

**SOUTHERN
CALIFORNIA
ASSOCIATION OF
MARINE
INVERTEBRATE
TAXONOMISTS**



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SCAMIT Newsletter

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Anterior ventral view of *Pista wui*

Arrows indicate the original location of the uncini pictured on the left

Photos by K. Barwick, OCS D

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

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(JULY 2018 – NO MEETING)**20 AUGUST 2018, Terebellidae Part II, L. Harris, NHMLAC**

Attendance: Leslie Harris, NHMLAC; Erin Oderlin, Greg Lyon, Jennifer Smolenski, CLAEMD; Ron Velarde, Ricardo Martinez, Veronica Rodriguez -Villanueva, Adam Webb, Gabriel Rodriguez, CSD; Diane O’Donohue, SFPUC; Alturo Alvarez-Avilar, UABC, Baja California; Christine Boren, Norbert Lee, Brent Haggin, LACSD; Kelvin Barwick, OCSO; Angelica Zavala Lopez, MTS; Tony Phillips, Larry Lovell, DCE; Nenibarini Zabbey, Uniport, Nigeria.

UPCOMING MEETINGS

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

The business meeting began with upcoming meeting announcements. After meetings were discussed the passing of Don Reish was brought up. There will be a large public memorial in mid-September (2018) and the next IPC will be held in Long Beach, hosted by CSULB, in honor and remembrance of Dr. Reish.

Erin then had the floor and asked that members please get their dues in through one of SCAMIT’s now many forms of payment options.

Next Brent Haggin let everyone know that the keys from the Orbiniidae meeting have been completed and will be distributed. {Ed. note: If you would like to receive a copy of Brent’s key, please contact him at: BHaggin@lacsdo.org}

With that it was time for the taxonomy portion of the meeting. Ricardo opened by giving an overview of his attendance at the SylPoly meeting in Costa Rica. He thought the meeting was very nice and student orientated. At the conference, Allan Carillo and his colleague disputed the claim they made at the previous meeting about cladistics relationships within the Family Serpulidae using ecological and evolutionary evidence. Leslie let everyone know that the next SylPoly meeting will be at a field station in the fjords of Chile.

The first animal to be discussed was *Harmothoe hirsuta* (Family Polynoidae). There are at least two different *Harmothoe* species in the NEP whose elytra have polygonal divisions, macrotubercles with branched spinose tips, and hirsute antennae and cirri. One, encountered occasionally in grabs and rock dredge hauls, has been identified as *H. hirsuta*. The other is rarely collected and has been left as a provisional species. It turns out that *H. hirsuta* (NEP identifiers) as seen in Ruff (1995) is undescribed and the provisional species is actually *H. hirsuta*. Leslie explained that Johnson describes the true *H. hirsuta* in his paper with a drawing of its elytra, however, he includes the other form (which we have been calling *H. hirsuta* as well) in the syntype material at the museum. Leslie is unsure which individual Ruff used to draw his version of *H. hirsuta* (which should be considered a new species now).

There may actually be more than 2 species. Our common “*hirsuta*” (now a provisional) has smaller tubercles along the margin and the larger ones are more inside. The form illustrated by Ruff has the largest ones on the margin, with the tubercles decreasing in size towards the



middle. Johnson's drawing of the macrotubercle shows distinctly branched tips while the animals collected by Tony have short spinose tips. Please collect specimens so we can resolve whether these differences are inter-specific (4 species) or intra-specific (2 species).

Leslie suggested that we should keep calling the one with the marginal tubercles *H. hirsuta* and call the other one (the one with the "hairy tubercles") *Harmothoe* sp C Harris.

Kelvin then stated that we needed a formal SCAMIT description and provisional voucher sheet before we could start calling the other form *Harmothoe* sp C. After some discussion the room voted on the voucher sheet requirement prior to using the provisional name. The vote was split 50/50, so Kelvin, as SCAMIT President, ruled that a voucher sheet needed to be created.

We then heard from Nenibarini Zabbey, a guest researcher staying with Leslie. Nenibarini works in the Gulf of Guinea, Nigera, for 3 watersheds that form the Niger Delta River system which contains 22 estuaries. The Niger Delta has the 4th largest mangrove habitat in the world. Neni has had experience working in estuarine benthic ecology, environmental justice, wetland restoration ecology, and now polychaete taxonomy. His PhD work was on the study of sites before and after an oil spill in the mangrove system. The spill killed a majority of the mangrove habitat leaving only 27% of the original system viable.

The oil companies operate differently in West Africa than in Europe and N. America. They are supposed to respond and contain a spill within 24 hours, but no one attended the spill for 72 days, and while they were waiting, another spill occurred which took 19 days before it received attention. Shell Corporation investigated but stated that the spill was due to 3rd party interference, and therefore they were not financially responsible for all the damages the communities suffered. For 4 years, volunteering on behalf of Amnesty International, he fought on behalf of his community against the Shell Corporation demanding that they be held responsible for the spill. With some smart litigation techniques, Shell decided to settle out of court so as to not set legal precedence for further lawsuits and awarded the community 88 million dollars as well as assumed clean up and mitigation responsibilities. Currently, they are in the 2nd phase of restoration.

Dr. Zabbey now focuses on research and teaching on wetland and mangrove restoration. Seventy percent of the macrobenthic community is comprised of polychaetes, however there are no polychaete taxonomists that specialize in Nigerian communities. He applied, and was awarded, a British Ecological Society Grant to study "Polychaete diversity of varied health/integrity habitats in different reaches of Bonny Estuary, Niger Delta".

After Nenibarini's talk it was time to move on to, Terebellidae Part 2: Terebellinae, led by Leslie. The day was spent going through Leslie's slide show, which has yet to be published on the SCAMIT website. Below are some notes on characters and species discussed.

Some of the defining characters for Terebellinae are:

- Tubiculous
- Lack expanded tentacular membrane
- Have well developed ventral pads
- Uncini are avicular or pectinate; in double rows for some chaetigers



Species discussion:

Amphitritinae sp SD1 CSD 1999 should now be called *Terebellinae* sp SD1

Artacama spp have distinct round neuropodia with embedded uncini in abdomen

Eupolymnia spp have narrowly winged/smooth notochaetae and face-to-face uncini (interlaced or “zippered”)

- *Eupolymnia heterobranchia* (syn: *E. crescentis* Chamberlin 1919 in Hartman 1969)

Lanassa spp are abbranchiate, lateral lappets are inconspicuous, and have notochaetae of 1 kind: smooth to finely serrate

Lanice spp have 3 pairs of arborescent branchiae, notochaetae are distally smooth and uncini are avicular that interlock back-to-back

Laphania spp are abbranchiate, have no lateral lappets, have a narrow ring-like collar on segment 2 encircling the body, and a glandular patch on anterior thoracic dorsum

Loimia spp have 3 pairs of branchiae and uncini are pectinate

Neoamphitrite spp have up to 40+ thoracic chaetigers, uncini in double rows from segment 11 to end of thorax (avicular), and notochaetae are limbate and distally serrated

Neoleprea spp have 2 pairs of arborescent branchiae, no lateral lappets, 2 types of notochaetae, nephridial papillae on segments 3, 6-23. *Neoleprea* spp of the NEP are poorly described. To separate these taxa, look for the number of chaetigers with double rows of uncini and number of notochaetigers

Nicolea spp have 3 pairs of nephridial papillae on segments 3, 6-7 which are long in males and short in females on 6-7. Smooth-tipped notosetae present from segment 4 and uncini are arranged beak to beak in posterior thoracic segments. *Nicolea* spp are the dominant terebellid in Southern California harbor/dock fouling communities

Phisidia spp are abbranchiate, have no lateral lappets, and 2 kinds of notochaetae (both subdistally serrated limbate capillaries): 1) long with short broad edges and 2) short, stout geniculate

Proclea spp are abbranchiate, do have lateral lappets, and have 2 kinds of chaetae in anterior thorax (shape changes in posterior thorax)

Scionella spp have 1 pair of branchiae on segment 4, 4 large, flared lateral lappets (last pair with continuous dorsal flange), and 2 kinds of notochaetae: smooth limbate and curved serrate

Scionides dux Chamberlin 1919 is now *Neoamphitrite robusta*. Synonymized by Banse 1980, but was apparently not recorded by Fauchald and does not appear in WoRMS

Spinosphaera spp have eyespots in 2 groups, long and short notochaetae “spinosphaera-style” with 3 regions: 1) distal 2) median swollen region 3) proximal region smooth or bilimbate

- *Spinosphaera harrisae* (syn: *Spinosphaera* sp SD1)



Leslie reviewed the character differences between *Pista* spp and *Betapista* spp. She feels that our *Pista* spp fall into groups and does not propose any changes to the SCAMIT list at this time. The proposed groups are:

Primary Group:

Pista cristata sensu stricto, the “classic *cristata*”. 2 pairs of branchiae, 3 pairs of nephridia, anterior uncini with well-developed crests. Most local species fall into this group.

Subgroup - Species with lateral lappets on segments 2-6 or 2-7

Including:

Pista agassizi (synonym: *Pista n. sp. 1*)

Pista “*brevibranchiata*” morphs

Pista brevibranchiata

Pista cristata (From Norway, probably not in NEP)

Pista sp E Harris 2013

Leslie then discussed the differences in lateral lappets and the transverse membrane between *Pista brevibranchiata*, *P. agassizi*, and *Pista* sp E.

Subgroup - Species with lateral lappets on segments 2-4

Including:

Pista alata

Pista disjuncta

Pista wui (synonym: *Pista* sp beta Lovell 2006)

Pista sp SF1

Subgroup - Represented by *Pista elongata*. 3 pairs of branchiae starting on segment 2, multiple pairs of nephridia, and distinctive large anterior uncini with reduced crests.

Including:

Pista moorei

Pista pacifica

Betapista dekkeriae

Subgroup - Single pair of branchiae and reduced lateral lappets

Including:

Pista estevanica (NEP) and *P. bansei* (Arctic). These have been placed in the genus *Pistella* Hartmann-Schroder by some authors but *Pistella* sensu stricto has only short-handled uncini whereas *P. estevanica* has long-handled anterior uncini.

And with that Leslie concluded her thorough presentation with the comment - “I did not include many of my provisionals”.



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Please visit the SCAMIT Website at: www.scamit.org

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