



**Southern California Association of  
Marine Invertebrate Taxonomists**

3720 Stephen White Drive  
San Pedro, California 90731

August, 1986

Vol. 5, No. 5

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NEXT MEETING: September 8, 1986  
SPECIMEN EXCHANGE GROUP: Aphroditidae, Sigalionidae  
TAXONOMIC TOPIC: Bryozoa  
GUEST SPEAKER: Dominic Gregorio, Texaco -  
Oil Exploration and Biological Surveys  
on Hard-Bottom Marine Habitats

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MINUTES FROM: Meeting on August 11, 1986

Don Cadien of MBC has recently collected a species of Alpheidae shrimp from Long Beach Harbor that was previously only known from southern Japan to Micronesia. This shrimp was described by Miya in 1972 and is named *Salmoneus gracilipes*. It can be distinguished by its large pointed rostrum, the unusually indented telson margin, and is found in about 60 feet of water. Don would appreciate the opportunity to examine any additional specimens that are collected.

A recent article on benthic sampling programs will be of interest to many SCAMIT members. The article is entitled: Environmental Impact Assessment: "Pseudoreplication" in time? It is available in Ecology, 68(4) 1986 pp 929-940.

Dr. J.L. Barnard has recently provided SCAMIT with copies of new manuscript Amphipod keys. Copies of these keys can be ordered from SCAMIT for the cost of xeroxing (\$7.00). Contact Tom Parker, Marine Biology Laboratory, 24501 S. Figueroa Street, Carson, CA 90745.

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

An endowment for grants in systematic zoology, entitled "Ernst Mayer Grants, has been established at the Harvard Museum of Comparative Zoology. Each grant will allow the recipient to visit museums as needed for revisionary or monographic research in systematics; monies are to cover travel expenses and per diem. Applications are to be submitted twice each year, no later than September 15th and April 15th. Application and further information can be obtained from:

Director  
Museum of Comparative Zoology  
Harvard University  
26 Oxford Street  
Cambridge, Mass. 02138

The summertime expansion continues as another SCAMITEer has just been born. Tony and Rosa Phillips are the new parents to Sarah Elizabeth, who was born on August 9th. She was 53.3 centimeters long and weighed 3192 grams. Congratulations!

A new footnote has been added to the first page of the SCAMIT newsletter. This disclaimer is necessitated by the observations of Fortey, R.A. et al, published in Lethaia (19), page 122, 1986. They point out that, under the 3rd edition of the ICZN Code, organizational newsletters may qualify as publications, and new taxa introduced in newsletters may be considered valid. As the SCAMIT newsletter is not intended to be a vehicle for the erection of new taxa (other than provisional taxa, which are outside the Code), the inclusion of this disclaimer prevents the inadvertent introduction to the literature of new taxa. It also makes clear that other taxonomic topics discussed in the newsletter or voucher sheets, such as amended or expanded descriptions, are not formal statements. Formal presentation of taxonomic work is properly left to publication in the peer-reviewed literature.

Our attention was drawn to this issue by a note included in the most recent newsletter of the American Association for Zoological Nomenclature.

List of Specimens Examined on August 11, 1986

LACO 77, HYP62, MBC 57	<u>Pyromaia tuberculata</u>
HYP64	<u>Podochela lobifrons</u>
HYP64	<u>Erileptus spinosus</u>
OC67	<u>Podochela hemphilli</u>

Dear Folks: It has been many, many days since there has been any word from across the seas. It seems now as if every vessel has stopped. However, I know this is not true.

I have been here now exactly two months, and my work is still not completed. I hope to think that in 2 or 3 weeks more it may be at a point where I can at least finish it elsewhere. The task at the Riksmuselt was a far greater one than was earlier anticipated. The past two months have, however, been full of interest.

Last night the Microbiological Soc. of Sweden had its annual meeting at the Muselt. Professor Bock made all of the arrangements, and kindly gave me an opportunity to present a paper. I had to speak in English, but fortunately most Swedes understand many languages. There were papers in Swedish (out of which I was able to get a good deal) and one in German, by a Pole. It was a very interesting assemblage.

The President of the Society is an Emeritus Professor of Pathology,- a distinguished looking, white-haired, alert Swede, with twinkling blue eyes and a white goatee and mustache. The secretary of the Society is director of the new Swedish Pathological Institut, a famous bacteriologist, and well known in European circles. He makes 2 trips a year to Paris, representing Sweden at the International Congresses. He affects the habits of a Frenchman,- wears his hair in a long bob, and dons frenchy jackets. Others included Professor Folke Borg, Zoologist from the University at Upsala, Sven Horstadius, and others whose names were known to me before coming to Sweden. I had the extreme pleasure, during the banquet that followed the meetings, of sitting between Professor Bock and the Secretary, and just across from the President. The latter had recently been in America, returning Sept. 8th on the Gripsholm, and he had much to tell of America. He is well over 70 years old, but very vital.

These Swedish banquets are delightful but trying on one's alimentary tract. The great varieties of smorgasai always intrigue me greatly, so that by the time the warm course comes on, I am through eating. Hereafter, whenever I see "Pilsner," I shall surely think of Sweden. It is the great national drink.

Several trips must be planned before leaving Sweden, and for which preliminary arrangements have been started. Scandinavia's leading biological station (a branch of the Swedish Academy) is at Kristiniberg, outer end of the Gullmar Fjord, in Bohuslan. It lies near Goteborg, and if I should take a boat from that city, or Oslo, I shall stop enroute and make a side trip for several days. The Gullmar Fjord is Sweden's largest Fjord.

To Upsala I must go, not only to visit the oldest university, but to make several contacts. I should like to take a few days to go to Lofoten, in the Arctic, through Lappland, but fear that may need to be foregone, since at present it would only be a frill. If real biological interest would develop, I would perhaps go. There are easy connections to Narvich (Norway) and thence to Lofoten (on the Arctic circle).



Travels with Olga (continued)

The weather has been very beautiful. We have had sunny days and beautiful moon light nights. One gets easily accustomed to the cold,- probably because it is dry. There was a beautiful snow last night, but it was all gone by noon today. The farmers maintain that there has been too little rain this fall. But it has brought us beautiful skies.

Saturday we were issued food-rationing cards, to which one must cling for dear life. Only one will be issued to any individual and if and when they go into effect, it will be a case of no card, no food. The law will go in effect in Pensionaten as well as all restaurants. We do not yet know what foods will be rationed, but rather anticipate coffee, sugar, bread, butter and potatoes. England is already on rations, Denmark on some things, etc. It cannot be so bad as it sounds.

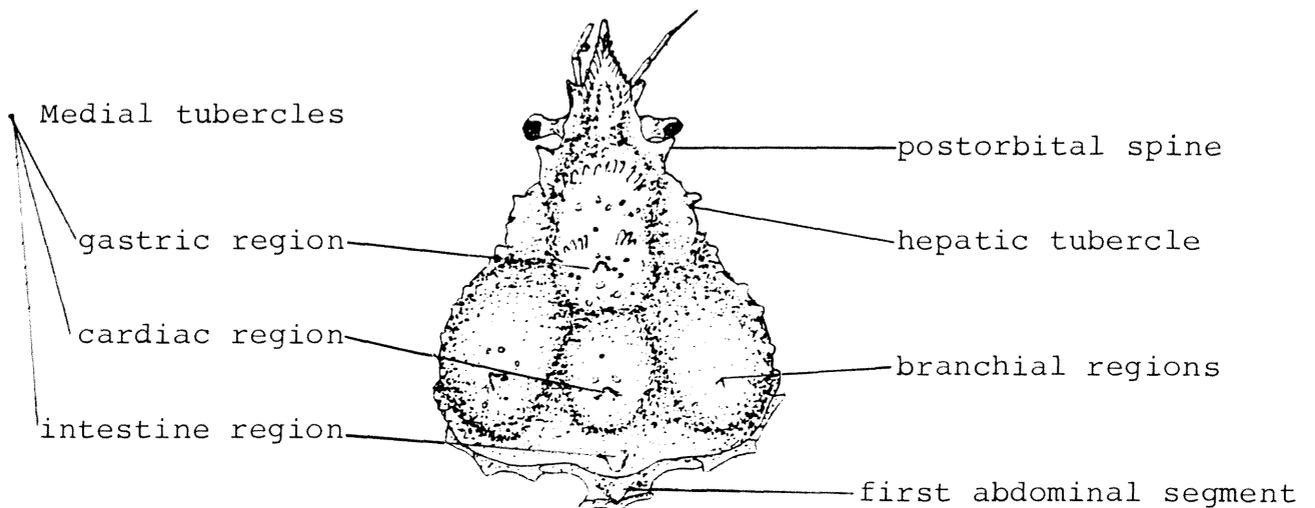
I loathe to think that my time in Sweden is so near a close. It has been a very interesting and profitable two months, with very peaceful surroundings. I have enjoyed a great hospitality, and met numerous people whom I have long wanted to know. And I have seen a country which is probably unlike any other country that I shall ever see. I heartily recommend Sweden to anyone who wants to enjoy a delightful vacation, or a beautiful dwelling place. I hope I shall be able to stay another month.

Greetings and best wishes.

Four species of Oxyrhynchid crabs commonly caught in southern California trawls.

Pyromaia tuberculata, Erileptus spinosus, Podochela Hemphilli and P. lobifrons are Oxyrhynchid crabs that are commonly caught in southern California trawls. These species are difficult to distinguish from one another because a combination of characters are used instead of a single one. The debris the crabs use to cover themselves further hinders identification unless it is removed. The accompanying illustration, chart and voucher sheets help in the identification of these four species.

Basic features used in identification:



CHARACTERS	PYROMAIA TUBERCULATA	ERILEPTIUS SPINOSUS	PODOCHELA HEMPHILLI	PODOCHELA LOBIFRONS
Carapace	pyriform, very convex and tuberculata	moderately convex, cardiac, gastric and branchial tubercles more prominent in ♂	flattened, width approximately 2/3 of length, gastric region tumid, carmine coloration along side, may persist in freshly preserved specimens.	same as <u>P. hemphilli</u>
Rostrum	"stout," width 2/3 to 3/4 of length	width 60% of length	slightly curved, width 60% of length	slightly curved, long, width 50% of length
Medial Tubercles	three	two, with prominent spines on the cardiac, gastric and branchial regions	two, cardiac poorly developed	same as <u>P. hemphilli</u>
Epistome	wider than long	about as wide as long	slightly longer than wide	same as <u>P. hemphilli</u>
Postorbital Spine	large, curved around eye, eye rests closely to spine	♀ pointing laterally, eye not resting on spine ♂ very small, a "bump"	small, sometimes more readily visible from the ventral side, located nearer to the eye than the hepatic spine	small but distinct, located nearer to the eye than the hepatic spine
Hepatic Spine	softly rounded, extending slightly beyond postorbital spine	prominent, extending beyond the eyes	distinct, not reaching beyond eye, sometimes approaching strap-shaped	strap-shaped, reaching beyond eye
Chelipeds	♂ very inflated, ♀ and immature not inflated, shorter than 4th pair of walking legs	♂ very elongated, 3x body length, ♀ and immature not elongated, shorter than 1st pair of walking legs	♂ curved inward, ♀ nearly straight, shorter than 4th pair of walking legs	same as <u>P. hemphilli</u>
1st Abdominal Segment	one spine, well developed	one spine, well developed	one small tubercle	two blunt, median tubercles



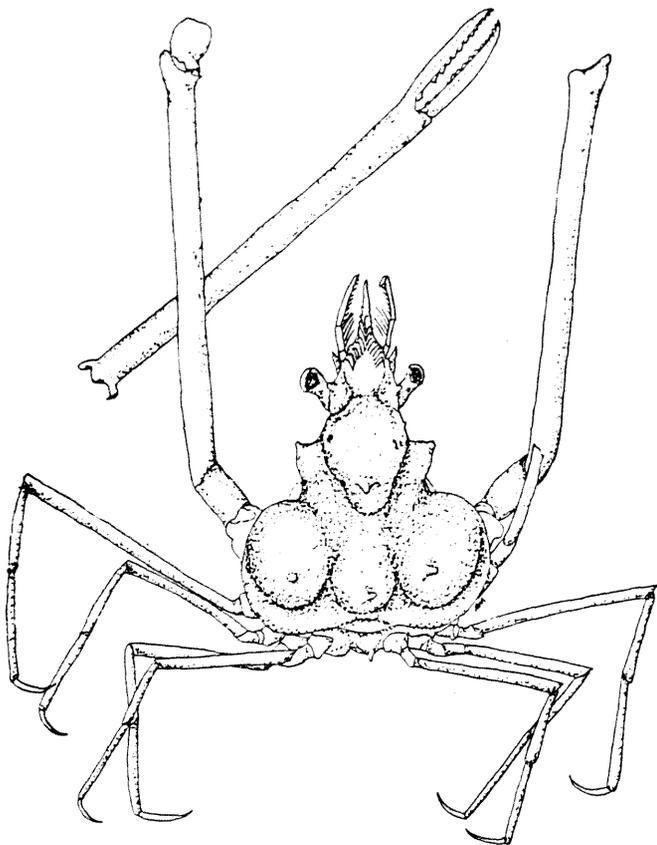


Fig. 1 Male Erileptus spinosus

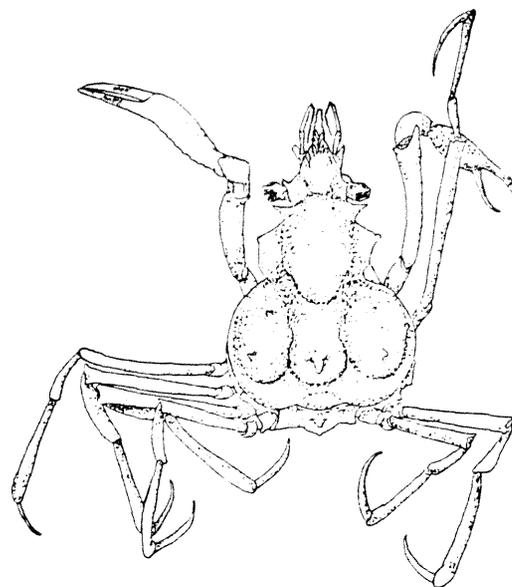


Fig. 2 Female Erileptus spinosus

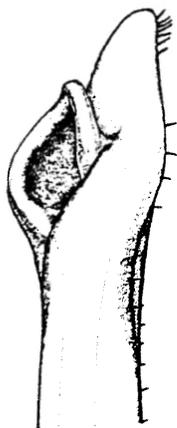


Fig. 3 Right first male pleopod (from Garth 1958).

SCAMIT Code: OC67

Date Examined: August 11, 1986  
Voucher by: Ann Martin

SYNONYMY: Microsrhynchus hemphilli Lockington, 1877  
Inachoides (Microsrhynchus) hemphilli Lockington, 1877  
Podochela tenuipes Rathbun, 1898  
Podochela hemphilli Rathbun, 1898

LITERATURE: Garth, J.S. 1958. Brachyura of the Pacific Coast of America Oxyrhyncha. Allan Hancock Pac. Exped. Vol. 21, Part 1 and 2.

DIAGNOSTIC CHARACTERS:

1. Carapace flattened with two medial tubercles and poorly developed cardiac tubercles (Fig. 1).
2. Postorbital spine small, sometimes more readily visible from the ventral side.
3. Distinct hepatic spine, not reaching beyond eye.
4. One tubercle on the first abdominal segment.
5. Male first right pleopod as illustrated (Fig. 2).

VARIABILITY: 1. Hepatic spine sometimes approaches strap-shape.

RELATED SPECIES AND CHARACTER DIFFERENCES:

1. Podochela lobifrons has a distinctly strap-shaped hepatic spine and two tubercles on the first abdominal segment
2. Podochela angulata has an inconspicuous or lacking postorbital spine

DEPTH RANGE: Intertidal to 165m

DISTRIBUTION: Colombia to San Miguel Island, California

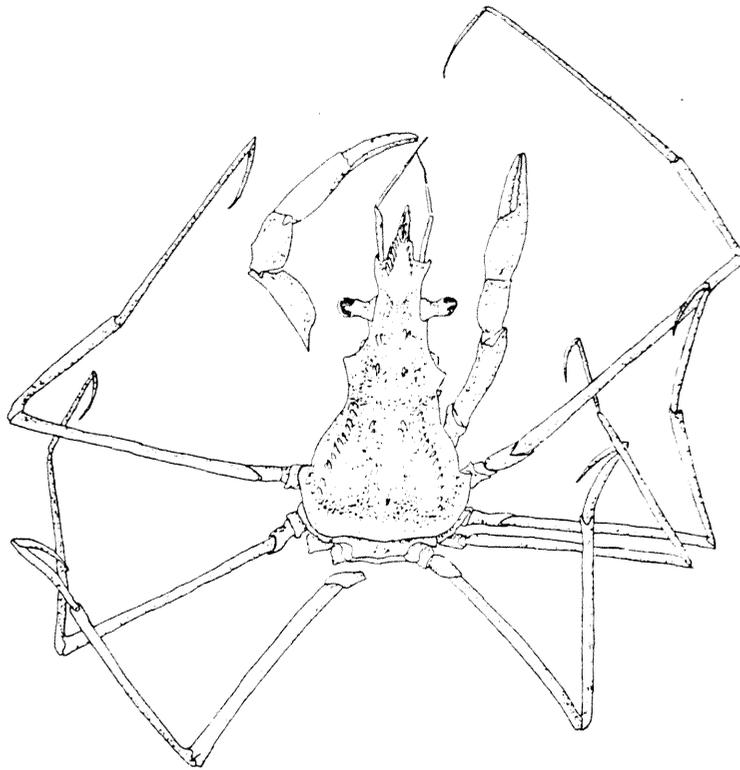


Fig. 1 Male Podochela hemphilli

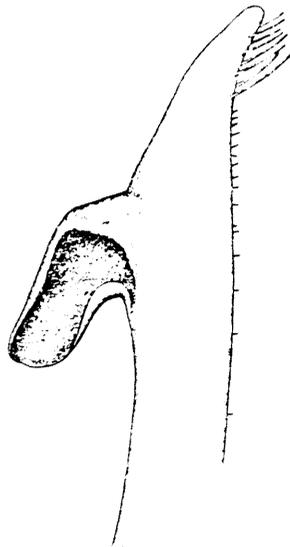


Fig. 2 Right first male pleopod (from Garth 1958).

SCAMIT Code: HYP64

Date Examined: August 11, 1986  
Voucher By: Ann Martin

SYNONYMY: Podochela barbarensis Rathbun, 1924

LITERATURE: Garth, J.S. 1958. Brachyura of the Pacific Coast of America Oxyrhyncha. Allan Hancock Pac. Exped. Vol. 21 Part 1 and 2.

DIAGNOSTIC CHARACTERISTICS:

1. Carapace flattened with two medial tubercles and poorly developed cardiac tubercles (Fig. 1).
2. Postorbital spine small, sometimes more readily visible from the ventral side.
3. Distinct hepatic spine, broadly strap-shaped.
4. First abdominal segment with two median tubercles.
5. Male first right pleopod as illustrated (Fig. 2).

RELATED SPECIES AND CHARACTER DIFFERENCES:

1. Podochela hemphilli does not have a strap-shaped hepatic spine and has one tubercle on the first abdominal segment.

DEPTH RANGE: Intertidal to 220m

DISTRIBUTION: Gulf of California to Pt. Mugu, California

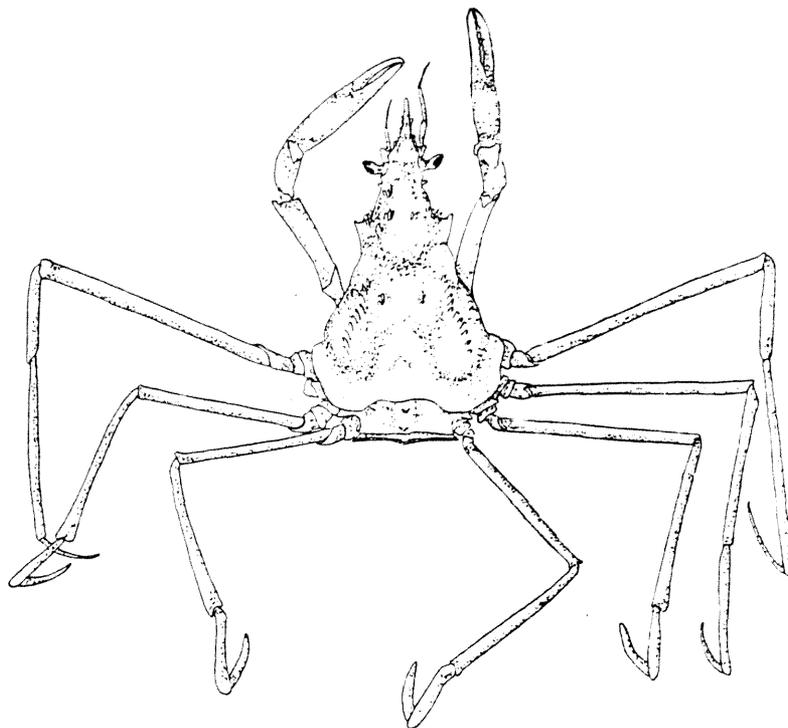


Fig. 1 Female Podochela lobifrons

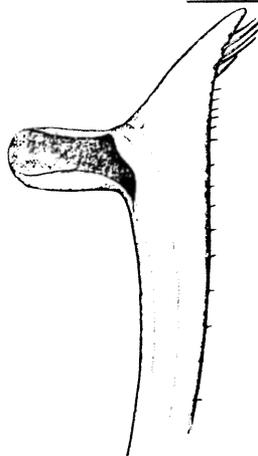


Fig. 2 Right first male pleopod (from Garth 1958)

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SCAMIT Code: LACO 77, HYP62, MBC 57 Date Examined: August 11, 1986  
Voucher by: Ann Martin

SYNONYMY: Inachus tuberculatus Lockington, 1877  
Inachoides magdalensis Rathbun, 1893  
Inachoides tuberculatus Schmitt, 1921

LITERATURE: Garth, J.S. 1958. Brachyura of the Pacific Coast of America Oxyrhyncha. Allan Hancock Pac. Exped. Vol. 21, Part 1 and 2.

DIAGNOSTIC CHARACTERS:

1. Carapace pyriform, very convex, and tuberculate with three medial tubercles.
2. Postorbital spine large, curved forward around eye, eye rests closely to spine.
3. Hepatic spine softly rounded, extending slightly beyond postorbital spine.
4. Mature male chelipeds inflated and tuberculate (Fig. 1), female chelipeds slender (Fig. 2).
5. Male pleopod 1 as illustrated (Fig. 3).

VARIABILITY: Juveniles are longer than wide, have smaller postorbital spines and shorter dactyls. The rostrum is short, developing from a rounded bifid structure to the lengthened adult form (Fig. 4). Carapace tubercles develop with age; the intestinal arising last.

Garth (1958) determined that three races exist: the typical form described above, a northern Gulf of California form, and a southern Gulf of California form. The northern form has a shorter rostrum, a wider carapace with many coarse granules, and a swollen bare hand that Garth designated as a subspecies P. t. mexicana. The southern form, called variety A by Rathbun (1925), has a long rostrum, laterally directed postorbital spines and few granules on the walking legs.

RELATED SPECIES AND CHARACTER DIFFERENCES:

Garth (1958) noted that juveniles are similar to juvenile Inachoides which have smaller post orbital spines and shorter dactyls.

DEPTH RANGE: Intertidal to 400m

DISTRIBUTION: Utria Bay, Columbia to Tomales Bay, California

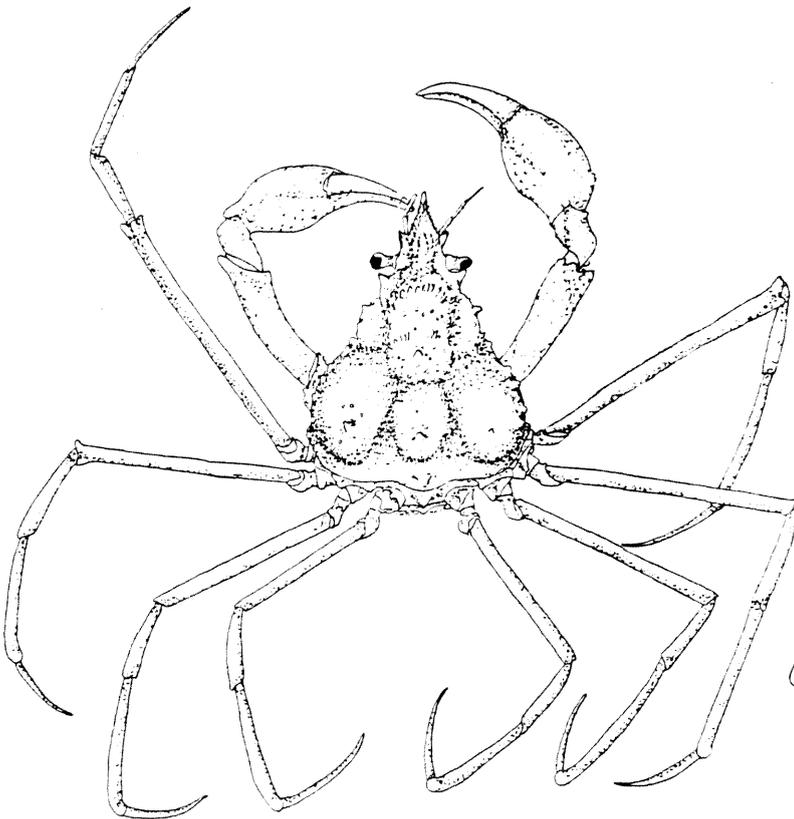


Fig. 1 Male Pyromaia tuberculata

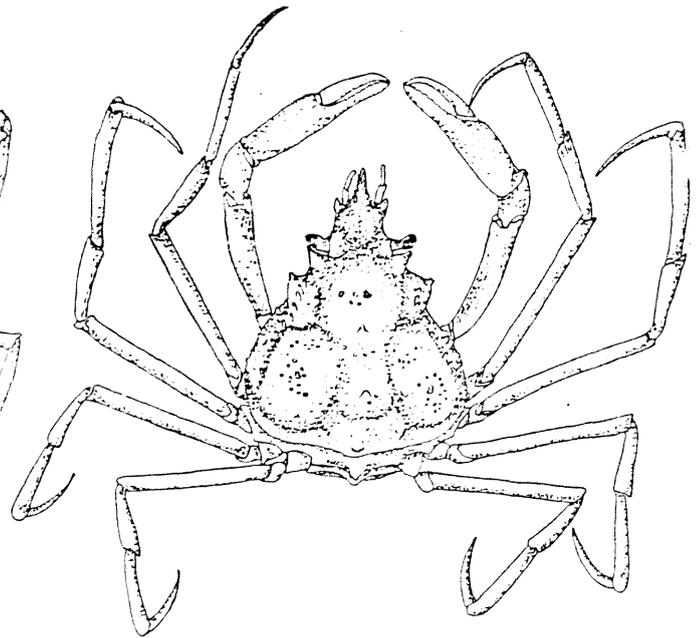


Fig. 2 Female Pyromaia tuberculata

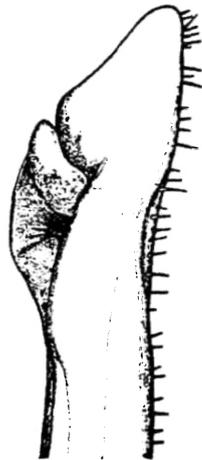


Fig. 3 Right first male pleopod (from Garth 1958)

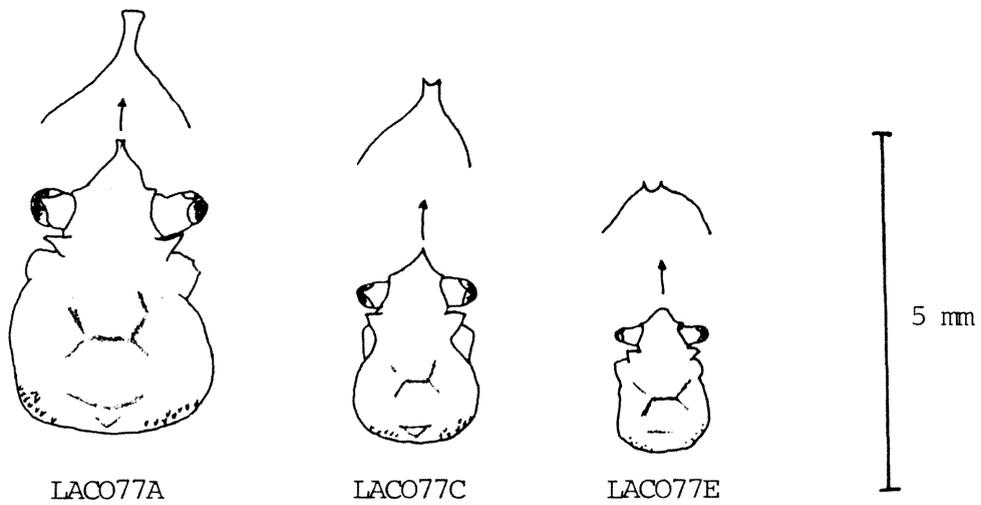


Fig. 4 Juvenile Pyromaia tuberculata featuring development of the rostrum.