1984 AUG -2 AM 10:35

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SOUTHERN CALIFORNIA ASSOCIATION OF MARINE INVERTEBRATE TAXONOMISTS

July 1984 Vol. 3, No. 4

Next Meeting:	August 13, 1984
Place:	Cabrillo Marine Museum 3720 Stephen White Drive San Pedro, CA 90731
Guest Speaker:	Barbara Berman, A.G. Heinz Co., Inc. "Set-up of microscopes and video system"
Specimen Exchange Group:	Ctenodrilidae, Flabelligeridae, Scalibregmidae
Topic Taxonomic Group:	Cirratulidae
Literature Request:	Bring in literature used to identify Cirratulids

MINUTES FROM July 9, 1984

Official Home of SCAMIT is the Cabrillo Marine Museum: SCAMIT has been granted permission to meet at Cabrillo Marine Museum, exempt of fees, by the City of Los Angeles. SCAMIT's voucher collection and taxonomic literature will be incorporated into the museum's reference collection and library, respectively.

Helpful Hints: Douglas Diener reported a new genus of cumacean from California. Two specimens of Petalosarsia sp. were collected in the Santa Barbara Channel (Platform Gail site), closer to Anacapa island, in about 140 m of water. This species can easily be confused with two Campylaspis species and one should look closely for the abbreviated telson. Doug will be reworking his key soon to include this genus. Species from this genus are known from Japan and the East coast. Much comparative work needs to be done, until then he is provisionally calling this Petalosarsia sp. A.

Brent M. Haycock 8-2-84

J. F. STAHL 8-2-84

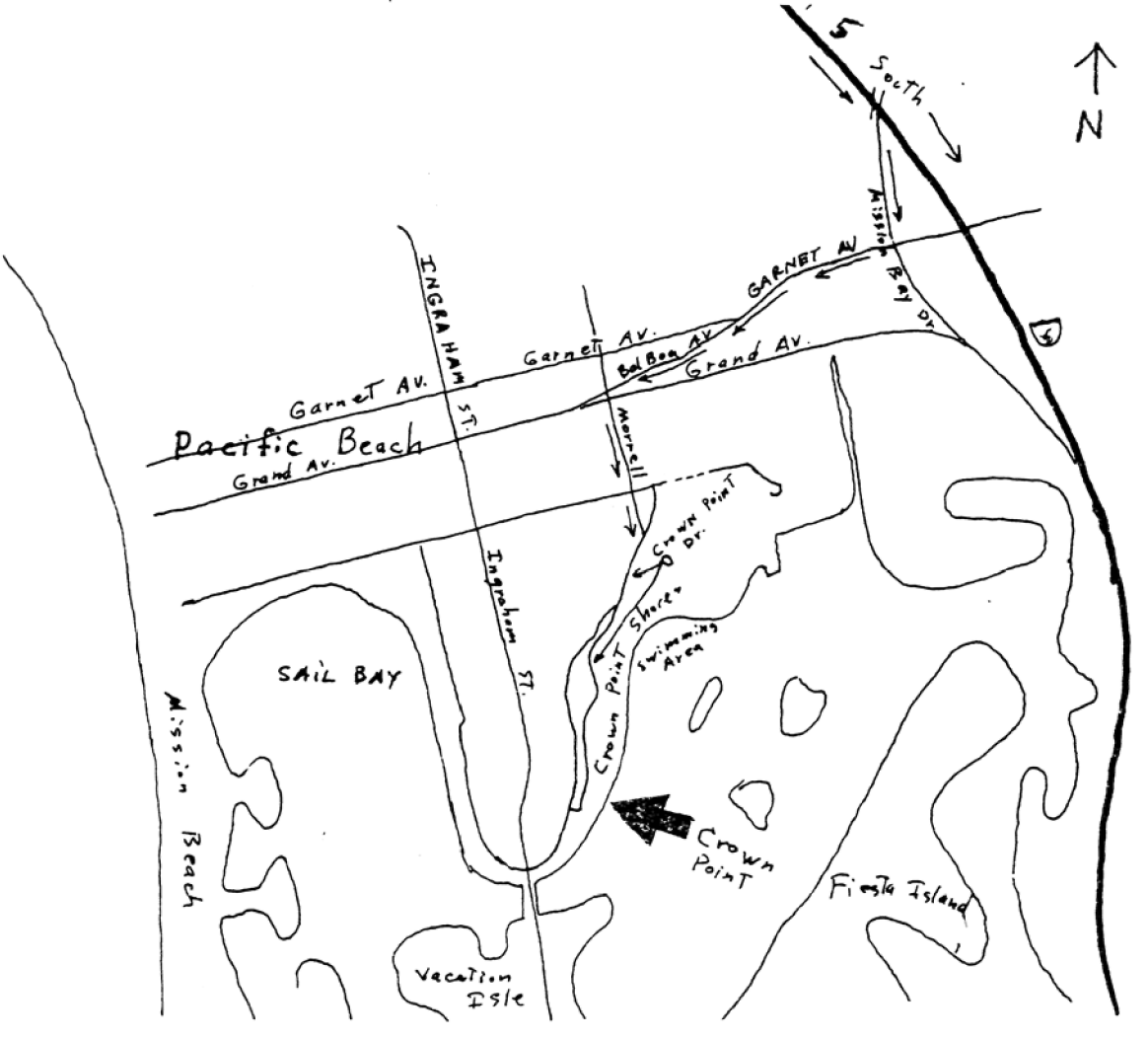
C. W. CARRY

List of July 9, 1984 Topic Specimens:

SCCWRP 40	Carinoma mutabilis
LACO 32	Cerebratulus californiensis
OC 40	Lineus bilineatus
SCCWRP 41	Paranemertes sp. A
OC 41	Tubulanus nothus
OC 42	T. pellucidus
SCCWRP 39	T. polymorphus

SCAMIT's Annual Picnic: Fill out your RSVP for August 18th. If you plan to partake of the Mexican feast, you need only bring munchies and beverages.

PLACE: Crown Point, Mission Bay, San Diego, CA
DATE: August 18, 1984 TIME: 10:00 a.m.
PRICE FOR LUNCH: $4/adult, $2/child
RSVP: Ann Martin
Biology Laboratory
Hyperion Treatment Plant
12000 Vista del Mar
Playa del Rey, CA 90291
PHONE: (213) 322-3131 x 317 or (213) 772-3394 x 269
NUMBER OF ADULTS _____ x $4.00 = _____
NUMBER OF CHILDREN _____ x $2.00 = _____



Travels with Olga: Aboard MS Elisabeth Bakke
London, England
15 July, 1939

Dear Folks: I could not give you any sort of accurate idea of the events that have transpired during the past month. They have been far too diverse and numerous. I do want you to know, however, that I have finally arrived at the world's "capitol". I got here this afternoon via train from Manchester. I feel that I have seen a great deal of Scotland and England, since we first arrived at Glasgow on the second. The Elisabeth Bakke was tied up a week, giving us an opportunity to use her as a base ship. We saw the Clyde Basin (the world's greatest ship-building center) as few get to see it. Our boat being both a freighter and small enough to get up the channels, gave us a superb opportunity.

Glasgow is the most typical Scotch city in the world. It is steeped in old world history since the beginning of the Christian era, and even older. The Scotch are as different from the English as the latter are from a western American. They speak English, but many are quite incomprehensible to our own ears. I enjoyed most of all the University of Glasgow, its various departments, the Cathedral, and many
of the shops. It was only an hours train ride from Glasgow to Edinburgh, - hence I spent two days at the latter. The castle is the most impressive sight there. It covers several acres, high up on a natural rocky crag overlooking the North Sea, and differs not greatly from the time of Mary Stuart. The best, most intelligent way to learn history is to go to these places where history was made. I walked the "Royal Mile" from the castle to Holy-Palace (Mary's home) where many of the dastardly deeds were enacted. It was not all play for me, however, for I did visit a lot of places in the interest of zoology, - some of the highlights of local color included: long-haired Highland cattle, sheep dogs, scotch kilts and bagpipes, mothers carrying their babies about them in a tartan shawl, etc.

On Saturday evening the Elisabeth lifted her hawsers and went to Liverpool. We went out on a tide, down the clyde, into the Irish sea, skirted the Isle of Man and waited Sunday morning for the tide to carry us up the Mersey River to Liverpool. Many ships were anchored about us, waiting. We were within 6 miles of the sunken Thetis (the sunken Thetis refers to the English submarine which caused loss of lives about the time of the sinking of the American submarine Squalus). She had been built at Birkenhead, just across the river from Liverpool. There we stayed 3 1/2 days. Our boat was always able to go far enough as that we were proximal to the heart of the city. That meant a great deal in going back and forth. Liverpool is English, and much more modern than Glasgow, but retains much old world charm. The zoologists from the university had left for Port Erin on the Isle of Man (where the summer station is located) hence I missed them, but talked long with the librarian and an assistant in oceanography.

Wednesday night we left the Liverpool docks (I must add that these are the most developed docks. There is a tidal difference of 30 feet, and while the water runs low, thousands of merchant ships are safely harbored behind the locks along the water front. Ships can go in or out only when the tide stands high, or also when there are no fogs, for they are keenly maneuvered by numerous tugs that ply back and forth).

From Liverpool to Manchester there is a narrow ship canal, so narrow that the Elisabeth scraped the sides several times, even though she had tugs fore and aft. Larger vessels cannot enter. We were nearly 12 hours going the 40 miles to Manchester. It was amazing to note the importance of that tiny canal. The Manchester docks are a beehive of activity.

Throughout the British Isles we have seen great quantities of grain being hoarded. Granaries are filled, hundreds of Lighters (flat-bottomed boats) stand in the docks, filled with grain. The big warehouses have it poured in on the floor, open to pigeons and pests. Much of this was an outcome of the war scare. I wonder what it will do to next year's crop prices?

The English country, between Manchester and London is an undulating series of low hills, lakes and valleys. There is much water, and thus greenery. There are no extensive woodlands. It presents a very comfortable appearance, with moderate prosperity.

London is too new in my experience to be discussed. I arrived at a station many miles from where I now am, but I came over almost immediately to South Kensington, where the Natural History Museum is located. For the week at least, I am staying in a hotel, just 1/2 block from the Br. Mus. I find that it is French, the table menus are in French, the chef is French and the waitresses are French. I believe it will be too expensive for me to stay longer than one week. Rate: demi-pension, meaning bed, breakfast, and dinner is 3 1/2 guineas (a guinea is ca. $5.00). However, maybe I can learn some French.

A last note before I leave the Bakke ships; -if you ever hear of anyone who wants to take a most interesting journey, with first class travel all the way, I would unreservedly recommend the Knutsen line. Most of our passengers were practically "ocean commuters", and they all said the same. The Bakke ships call at Vancouver, San Francisco, San Pedro, the Canal Zone, Glasgow, Liverpool, Manchester and Belfast, and make about 4 trips a year. Service is marvelous.

Jaeropsis dubia Menzies, 1951 Vol. 3, No. 4
Jaenopsidae

SCAMIT CODE: LACo. 28 Date Examined: May 14, 1984

Synonymy: None

Literature Cited:

Menzies, R. J. 1951. New marine isopods, chiefly from northern California, with notes on related forms. U.S. Nat. Mus., Proc. 101:105-106.

Miller, M. A. 1968. Isopoda and Tanaidacea from buoys in coastal waters of the Continental United States, Hawaii, and the Bahamas (Crustacea). U.S. Nat. Mus., Proc. 125(3652) 53 pp. (see p. 25)

Schultz, G. A. 1966. Submarine canyons of southern California. Part IV, Systematics: Isopoda. Allan Hancock Pac. Exped. 27(4): 56 pp. (see p. 285)

Diagnostic Characters:

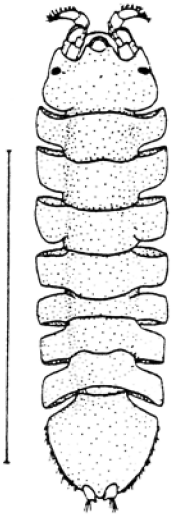
Cephalon with indentation in anterior third of length, and often dark (purplish) when preserved. Pleotelson with a row of 5-7 spines on each lateral border.

Variability: None noted

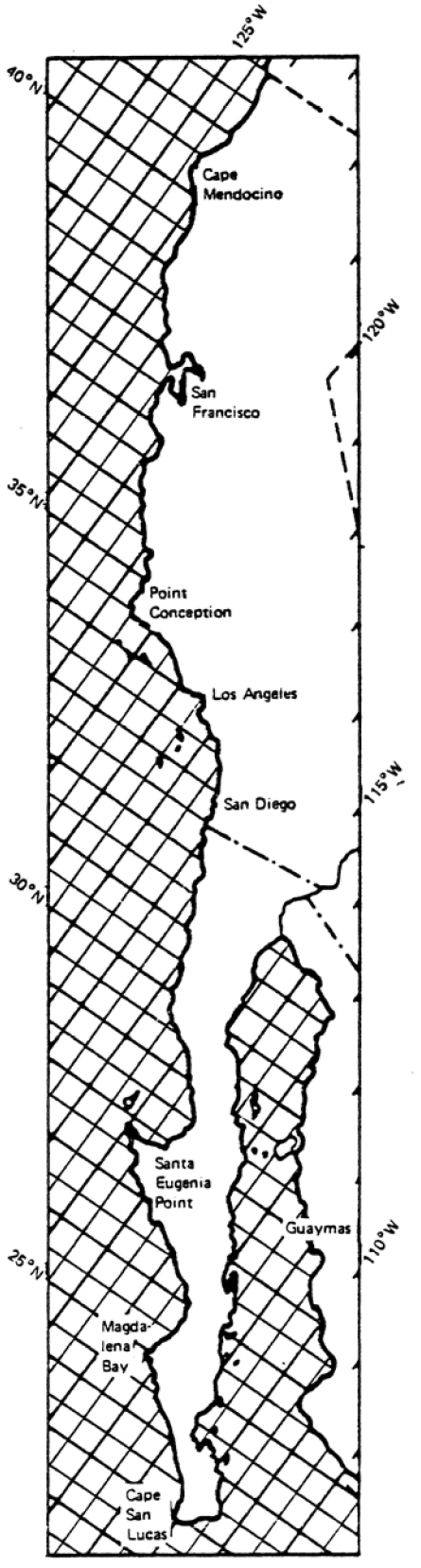
Related Species and Character Differences:

Jaeropsis lobata - lacks spines on lateral edge of pleotelson

Jaeropsis sp. B (sensu Cadien, MBC) - has long recurved spines on article 1 of antenna 1



Jaeropsis dubia (Menzies)



Depth Range: 10-50 fms

Distribution:
Marine County, California to the Mexican border

Ecology:

Additional Comments:

Edotea sublittoralis Menzies and Barnard, 1959 Vol. 3, No. 4
Idotiidae

SCAMIT CODE: TVG 2 Date Examined: May 14, 1984

Synonymy: None

Literature Cited:

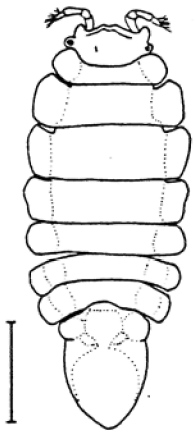
Menzies, R. J., and J. L. Barnard. 1959. Marine isopoda on coastal shelf bottoms of southern California: Systematics and ecology. Pac. Nat. 1(11): 35 pp. (see p. 21)

Schultz, G. A. 1969. How to know the marine isopod crustaceans. Wm. C. Brown Company Publishers. 395 pp. (see p. 81)

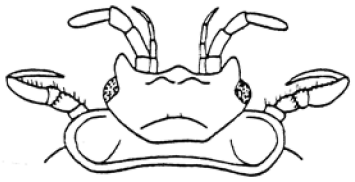
Diagnostic Characters:
Two small tubercles on frontal margin of cephalon. Abdomen bears 3 basal swellings, the middle one bulbous and inflated.

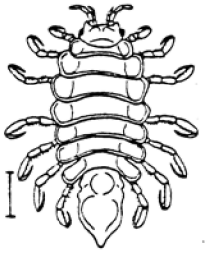
Variability: None noted

Related Species and Character Differences:
Edotea triloba - has low dorsal tubercles and has more pointed abdomen
Edotea montosa - eyes less projecting

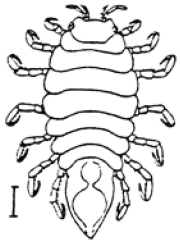


Edotea sublittoralis

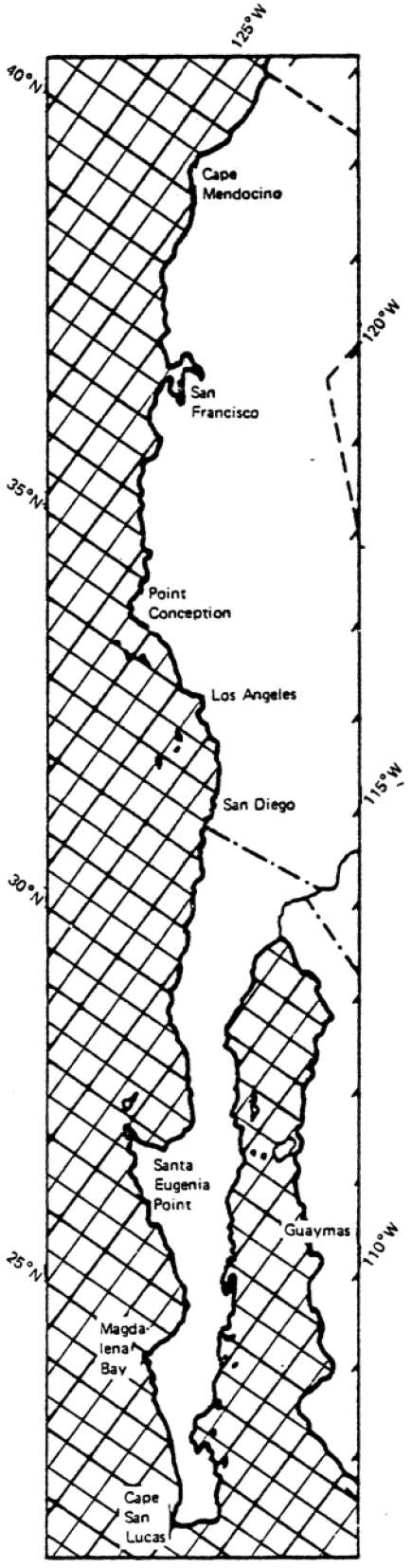




Edotea montosa (Stimpson)



Edotea triloba (Say)



Depth Range: 14-64 m

Distribution:
Point Conception, California to Northern Mexico.

Ecology:

Additional Comments:

Silophasma geminatum (Menzies and Barnard, 1959) Vol. 3, No. 4
Anthuridae

SCAMIT CODE: OC 38, LACo. 29 Date Examined: May 14, 1984

Synonomy:
Haliophasma geminata Menzies and Barnard, 1959

Literature Cited:

Menzies, R. J., and J. L. Barnard. 1959. Marine isopoda on coastal shelf bottoms of southern California: Systematics and ecology. Pac. Nat. 1(11): 35 pp. (see p. 17)

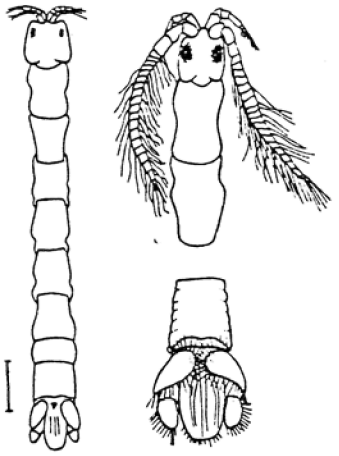
Schultz, G. A. 1969. How to know the marine isopod crustaceans. Wm. C. Brown Company Publishers. 359 pp. (see p. 103)

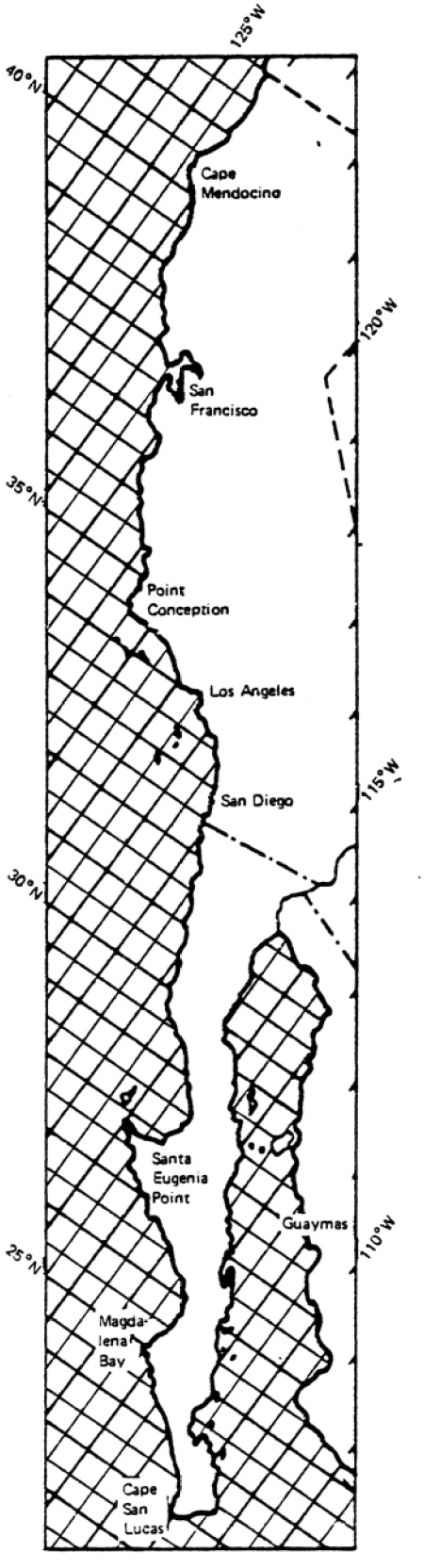
Schultz, G. A. 1977. Antherids from the west coast of North America, including a new species and three new genera (Crustacea, Isopoda). Proc. Biol. Soc. Wash. 90(4):839-848. (see p. 840)

Diagnostic Characters:
Mouthparts for chewing. Lacks dorsal grooves and pits. Maxillipedal palp with two articles.

Variability: None noted

Related Species and Character Differences:
Haliophasma tricarinata - two articles in second antennal flagellum (not one as in *Silophasma geminatum*





Depth Range: 5-280 fms

Distribution:

Southern California shelf and slope, 5-280 fms; Santa Catalina Island, 40-67 fms; Santa Rosa Island, 8 fms.

Ecology:

Additional Comments:

Gnathia crenulatifrons Monod, 1926 Vol. 3, No. 4
Gnathiidae

SCAMIT CODE: PL 41, LACO 27 Date Examined: May 14, 1984

Synonymy: None

Literature Cited:

Schultz, G. A. 1969. How to know the marine isopod crustaceans. Wm. C. Brown Company Publishers. 359 pp. (see p. 224)

Schultz, G. A. 1966. Submarine canyons of southern California. Part IV, Systematics: Isopoda. Allan Hancock Pac. Exped. 27(4): 56 pp. (see p. 19)

Menzies, R. J., and J. L. Barnard. 1959. Marine isopoda on coastal shelf bottoms of southern California: Systematics and ecology. Pac. Nat. 1(11): 35 pp. (see p. 27)

Monod, T. 1926. Les Gnathyiidae. Soc. Sci. Nat. Maroc. Mem. 13:1-667.

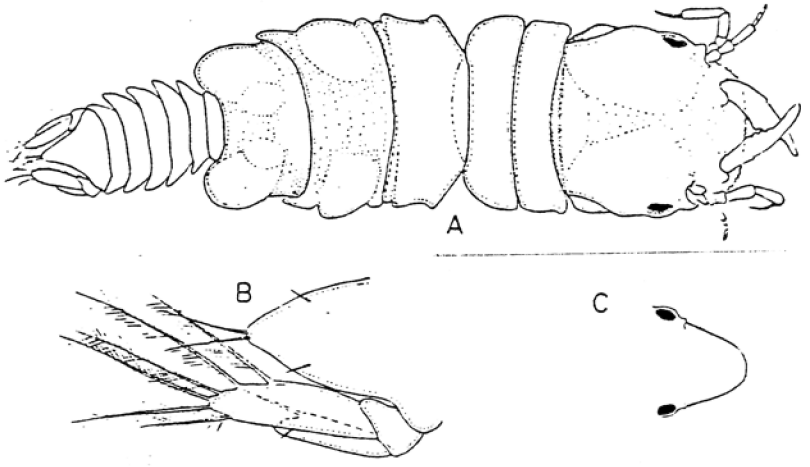
Diagnostic Characters:

Cephalon as long as wide. Frons broad, slightly convex, minutely crenulated, lacking dorsal projections. Inner face of mandible bears three teeth.

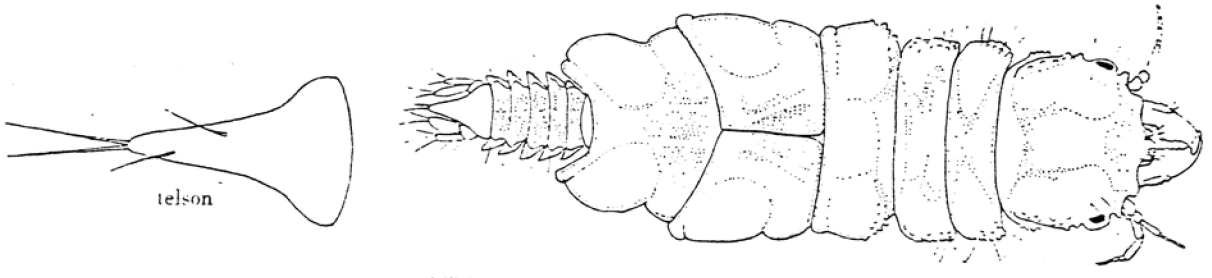
Variability: As noted

Related Species and Character Differences:

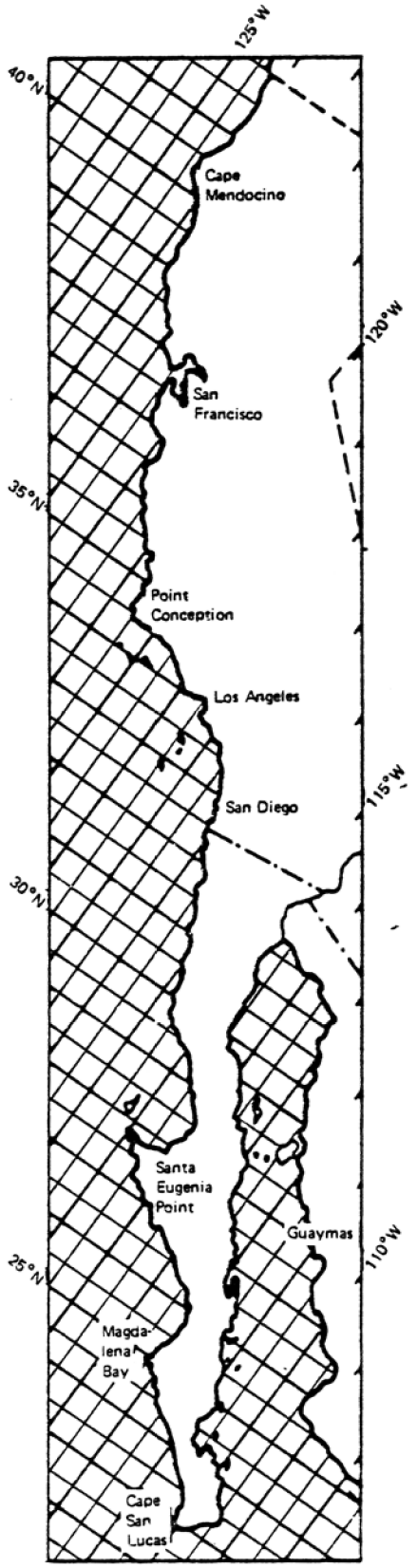
Gnathia productatridens - trifid frons
Gnathia sanctaecrucis - pointed projection from anterior margin of cephalon



Gnathia crenulatifrons Monod. A. male, 4 mm., dorsal view; B. male telson and uropod; C. female, 4 mm., head.



Gnathia productactridens n. sp.



Depth Range: 5-1258 fms

Distribution:
Southern California coastal shelves and slopes, 5-100 fms; Santa Catalina Island, 40-136 fms; Santa Catalina Basin, 688 fms.

Carinoma mutabilis Griffin, 1898 Vol. 3, No. 4
Carinomidae

SCAMIT CODE: SCCWRP 40 Date Examined: July 9, 1984

Synonymy: *Carinoma griffini* Coe, 1901

Literature Cited:
Coe, 1901; Coe, 1940; Corrêa, 1964, Bernhardt, 1979 (unpublished); MacEwen (unpublished)

Diagnostic Characters:
Live: size 25 mm-50 cm length; 2-5 mm diameter. Mouth and probosis pore separate and without cephalic grooves and caudal cirrus. Body white, head rounded with posterior often coiled in a spiral. Anterior behind head often appears wrinkled in preserved specimens (Fig. 1). Lateral nerve cords are imbedded in the longitudinal muscles in the anterior and posterior regions (Fig. 2).

Variability:

Related Species and Character Differences:

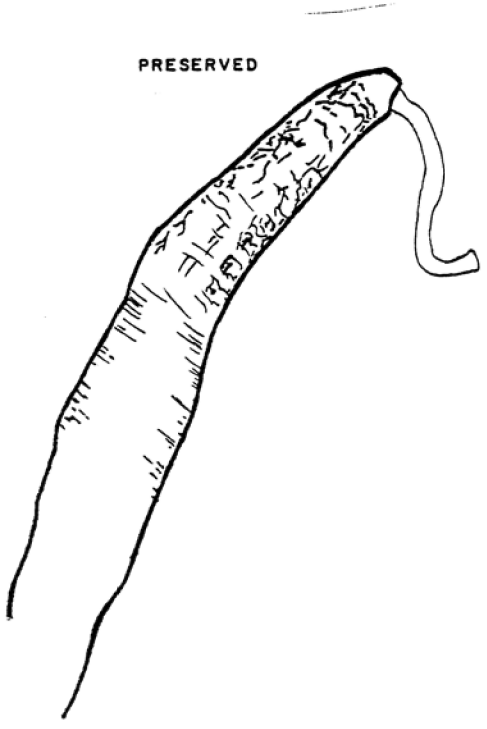


Figure 1.

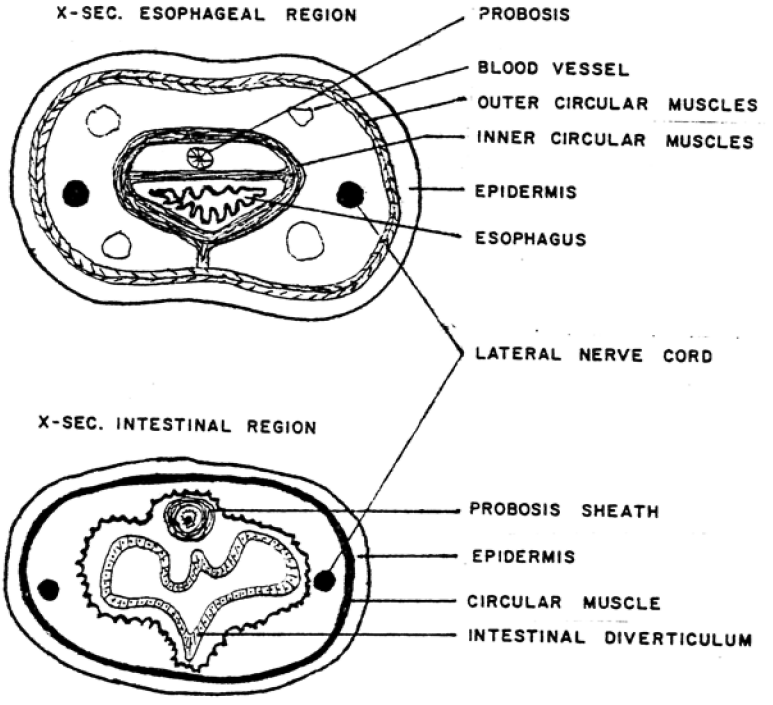
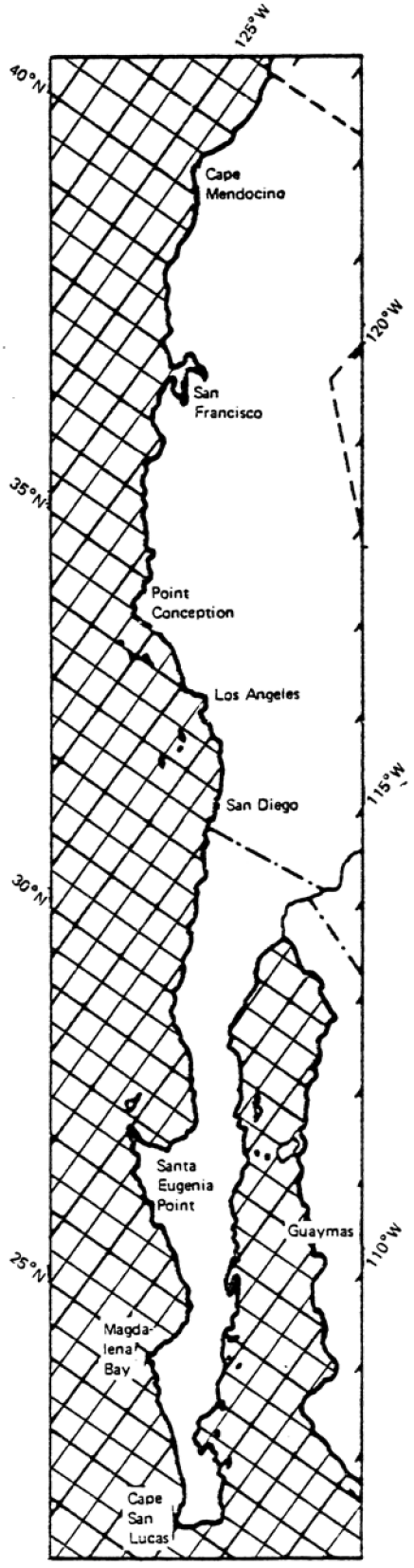


Figure 2.



Depth Range: 16-59 m (BLM survey).

Distribution:
British Columbia, Puget Sound, and southward to Gulf of California (Coe 1940).

Habitat:
In sand, sandy mud, and clay between tides and below. In mud, usually small numbers of large worms; on rocky bottoms, large numbers of small worms appear in clumps in sediment or sand pockets

Ecology:

Additional Comments:

Paranemertes sp. A
Emplectonematidae

Vol. 3, No. 4

SCAMIT CODE: SCCWRP 41

Date Examined: July 9, 1984

Synonymy: None

Literature Cited: Bernardt, 1979 (unpublished)

Diagnostic Characters:

10-40 mm length; 3-5 mm width. Body short and stout; rounded anteriorly and flattened in the intestinal region. Mouth and probosis pore united. Cephalic furrows and caudal cirrus absent. Head and posterior end of the body bluntly rounded. Color of the body is white, sometimes with tinges of green, grey, or pink. Intestinal tract is dark green but may fade over time with preservation. Two large black oval ocelli located near the tip of the head on each side of the probosis sheath (Fig. 1). The probosis armature bears a single stylet which is slender and about 2/3 basis length.

Variability:

Related Species and Character Differences:

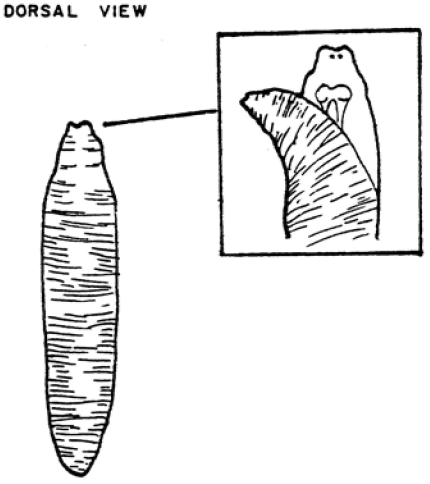
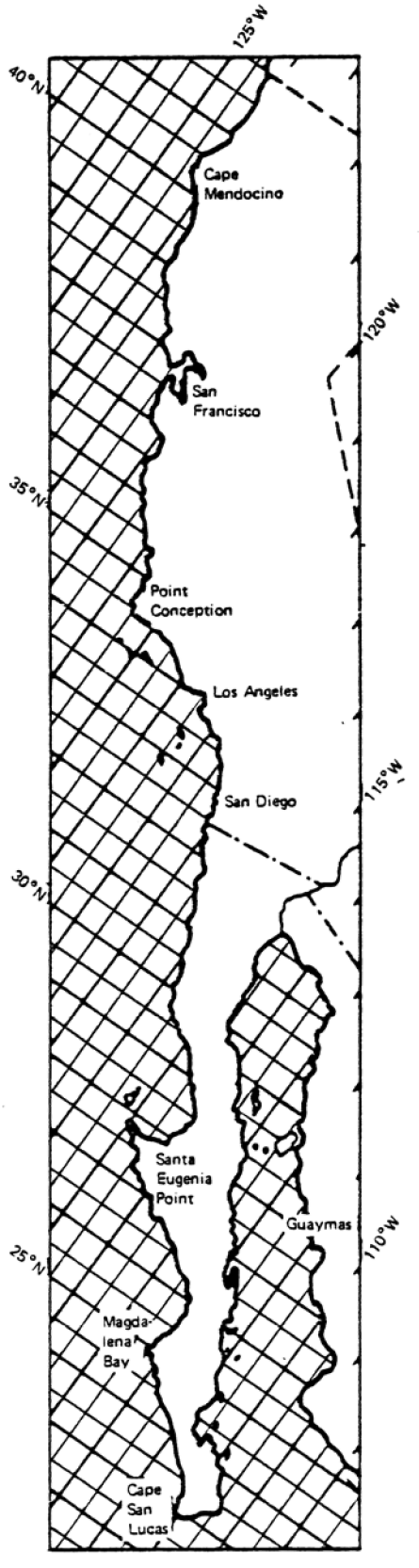


Figure 1.



Depth Range: 66-71 m (BLM survey).

Distribution:
King Harbor, Redondo Beach and on continental shelf in southern California.

Habitat: Mud; subtidal

Ecology:

Additional Comments:
Paranemertes sp. A refers to at least one, and possibly two or three, undescribed species present on the Continental Shelf in southern California

Lineus bilineatus (Renier, 1804) Vol. 3, No. 4
Lineidae

SCAMIT CODE: OC 40 Date Examined: July 9, 1984

Synonymy: *Lineus albolineatus* Coe (1904, 1905)

Literature Cited:
Coe, 1905; Coe 1940; Cantell, 1975; Bernhardt, 1979 (unpublished); MacEwen (unpublished)

Diagnostic Characters:
Live: 10-20 cm length; 2 mm diameter. Head with deep cephalic furrows of moderate length. Body rounded in esophageal region and flattened posteriorly. Body dark brown or olive-brown; with a conspicuous mediodorsal stripe or white or yellow, widening on head to form a broad whitish mark (Fig. 1). No caudal cirrus present.
Variability:

Related Species and Character Differences:

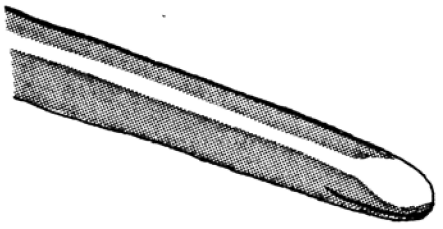
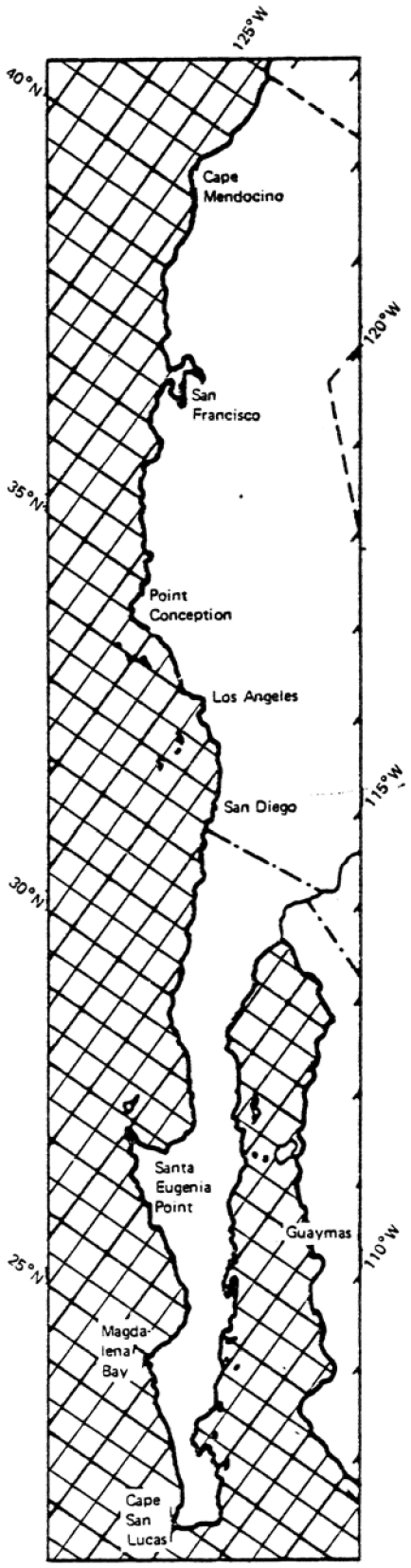


Figure 1.



Depth Range:

Distribution:
Coasts of Europe, Mediterranean, Madeira, South Africa; coasts of Alaska, and from Puget Sound to San Diego, California (Coe 1940).

Habitat:
Among algae and other growths, kelp holdfasts and beneath stones near low-water mark and below

Ecology:

Additional Comments:

Cerebratulus californiensis Coe, 1905 Vol. 3, No. 4
Lineidae

SCAMIT CODE: LACO 32 Date Examined: July 9, 1984

Synonymy: None

Literature Cited:
Coe, 1905; Coe, 1940; Bernhardt, 1979 (unpublished); MacEwen (unpublished)

Diagnostic Characters:
Live: 10-15 cm length; 4-5 mm width. Mouth and probosis pore separate. Body rounded in the anterior region, much flattened and with very thin margins in the intestinal region (Fig. 1). Body color greyish, pinkish, yellowish, buff, dark brown, or reddish-brown without distinctive markings. Cephalic furrows moderately long and very deep. Caudal cirrus small but conspicuous. Probosis very long and slender. Ocelli absent. Preserved body shortens and fragments easily.

Variability:

Related Species and Character Differences:

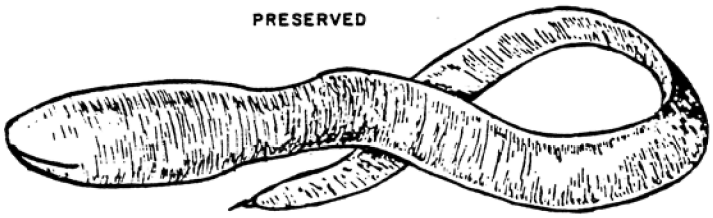
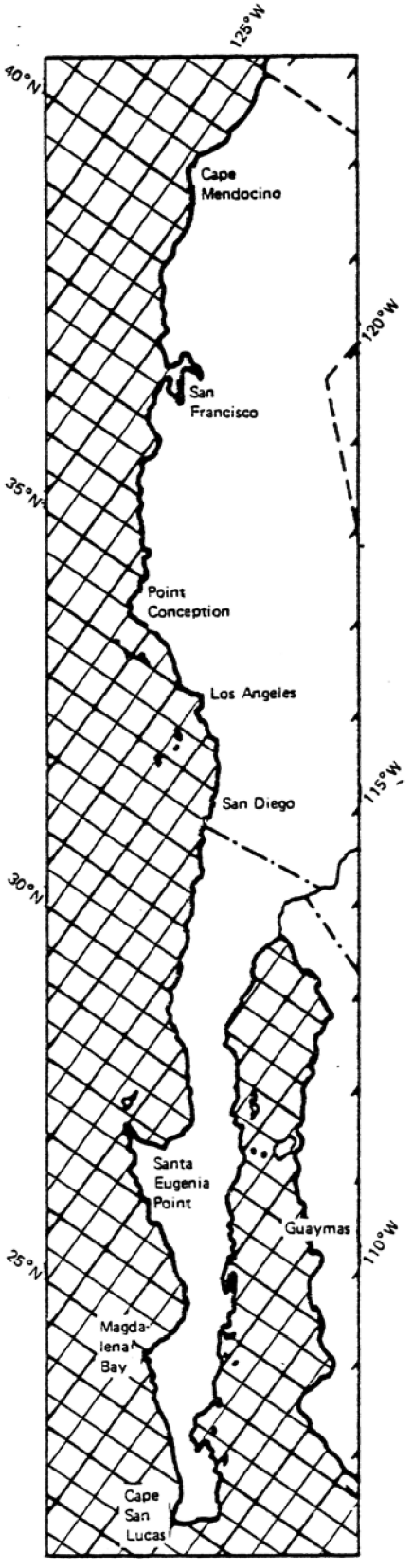


Figure 1.



Depth Range:
Intertidal to 50 m (Coe 1940).
88-504 m (BLM survey).

Distribution: Puget Sound to coast of Mexico

Habitat:
In mud, sandy mud, or sand between tides in bays and harbors (Coe 1940).

Ecology:

Additional Comments:
A slit on the lateral margins of the body just anterior to the mouth have been observed on some specimens. This observation has not been described

Tubulanus nothus Burger, 1892 Vol. 3, No. 4
Tubulanidae

SCAMIT CODE: OC 41 Date Examined: July 9, 1984

Synonymy: None

Literature Cited: Coe, 1944; Corrêa, 1964

Diagnostic Characters:

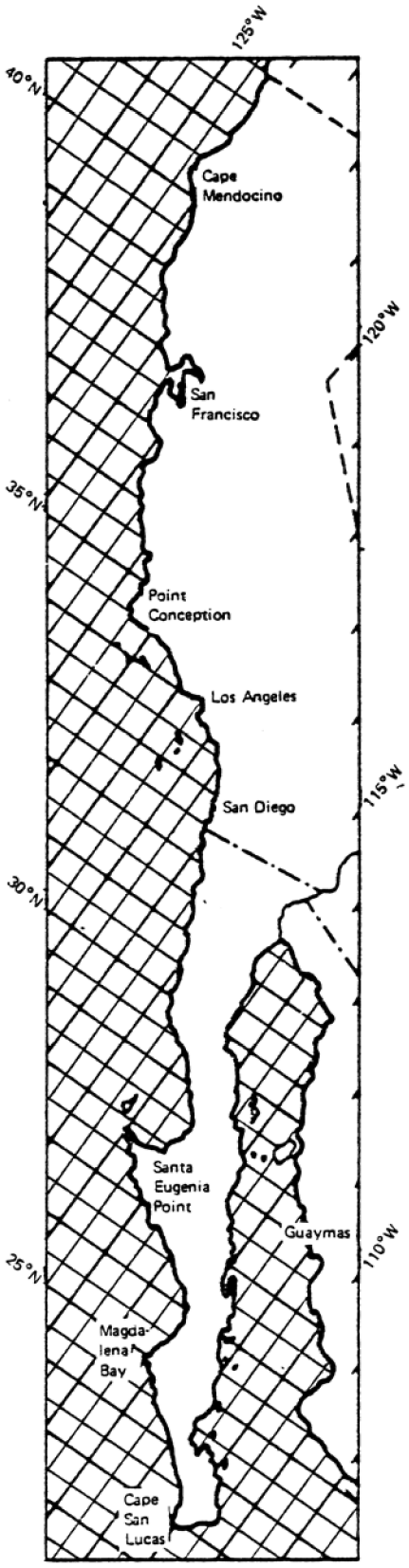
Live: small, 10 cm length; color brownish red with two longitudinal lateral lines, one dorsomedian and a series of white rings (Corrêa, 1964). After preservation, a narrow brownish-red band appears in the esophageal region, followed by a dark purple band which gradually fades towards the posterior (Fig. 1). Body slender throughout. Head about as wide as rest of body. Head marked off from body by slight lateral constriction. Mouth and probosis pore separate. No cephalic grooves or caudal cirrus present. Lateral sense organ fairly well developed. Lateral nerve cord external to circular muscle sor at base of epithelium.

Variability:

Related Species and Character Differences:

DORSAL VIEW (PRESERVED)

Figure 1.



Depth Range:

Intertidal zone to 40 m (Burger 1892) 16-185 m (BLM Survey).

Distribution:

Coast of Alaska, South Africa, Mediterranean (Burger 1892). Southern California. (SCAMIT).

Ecology:

Additional Comments:

The non-pigmented mediodorsal stripe is faintly visible within the purple band. The series of white rings found in live specimens are not usually seen in preserved specimens

Tubulanus pellucidus Coe, 1895 Vol. 3, No. 4
Tubulanidae

SCAMIT CODE: OC 42 Date Examined: July 9, 1984

Synonymy: *Carinella pellucida* Coe, 1895, 1905

Literature Cited:
Coe, 1940; Coe, 1951; Bernardt, 1979 (unpublished); MacEwen (unpublished)

Diagnostic Characters:
Live: small, slender; 10-25 mm length, 0.5-1 mm width. Head often emarginate, marked off from body with slight lateral constructions (Figs. 1 and 2). After preservation, a conspicuous brown band appears in the esophageal region. Cerebral sense organs little developed. Without cephalic grooves or caudal cirrus. Lateral sense organs fairly well developed on lateral margins in preservation ring. Lateral nerve cords external to circular muscles or at base of epidermis throughout the body (Fig. 3).

Variability:

Related Species and Character Differences:
Size and head shape is the best approach to separate *T. pellucidus* from *T. polymorphus*. Size is small and head is rapidly tapering compared to larger size and broad, rounded head in *T. polymorphus*. *T. pellucidus* can be separated from *Carinomella lactea* by sectioning the intestinal region. *Carinomella*'s lateral nerve cords are imbedded in the longitudinal muscles posteriorly, while *T. pellucidus*' are external to circular muscles.

Figure 1.

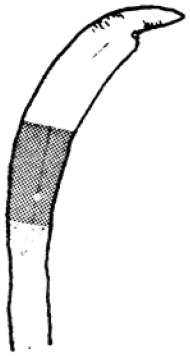


Figure 2.

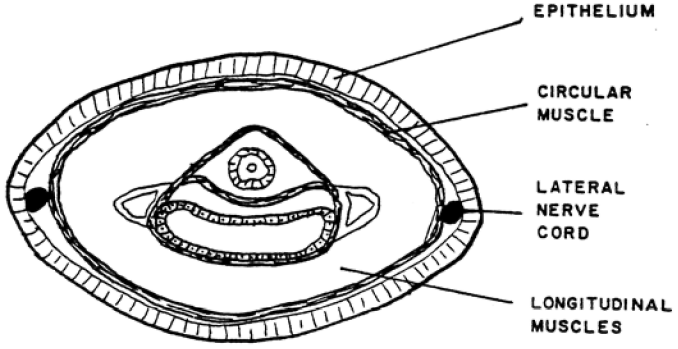
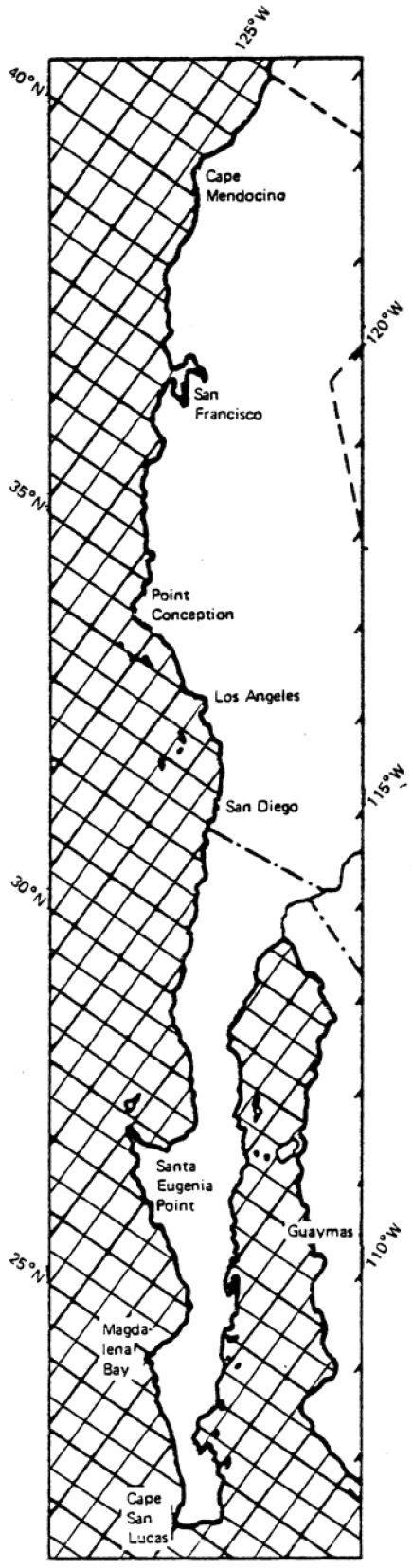


Figure 3.



Depth Range:
Intertidal zone and below to a depth of at least 20 m (Coe 1951). 13-652 m (BLM survey).

Distribution:
Coasts of New England; Monterey Bay to San Diego, California (Coe 1940).

Habitat:
Common subtidally on mud bottoms. In delicate cellophane-like tubes under stones and among algae and other growths.

Ecology:

Additional Comments:

Tubulanus polymorphus Renier, 1804 Vol. 3, No. 4
Tubulanidae

SCAMIT CODE: SCCWRP 39 Date Examined: July 9, 1984

Synonymy:
Carinella rubra Griffin, 1898; Coe, 1904, 1905
Carinella speciosa Coe, 1901

Literature Cited:
Coe, 1901; Coe, 1905; Coe 1940; Corrêa, 1964; Bernardt, 1979 (unpublished); MacEwen (unpublished)

Diagnostic Characters:
Live: size up to 3 m in length, 1 cm width. Color red, bright orange-yellow or vermilion. In alcohol, color turns to dull grey or brownish yellow, with a conspicuous brown preservation band in the esophageal region (Fig. 1). Mouth and probosis pore separate. Without cephalic grooves and caudal cirrus. Head broad and rounded, with well-developed cephalic glands, lateral sense organs and cerebral sense organs. Lateral nerve cords are external to circular muscles or at the base of body epithelium throughout the body (Fig. 2).

Variability:

Related Species and Character Differences;
T. polymorphus can be separated from *T. pellucidus* by size and head shape. *T. polymorphus* has a larger body and a broad, rounded head compared to the smaller bodied, slender, rapidly tapering head of *T. pellucidus*. *Carinomella lactea* is similar to *T. polymorphus* and can be separated by sectioning the intestinal region. The lateral nerve cords are imbedded in the longitudinal muscles posteriorly in *Carinomella* while in *T. polymorphus* it is external to the circular muscles.

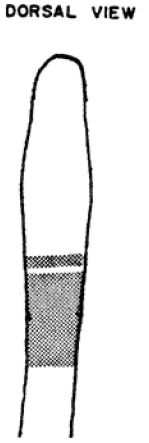


Figure 1.

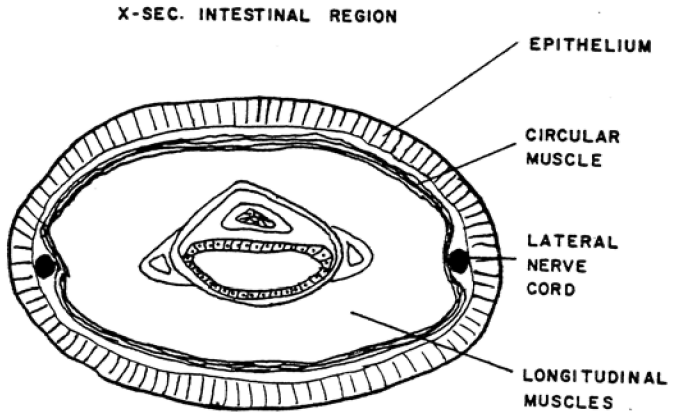
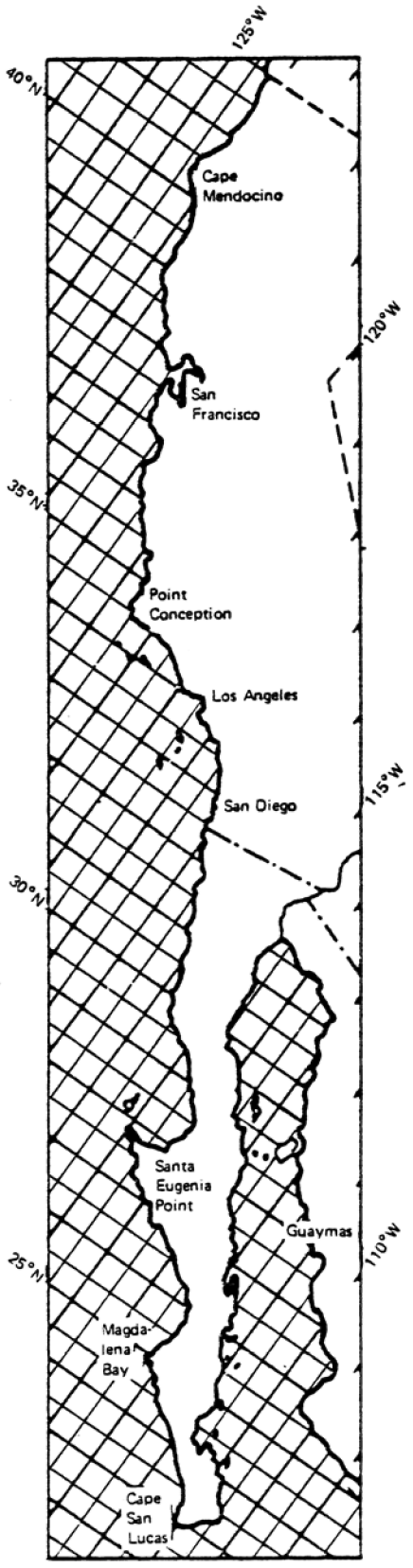


Figure 2.



Depth Range:

Distribution:
Aleutian Islands to southern California

Habitat:
Common subtidally on mud bottoms. Occasional on rocky bottoms in crevices, algae, etc.

Ecology:

Additional Comments:

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*These papers are good general references or reviews of Pacific Coast species.

Index of Taxa Found in Volumes 1 and 2 of the SCAMIT Newsletter