion to the nereid, *Ceratocephale hartmanae* (vs. *C. lovenia*). The specimen came from a 750m Bight station. Hilbig (1994) synomized *C. hartmanae* with *C. lovenia*, a Scandinavian species. However, Leslie disagrees with this synonymy based on specimens she collected in Tjarno, Sweden. Leslie suspects that like many other Scandinavian species reported locally, *C. loveni* isn't really here and the synonymy will eventually be rejected.

Kelvin asked what references Leslie would refer to when problem solving nereids from offshore in addition to the MMS Atlas chapter. Leslie suggested going back to basics with Hartman's Atlas, and if nothing matches then checking Imajima's publications.

Larry also shared a specimen that he had brought for Ron's review, something he tentatively called *Typosyllis*. This turned out to be what Leslie has been calling *Branchiosyllis exilis* Cmplx. Leslie has tried to resolve the identification but has found numerous inconsistencies in published descriptions of *B. exilis* concerning pigmentation, setae, number of articles in antennae and cirri, etc., and prefers to leave it as a complex for now. *Branchiosyllis* is easily distinguished from *Typosyllis* by the presence of recurved hooked setal blades in either all setigers or just



in the posterior. Leslie found the first NEP specimens in dock fouling on the Chula Vista boat ramp during an introduced species survey in 2000. Tony also reported finding specimens of *Branchiosyllis* from ABLM samples taken in San Diego Bay. Ron mentioned that this genus is covered nicely in the Gulf of Mexico Series (Uebelacker and Johnson, 1984).

After a full day, we reminded everyone of the earlier decision to postpone the next Polychaete meeting until September 22 to give everyone more time to complete their Bight samples and bring together their voucher and FID specimens.

#### BIBLIOGRAPHY

#### **Crustacean References**:

Kim, I.-H., Sikorski, A., O'Reilly, M. and G. A. Boxshall. 2013. Copepods associated with polychaete worms in European seas. Zootaxa, 3651: 1-62.

#### **Echinoderm References**

- D'yakonov, A.M. 1966. Class Ophiuroidea. In *Atlas of the Invertebrates of the Far Eastern Seas of the USSR*, edited by E.N. Pavovskii. Jerusalem: Isreal Program for Scientific Translations.
- Hendler, G. 1996. Class Ophiuroidea. *In* Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel, Vol. 14: Miscellaneous Taxa, Chpt 7, Pp. 113 – 179. (J. A. Blake, P. H. Scott and A. Lissner, Eds), Santa Barbara Museum of Natural History, Santa Barbara, California.
- Lambert, P. and W.C. Austin. 2007. Brittle Stars, sea urchins, and feather stars of British Columbia, Southeast Alaska, and Puget Sound. Royal BC Museum Handbook. 150 pp.

#### **Miscellaneous Phyla References**

- Cutler, Edward B. 1994. The Sipuncula. Their Systematics, Biology, and Evolution. Cornell University Press. 453 pp.
- Thompson, B. 1985. A preliminary, Artificial Key to the Sipunculans of Southern California. Sipunculida. *In* Allan Hancock Technical Report 3: Southern California Marine Invertebrates.

#### **Polychaete References**

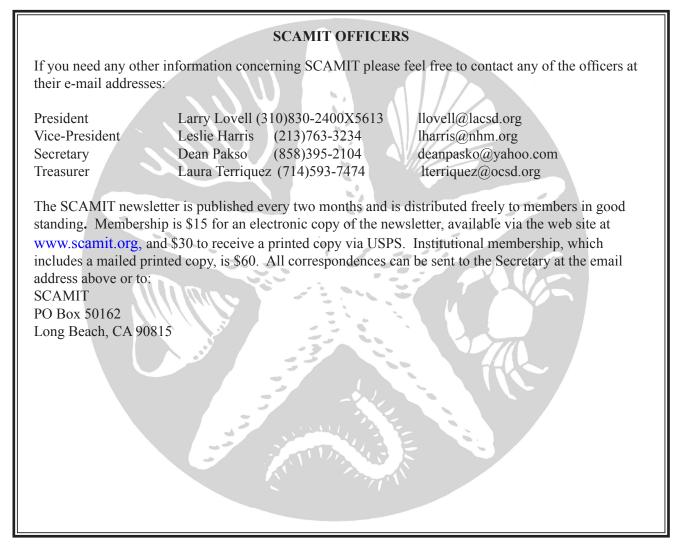
- Barnich, R., J. M. Orensanz, D. Fiege. 2012. Remarks on some scale worms (Polychaeta, Polynoidae) from the southwest Atlantic with notes on the genus *Eucranta* Malmgren, 1866, and description of a new *Harmothoe* species. Marine Biodiversity. 42: 395-410.
- Blake, J.A. 1996. Family Spionidae Grube, 1850. Including a review of the genera and species from California and a revision of the genus *Polydora* Bosc, 1802. *In* Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel, Vol. 6: The Annelida, Part 3: Polychaeta: Orbiniidae to Cossuridae (J. A. Blake, B Hilbig, and P. H. Scott, Eds.), Santa Barbara Museum of Natural History, Santa Barbara, California.



- Blake, J.A. 2000. Family Captellidae Grube, 1862. *In* Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basin and Western Santa Barbara Channel, Vol. 7: The Annelida, Part 4: Polychaeta: Flabelligeridae to Sternaspidae (J. A. Blake, B Hilbig, and P. Valentich Scott, Eds.), Santa Barbara Museum of Natural History, Santa Barbara, California.
- Capa, M., Pons, J., Hutchings, P. 2013. Cryptic diversity, intraspecific phenetic plasticity and recent geographical translocations in *Branchiomma* (Sabellidae, Annelida). Zoologica Scripta 42(6): 637-655.
- Hartman, O. 1960. Systematic account of some marine invertebrate animals from the deep basins off southern California. Allan Hancock Pacific Expeditions, 22(2): 69-176.
- Hartman, 0. 1969. Atlas of the Sedentariate Polychaetous Annelids from California. University of Southern California, Los Angeles, CA.
- Hilbig, B. 1994. Family Nereididae Johnston, 1845. *In* Taxonomic Atlas of the Benthic Fauna of the Santa Maria Basina and Western Santa Barbara Channel, vol. 4: the Annelida, Part 1: Oligochaeta and Polychaeta: Phyllodocida (Phyllodocidae to Paralacydoniidae). Pp. 301-328. (J. A. Blake, B. Hilbig, Eds.), Santa Barbara Museum of Natural History, Santa Barbara, California.
- Tomioka, S., E. Nishi and H. Kajihara 2014. Two new species of *Mediomastus* (Annelida, Capitellidae) from Tokyo Bay, Japan. ZooKeys 422: 115–126.
- Tovar-Hernandez, M.A., Knight-Jones, P. 2006. Species of *Branchiomma* (Polychaeta: Sabellidae) from the Caribbean Sea and Pacific coast of Panama. Zootaxa 1189: 1-37.
- Uebelacker, J. M. and P. G. Johnson. 1984. Taxonomic Guide to the Polychaetes of the Northern Gulf of Mexico. Volume IV. A final report by Barry A. Vittor & Associates for the U.S. Department of the Interior, Minerals Management Service Gulf of Mexico OCS Region, Metairie, LA.



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# Nephasoma sp SD 1

To date *Nephasoma* sp SD 1 has been collected at two stations during the Bight'13 survey. Two specimens identified by M. Lilly were sampled at B'13 station 9474 (MPA near Pt. Conception), 23 September 2013, 89 m. And three specimens, identified by D. Pasko, were collected at B'13 station 8033 (Regional Harbor Monitoring Program), 28 August 2013, 8.1 m.

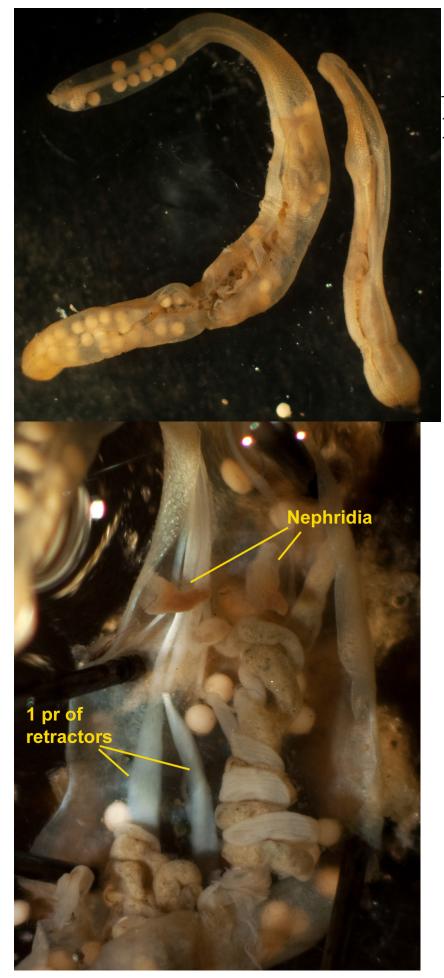
The characters described below are a compilation of notes and observations from both M. Lilly and D. Pasko:

- Approximately 12 rows of hooks are present on the introvert; arranged in rings
- 1 pair of retractor muscles located near nephridia
- no microvilli on contractile vessel
- approximately 12-14 simple tentacles
- body basically smooth but with little bumps/papillae (?) present on the neck and posterior
- 1 pair of elongate nephridia in line with position of anus or just slightly anterior
- introvert short, about 1/3 of the trunk
- without muscle bands

Dean and Megan both noted the animal's similarity to *N. pellucidus*. However, *pellucidus* is described as having "large dark uniformly distributed papillae" which gave us pause. The bumps/ papillae on these animals are small and clear/pale and are distributed mainly on the neck and posterior portion of the trunk.



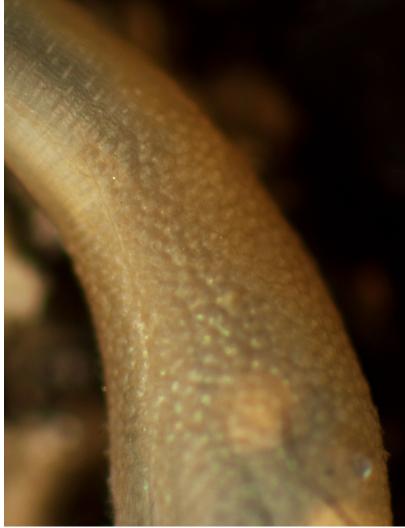
# Nephasoma sp SD 1



The larger animal is approximately 19 mm and the smaller animal is 10 mm in length.



Rows of hooks on the introvert arranged



Bumps/Papillae (?) are present but are rather small and clear. Not sure if this is a preservation artifact.

