



**Southern California Association of  
Marine Invertebrate Taxonomists**

3720 Stephen White Drive  
San Pedro, California 90731

December 1985

Vo. 4, No. 9

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Next Meeting: January 13, 1985

Guest Speaker: Dr. Richard Brusca, Curator  
L.A. County Museum of Natural History  
"Clidistics".

Specimen Exchange Group: Cumacea

Topic Taxonomic Group: Oligochaeta

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MINUTES FROM December 9, 1985

Guest Speaker, Dr. Bruce Thompson, gave a review of the Phyla Sipuncula and Echiura. He distributed a packet containing checklists of Southern California species, dichotomous keys to species, literature references, and anatomical drawings. Accurate identification of an Echiuran or Sipunculan requires a good dissection to permit inspection of several diagnostic characters. For the Sipuncula, the animal should be placed with the ventral side up in a wax pinning dish with adequate alcohol to cover the specimen. Using fine iridectomy scissors, a longitudinal cut is made from the tip of the introvert to the posterior end. This incision runs along the lateral margin nearest the wax pinning surface. With several accessory cuts across the body, flaps of integument may be lifted back and pinned to reveal the internal structures. Important characters to note are the arrangement of oral tentacles and hooks on the introvert. Also, note the shape and number of nephridia, retractor muscles and whether any villi are attached to the contractile vessel. For specimens that are too small for dissection (e.g., Golfingia minuta), internal structures will be best seen using a compound microscope with the animal firmly flattened on a slide.

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Echiurans should be examined externally prior to dissection. Possession of setae on the posterior end, prostomial shape, and setal hooks are useful features. Once opened, using similar techniques to the Sipunculid dissection, the nephridia, anal vessicles, body wall musculature, and nephrostomal lips need to be inspected.

Helpful Hints for Sipuncula: The genus Onchnesoma is often found coiled in gastropod shells, such as Kurtziella and Nassarius. Golfingia minuta is commonly found in Foraminifera shells. Golfingia misakiana are extremely small and are best seen with a compound microscope. The tubules on the contractile vessel are best seen at the junction with the intestine. If your specimen belongs to the genus Themiste, use the species key in Stephen and Edmunds, 1972.

For the Echiura: Listriolobus hexamyotus is usually found at depths greater than 300 meters. Juvenile L.pelodes do not display strong muscle bonds and must be carefully examined for additional characters. Males of the Bonnellidae live as parasites within the genital ducts of females.

Baby SCAMITES: The newest SCAMITEER was born to John and Debby Dorsey on December 8th. Her name is Kristen Barbara and weighed 3007 g, measured 52 cm in length, and, luckily, had no setae (but lots of nice brown hair!).

Correction: Voucher sheets from Vol. 4, No. 8 contained an error; the drawings for Anobothrus gracilis and A. trilobatus were switched.

Please note that the Flabelligerid voucher sheets were produced by L. Harris, Marine Biological Consultants.

List of Specimens from December 9, 1985:

Hyp 50 B	<u>Golfingia (Apionsoma) misakiana</u> (Ikeda, 1904)
SCCWRP 64A	<u>Thysanocardia nigra</u> (Ikeda, 1904)
SCCWRP 65A	<u>Golfingia (Apionsoma) misakiana</u> (Ikeda, 1904)
SCCWRP 66A	<u>Listriolobus pelodes</u> (Fisher, 1946)
LACO 64A	<u>Golfingia (Apionsoma) misakiana</u> (Ikeda, 1904)
PL 63A	<u>Onchnesoma</u> sp. A Provisional species by B. Thompson, SCCWRP.

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Travels with Olga

Gustafsson Pensionat  
Sveavagen 108, 4th, (re)  
Stockholm, Sweden  
2 September, 1939

Dear Frieda and Chauncey: You are perhaps better informed of the European situation than I at present, so I shall say nothing of that save that Sweden maintains neutrality. Mobilisation is in effect (you have perhaps read it) but it is only a preventive measure.

I left a greatly perturbed London on Monday afternoon (already that seems ages ago), and joined a very heavy stream of traffic going east. All trains and boats were heavily taxed. Most of the passengers were homeward bound, to Denmark, Germany and Sweden. Several were Americans, going to the continent. London was "bedding itself in" with sand bags, and hastily and feverishly preparing against adversity. Many trasures were packed and carried away to comparative safety. War risk insurance bounded upward, and the pound sterling took a flop.

The journey across was very beautiful, - via train from Liverpool Street Station (London) to Harwich (east coast of England); on the M/S England (a Danish steamer) across the North Sea to Esbjerg, Denmark; (The North Sea was smooth as glass much of the way); then by Danish special train across Jutland, Ostende, to Copenhagen. I remained the night there in a very nice hotel, and had a typical Danish breakfast. (How vastly different from England!) In Copenhagen I saw more bicycles than I have ever seen before in all my life. They flow along the streets like water, - a constant stream. -- And then from Copenhagen to Malmo, Sweden by ferry across the Kattegat, and to Stockholm by Swedish train. The trip was a strain on monetary exchange. I dare say I lost a lot during the process of changing, but there was no choice. I started with shillings and pennies, then to Danish crowns and ores (with holes in the center) and now to Swedish crowns and ores without holes. Coins used here are numerous, but the decimal system is used, hence one can rapidly transpose to foreign exchange.

Have just had a "lesson Swedish" with the maid. What a time we do have! She knows only Swedish, I know practically none. I tried to explain to her that this morning I entered a telephone krosk out on the street to call someone in town who speaks English. I deposited 20 ore, dialed the number and crossed my fingers. Across the wire came a long flow of Swedish. When it stopped, I said, "Forstar ni Englesk eller tyska (German)." The answer was nay. So I hung up. I got the story across to the maid but she asked me several questions I did not comprehend. What a time this is going to be! Questions I can formulate, but when I get back a long



volley of Swedish in answer, there is only blank astonishment. Today I went to a stationery store after a pencil sharpener. There was a clerk who spoke German, and then I could not recall the German word for the instrument.

Swedish foods are excellent. Milk products are numerous and fine. Butter is served in large masses. Coffee is delicious (England's coffee is terrific but the tea is superb). And there are combinations unheard of in my experience. Clabbered milk is eaten in every form and style, - like soup, with salt or sugar, or bread crumbs, etc. Then there is "appelsoppe," (yes, apple soup, hot, for dessert); meats, in infinite variety, and fishes one does not even dream about. But menus are dreadfully frightening. Professor Bock (Riksmuseum) showed me a good restaurant last night (called Blo Rummet) where the choice is limited and meals well-balanced. It should solve a great problem. The maid brings breakfast to my room, hence that is no bother.

The Riksmuseum where I work is in the country. I walk four blocks to a bus station, and for 25 ore go to the museum. It is a short but beautiful ride past lakes and countryside.

Accommodations at the museum are wonderful. Instruments are very good, and there are plenty of them. Several of the people there speak either English or German, hence one can communicate.

Stockholm has beautiful shops, - especially for glass and silverware. The standard of living is fairly high, - largely because most people receive good wages, and there is no real poverty. The greatest poverty I have seen in England was in Glasgow and along the "Royal Mile" in Edinburgh, - strange as the latter may seem. But there must be a lot of it in London.

Have had no word from California for a long time. I wonder how mails are carried. So far as I know, the North Sea is still open for shipping.

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VIDEO TAPES

These tapes of SCAMIT guest lecturers are available for viewing on VHS recorders. Price for renting is \$10.00 with a \$5.00 refund upon return of the tape.

- Tape 1 ( ) Dr. Andrew Lissner and Dr. Wilson Hom: Status of Benthic Archive Samples and Reexamination of Existing Data for California (May 14, 1983).
- Tape 2 ( ) Dr. Pat Hutchings: Systematics of Mediomastus. (January 14, 1985)  
Dr. Richard Bray: Consumer mediated Nutrient Transport into Rocky Subtidal Reefs. (February, 11, 1985)
- Tape 3 ( ) Dr. J.L. Barnard: Amphipod Workshop Morning Lecture (March 7, 1985). Also accompanied with transcribed notes from the discussions on March 6, 8 and 11, 1985).
- Tape 4 ( ) Dennis Lees: Hydroid assemblages of soft-bottomed habitats on the Hueneme Shelf, and factors influencing their distribution (April, 8, 1985).
- Tape 5 ( ) Dr. Burton Jones: Physical and Chemical Processes associated with the Los Angeles County Sanitation Districts Outfall. (November 18, 1985)

TOTAL ENCLOSED: \$ \_\_\_\_\_  
 Mail to: Ann Martin  
 Biology Laboratory  
 Hyperion Treatment Plant  
 12000 Vista del Mar  
 Playa del Rey, Ca. 90291

Falcidens sp.A  
Chaetodermatidae

MEC, Shrake

SCAMIT Vol. 4, No. 8

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Scamit Code: LAC058

Date Examined: 16 September 1985  
Voucher By: Jay Shrake, MEC

Synonymy: None

Literature: Heath, 1911  
Schwabl, 1961, 1963  
Salvini-Plawen, 1975  
Scheltema, 1972

Diagnostic Characters:

- 1) Radula: with a pair of sickle shaped teeth very similar to Falcidens sp.B. With a proximal synapse. Frontal width of radula cone slender. Subradular membrane notched.
- 2) Scales: uniform, simple triangular tapering shape, some keeled, some with indented bases.
- 3) Body: homogeneously shaped, small. Scales in region two (2) are at a 90° angle to body wall.

Distribution:

Southern California north to Point Conception; 50 to 200 meters; in silty sand and mud; shelf, slope areas.

Falcidens sp.B            MEC, Shrake  
Chaetodermatidae

SCAMIT Vol. 4, No. 8

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Scamit Code:    MBC34

Date Examined: 16 September 1985  
Voucher By:     Jay Shrake, MEC

Synonymy:       None

Literature:     Heath, 1911  
                 Schwabl, 1961  
                 Salvini-Plawen, 1975  
                 Scheltema, 1972

Diagnostic Characters:

- 1) Radula: with a pair of sickle shaped teeth very similar to Falcidens sp.A except the basal plate is much narrower in Falcidens sp.B. Subradular membrane without a notch and lateral supports simple.
- 2) Scales: scales markedly different from Chaetoderma with a restricted central area. All spicules with indented bases.
- 3) Body: shape small, no distinct divisions

Distribution:

Southern California north to Point Conception; 40 to 300 meters; in silty sand; shelf, slope, basin and canyon areas.

Limifossor fratula Heath, 1911  
Limifossoridae

SCAMIT Vol. 4, No. 8

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Scamit Code: SCCWRP62

Date Examined: 16 September 1985  
Voucher By: Jay Shrake, MEC

Synonymy: None

Literature: Salvini-Plawen, 1975  
Scheltema, 1972  
Schwabl, 1961, 1963  
Heath, 1911

Diagnostic Characters:

- 1) Radula: bipartite in several transverse rows.  
Body homogeneously shaped without distinct divisions.  
Spicules lay flat to body. Radula without lateral supports  
Spicules tear drop shaped.

Distribution:

Southern California to Oregon; deeper depths to 400 meters;  
in mud and silts.

Scamit Code: HYP47

Date Examined: 16 September 1985  
Voucher By: Jay Shrake, MEC

Synonymy: None

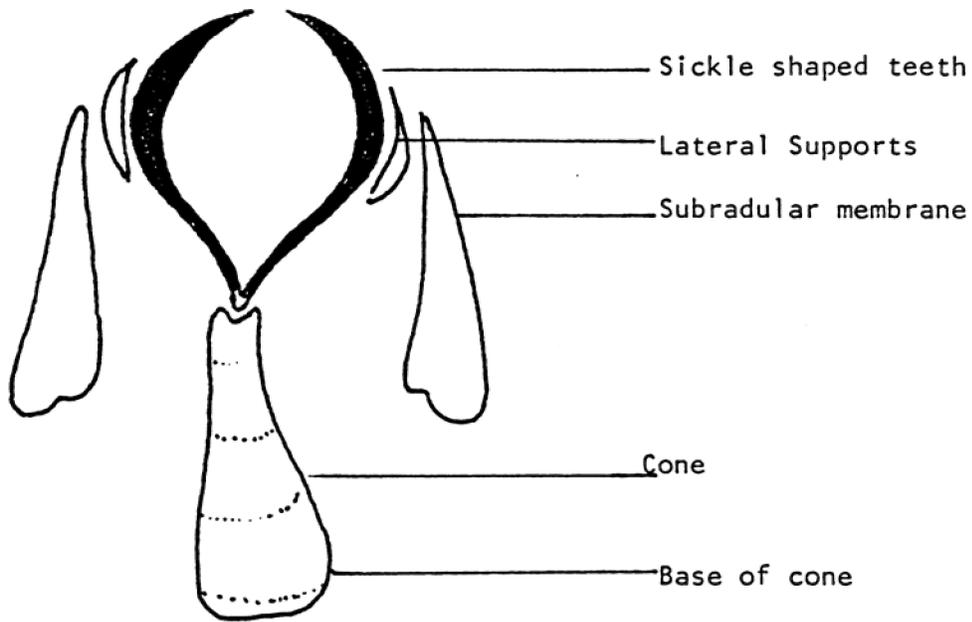
Literature: Heath, 1911  
Schwabl, 1961, 1963  
Salvini-Plawen, 1975  
Scheltema, 1972

Diagnostic Characters:

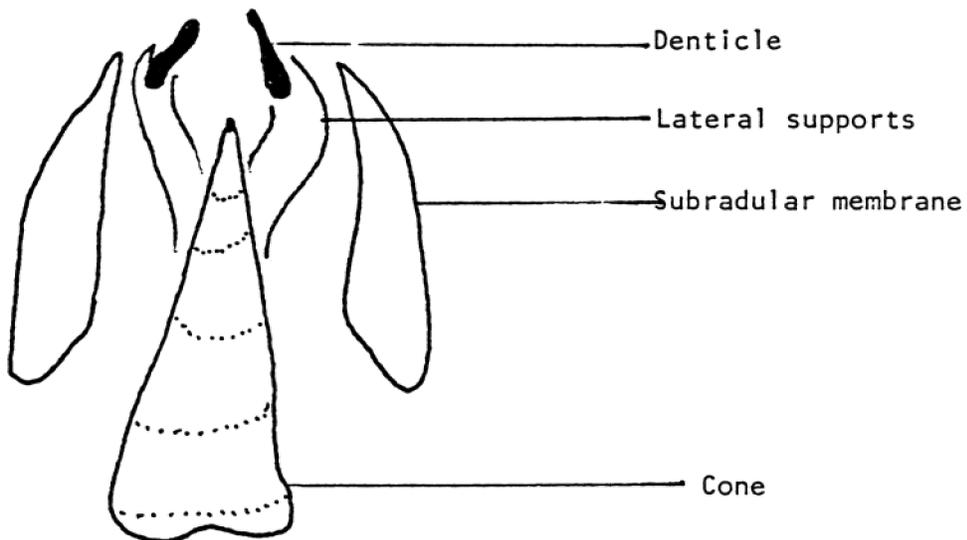
- 1) Radula: two (2) small denticles with lateral supports.  
Basal plate large.
- 2) Scales: triangular with a keel present in most scales.  
Region one (1) with indented bases. Regions 2,3,4  
without indented bases.
- 3) Body: Region one (1) elongated with scales at a slight  
angle. Region two (2) very elongated with scales at a  
90° angle to body wall. Body tends to be more elongated  
than Falcidens.

Distribution:

- Southern California to Port San Luis; shelf through canyon  
depths; in mud and silty sand.



*Falcidens* sp.



*Chaetoderma* sp.

Generalized radular types with primary characters only