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SOUTHERN CALIFORNIA ASSOCIATION

OF

MARINE INVERTEBRATE TAXONOMISTS

November 1983

Vol. 2, No. 8

Next Metting:

December 12, 1983

Place:

Marine Biological Consultants

947 Newhall Street Costa Mesa, CA 92627

Specimen Exchange Group:

Ophiuroidea

Popic Taxonomic Group:

Thyasiridae, Ungulinidae, Leptonidae,

Montacutidae, and Kellidae

MINUTES FROM NOVEMBER 14, 1983

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

<u>Iudibranchs</u>: Don Cadien mentioned that Malacologia Vol. 24 (1 & 2) contains a good bibliography key to the California species of nudibranchs with radula llustrations. 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.

CAMIT Publication: We have received a copy of Jack Word's ophuiroid key for eview. John Ljubenkov and John Dorsey will act as editors for this, our first ffort.

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

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

detification Worksheets: Please bring to the next meeting or send to Susan amilton 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 (eg. 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.

<u>Helpful Hints</u>: While working with juvenile <u>Diopatra</u> 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 <u>Axiothella rubrocincta</u> from Praxillella complex when only anterior fragments are available.

List of November 14, 1983 Topic Specimens:

SCCWRP 29, LACO 18
OC 31
PL 32
SCCWRP 28

LACO 17, OC30, PL 31

*Macoma acclasta or yoldiformis sp. (juvenile)
Tellina idae
*Macoma ?carlottensis
Tellina carpenteri

'These specimens will be taken by Paul Scott to Eugene Coan for identification and hopefully a means of distinguishing \underline{M} . acolasta from \underline{M} . yoldiformis. Eugene Coan is the author of "The Northwest American Tellinidae", Veliger, Vol. 14. 1971.

A Reminder: Christmas is getting close. SCAMIT T-shirts and mugs are great gifts-especially for those who have everything:

PELS WITH OLGA:

Los Angeles, 15 April 1939

ear Albert: -----Tomorrow, if plans materialize, I may take a run to Lost fills to see Frieda and Chauncey. This is the season for the wild flowers in he deserts and valleys of southern California, and there are reputedly many cres, (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, nd may stop enroute to take as many plankton tows as the watering places ermit, before proceeding on to the Belridge area, where Frieda's home is ocated .-- Visitors from England, - Van der Horst by name (a good dutch name) oth are typical Englishmen. They had just arrived fom Cuba, the Everglades n Fla., across New Orleans, Texas, Tuscan, etc., to San Diego, and were most nthusiastic about American, but like all Europeans found it extraordinarily arge .---- I believe the Indians attracted them most of all. They have had irst had encounter with the Seminoles, the Hopi and Navajos .-- Almost everyhere they go they collect lizards, or reptiles of some sort ----. News from the elero (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. 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 ome instances. They are much attracted by the most casual, and gaudy articles 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 and 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, mathematicans, 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 Pauls, 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 lata 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 magnamize 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.

Ty passport has come through without any difficulty, and it is now being viseed by the various foreign ministers in Los Angeles, to permit entrance to Suropean countries. At present, this is required only of England, France and termany. With these permits, one may enter almost any of the other countries, ave Rumania, and a few of the Balkan states. Since these vises are expensive, hat 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 The passenger list is small, only 12, limited by the space available on 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, ossibly in Panama, Glasgow, Liverpool, and must go to London overland from lanchester. Monro, of the British Museum, with whom I shall be working, said hat no one in his right mind ever goes to Manchester except to get money. just be a rather disagreeable city, if it is so advertised by an Englishman. s yet, this whole trip seems more or less like a dream, and I am not yet able o visualize it. I know that it is going to be alot of hard work, and perhaps uite strenuous, however, it should be decidedly worth while, and I certainly o appreciate the opportunity tremendously.



APPLICATION FOR 1983-84 MEMBERSHIP \$5.00

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One mug Set of 4 Set of 6	\$ 6.00 [22.00 [33.00 [Shipping Shipping Shipping		\$.50 1.00 1.50
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MAIL TO:

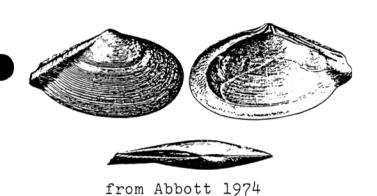
Ann Martin 10844 Ellis Avenue Fountain Valley, CA 92708



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)



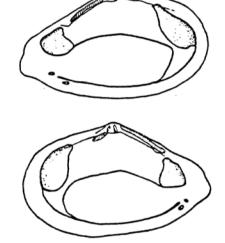
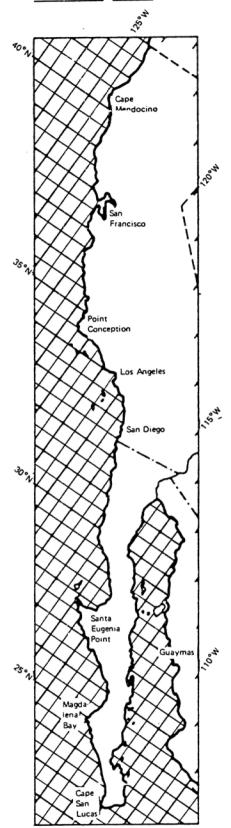


Figure 3
Tellina idae, internal view of valves

from Coan 1971



I. Oldroyd, 1925: pp.164-165;
plate 14, figure 4.
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.

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

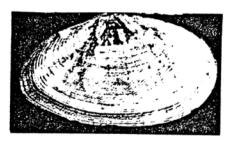
equilateral to longer anteriorly; rounded anteriorly; characterized by its pink color with some specimens

showing white rays.

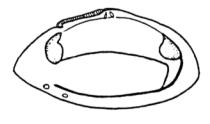
Variability:

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).



from Abbott 1974



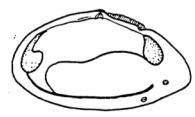
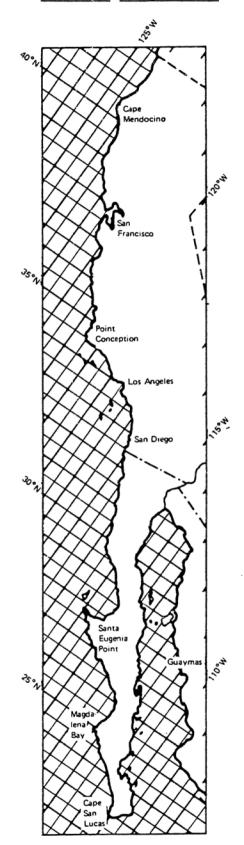


Figure 6
Tellina carpenteri, internal view of valves
from Coan 1971



I. Oldroyd, 1925: pg. 166; plate 29, figure 2, plate 44, figures 10a, 10b.

Keen, 1958b: pp. 170-171; figure

Coan, 1971: pp. 15-16, plate 2, figures 12, 13.

Depth Range: 0-441m

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.

Voucher #

November 14, 1983

Literature Citation: Hinds, 1845: pg 67; plate 21, figure 2

Synonomy:

Tellina santarosae Dall, 1900

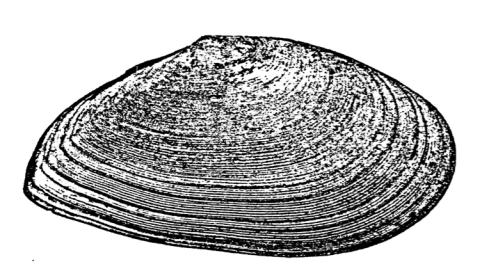
Primary Diagnostic Characters: Medium-sized (to 60mm), elongate;

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

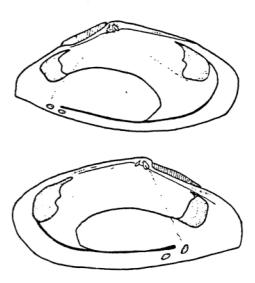
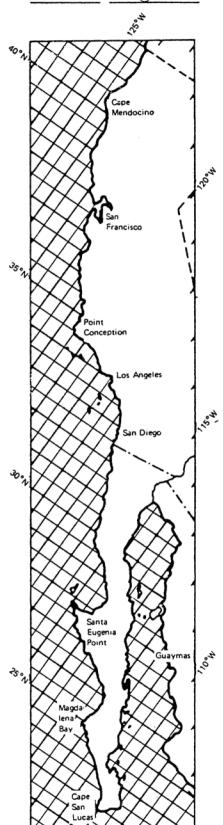


Figure 2 Tellina bodegensis, internal view of valves from Coan 1971



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 Californ

Ecology:

Bottom type: sandy sediment on exposed beaches, moderately common

Voucher #

November 14, 1983

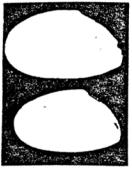
Literature Citition: Carpenter, 1864a: 602, 639, 681

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)



from Abbott 1974

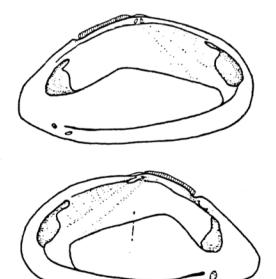
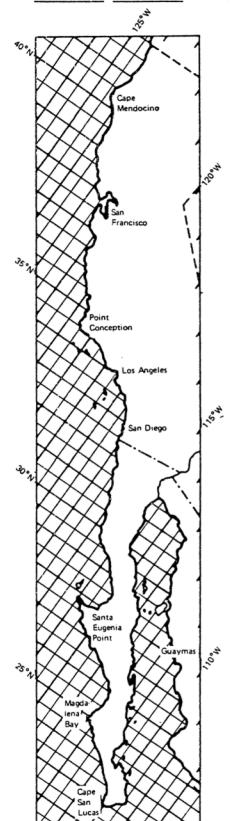


Figure 7 Tellina modesta, internal view of valves

from Coan 1971



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.

COPAS ((oustal Ocean Pollution Assessment News.

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

Bumpus, D.F. and L. Lauzier, 1965, Surface circulation on the continental shelf of Eastern North America between Newfoundland and Florida: Folio No. 7, Serial Atlas of Marine Environment, Amer. Geophys. Soc., N.Y.

Hall, M.J., 1981, The distribution of sediments and adsorbed trace metals on the inner continental shelf off southern New Jersey: Ph.D. dissertation; Lehigh University, Bethlehem, PA. 206p.

Kelley, J., 1980, Sources of tidal inlet suspended sediment, Stone Harbor, New Jersey: Ph.D. dissertation, Lehigh University, Bethlehem, PA 178p.

Swift, D., T. Nelson, J. McHone, B. Holliday, H. Palmer, and G. Shider, 1977, Holocene evolution of the inner shelf of southern Virginia: Jour. Sed. Pet. 47: 1454-1474.

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 intercalibrated 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 intercalibration. 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.

Segar, D. A., G. Peter, M. Lockwood, and R. Ramsay, 1981. An assessment of Great Lakes and ocean pollution monitoring in the United States. Working Paper 7, Fed. Plan to Ocean Poll. Res. Develop. Monitoring, FY 1981-85. U. S. Dept. Commerce, NOAA, Boulder, CO, 53 pp.

Ward, J. Q., 1977. Taxonomic standardization developments, 85-87. In W. Bascom (ed.), Coastal Water Research Project Annual Report 1977, So. Calif. Coastal Water Res. Proj., Long Beach, Calif., 253 pp.

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