SOUTHERN CALIFORNIA ASSOCIATION OF MARINE INVERTEBRATE TAXONOMISTS

November 1983 Vol. 2, No. 8

Next Meeting: December 12, 1983

Place: Marine Biological Consultants

947 Newhall Street

Costa Mesa, CA 92627

Specimen Exchange Group: Ophiuroidea

Topic Taxonomic Group: Thyasiridae, Ungulinidae, Leptonidae, Montacutidae, and Kellidae

MINUTES FROM NOVEMBER 14, 1983

Anemone Workshop: The anemone workshop has been rescheduled. It will now be held on December 19, 1983 at 10:00 a.m. at the Cabrillo Beach Marine Museum. The meeting was originally scheduled for November 21, 1983.

Nudibranchs: Don Cadier mentioned that Malacologia Vol. 24 (1 & 2) contains a good bibliography key to the California species of nudibranchs with radula illustrations. This is an expanded version of the key in Light's Manual.

SCAMIT Baseball Caps: Baseball caps with a SCAMIT patch will soon be available (hopefully before Christmas), thanks to the generosity of Dave Montagne who is providing the funds for the venture.

SCAMIT Publication: We have received a copy of Jack Word's ophiuroid key for review. John Ljubenkov and John Dorsey will act as editors for this, our first effort.

Video System Rental: The SCAMIT video system has been rented to the City of San Diego for an "in-house" amphipod workshop. The price agreed to was $30.00 per day.

Sorting Dishes: Contact Susan Hamilton (Point Loma Lab) if you are interested in purchasing sorting trays similar to those used in Dr. Reish's lab. These, however, would be deeper and have a glass base to minimize scratching and to allow base illumination. Call Susan at 619/225-9363.

Identification Worksheets: Please bring to the next meeting or send to Susan Hamilton a copy of the worksheets used by your lab in the identification process.
Contaminating Organisms: What to do when pelagic organisms end up in your benthic sample (e.g., chaetognaths, copepods, pelagic fish) was discussed. Generally, a note is made on the worksheet indicating their presence but they are omitted from the data stream.

Helpful Hints: While working with juvenile Diopatra sp. John Shisko noticed that those without peristomial cirri also lacked pectinate setae. This is helpful in distinguishing juvenile Diopatra sp. from Epidiopatra sp.

Methyl green staining can be used to distinguish Axiothella rubrocincta from Praxillella complex when only anterior fragments are available.

List of November 14, 1983 Topic Specimens:

<table>
<thead>
<tr>
<th>SCCWRP 29, LACO 13 *</th>
<th>Macoma acolasta or voldiformis</th>
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</thead>
<tbody>
<tr>
<td>OC 31 Macoma sp. (juvenile)</td>
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<tr>
<td>PL 32 Tellina idae</td>
<td></td>
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<tr>
<td>SCCWRP 28 *Macoma ?carlottensis</td>
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<tr>
<td>LACO 17, OC30, PL 31 Tellina carpenteri</td>
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Reminder: Christmas is getting close. SCAMIT T-shirts and mugs are great gifts—especially for those who have everything!

REELS WITH OLGA:

Los Angeles, 15 April 1939

Dear Albert:--------Tomorrow, if plans materialize, I may take a run to Lost Hills to see Frieda and Chauncey. This is the season for the wild flowers in the deserts and valleys of southern California, and there are reputedly many cress (or as it square miles?), under blankets of brilliant blooms.----Since generally work at least until Saturday noon, I shall not leave here until then, and may stop enroute to take as many plankton tows as the watering places permit, before proceeding on to the Belridge area, where Frieda's home is located.---Visitors from England, Van der Horst by name (a good dutch name) oth are typical Englishmen. They had just arrived from Cuba, the Everglades n Fl., across New Orleans, Texas, Tuscan, etc., to San Diego, and were most enthusiastic about American, but like all Europeans found it extraordinarily large.---- I believe the Indians attracted them most of all. They have had first had encounter with the Seminoles, the Hopi and Navajos.---Almost everywhere they go they collect lizards, or reptiles of some sort----. News from the elecro (foundation's ship): They stopped off to visit the white Indians of arien, a curious race of Indians that are practically albinos. Whence they come, o one seems to know, and they have baffled the best of the ethnologists. Both en and women are very reticent, usually fleeing upon the approach of strangers, ut our boys have been successful in learning a good many interesting things bout them. The men go naked, but the women wear beautiful adornments, in some instances. They are much attracted by the most casual, and gaudy articles of our 5 and 10 cent stores, and will sometimes exchange the most unique rticles for mere trash. ----

will have deplorably little time remaining before I set sail for my tre an enture, yet the anticipations of that trip are, in themselves laden with
possibilities. I have received, only a few days ago, a recent bulletin from the American Association of University Women (the organization sponsoring my fellowship), and I find in the list of 10 people who were granted the fellowships, only one zoologist (myself), listed with poets, philosophers, mathematicians, astronomers, etc., etc. The Dorothy Davis from E. St. Louis is an astronomer. Five of the ten have had work at the Uni. Calif. at Berkeley, but all of them have had a very diversified scholastic career. One is from Trondhjem Norway, another from Sao Paulo, Brazil.

Los Angeles, 22 April 1939

Dear Folks: Most of my time these days is concentrated on requirements of the coming year. The most important thing is that I have completed an accurate data on the problems that are to be done. These alone are very extensive, and many of them may remain unanswered. Our newspaper accounts of the European situation are none too rosy, but many people who have had first hand information claim that it is largely screaming American headlines, and that we tend to magnimize the situation. I asked the travel bureau what arrangement might be made if I had to have a ticket refunded, and they are willing to refund it entirely. Hence, I was much relieved.

My passport has come through without any difficulty, and it is now being vised by the various foreign ministers in Los Angeles, to permit entrance to European countries. At present, this is required only of England, France and Germany. With these permits, one may enter almost any of the other countries, save Rumania, and a few of the Balkan states. Since these vises are expensive, that is a great help. Perhaps I have already told you that I am going on a Scandinavian line, the Knudsen, via the "Elisabeth Bakke", leaving here June 1st. The passenger list is small, only 12, limited by the space available on the ship, but selected by virtue of the numerous requests to go on these boats. Expect to be nearly a month on the water, and shall have opportunity to stop, possibly in Panama, Glasgow, Liverpool, and must go to London overland from Manchester. Monro, of the British Museum, with whom I shall be working, said that no one in his right mind ever goes to Manchester except to get money. It must be a rather disagreeable city, if it is so advertised by an Englishman. Yet, this whole trip seems more or less like a dream, and I am not yet able to visualize it. I know that it is going to be a lot of hard work, and perhaps quite strenuous, however, it should be decidedly worth while, and I certainly appreciate the opportunity tremendously.
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SCAMIT MUGS

One mug  $ 6.00 [ ]  Shipping  $ .50
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Set of 6  33.00 [ ]  Shipping  1.50

TOTAL ENCLOSED:$ ________________________________

MAIL TO: Ann Martin
       10844 Ellis Avenue
       Fountain Valley, CA 92708
Tellina idae Dall 1891

Tellinidae

Vol. 2 No. 8

Voucher #PL 32 November 14, 1983

Literature Citation: Dall, 1891: pp 183-185, 191; plate 6, figure 3, plate 7, figures 1, 4.

Primary Diagnostic Characters: Medium-sized (to 60mm); elongate; flattened; thin; approximately equilateral; rounded anteriorly; pointed posteriorly, with a strong fold and escutcheon; sculpture of well-spaced concentric lamellae; white inside and outside. (Coan, 1971)

Figure 3
Tellina idae, internal view of valves
from Coan 1971

from Abbott 1974
Tellina idae

Dall 1891

Pertinent Literature:

   Coan, 1971: pp. 11-12; plate 2, figure 6

Depth Range: 0-91m

Distribution:

Burch 1945, Santa Barbara Island and San Pedro, California.
Abbott 1974, Santa Monica to Newport Bay, California.
McLean 1969, Santa Barbara to San Diego, California.

Ecology:

Bottom type: sandy sediment, usually in protected bays and offshore; moderately common.
Tellina carpenteri  
Tellinidae  
Dall, 1900  
Vol. 2 No. 8

Voucher #PL 31  
November 14, 1983

Literature Citation:  Dall 1900a 303,320.

Synonomy:  
Angulus variegatus Carpenter, 1864  
Tellina arenica Hertlein and Strong, 1949

Primary Diagnostic Characters:  
Small (to 20mm); elongate, more so than in Tellina modesta; moderately inflated, somewhat more so than in T. modesta; almost equilateral to longer anteriorly; rounded anteriorly; characterized by its pink color with some specimens showing white rays.

Variability:  
This species may have two forms in southern California, a large, flat, light-colored, offshore one and a smaller, more inflated, more brightly colored one in bays (Coan, 1971).

Figure 6
Tellina carpenteri, internal view of valves
from Coan 1971
Pertinent Literature:

I. Oldroyd, 1925: pg. 166; plate 29, figure 2, plate 44, figures 10a, 10b.
Keen, 1958b: pp. 170-171; figure 393

Depth Range: 0-441 m

Distribution:

Burch 1945, Forrester Island, Alaska to Panama.
Abbott 1974, Forrester Island, Alaska to California.
McLean 1969, Ketchican, Alaska, to Panama.

Ecology:

Various sediment type from mud to sand, usually in protected, bays and offshore, very abundant.
Tellina bodegensis  Hinds, 1845
Tellinidae

Voucher #  November 14, 1983
Literature Citation:  Hinds, 1845: pg 67; plate 21, figure 2

Synonomy:  Tellina santarosae  Dall, 1900

Primary Diagnostic Characters:  Medium-sized (to 60mm), elongate; flattened; adults thick; longer, rounded anteriorly; pointed, slightly truncate posteriorly; sculpture of heavy, closely spaced concentric ribs; white, sometimes with a slight yellow or pink hue internally (Coan, 1971).

Variability:  Southern specimens of this species differ, on an average, from northern material, generally flatter shape, thinner shell, and minor sculptural differences (Burch, 1945a).

from Fitch 1953

Figure 2
Tellina bodegensis, internal view of valves
from Coan 1971
Tellina bodgensis
Hind 1845

Pertinent Literature:
I. Oldroyd, 1925: pg. 168; plate 44, figure 5.
Keen, 1966b: pg. 267
Coan, 1971: pp. 10-11, plate 1, figures 4, 5

Depth Range: 0-96m

Distribution:
Burch 1945, Queen Charlotte Island, B.C. to Gulf of California. Japan?
Abbott 1974, Graham Island, British Columbia, to the Gulf of California.
Fitch 1953, Queen Charlotte Island, B.C. to Cape San Lucas, Baja California

Ecology:
Bottom type: sandy sediment on exposed beaches, moderately common
Tellina modesta  
Tellinidae  
(Carpenter, 1864) 

Voucher #  November 14, 1983

Literature Citation: Carpenter, 1864a: 602, 639, 681

Synonomy:  Tellina buttoni Dall, 1900  
Angulus modestus obtusus Carpenter, 1864  
Angulus modestus Carpenter, 1864

Primary Diagnostic Characters: Small (to 20mm); elongate, moderately inflated; longer, rounded anteriorly; pointed, fairly truncate posteriorly, unworn shells smooth, shiny; with an internal radial strengthening rib; white externally and internally (Coan, 1971)

Figure 7  
Tellina modesta, internal view of valves  
from Coan 1971

from Abbott 1974

P. Chang
Tellina modesta  (Carpenter, 1864)

Pertinent Literature:
Oldroyd, 1924: pp. 51-52, 214; plate 41, figures 7a, 7b
I. Oldroyd, 1925: pp. 167-168; plate 44, figures 7a, 7b
Coan, 1971: pp. 16-17; plate 3, figures 14, 15, 16

Depth Range: 0-91m

Distribution:
Burch 1945, Vancouver Island to lower California
Abbott 1974, Alaska to the Gulf of California
McLean 1969, Alaska to San Bartolome Bay, central Baja California

Ecology:
Bottom type: silty-sand to sandy sediment in protected, bays and offshore; common.
contain lower clay content (<2% by mass) than troughs (>5% by mass) so that there is no direct relationship between the amount of clay and the amount of trace metal present on the inner shelf for winter or summer samples. One possible explanation is that the clay content of crestal sediments is predominantly a modern deposit of Delaware Bay-derived clays with their associated pollutant metals. Clays in troughs, however, consist not only of modern clays (and their trace metals originating from Delaware Bay), but also may include older, exposed, underlying clay deposits (Swift et al., 1977) and/or clays from offshore sources—both of which may contain very low trace metal content.

In addition to completing analysis of grab samples south and west of Cape May Point, studies in progress are investigating trace metal content with increasing depth in core samples taken from troughs and ridges in the area.

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References


Region-Wide Taxonomic Inter-Calibration Program Underway In California

The first monthly regional meeting of the Southern California Association of Marine Invertebrate Taxonomists (SCAMIT) was held in May at Marine Biological Consultants, Inc., Costa Mesa, Ca. The new organization was formed to act as a vehicle for southern California marine biologists to work together to resolve common taxonomic problems arising from the region's myriad marine monitoring programs. The aim of SCAMIT is to produce a regionally inter-calibrated list of southern California marine invertebrate species an inter-calibrated museum collection. To date (September, 1982) membership includes over 40 biologists representing at least 14 public agencies, utilities, private consulting companies, universities and museums.

The need for regional taxonomy inter-calibration efforts is clear to anyone involved in assessing and comparing the effects of pollution on marine invertebrate communities, especially infaunal benthic communities which can produce individual survey lists totaling several hundred species.

The task of accomplishing the goal is not easy considering the thousands of species encountered in southern California. Meetings are held on a monthly basis, each meeting dealing with a different taxonomic group. Specimens are exchanged at the meetings so that participating members can examine them individually in a practicum manner. Then each species is discussed by the participants to identify and resolve any differences in species identification that may have occurred.

The specimen exchange is supported with guest speakers and a literature exchange. The results of the meetings are published in a monthly newsletter that is distributed to all members of SCAMIT.

To date the approach using a specimen exchange has proven to be an excellent way of resolving regional taxonomic problems. Also, the inter-calibrated museum collection has been started from the species that have already been discussed. Each entry in the museum is accompanied by a voucher sheet that details the characteristics of that species as well as comments on pertinent literature, common synonyms, and similar occurring species.

SCAMIT replaces and revises an earlier regional effort, the Taxonomic Standardization Program that resulted in provisional guides to the region's invertebrate fauna (Ward, 1977). More importantly, SCAMIT represents one of the first efforts to act on recommendations from a suite of federal-regional workshops on marine pollution monitoring (Segar et al., 1981 and Peter and Lockwood, 1982). Those recommendations viewed national marine pollution monitoring as a suite of regionally coordinated efforts with emphasis on enhancing intra-regional communication, data exchange and inter-calibration. Thus, SCAMIT may serve as a model to stimulate such efforts elsewhere.

For more information, contact SCAMIT secretary, Ann Martin.

References

Peter, G. and M. Lockwood, 1982. How to increase the utility of monitoring information for the various management needs. Marine Pollution Papers, Oceans '82, National Oceanic and Atmospheric Administration, Office of Marine Pollution Assessment, Rockville, MD.
