SCAMIT is now one year old and going strong thanks to all of your support!!

Now we are ready for year two to be even better.

Next Scheduled Meeting: May 9, 1983
Place: Marine Biological Consultants
947 Newhall Street
Costa Mesa, CA 92627

Guest Speaker: Mary Bergen, Background information on Holothuroidea
Specimen Exchange Group: Arabellidae, Lysaretidae, Iphitimidae, and Dorvilleidae
Topic Taxonomic Group: Cnidaria and Holothuroidea

MINUTES FROM APRIL 11, 1983

Amphipod Atlas: The Amphipod is quite an undertaking which has left Don Cadien overwhelmed by the amount of work to be done. He has asked for volunteers to help out. The work that needs to be done includes assimilating descriptions, key characteristics, accumulate ecological information, distributional notes, and literature. So far he has one volunteer, Ann Martin for Lysianassids.

Elections: It's now officially completed. The officers for 1983-84 are:
Literature Committee: John Dorsey stepped down from the literature committee. Ron Velarade has volunteered to take his place.

Video System: Thanks to everyone who has contributed toward the video system. So far we have collected $111.05 toward the system. With continued support from everyone we should have the video system by summer.

Errata: Most likely many of you have noticed various errors committed on the voucher sheets. Ron Velarade was kind enough to compile them on one sheet. You will find the sheet enclosed. He will also be helping to eliminate such mistakes in the future.

Station List: SCAMIT now has a list of station location, depth, and descriptions for each of the major sanitation districts in the Southern California Bight. These are available upon request to any one who would like the list.

Charter Amendment: The SCAMIT charter was officially amended during the meeting. The amendment created a charter that is acceptable for qualification for the exempt status in California. The exempt status became official April 21, 1983 making SCAMIT an official non-profit organization (pending federal approval).

List of April 11, 1983 Topic Species

Kurtziella beta
Kurtzia arteaga
Megasurcula carpenteriana
Bittium sp.

Voucher Sheets: This month's voucher sheets were compiled from a draft copy of a volume on Opisthobranchs from David Behrens.
APPLICATION FOR 1983-84 MEMBERSHIP
$ 5.00

NAME:__________________________________________________________

AFFILIATION:__________________________________________________

ADDRESS:____________________________________________________

Type of Membership: Participant [ ] Correspondent [ ]

Area of expertise:______________________________________________

Would you like to be on a free-lance list? Yes [ ] No [ ]

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T-SHIRTS

COLOR

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Blue [ ] [ ] [ ] Small [ ] [ ] [ ]
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Price: $8.00 plus .95¢ postage

TOTAL ENCLOSED:_____________________

Mail to: Ann Martin
10844 Ellis Avenue
Fountain Valley, CA 92708
Amphipod Atlas: Several people have volunteered to help with the Amphipod Atlas. In addition to accepting all offers of help, we would like some input on formatting the Atlas and subsequent projects. Here's some ideas:

1) Should SCAMIT publish using a subscription format?
2) Should the works come out as occasional contributions?
3) Should large groups (such as marine gammarid amphipods) be split into smaller groups to expedite publication?
4) Is microfilm a desirable way to publish?

Picnic: A summer SCAMIT picnic is being planned. The plans so far have the picnic at Pt. Fermin on July 23, or 30 with world famous master chef, John Ljubenkov, in charge of the barbeque. Others can donate their favorite dishes. This will be a good time for everyone to get together. Look for more details in the next Newsletter.

Anemone Workshop: Dr. Eric Hochberg is hosting an Anemone Workshop at the Santa Barbara Museum of Natural History May 23 and 24, 1983. The Workshop will be two days of anemone dissection (with aetinian types). Interested persons may call Paul Scott at (805) 682-4711 for more information. The roster so far includes:

F.G. Hochberg (SBMNH)
John Ljubenkov (LaMer)
Mary Arai (UBC)
Daphne Dunn (Cal. Acad. Sci.)
Ron McPeak (Kelco)

Guest Speakers: John Ljubenkov on Cnidarians: John limited his talk to hydroids because of the upcoming workshop on anemones. John discussed the function of the perisarc, basal and oral tentacles, and gonophore structure in determining hydroid phylogeny for the athecate line. He suggested that Corymorpha is the prototype and may be very close to the anemone evolution line.

Mary Bergen on Holothuroids: Mary discussed the taxonomy of dendrochirotids. She noted that an easy way of distinguishing the bushy-tentacled dendrochirotids from anemones is to count the tentacles because holothuroids have tentacles in multiples of five (Leposynapta usually has 12 tentacles). This was much needed information in view of the results of the specimen exchange! Unfortunately time cut her discussion short, but she will finish sometime in the future.

List of May 9, 1983 Topic Species

Chiridota sp.
Molpadia intermedia
Leptosynapta sp.

Cnidarians will be listed next month.
Voucher Sheet Corrections and Additions

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Key to the Species of the Order Bullomorpha
Body Characters

1 Shell appearing absent or internal_________________________2
   - Shell external and visable_____________________________3

2 Parapodia well developed into wing-like lobes
   Gastropteron pacificum
   - Parapodia not developed into wing-like lobes
     Aglaja inermis, Aglaja ocelligera, Melaochlamys
diomedea, Philinne bakeri

3 Shell bubble shaped, aperture wide_______________________4
   - Shell elongate, aperture narrow_________________________7

4 Shell with pit at apex; shell heavy, Bulla gouldiana
   - Shell cylindrical, apex flat; head with 2 round lobes
     Diaphana californica
   - Shell not cylindrical; head large, broad_______________6

6 Aperture 1/2 diameter of shell, Haminoea vesicula
   - Aperture greater than 1/2 diameter of shell
     Haminoea virescens

7 Shell with strong shoulder, Cylichnella harpa
   - Shell with rounded shoulder__________________________8

8 Shell with alternating narrow brown and white stripes,
   Cylichnella culcitella
   - Shell without transverse striping, Cylichnella inculta
Aglaja inermis (Cooper, 1862)

Aglajidae

Synonyms:

Strategus inermis Cooper, 1862
Navarchus inermis (Cooper, 1862); Cooper, 1863
Doridium purpureum Bergh, 1893
Navanax inermis (Cooper, 1862); Pilsbry, 1895
Aglaja bakeri MacFarland 1924; Gosliner & Williams 1972
Chelidonura inermis (Cooper 1862); Marcus & Marcus 1970a
Aglaja inermis (Cooper 1862); Rudman 1974

Important Characters:

Its internal shell is covered with a fleshy tan to black notum with longitudinal yellow stripes along the edge of the parapodia. Variable yellow and blue spotting occurs over remainder of body. Two distinctive color phases have been noted, one having bold spots, the other having many smaller diffuse spots.

Size: 75 to 225 mm.

Radula absent.

Comments:

Natural History: This animal abounds in mudflats and bays and feeds voraciously on paper bubbles, Haminoea spp.

Range: Monterey Bay, California to Laguna Manuela, Mexico. Also throughout Gulf of California; Nyarit, Mexico, Bay of Panama.
Aqlaja ocelligera (Bergh, 1893)
Aglajidae

Date Examined and Code: March 13, 1983, OC16

Synonyms:
Doridium ocelligerum Bergh, 1893: Figs. 2, 14
Aqlaja ocelligera (Bergh, 1893); Pilsbry, 1896
Doridium adellae Dall, 1894; Gosliner, 1980
Chelidonura phocae Marcus 1961; Gosliner, 1980
Aqlaja phocae (Marcus, 1961); Rudman, 1974

Important Characters:
The head of this Aglaja is short with lateral lobes. The tails are long conspicuous and equal to unequal in length. The body color is brown-black with yellow and white spots. A white mark is usually found on the lateral head lobe. Very similar in general appearance to Diomede's aglajid.

Size: To 20 mm.

Radula absent.

Comments:
Natural History: Lives on mud bottoms to 60 feet in oceanic and estuarine habitats.

Range: Sitka, Alaska to San Diego, California.
Melanochlamys diomedeae (Bergh, 1893)
Aglajidae

Date Examined and Code: March 13, 1983, MBC 11

Synonymy:
Doridium diomedeum Bergh, 1893
Aglaja diomedeae (Bergh, 1893); Pilsbry, 1896
Aglaja nana Steinberg & Jones, 1960; Gosliner & Williams, 1975
Melanochlamys diomedeae (Bergh, 1893); Rudman, 1972
Melanochlamys nana (Steinberg & Jones, 1960); Rudman, 1972

Important Characters:

Its head is rounded and is without lateral processes. The lobes of the tail are short and of equal length. The body is light cream colored with brown to black mottling which, when dense, can give a very dark appearance. Brownish-yellow internal organs may show through body wall. Sometimes confused with the spotted aglaja.

Size: Reaches 15 mm.

Radula absent.

Comments:

Natural History: Occurs on mud surfaces in bays and offshore to 370 feet. Feeds on nematode worms.

Range: Alaska to San Diego, California.

Melanochlamys diomedia and shell (from Steinberg & Jones, 1960)
VOUCHER SHEET

*Rictaxis punctocaelatus* (Carpenter, 1864)

*Acteonidae*

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**Date Examined and Code:** March 13, 1983, MBC 7

**Synonyms:**

*Acteon punctocaelatus* Carpenter, 1864  
*Rictaxis punctocaelatus* (Carpenter, 1864)

**Important Characters:**

Very often confused for a prosobranch snail, the solid spiral sculptured shell has two revolving bands of white and black alternating stripes.

The animal has an operculum and is opaque white in color.

**Size:** To 20 mm.

**Comments:**

Natural History: Common on shallow sand and mud bottoms gliding just under the surface of the sediment.

**Range:** Ketchikan, Alaska to Magdalena Bay, Baja California, Mexico.
Diaphana californica Dall, 1919
Diaphanidae

Important Characters:

The shell is similar in shape to the bubbles, transparent white, with a wide aperture. It differs from the others by being flat at the apex; barely calcified.

A small shelled bullomorphid, the only part of the body visible from above is the head which is made up of two round lobes. The body and foot are white.

Size: Shell to 5 mm in length.

Comments:

Natural History: Found in the rocky intertidal and in shallow subtidal holdfasts of kelp.

Range: Santa Barbara, California to Coronados Islands, Baja California.
Haminoea vesicula (Gould, 1855)
Haminoeidae

Important Characters:
The thin oval shell of this snail is exposed. Translucent, the shell has a sunken spire and the opening is half or less of the shell length. The shell surface is covered with a thin brown to yellow-orange speckled periostracum.

The body is tan to brown, partially enveloping the shell. Similar to the green paper bubble.

Comments:
Natural History: Restricted to bays, and seasonally abundant on mudflats and in eel grass beds, this snail is heavily preyed upon by navanax.

Range: Ketchikan, Alaska to Magdalena Bay, Gulf of California
Haminoea virescens (Sowerby, 1833)

Haminoedidae

Important Characters:
The exposed shell is opaque white to pale green. Differs from Gould's paper bubble in that the aperture is larger than half the length of the shell and the spire is sunken.

The body is green, and there are yellow dots on the head shield and yellow and white mottlings on the parapodia.

Size: To 18 mm.

Comments:
Natural History: A rocky open coast species, it sometimes occurs in bays.

Range: Alaska to Panama.
Cylichnella culcitella (Gould, 1852)
Scaphandridae

Synonyms:
Bulla culcitella Gould, 1852:375
Bulliuna eximia Baird, 1863
Tornatina culcitella (Gould, 1853); Pilsbry 1895:188, pl. 50, fig. 38
Acteocina culcitella (Gould, 1852); Oldroyd, 1927:217, pl. 2, fig. 1a-c.
Ultriculastra culcitella (Gould, 1852); Marcus, 1977
Ultriculastra eximia (Gould, 1852); Marcus, 1977
Cylichnella culcitella (Gould, 1852); Gosliner, 1979:87

Important Characters:
The shell is oblong, whitish, with a brown periostracum showing fine spiral lines or striae. The apex is high and the suture or crease between spirals is deep.
This animal has an opaque white notum with white spots. The head is rounded with a central cleft.
Size: The shell reaches 22 mm in length.

Comments:
Natural History: Lives subtidally on sand and mud bottoms to 950 feet.
Range: Kodiak Island Alaska to San Ignacio Lagoon, central Baja California.
Cylichnella harpa (Dall, 1871)
Scaphandridae

Synonyms:
Retusa harpa (Dall, 1871)
Acteocina harpa (Dall, 1871)
Cylichnella harpa (Dall, 1871)

Important Characters:
This shelled opisthobranch has a small white shell with a strong keeled shoulder and axial, or length-wise, striations on its upper half. The shell is shorter in dimensions than that of the western barrel-bubble.

Size: Shell length is 6 mm.

Comments:
Natural History: Common in gravel and mud at low tide to subtidal.

Range: Forrester Island, Alaska to San Geronimo Island, northern Baja California.
Cylichnella rolleri (Marcus, 1977)
Scaphandridae

Synonyms:
Utriculastra rolleri Marcus, 1977:29, Figs. 82-84
Cylichnella rolleri (Marcus, 1977); Gosliner, 1979:92

Important Characters:
The photographed shell (Fig. 82) is 8.5 mm high and 3.5 mm wide. It is ovoid, tapering gradually towards both ends. The protoconch is broken. There are about three whorls, separated by the deep suture. The periostracum shows about 50 wavy brown spiral lines, disposed rather equally over the whole shell, but leaving a white band under the suture.

The head shield is notched in front and bilobed behind. The radula has 17 rows of 1.0.1. teeth. On the inner border of the laterals stands a dense row of about 70 long denticles, as in the other species of Tornastra. The gizzard plates are opaque white with a narrow brown line around the cap. They are nearly semicircular, 1.6 mm long and 0.7 mm broad. The unpaired plate is round, 0.4 mm in diameter. The digestive tract contained prosoranchs, still with their soft parts, classified as Litiopa.

Comments:
Of the known species of "Tornatina" this is the only Pacific one with narrow, mirror image paired plates. The three gizzard plates resemble those of the Atlantic U. (Tornastra) bullata (Thiele, 1925, pl. 34, fig. 8), whose radula is not known. The species is named for the collector, Mr. Richard A. Roller.
Cylichnella cerealis (Gould, 1852)
Scaphandridae

Synonyms:
Acteocina cerealis Gould, 1852
Bulla cerealis (Gould, 1852)
Utriculastra cerealis (Gould, 1852); Gosliner 1979:92
Cylichnella cerealis (Gould, 1853); Gosliner 1979:88

Important Characters:
The six present specimens measure from 5.5 to 8.0 mm in length and 2.6 to 3.5 mm in greatest width, which lies in front of the middle (Fig. 77). The ratio of width to length is 44-47%, independent from the size of the shell. The spire is of different height, the apex and the outer lip are damaged in all specimens. The periostracum is light cream with fine light brown spiral lines on the outer half of the body whorl. These correspond to interrupted wavy grooves of the shell. The aperture widens forward gradually to the second third, where the concave columella bends to the left. It forms a strong fold covered by a thin, broad callus on the inner lip (Fig. 80). The height of the aperture is 90% of the total. Of the soft parts only the short and broad head shield was recognizable, a well developed cloacal tentacle (Fig. 79, c), and the infrapallial lobe (i). The radulae of 3 specimens were 340 um long. There are 22-24 rows of lateral teeth 68 um long, with 20-35 slender denticles on their inner side (Fig. 78). I did not find any traces of rhachidian teeth.

The three gizzard plates are of different shape (Fig. 81). The roundest measures 1.8 x 1.2 mm, the narrowest 2.02 x 0.8 mm, and the unpaired smallest one 1.08 x 0.57 mm. The smallest is flat, 0.35 mm high, and not pinched together as that of A. eximia. The narrower of the paired plates is variable in shape, in two specimens it is pointed at one end, in one narrowed towards the end, and in three it is round at both ends.

Comments:
Natural History: Depth 11-15 m.