

January, 1995

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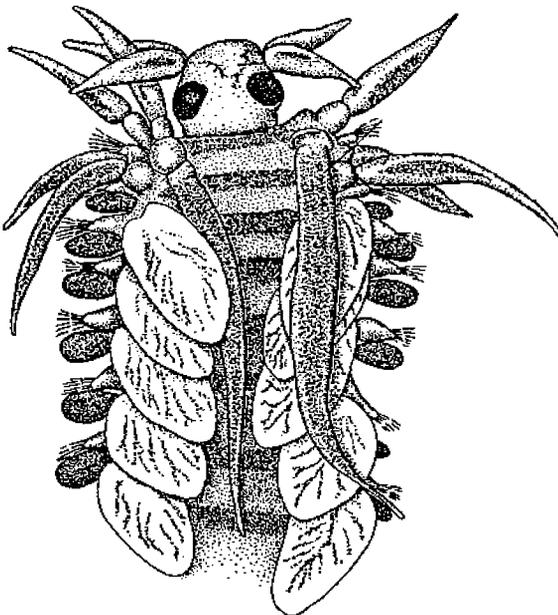
NEXT MEETING: SCBPP Polychaete Problem Species

GUEST SPEAKER: none

DATE: February 13, 1995

TIME: 9:30am - 3:30pm

LOCATION: Worm Lab at NHMLAC
900 Exposition Blvd
Los Angeles



Nereiphylla castanea (ex Blake & Hilbig 1994)

FEBRUARY 13 MEETING

The February meeting will be on SCBPP problem polychaete species. The meeting will be at the worm lab at the Natural History Museum of Los Angeles and there will be no guest speaker. We will try to resolve any taxonomic problems with polychaete species found in SCBPP samples. Please bring your specimens, voucher sheets, and any literature that may be pertinent to your specimens.

OCTOPUS MEETING

On February 6th there is a special meeting at the Santa Barbara Natural History Museum to resolve the *Octopus rubescens* identification problem. Dr. Eric Hochberg examined octopods from the SCBPP trawl vouchers and found that some specimens that were identified in the field as *Octopus rubescens* were actually a Baja California species. Dr. Hochberg will be at this meeting to assist SCAMIT members with their octopod identification problems.

POLYCHAETE WORKSHOP

On January 26 and 27 the Puget Sound Polychaete Workshop hosted by the Department of Ecology in Olympia, Washington will be attended by several SCAMIT members that have been asked to lead the workshop. Larry Lovell, Tony Phillips, Eugene Ruff, and Leslie Harris will be leading the discussions. Approximately 30 people are expected to attend. It is anticipated that not all polychaete groups will be covered due to the limited time factor, but Larry, Tony, Gene, and Leslie will be discussing those families where their areas of expertise lie. We wish them much success and look forward to hearing about the workshop at the next SCAMIT meeting.

ELECTIONS

Nominations for SCAMIT officers for the 1995-96 year were made at the January meeting. All current SCAMIT officers were nominated again. No other nominations were received. Candidate biographies have been included with this newsletter along with ballots that are due by the March meeting. If you will be unable to attend the March meeting please send your ballots to Don Cadien at LA County Sanitation Districts.

SPECIES LIST

It is time to update SCAMIT's taxonomic listing of soft bottom macroinvertebrates. Members should submit all changes and additions they have along with justification and literature references at the February meeting or by mail or fax to Dave Montagne or Ron Velarde.

Dave Montagne
Marine Biology Laboratory
County Sanitation Districts
of Los Angeles County
24501 S. Figueroa Street
Carson, CA 90745
fax # (310) 834-7689

Ron Velarde
City of San Diego
Marine Biology Laboratory
4077 North Harbor Drive, MS 45A
San Diego, CA 92101
fax # (619) 692-4902

HELP!

While preparing for the upcoming polychaete meeting in Washington, Leslie Harris discovered she was missing some of her original color drawings of maldanid staining patterns. She needs these for the meeting and is requesting we all check among our notes and literature to find where they are hiding. It is suspected that these got mixed up in someone's papers at a recent SCAMIT polychaete meeting. At least two are missing; those for *Axiiothella rubrocincta* and *Euclymeninae sp A*, although others may also have strayed. If found, please send these to her ASAP so they can be used at the meeting later this month.

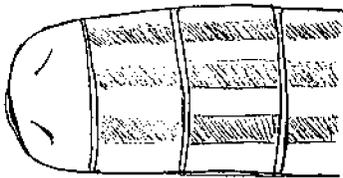
Leslie Harris
Collections Manager - Polychaetes
Natural History Museum of L.A. Co.

900 Exposition Blvd. Los Angeles
90007

MINUTES FROM JANUARY 9

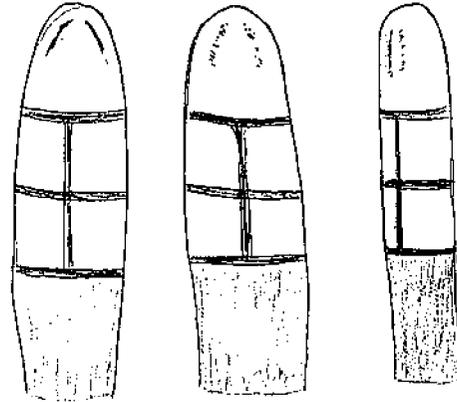
The meeting at Cabrillo Aquarium was spent discussing several non-polychaete problem species from the SCBPP survey and sharing some of the rare benthic invertebrates that have been encountered so far. The first group discussed was nemertean.

There seems to be some confusion concerning species of *Tubulanus*. The original description of *Tubulanus frenatus* (Coe 1904) seems to be unclear regarding pigment pattern. On the esophageal area of these animals, before the wide purplish fixation band, there are 3 dark pigmented longitudinal lines, one mediodorsal and two lateral. In *T. frenatus*, where the dark lines are narrow and widely separated, they can be easily interpreted. In the related *T. capistratus*, where the dark and light areas are nearly the same width, the pattern may also be interpreted as 4 white longitudinal stripes on a dark background. This is in addition to the dark rings that also encircle these animals. These rings occur in various degrees of pigment, from light to dark.



Tubulanus capistratus anterior end

What most SCAMIT members have in the past referred to as *Tubulanus frenatus* does not fit the original description because of the presence of ocelli. These ocelli can be seen underneath the anterior pigment patches when these animals have been cleared. They are seen most easily by viewing these organisms from the side.



Dorsal, cleared dorsal, and cleared lateral views of *Tubulanus frenatus*

This problem with *T. frenatus* was discovered after several POTW agencies involved in the SCBPP survey compared their specimens of this species. Everyone seems to have specimens that are slightly different. This may result from the way the animals were treated at the time of collection, whether they were relaxed or not, and how they were cleared. Also, the way the original description of *T. frenatus* has been interpreted along with other descriptions of *Tubulanus* species may have led to these differences amongst the various POTW agencies.

John Ljubenkov (MEC) has agreed to examine everyone's *Tubulanus frenatus* specimens and make comparisons to see if he can come up with a resolution. John believes that perhaps what we have all referred to as *T. frenatus* may even be in a different genus. It was decided that everyone should continue to identify their *Tubulanus* specimens the same way until John can make the comparisons.

The entire group of banded/striped *Tubulanus* species (including *T. frenatus*, *T. cingulatus*, *T. capistratus*, *T. sexlineatus*, and *T. albocinctus*) needs reevaluation of both their generic allocation and their specific standing. The presence of eyes in these species makes it likely that they do not belong in *Tubulanus*.

Many other nemertean groups also appear to

be inconsistently identified because of a lack of information on variability, and/or incompleteness of available literature. In the genus *Amphiporus*, for instance, it is suspected by both John Ljubenkov and Tony Phillips (HYP) that a number of the described species are only growth stages of other species. Eye number, in particular, is often an unreliable character as eyes may be added incrementally with growth.

Don Cadien (CSDLAC) has encountered several lineids which he has designated *Lineus* spp LA1, LA2, and LA3. These are largely featureless white thin nemerteans, with no eyes, and with thin cephalic slits. The three species were taken both on the San Pedro seashelf off Los Angeles Harbor in shallow sandy sediments, and in the Santa Barbara Channel. They are currently differentiated only by the relative length and general shape of their cephalic slits and mouth pores.

LA1 has very long slits, which reach the position of the mouth pore. The body anterior to the mouth is slightly narrower than posterior to it. It is suspected that this is the same animal which the San Diego biology lab refers to as Lineid 1. The proboscis pore in this form is slit-like and subterminal, while the mouth is heavily folded, large and muscular.

In LA2 the cephalic slits reach just over 1/2 the distance to the mouth, the proboscis pore is terminal, and the mouth is slit-like, without folded lips. The anterior end of this animal tends to be attenuate, is usually curved up, and tapers evenly from the mouth. This form also has a prominent loop in the esophagus of cleared specimens.

In LA3 the anterior end is somewhat hood-like, concave ventrally and convex dorsally, with the mouth situated at the end of the ventral concavity. The cephalic slits extend about 2/3 the distance to the mouth, and flare posteriorly so that they appear more wedge-

like than slit-like.

All of the soft tissue characters mentioned above would either not be visible in unrelaxed animals, or would vary depending on degree of specimen contraction. None of these forms were noticed prior to the adoption of the SCBPP sample handling procedures. That the same forms were seen in samples processed by CSDLAC and the SCCWRP contractors suggests other samples handled with the same protocols should preserve these characters in collected specimens.

The pea-crab *Pinnixa occidentalis* has been increasingly regarded as a composite of several closely related species. Recently Martin & Zmarzly erected *Pinnixa scamit* in a first attempt to resolve this species complex. At the meeting a problem with *Pinnixa scamit* was brought up by Dean Pasko from the San Diego biology lab. He has several specimens from their benthic surveys and one from the SCBPP survey that form a ♂ growth series. Within this series the characters which separate *Pinnixa scamit* from *Pinnixa occidentalis* intergrade. As the male of *P. scamit* was unknown at the time the species was described, this represents new information.

Pinnixa occidentalis growth series for comparison to *Pinnixa scamit* (4 spms.)

	CW(mm)	P ₄ propodus (L:W)	sub-hepatic spine	# spms.
A	6.2	1.85	absent (highly reduced)	1 ♂
B*	4.1	2.58	rounded knob	1 ♂
C	3.2	3.11	blunt tooth	1 ♂
D	2.8	3.25	Lrg, acute tooth	1 ♂

spms. from Pt. Loma 60 m transect, silty sediments

* SCBPP spm. from sta. PSDBE 1825, 71 m, 7/21/94

Prepared by Dean Pasko and Timothy Stebbins

A male *P. scamit* specimen from Santa Monica Bay identified by Jim Roney from Hyperion also fits in with this growth series.

Although more specimens need to be looked at, this observation should alert other members that the criteria used to distinguish *P. occidentalis* from *P. scamit* may not be as clear as previously thought.

Some rare specimens from the SCBPP survey were also brought to the meeting to share with members. Kelvin Barwick from the City of San Diego's Biology lab brought a small gastropod he identified as *Opalia funiculata*. The group of taxonomists present at the meeting agreed with him. It was collected from 21 m depth off San Diego.

Specimens of a small turrid gastropod were also examined. This seems to be an *Ophiidermella* close to or identical with *O. halcyonis*. The major difference is that both the radial and spiral sculpture become virtually obsolete by the fourth post-nuclear whorl in all the specimens seen by both Hyperion and the City of San Diego lab. Sculpture normally remains visible even in full adult *O. halcyonis* more than twice the size of the present specimens.

The first adult male of the cumacean *Glyphocuma* sp. A of SCAMIT was found at 97 meters from the SCBPP station 1794 off San Diego. It was identified by Dean Pasko, and confirmed by Tony Phillips. With this specimen Tony will finally be able to confirm or rule out synonym of *Glyphocuma* sp A with *Glyphocuma dentata* from South Australia. Should they prove to be the same, we have another interesting open ocean introduced species added to our fauna.

Don Cadien at LA County has also found an odd cumacean from 82 meters south of Pt. Mugu while working on SCBPP samples. It has a very different eye lens pattern and is not

one of the commonly found provisionals. It belongs in the subgenus *Cumewingia* of the genus *Cumella*, just one of several undescribed members of the genus to occur in local waters.

Optic lobe of *Cumella* (*Cumewingia*) sp

Towards the end of the meeting the amphipod genus *Photis* was again considered. A specimen identified as *Photis linearmanus* from off Pt. Mugu was examined and compared with specimens of *Photis* sp. D from Santa Monica Bay and off Pt. Loma. The initial suspicion that the two species were the same was supported by the specimens. Don Cadien will pursue this further, but it appears that one more of our provisionals has finally found a name.

Ron Velarde brought in a *Photis* specimen which seemed to have a mixture of characters from several described species. Its most unique character was a small distinct tooth on the dactyl of gnathopod 2, differing in size, shape, and placement from that in both *Photis brevipes* and *P. parvidons*. More individuals are needed to define this form, but it may prove to be yet another undescribed species from our area.

The problems encountered in identification of the amphipods *Ampelisca caryi* and *A. unsocalae* during the amphipod meeting in December can be understood by examining the attached table prepared by Dean Pasko et al at San Diego. It is time to examine the types.

CHANGING RULES

Two subjects of considerable interest to SCAMIT members have recently been addressed in articles in the magazine *Science*. The first dealt with legal definition of the fair use doctrine in reproduction of copyrighted material (Lawler, A. 1994 [25 Nov] "Court says no to copying articles" - *Science* 266: 1315). The second reported on proposed changes in laws regarding international shipment of biological specimens (Stone, R. 1995 [6 Jan] "New Rule Could Squelch Shipments" - *Science* 267: 22).

In the past it has generally been assumed that making a single copy of copyrighted material for personal use rather than for profit or for redistribution was a "fair use" under the copyright laws. A recent court challenge to this interpretation was mounted by a group of publishers who felt such use denied them the benefit of their copyright, and should not be considered "fair". The test case involved a suit brought against a chemist working for a large company who routinely made copies of articles appearing in a journal received by his firm. He then placed the copies in files in his office for (presumably) easier access and future use.

The suit contended that unless these articles were immediately used for some legitimate academic or research purpose the copier was in effect building his own library, and should either 1) be subscribing to the journal himself or 2) be sending the stipulated fee into the Copyright Clearance Center to pay for his use of the materials. This fee is \$1.00/article and 10 cents/page in addition to any charge for the copying itself.

The court sided with the plaintiffs in judging that such copying was indeed not included in the "fair use" provisions of copyright law. In view of this decision we all need to reexamine our document copying behavior for conformance with copyright law.

The U.S. Fish and Wildlife Service is seeking to modify regulations pertaining to transfer of biological specimens across U.S. borders. The intent is to reduce or (ideally) eliminate the traffic in rare and endangered species (or products derived from them such as ivory, rhino horn, skins, etc.). As they have proposed to modify the regulations, however, transfer of specimens between researchers and institutions would be severely impacted as well.

One provision was that all transfers of more than eight similar specimens be considered "commercial", and subjected to import duties and taxes. A second would require that all specimens be accompanied by documentation as to their species identity and origin. This would present an impassable barrier to the transfer of unsorted or unidentified lots such as bulk field collections.

Final rules have yet to be promulgated (they are due in July 1995), but it seems certain that at least some of the more onerous aspects of this regulatory change will survive the review process. We will have to wait and see. I suggest those most interested in these actions might wish to contact the local Fish and Wildlife Service office and request to be put on the mailing list for documents concerning the proposed rule changes.

The following table compares differences between *Ampelisca careyi* Dickinson 1982 and *A. unsocalae* J. L. Barnard 1960 (see Dickinson, 1982), with specimens of *A. unsocalae* (?) collected off Point Loma, CA. Characteristics of the Point Loma specimens are described from 10 individuals (both male and female), although several specimens were missing some structures (e.g., antennae).

Characters	<i>A. careyi</i>	<i>A. unsocalae</i>	Point Loma spms.
Head			
anterior margin	produced, dome shaped	unproduced	produced
lower front margin	concave	oblique and convex	slightly concave (as in <i>A. careyi</i>) to nearly straight (as in <i>A. pugetica</i>) (see below)
length of A1 relative to peduncle of A2	$A1 \geq A2$ peduncle	$A1 < A2$ peduncle	we've found both conditions (more commonly $A1 < A2$ ped.) (6 of 7 spms)
length of A1 peduncular segment 2	$> 2x$ the length of segment 1	$2x$ the length of segment 1	$\leq 2x$ the length of segment 1 (8 spms)

Pleon and Urosome			
tooth of pleonite 3	short, acute	long, slender	long (?), thick, acute
carina of urosomite 1	elevated, saddle-shaped	elevated, at rt. angle to urosomite 2	elevated, w/o saddle
length of rami of uropod 2 relative to peduncle	rami $<$ peduncle	rami $>$ peduncle	rami = peduncle (6 spms) or rami \leq ped. (2 spms)

Telson			
shape of posterior end	laterally notched forming medial tooth	centrally notched forming lateral projection	variable: we've found both conditions
dorsal spines	3-4, long and scattered	5, long and scattered	3-5 long

Dickinson, J.J., 1982. The systematics and distributional ecology of the family Ampeliscidae (Amphipoda: Gammaridea) in the Northeastern Pacific region. I. The genus *Ampelisca*. National Museum of Canada, Publications in Biological Oceanography, No. 10: 1-40.

Figure A. *A. careyi*, male head. From Dickinson 1982, fig. 13.

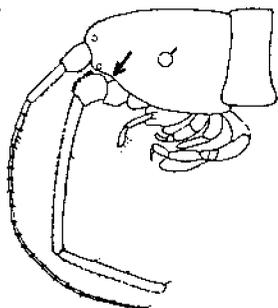
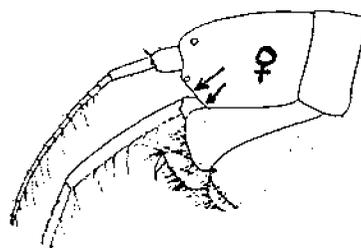


Figure B. *A. pugetica*, female head. From Dickinson 1982, fig. 10.



CANDIDATE BIOGRAPHIES

PRESIDENT

Ron Velarde

Ron is the current President of SCAMIT and a past Vice-President; he has been a Marine Biologist with the City of San Diego since 1983 and currently is the supervisor of Benthic Taxonomy for the Ocean Monitoring Program. His taxonomic interests include most groups, especially polychaetes and nudibranch mollusks. He earned his B.S. degree in Marine Biology from California State University, Long Beach, in 1976, and did post-graduate research on the systematics and ecology of autolytid polychaetes.

VICE-PRESIDENT

Don Cadien

Charter member of SCAMIT. Studied invertebrate taxonomy and biology at California State University, Long Beach, under Dr. D. J. Reish. Worked at Cabrillo Marine Museum, then at the L.A. County Museum of Natural History under Dr. J. H. McLean in Malacology. Spent 15 years at M.B.C. Applied Environmental Sciences as a taxonomist and later also Project Manager, leaving in 1989 as a Senior Marine Biologist to join the L.A. County Sanitation Districts' Marine Biology Lab. Specialties in taxonomy and biology of mollusks (particularly nudibranchs) and peracarid crustaceans. Currently a Research Associate in the Crustacea Section of the L.A. County Museum of Natural History.

SECRETARY

Cheryl Brantley

Cheryl is the current Secretary of SCAMIT and a marine biologist for the County Sanitation Districts of Los Angeles County. She has worked for the Districts since graduation with her B.A. degree in Aquatic Biology from the University of California, Santa Barbara in 1985. As a taxonomist in the Districts' Marine Biology Laboratory, Cheryl has specialized in polychaetes with emphasis on the Spionida, Eunicida and the Aphroditiformia.

TREASURER

Ann Dalkey

Ann is presently the Treasurer for SCAMIT and has held this position since SCAMIT was founded. Ann is a member of the water biology staff at the Hyperion Treatment Plant where she specializes in the identification of polychaetes and amphipod crustaceans. Prior to working at Hyperion, Ann was a member of the laboratory staff at the County Sanitation Districts of Orange County. She worked there for nearly 10 years, reaching a position of senior laboratory and research analyst. She received her B.S. from California State University Long Beach in Marine Biology in 1974 and her M.S. from the same university in 1982. Her thesis research pertained to polychaete bioassay.

BALLOT FOR SCAMIT OFFICERS 1995-96

Vote for one (1) nominee for each office. Please mail or return completed ballot to Don Cadien by March 31, 1995. You may return it to the Secretary or other attending officer at the March 13 meeting. The address to mail it to is:

Don Cadien
Marine Biology Laboratory
County Sanitation Districts
of Los Angeles County
24501 S. Figueroa Street
Carson, CA 90745

President - The president presides at all meetings and represents SCAMIT in external business affairs.

_____ Ron Velarde

_____ Write-in: _____

Vice-President - The Vice-President chairs ad hoc committees, supervises the specimen exchange, tabulates election ballots, edits the newsletter, and fills in for the President as necessary.

_____ Don Cadien

_____ Write-in: _____

Secretary - The Secretary keeps minutes of the meetings, is responsible for the newsletter, and preparation of the ballots.

_____ Cheryl Brantley

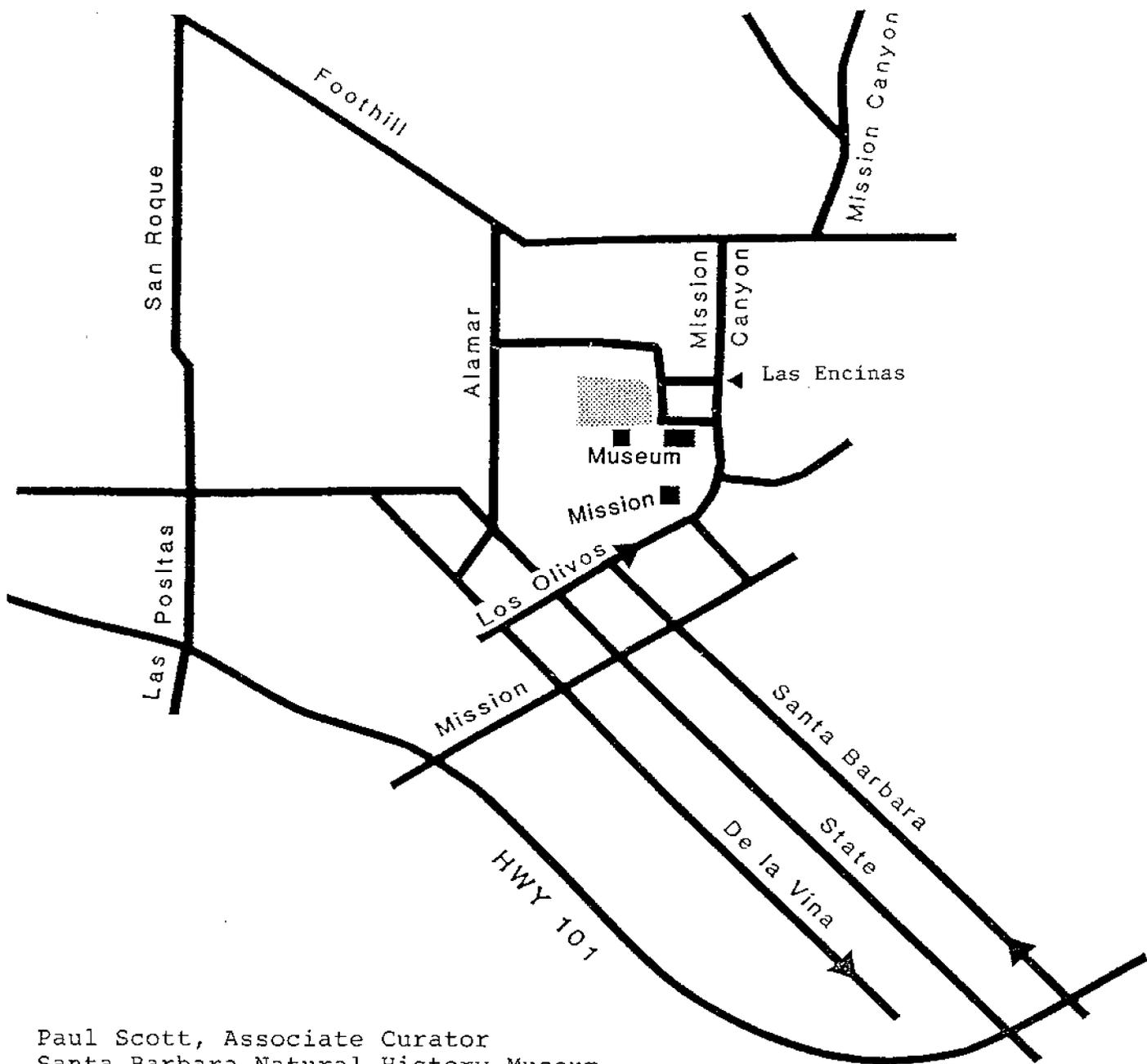
_____ Write-in: _____

Treasurer - The Treasurer collects dues, makes disbursements, keeps financial records, and makes an annual statement of the financial status of SCAMIT.

_____ Ann Dalkey

_____ Write-in: _____

1995-96 SCAMIT Meeting Topics - Please suggest any topics you deem worthy of a SCAMIT meeting.



Paul Scott, Associate Curator
 Santa Barbara Natural History Museum
 2559 Puesta Del Sol Road
 Santa Barbara, CA
 (805) 682-4711

Directions from the south to the Santa Barbara Museum

- 1) Proceed north on US 101 to Santa Barbara, turn right at the first signal (Santa Barbara St.).
- 2) Proceed up Santa Barbara St. about 3 miles, turn right on Los Olivos.
- 3) Go past the Mission, bear left at the "Y", proceed about half a mile.
- 4) Turn left on Las Encinas, turn left on Puesta del Sol, turn right into Museum parking lot.
- 5) Invertebrate Zoology is on the west side of the new Collection and Research Center (past the whale, west side of parking lot).