



**Southern California Association of
Marine Invertebrate Taxonomists**

3720 Stephen White Drive
San Pedro, California 90731

October 1987

Vol. 6, No. 7

NEXT MEETING: November 9, 1987

SPECIMEN EXCHANGE GROUP: Provisional polychaete species

TAXONOMIC TOPIC: Provisional polychaete species: Eulalia,
Eumida, and Steggoa. Chair: Leslie Harris.

MINUTES FROM MEETING ON October 13, 1987:

The National Academy of Sciences has recently embarked on an examination of marine research and monitoring through its National Research Council (NRC). This has resulted in a collection of testimony about many aspects of marine pollution monitoring and the creation of a case study in southern California. To assist in this, SCAMIT has submitted a letter to the Committee which reviews the need for a standardization of taxonomic and nomenclatural data. This letter also discussed the utility gained by using current and comparable taxonomic data. Hopefully this input will help to make the final NRC report provide a better understanding of the taxonomic problems which arise in marine monitoring.

Another organization has recently begun to examine marine pollution research in southern California. Under the auspices of the State of California Water Resources Control Board, a group entitled the Southern California Bight Review Committee (SCBRC) has recently been organized. Its specific goals are:

- *** Promote a forum for regulators, dischargers, scientists, and the public to share information;
- *** Enhance communication between staff of the state and regional boards, dischargers, and the public;

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

MINUTES (continued)

*** Provide advice to the State Water Resources Control Board on potential amendments to the California Ocean Plan.

Technical sub-committees will be formed to address such topics as monitoring methods, bioassays, sediments, and others.

rec 11/12?
The meetings for the SCBRC are held bimonthly at the Newport Beach City Hall (3300 Newport Boulevard). The next meeting is scheduled for 10:00 A.M., November 3, 1987 and is open to the public. SCAMIT intends to make a formal presentation to the subcommittee involved in benthic monitoring to emphasize the need and the methods used for ensuring taxonomically valid and standardized data. If you have any interest in participating in this important review or would like to inform SCAMIT of your ideas, please attend the SCBRC meeting or forward your comments to the SCAMIT Secretary.

This is one of the rare opportunities we each have to directly influence the decisions that are installed and impact our work. Participate now and find out which new regulations are being proposed.

If you would like to be on the mailing list to receive the flyer from the SCBRC please write:

Craig Wilson
SCBRC - Ocean Standards and Policy Unit
Division of Water Quality
State Water Resources Control Board
P.O. Box 100
Sacramento, CA 95801

The California-Nevada Chapter of the American Fisheries Society is offering several courses that may be of interest to SCAMIT members. Course topics include Scientific Report Writing, Applied Multivariate Statistical Analysis, Expert Witness (environmental professionals working effectively with lawyers on environmental cases), Environmental Ethics Applications, Certified Habitat Evaluation, Sampling Techniques, and others. For enrollment information, contact:

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Cal-Nev Chapter AFS
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HELPFUL HINTS

A short explanation of three gorgonian species that usually are identified as Filigella mitsukurii was provided by John Ljubenkov from Marine Ecological Consultants. These three species are:

Thesea sp.:

dirty white to gray in color; with polyps scattered unevenly over the surface.



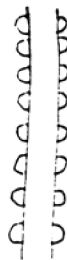
Thesea sp. B:

brown to tan in color; with polyps scattered unevenly over the surface. The most common form collected.



Heterogorgia gracilis:

very white in color; polyps on opposite sides, with a flat open area between the two rows.



Turbonilla troubles

During the October meeting SCAMIT began an attempt to sort through some of the confusion that exists with the snail genus, Turbonilla. Over 100 described species have been published to date, and that is only the start of the problem. Variation of taxonomic features is rarely measured for these specimens and the descriptions often leave little differences between one species and another. Making matters even more confusing, workers in southern California have attempted to work around these booby traps by erecting series of provisional species designated by alphabetical titles (i.e. Turbonilla sp. "A", etc.) These private lists grow in isolation to each other so that one worker's Turbonilla sp. "B" might be the same as another worker's Turbonilla sp. "N". The result: near chaos.

To help organizing Turbonilla taxonomic data, SCAMIT is issuing a tabular form for members to begin categorizing the features of Turbonilla they collect. Please begin this effort as soon as possible so we can proceed with the step of providing a foundation to create provisional species sheets that are standardized.

There was enough material at this meeting and enough agreement on the examples to provide for a voucher sheet to be issued for a commonly occurring form. This sheet will be issued in the near future.

ANIMALS EXAMINED ON OCTOBER 13, 1987

MBC 66	<u>Philine</u> sp. A	SCAMIT, 1987
MBC 67	<u>Turbonilla</u> sp. A	SCAMIT, 1987

TURBONILLA TABLE

Color
brown, white, or
specify

Pattern
lines, spots,
solid, etc.

Whorl angle
degrees between
whorls

Spire taper
constant or flattened
in middle

Aperture shape
ovoid, flattened, or
subquadrate

Aperture length vs
shell length ratio

Whorl side
flat, convex, concave

Whorl shoulder
degree of tabulation

Sculpture
strongly or weakly
incised

Axial ribs
vertical, pro- or
retracted

Axial rib
width vs width of space
between, nodules on rib

Spiral ribs
between axial, on
axial

Varices
present, absent

Basal liration
present

Basal disc
present, absent

SCAMIT Code: MECl

Date examined: 14 September 1987
Voucher by: Sue Garner (MEC)

Synonymy : None

Literature: Barnard J.L. 1959. Liljeborgiid Amphipods of southern California coastal bottoms with a revision of the family. Pac. Nat., (4): 12-28.

Diagnostic characters: (see figs.)

1. Size is small and robust; up to 5.6mm long.
2. Pigment saddle bands across dorsum of all pereonal segments and first three pleonal segments; pigment extends onto the coxa with characteristic shape on coxa 2, 3 and 4.
3. Eye unpigmented but encapsulated.
4. Antennae with narrow band of pale pigment on distal end of each flagellar segment of males. No antennal pigment band in females.
5. Uropod 2 and 3 equal length. Uropod 3 outer ramus 1/2 width of inner ramus and 2 segmented.
6. Male gnathopod 2 with bifid palmar tooth near articulation with dactyl.
7. Uropod 1 peduncular spine absent.
8. Second epimeron with straight posterior margin terminating in tooth. Third epimeron similar but slightly sinuous.
9. Pereopod 7 long and slender; article 7 long.

Related species and character differences: see Table 1 modified from Barnard (1959)

Distribution: Los Angeles and Long Beach Harbors; 5-20 meters.

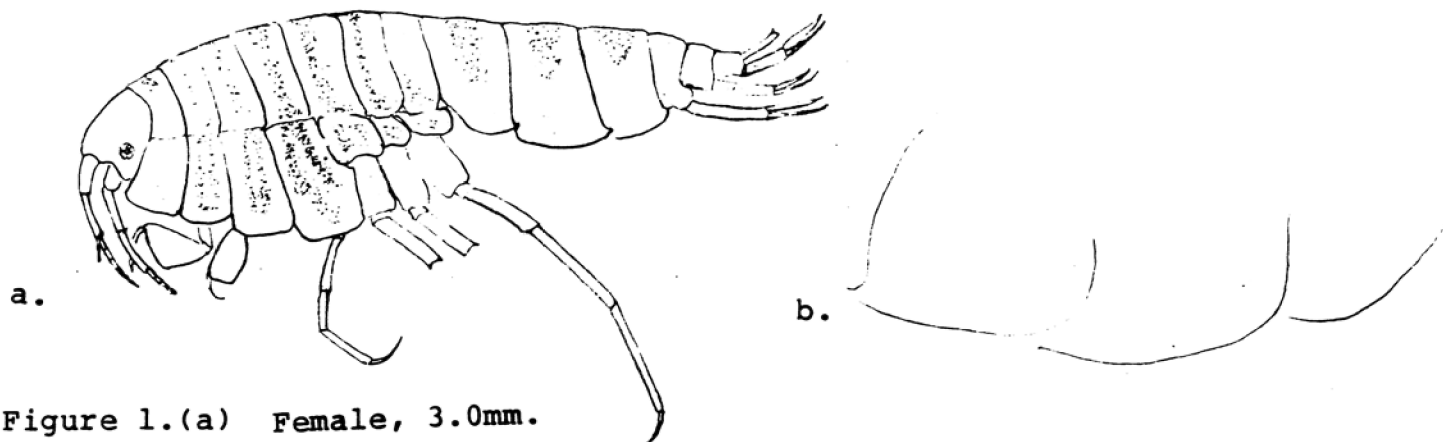


Figure 1.(a) Female, 3.0mm.

(b) Male, 3.5mm, epimera 1, 2, and 3.

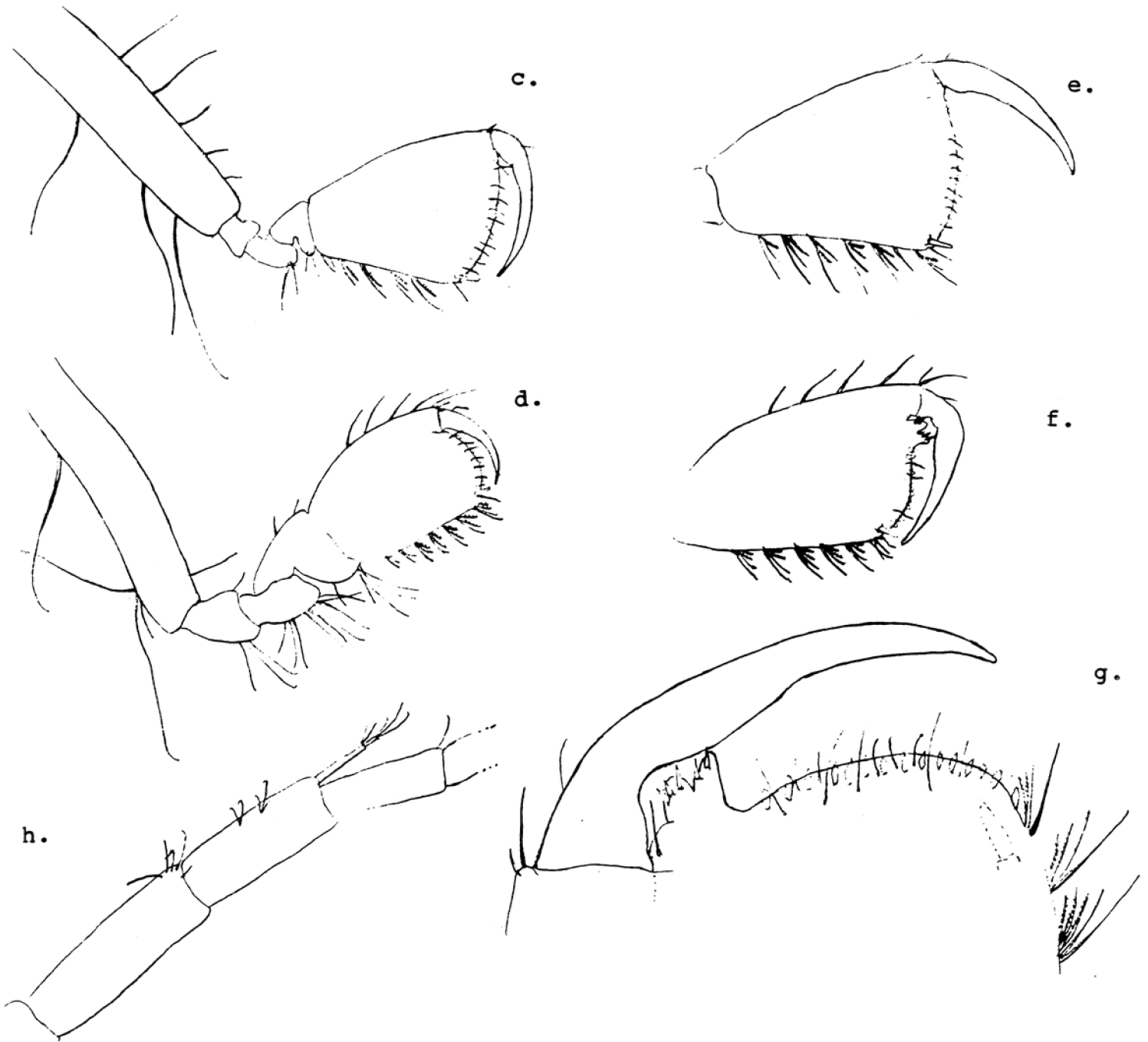


Figure 1. (c) Female, gnathopod 1.
(e) Male, gnathopod 1.
(g) Male, gnathopod 2 palmar
detail.

(d) Female, gnathopod 2.
(f) Male, gnathopod 2.
(h) Male, accessory flagellum
of antenna 1.

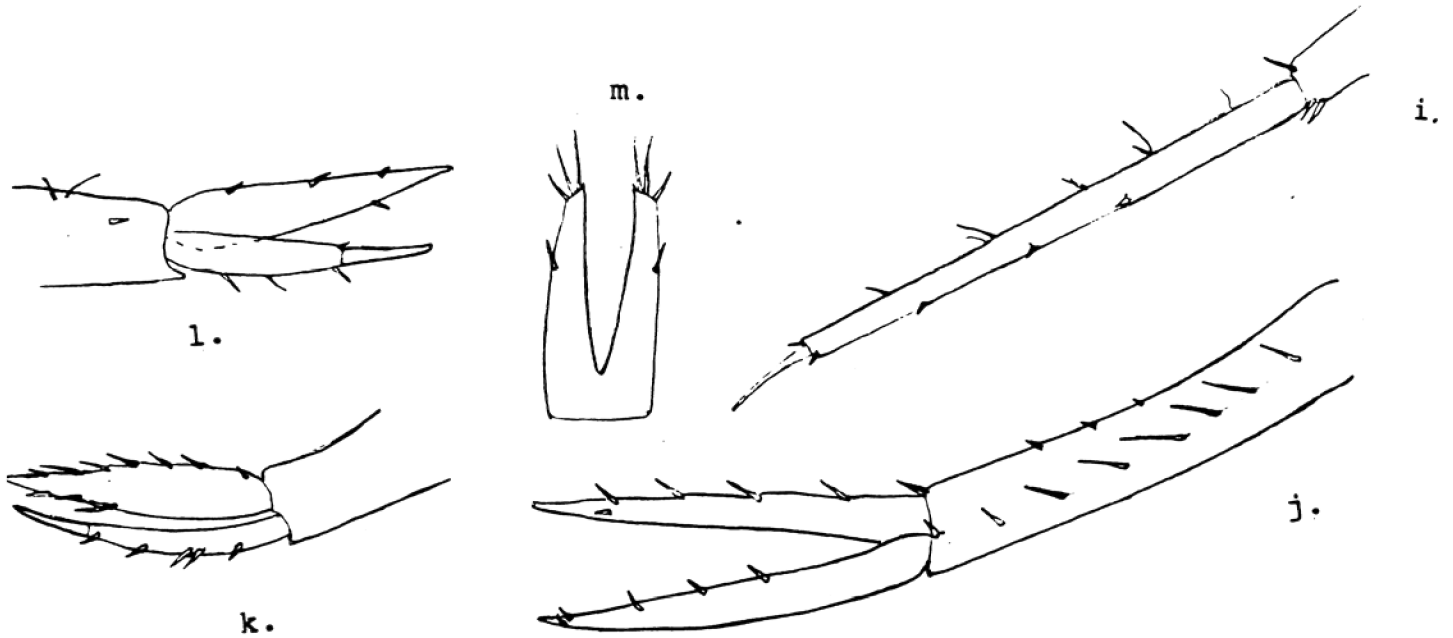


Figure 1. (i) Male, peraeopod 7, propodus and dactyl. (j) Male, uropod 1.
(k) Male, uropod 3. (l) Female, uropod 3.
(m) Male, telson.

TABLE 1

Table of systematic criteria in *Listriella* from southern California

		color	pigment head cap	antennae long	eyes present	pleon 3 notched	uropod 3 outer ramus=inner ramus	per. 7, art 7 long	per. 7, art. 6 paddle shaped	uropod 1 with ped. spine	ant. 1 article 2 has pigment	male-female uropod 3 is the same
<u>melanica</u>	MALE	K	O	O	X	X	X	X	O	X	X	X
	FEMALE	K	O	O	X	X	X	X	O	X	X	X
	JUVENILE	K	O	O	X	X	X	X	O	X	X	X
<u>Diffusa</u>	MALE	D	O	O	X	X	X	X	OX	X	O	O
	FEMALE	D	O	O	X	X	X	X	OX	X	O	O
	JUVENILE	D	O	O	X	X	X	X	OX	X	O	O
<u>goleta</u>	MALE	DS	H	X	X	X	X	X	O	X	X	X
	FEMALE	DS	H	XO	X	X	X	X	O	X	X	X
	JUVENILE	DS	H	O	X	X	X	X	O	X	X	X
<u>eriopisa</u>	MALE	S	X	O	X	O	O	O	X	XO	O	X
	FEMALE	S	X	O	X	O	O	O	X	XO	O	O
	JUVENILE	S	X	O	X	X	XO	OX	XO	XO	O	O
<u>albina</u>	MALE	O	O	OX	O	X	XO	X	OX	X	O	X
	FEMALE	O	O	OX	O	X	XO	X	OX	X	O	O
	JUVENILE	O	O	OX	O	X	XO	X	OX	X	O	O
sp. A	MALE	KS	O	O	X	O	X	X	O	O	X	X
	FEMALE	KS	O	O	X	O	X	X	O	O	O	X
	JUVENILE											

K = dark
 S = striped
 DS = diffused-striped
 X = positive
 O = negative
 OX and XO = intermediate
 H = hourglass-shaped mark

(modified from Barnard, 1959)