



Southern California Association of
Marine Invertebrate Taxonomists

3720 Stephen White Drive
San Pedro, California 90731

April 1989

Vol. 8, No. 1

NEXT MEETING: Bodotriidae of Southern California

DATE: Monday, May 8, 1989, 9:30 AM

LOCATION: L.A. County Museum of Natural History
 900 Exposition Blvd.rive
 L.A., CA

PRESIDENT'S STATEMENT

In 1982 SCAMIT established as its goals "the promotion of marine invertebrate taxonomy and the development of a regionally standardized taxonomy". As SCAMIT enters its 8th year, I am pleased to say that the organization continues to be vital and active in pursuit of these goals, holding 14 meetings and workshops during the past 12 months.

The continued vitality of our Association is due to the excellent support it receives from its members. I would like to take this opportunity to thank those members who, through generous contributions of their knowledge, time, and effort, have kept this Association a valuable asset to all of us working on marine invertebrate taxonomy in southern California. For SCAMIT, unlike many professional organizations, is fundamentally a working group and requires an unusual level of active participation of its members to be successful. The distribution and examination of specimens; production of descriptions, figures, and keys; compilation of bibliographies, are all time consuming tasks that many of our members carried out during this past year for the benefit of us all.

During the past 12 months, SCAMIT has also received the generous support of several individuals in the conduct of workshops or lectures. Drs. Kristian Fauchald, Les Watling, Anne Cohen, Gordon Hendler, Joel Martin, and James Carlton all made valuable contributions and have indicated interest in future participation. I wish to thank all these individuals

FUNDS FOR THIS PUBLICATION PROVIDED IN PART BY ARCO FOUNDATION,
CHEVRON USA, AND TEXACO INC.

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

for their valuable contributions. Special thanks go to Dr. J.L. Barnard for leading the 4th amphipod workshop. This has become an annual event to which all the peracarid-types in SCAMIT look forward. Dr. Barnard has agreed to conduct his fifth workshop in the coming year!

For the second year SCAMIT organized and conducted a very successful symposium at the annual meeting of the Southern California Academy of Sciences, held at CSU Northridge. This year's effort was titled "Structure and Change in Marine Communities in Southern California". The very excellent series of talks covering communities from salt marsh to deep slope drew a large and appreciative audience. Thanks to all those who assisted in organizing the symposium and to those who contributed papers.

The year closed with a meeting dedicated to a "Review of the Infaunal Trophic Index". In a departure from the strictly taxonomic topics usually pursued by SCAMIT, this day-long meeting discussed the theory, application, and use as a regulatory device, of the ITI. The approximately 30 biologists in attendance, representing various consulting firms, public agencies, and regulators, participated in a lively and thorough discussion of the issues surrounding the use of the index. I am particularly appreciative of the participation in this meeting of one of our out-of-region members, Jack Word. Because he was the originator of the index, his input was invaluable. SCAMIT is now following up on this meeting with the formulation of a set of recommendations concerning the application and interpretation of the ITI.

While this past year has been a busy and productive one for SCAMIT, the nature of our task leaves much more to be done. The most urgent need in terms of product, in my opinion, is an accelerated production of provisional species vouchers. This, followed by formal erection of new taxa, is the activity most useful to our members. It is also the activity most demanding of our contributing members' time and so may always fall short of our hopes. I remind the members that SCAMIT's publication support fund is available to them and encourage them to take advantage of the fund. In the past year we have increasingly ventured out from our home at the Cabrillo Marine Museum to involve other local institutions in our activities and take advantage of their resources and generosity. I feel this has added substantially to the value of our meetings and should continue in the future. We have increasingly relied upon the membership dues as the financial base for SCAMIT and have been successful. However, consideration should be given whether we should once again seek outside funding to support the activities of the Association.

As can be seen in the Agenda in this newsletter, SCAMIT's eighth year will be another full one. Besides our regular meetings, we are again planning workshops led by J.L. Barnard, Kristian Fauchald, and Les Watling, as well as a special meeting to review field sampling

techniques employed in benthic infaunal surveys in the region. So it will be an exciting and busy year for all of us in SCAMIT.

In closing, I thank all of the members for their assistance during the past two years that I served as SCAMIT's president. It has been a pleasure to fill this post, and I thank you for the opportunity. I also thank all the officers who served the Association in the past year. I am sure the members are appreciative, as I am, of all the hours you have contributed. Our thanks also go to the management and staff of the Cabrillo Marine Museum, who have so generously provided a home to our organization for the past five years. On behalf of the outgoing officers and the membership, I congratulate SCAMIT's newly elected officers and wish them good luck in the coming year and continued success to the Association.

Dave Montagne

TREASURER'S STATEMENT

During this past year, we utilized the Publication Support Program for the first time by paying for illustrations in Mary Bergen's forthcoming work on holothuroids. Also SCAMIT explored and then rejected an option of obtaining a second-class postal permit for mailing the newsletter. We concluded that compliance with the postal service requirements would be too cumbersome for our small organization. In 1988-89 the newsletter expenses (\$1109.14) were supported entirely by membership dues (\$1220.00).

The expenditures for the year totaled \$2217.85, and total income for the year was \$1763.52. The year-end checking and savings account balances were \$1045.58 and \$8686.43, respectively.

Ann Martin

MINUTES FROM MEETING ON APRIL 10, 1989

Next month's meeting will be a slight departure from our usual meetings. We will be meeting to work on specific areas of Bodotriidae taxonomy. This is being done as a working meeting, rather than as a presentation, to facilitate the workshop on Bodotriidae that will be run by Les Watling later this year.

NEW OFFICERS! This year's slate of officers pulled in votes from all over the west of the U.S. and Canada. Thank you all for voting and making this election a success.



1989-1990

PRESIDENT: Ron Velarde, City of San Diego
VICE-PRESIDENT: Larry Lovell, private consultant
TREASURER: Ann Martin, Hyperion
SECRETARY: Mas Dojiri, Hyperion

John Ljubenkov from MEC provided us with an extensive examination of anemones and sea pens from soft bottoms. Included in this newsletter are four new voucher sheets that can be used for local anemones. Along with Scolanthus sp. A, these represent the more common soft-bottom shelf forms. The situation for the sea pens is not as clear. John noted that many samples of sea pens are ruined when the spicules of the sea pens are damaged or destroyed. His anatomy sheet on the sea pens indicates the importance of determining the type of zooid and its arrangement on the stem. As a closing note, John reminded us that the original voucher sheet in Volume 2, #3 was issued as Isoedwardsia, but has since been reevaluated and changed to Scolanthus sp. A.

Humor file...or what passes for humor in Carlsbad.

"Why is the benthos like a park?"
"Because you can have a pycnogonid."

Are people with this kind of humor beyond rehabilitation, or what?

Agenda...agenda...agenda Finally we have an agenda for 1989-1990.

March	Review of the Infaunal Trophic Index
April	Anemones and Sea Pens of Soft Bottom Shelf Depths
May	Bodotriidae - LACMNH
June	Barnard/Amphipod Workshop - LACMNH
July	<u>Pinnixa</u> - San Diego Natural History Museum
August	<u>Fauchald</u> /Polychaete Workshop - tentative AHF
September	Pycnogonid - CMM
October	Bodotriidae - Les Watling - tentative date, LACMNH
November	Benthic Field Techniques - CMM
December	Open
January	Paraonidae
February	Open

As indicated in the agenda, this year we have made plans to hold the Barnard/Amphipod Workshop earlier than last year. The schedule for this year places the 2-3 day workshop on June 5th, 6th, and possibly 7th. SCAMIT will be sending out a separate flyer announcing this important meeting in the near future. In addition, there are plans being made for two other taxonomy workshops. Dr. Kristian Fauchald has offered to participate in a polychaete workshop to be held at AHF sometime in August. The dates for this meeting will be set at a later date around the time of the International Polychaete Conference.

Also Dr. Les Watling, Ira C. Darling Marine Center, University of Maine, is interested in participating in a cumacean workshop this coming fall. It is now tentatively scheduled for October. The goal of this workshop is to follow up on the work of the May bodotriid meeting, concentrating on the "Robert Given" species.

Also this fall we plan to hold a meeting to compare and discuss the field techniques utilized in the various infaunal surveys in Southern California. For the purposes of these discussions, field techniques will include all aspects of sample handling ranging from deployment of sampling equipment, sediment screening, and fixation of material.

The 7th Annual SCAMIT Picnic will be held at Doheny Beach on Saturday, August 19, one week after the International Polychaete Meetings. The picnic chairman and new VP, Larry Lovell, will be providing more details in upcoming newsletters.

SCAMIT will form an ad hoc committee to review and recommend interpretation of the Infaunal Trophic Index. If you would like to make written comments to this group please forward them to Ron Velarde:

Point Loma
Biology Lab
4077 North Harbor Drive
San Diego, CA
92101
(619) 221-6608

The following is excerpted from the Polychaete Research Newsletter: Arne Norrevang (Science Faculty, Svabosgota 7, FR-100 Torshavn, Faroe Islands), writes: "A large scale programme of investigation of the marine benthic fauna around the Faroe Islands will start this year, running for three successive years. The main topics will be faunistics, zoogeography and community structure. It is a joint



venture of the Nordic countries and a marine biological station will be built to do the sorting. Also there will be two scientists, one postgraduate and three technicians. So far I have several polychaetes not previously found in the area and also what maybe a new species of Polydora. This gives me serious trouble as there are almost no library facilities here." Reprints and copies of keys, or other guides to identification, are needed. Please send Arne any that may be useful to the laboratory.

The 24th European Marine Biology Symposium will be held on October 4-10. The theme is "Trophic Relationships in the Marine Environment". Please write to EMBS Symposium Office, Dunstaffnage Marine Research Laboratory, P.O. Box 3, Oban, PA34 4AD, Argyll, Scotland.

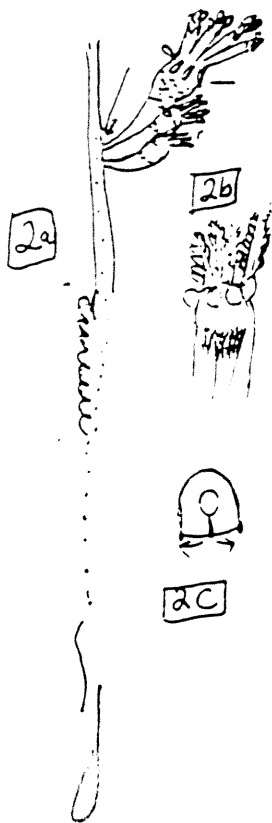
Seapen Anatomy

1. Acanthoptilum sp. A, one polyp per leaf; spines at base of leaf; spicules in calyx.
- 2a. Virgularia ?tuberculata - 3 polyps/leaf; leaf attached only at base;
b. typical Virgulariine polyp; c- x-sec. of stem.
- 3a. Stachyptilum superbum; note end bulb (physa) with cinclidges (pores) and single polyps whorled around stem;
b. small calyx;
c. large calyx with spiny margin;
d. x-sec of stem.
- 4a. Virgularia sp.; note dorsal track;
b. side view adult leaves; basal leaves; lower single polyp track;
c. siphonozooids in crescents; siphonozooids in dorsal track and typical leaf;
d. basal leaves and siphonozooids.
- 5a Sea Pen # 9 (Virgulariidae); b- polyps
6. Virgulariid leaf with siphonozooids between the autozooids.
- 7a. Sea Pen #13 (Virgulariid), polyp with symbiotic hydroid;
b. adnate leaf with contracted polyps.

PLEASE SEE ENCLOSED ILLUSTRATIONS OF SEA PEN ANATOMY



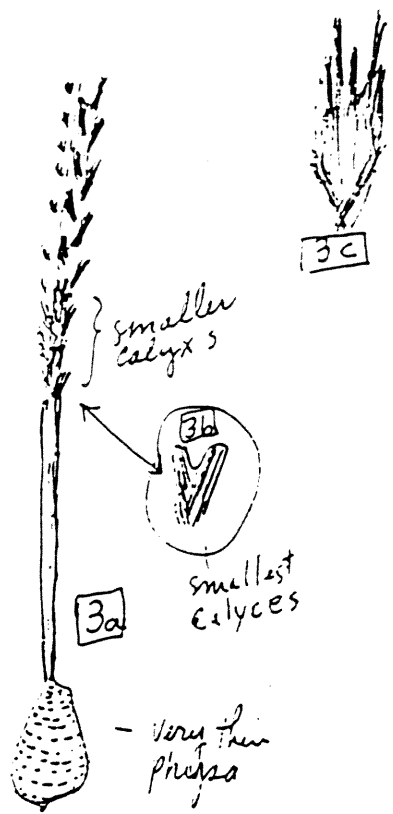
1



2a

2b

2c



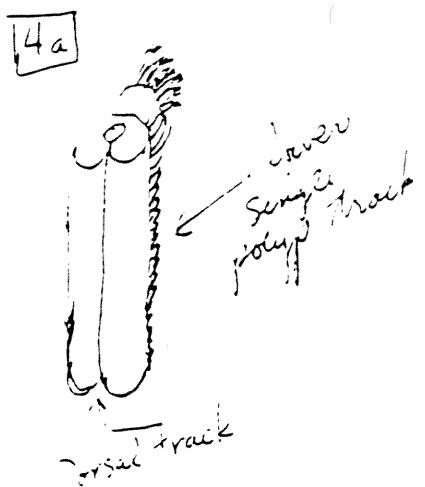
3a

3b

3c

smaller calyxes
smallest calyxes

very thin phrasa



4a

4b

lower single polyp track

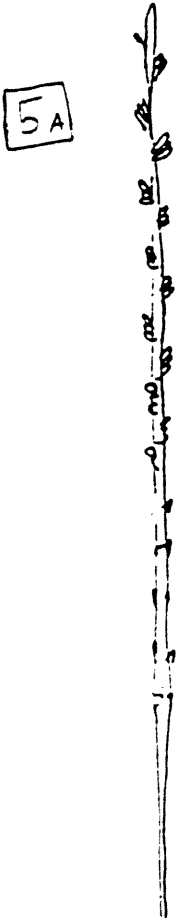
dorsal track

adult leaves

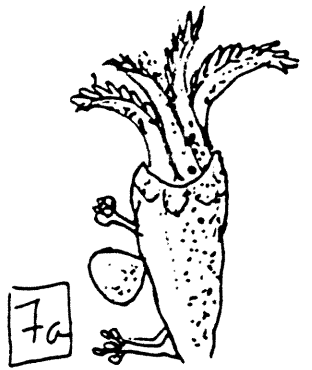
basal leaves

lower single polyp track

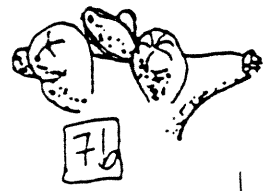
phrasa



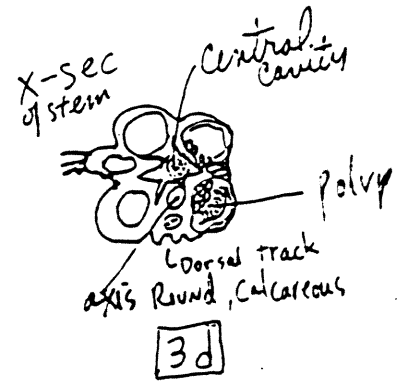
5a



7a

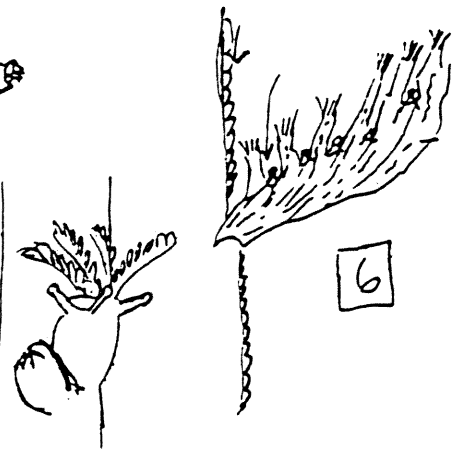


7b

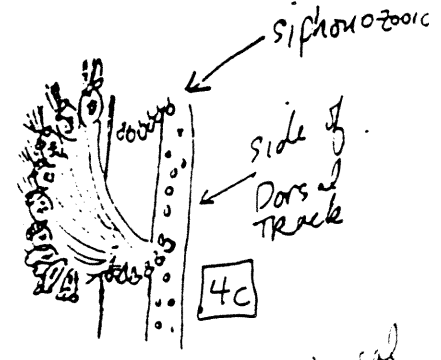


3d

x-sec of stem
central cavity
polyp
dorsal track
axis Round, calcareous



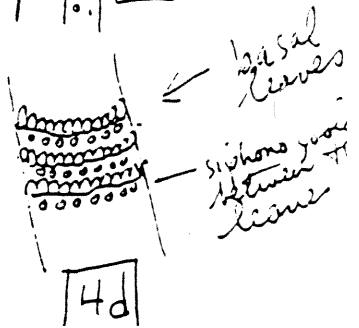
6



4c

siphonozoic

side of dorsal track



4d

basal leaves

siphonozoic

Synonymy: Anemone # 84 of Ljubenkov (MEC)

Literature: Calgren, O. 1949. A survey of the Ptychodactiaria, Corallimorpharia, and Actinaria. Kungl, Svenska Vetenskapskademiens Handlingar Fjarde Serien Band 1 N:01.

Diagnostic Characters:

1. Body very thin and elongate; extremely hard to tell which end is anterior or posterior.
2. Thin iridescent cuticle overlaying pinkish body core.
3. Mesenterial insertions visible but uncountable.
4. Tentacles are so far invisible to my eye, which explains provisional family name.
5. Oral region tinged with dark purplish.
6. A most distinctive anemone.

Distribution: OCSD 8724 34/I; Con1/1; 8606 4/3; Also MMS/Battelle Camp; Kinnetics/Encina; Pt Loma. 34 to about 100 meters in depth.

Comments: Common name is "thread anemone" of Ljubenkov.



(a)

Figure: a) whole anemone

Synonymy: Anemone # 87 of Ljubenkov
?Nematostella vectensis sensu Ljubenkov

Literature: Calgren, O. 1949. A survey of the Ptychodactiaria, Corallimorpharia, and Actinaria. Kungl, Svenska Vetenskapskademiens Handlingar Fjarde Serien Band 1 N:01.

Diagnostic Characters:

1. Up to 1.8 cm long.
2. Column with a satin sheen. Top of column brownish grading to white below.
3. Flaring oral disc with a fosse between it and the tentacles.
4. 8 tentacles with large pores at the tips.
5. 10 perfect macrocnemes.
6. No sphincter.

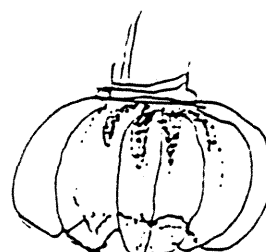
Distribution: OCSD 8606 5/1; 8503 CON1/5; 8609 37/1; 8501 37/2; CSA-COJO 4/C Oct 86. Depth 58-100 meters.



(a)



(b)



(c)

Figures: a) whole specimen contracted. b) another specimen. c) fully expanded base with mesenteries visible.

Isanthidae sp. A
Cnidaria
SCAMIT Code: MEC6

SCAMIT 1989

SCAMIT Vol. 8, No. 1

Date examined: 10 April 1989

Synonymy: Anemone #96 of Ljubenkov

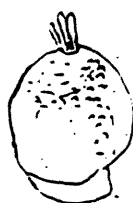
Literature: Calgren, O. 1949. A survey of the Ptychodactiaria, Corallimorpharia, and Actinaria. Kungl, Svenska Vetenskapskademiens Handlingar Fjarde Serien Band 1 N:01.

Diagnostic Characters:

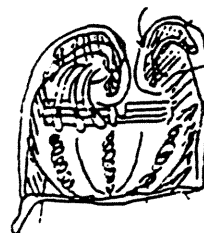
1. Hemispherical in contraction.
2. column white with very thin iridescent cuticle overall.
3. Distinct limbus and foot, therefore a thenarian anemone.
4. 12-18 tentacles with a dark spot in the center.
5. 1 siphonoglyph topped by a small conchula with 3-5 tentacular structures.
6. 6 pairs perfect fertile macrocnemes, + 4 pairs imperfect.
7. 1 mesogloal sphincter at the margin.

Distribution: OCSD 8501 9/3; MMS/Battelle Camp 1-2 PJ12/2, PJ4#/1; Camp 2-3 R1/1. Depth 60 meters--?

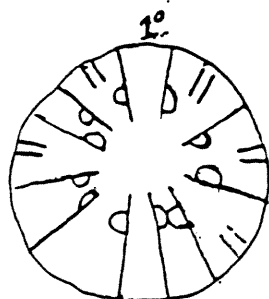
Comments: Probably a new genus.



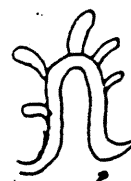
(a)



(b)



(c)



(d)

Figures: a) external view. b) x-section. c) mesenterial arraignment.
d) cochula.

Synonymy: Anemones #12, #81, #85, #88 of Ljubenkov.

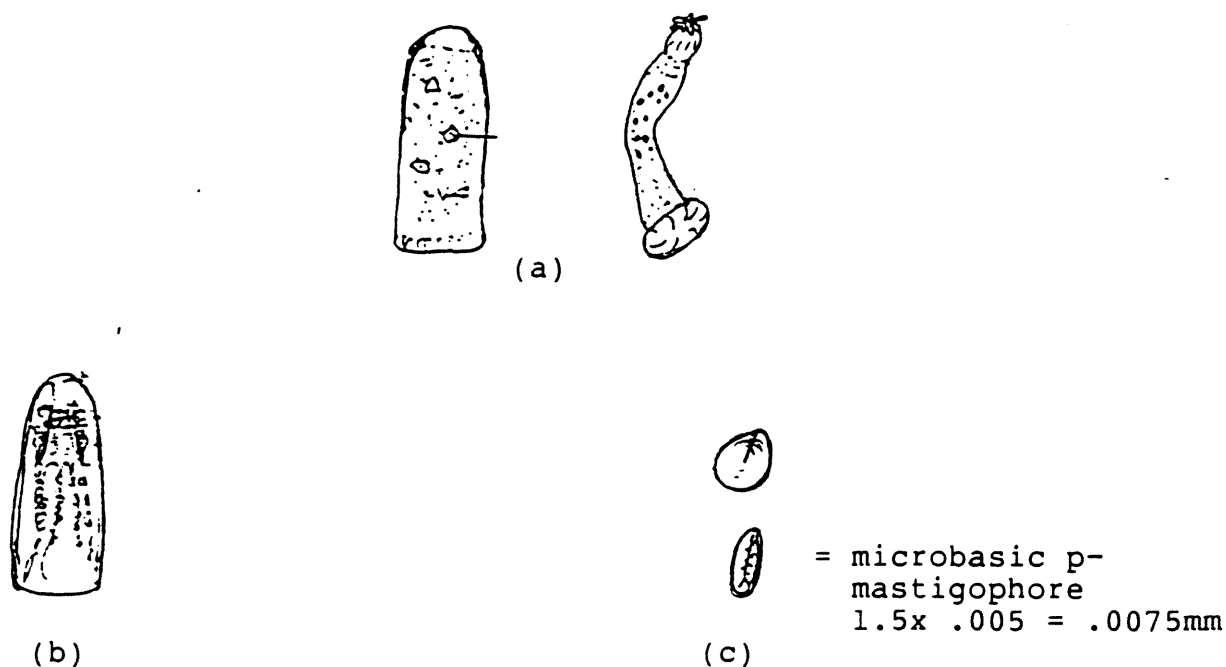
Literature: Calgren, O. 1949. A survey of the Ptychodactiaria, Corallimorpharia, and Actinaria. Kungl, Svenska Vetenskapskademiens Handlingar Fjarde Serien Band 1 N:01.

Diagnostic Characters:

1. Column divisible into physa, scapus, and scapulus, of which the first two are visible in contracted specimens.
2. Column covered by a rust colored "fluffy" cuticle with verrucae which hold quartz sand grains; column ususally thin, but in older specimens may be 0.2 mm thick.
3. 12 perfect fertile mesenteries (macrocnemes) and probably 12 microcnemes.
4. 24 tentacles in 3 cycles; inner larger than outer; hollow with a reddish-purple endodermal core.
5. Margin tentaculate; no fosse.
6. Probably 2 mesogloal sphincters, one at the margin, the other at the scapus/scapulus junction.
7. 2 weak siphonoglyphs; yellowed white actinopharynx in upper column; no conchula.

Distribution: Orange County to Pt. Conception

Comments: Keys out to Halianthella, Kwietniewski 1896. p 588.



Figures. a) 2 specimens, external view. b) general internal view.
c) nematocysts of tentacles.

Synonymy: Anemone #92 of Ljubenkov

Literature: Calgren, O. 1949. A survey of the Ptychodactiaria, Corallimorpharia, and Actinaria. Kungl. Svenska Vetenskapskademiens Handlingar Fjarde Serien Band 1 N:01.

Diagnostic Characters:

1. Column translucent; no verrucae or other adherent organs; smooth; color (ETOH) light brown to yellowed; to 1.6 cm in length.
2. 5 pairs perfect fertile mesenteries and one pair imperfect and infertile = 6 pairs of mesenteries.
3. 10 short blunt tentacles creased at the base (oral side).
4. Hypostome (mouth) a transverse slit.

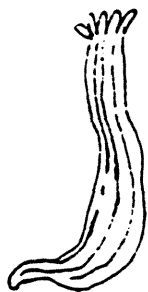
Distribution: OCSD 8606 Con I/1; CSA parcel one 2-2/C. Depth 60-100M

Comments: This appears to be Halcampa decemtentaculata Hand, 1954; but I would like to see larger specimens before making a synonymy.

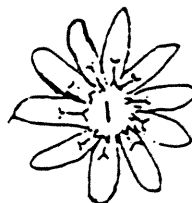


(a)

1.6mm



(b)



(c)

Figures: a) contracted in ETOH. b) expanded. c) view of tentacles from above.

SCAMIT CODE: MEC 9

Date Examined: April 8 1989
Voucher By: John Ljubenkov, MEC

Literature: Carlgren O. 1949. A Survey of the Pthchodactiaria, Coralli-
morpharia and Actiniaria. Kungl. Svenska Vetensk. Handl.
F.S. Band 1 No. 1.
Stephenson. 1928. The British Sea Anemones. Vol. 1, Ray Soc.
#113 for 1927, London.
Carlgren, O. and Stephenson. 1928. The British Edwardsiidae.
J. Mar. Biol. Assoc. (U.K.), Vol. 25, No. 1.

Diagnostic Characters:

1. Nemathybomes (nematocyst "blisters") scattered on upper column and present on physa.
2. Physa not delineated from body, base rounded, not a rosette and in general not tapering.
3. Outer surface a distinct rusty-brown color, even after preservation.

Related Species and Character Differences:

Edwardsia (Edwardsiella) californica McMurrich 1913 - a bay and estuary form (Mission Bay, San Pedro back bay before harbor development) - possibly in very shallow open ocean e.g. off San Onofre); rarely encountered.
Edwardsia sp. A - see Scamit Vol. 2, No. 3

Variability: Color often grades to grayish in some specimens. Some specimens have a "cuticle" over the physal nemathybomes.

Common Synonyms: Often mistaken for a holothuroid.

Aids to Identification: 8 bands running length of body (=mesenterial insertions), scattered nemathybomes, physa not delineated from body.

Distribution: First occurs in deeper parts of harbors and bays, continues out to 100-120 m.

Comments: The most common infaunal anemone on the shelf.

