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The Isopod Crustacea of the Hawaiian Islands,
III. Superfamily Flabellifera, Family Anthuridae

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INTRODUCTION

This article is the third of a monographic series on the Hawaiian isopod Crustacea published by Bernice P. Bishop Museum. In the first two articles (Miller, 6 and 7),¹ the Hawaiian representatives of the superfamilies Chelifera, or Tanaiioidea (by some authorities considered a separate order of Crustacea); Valvifera; and Asellota were described. In this paper, seven families of the superfamily Flabellifera (Cymothoidea) now known to occur in Hawaii are keyed, and the Hawaiian members of the family Anthuridae—four new species—are keyed and described. The only previous reference to this family, to our knowledge, is Edmondson's mention and figure (3) of an undetermined anthurid. Subsequent articles will deal with the other flabelliferan families and the remaining superfamilies.

This survey of Hawaiian Isopoda was initiated in 1935 at the Marine Laboratory of the University of Hawaii at Waikiki with the helpful advice and encouragement of Dr. Charles H. Edmondson, then Chairman of the Department of Zoology, University of Hawaii, and Zoologist at Bishop Museum. Collections have largely been confined to fringing reefs around Oahu, but some specimens were taken from other islands. It is anticipated, therefore, that additional species belonging both to known and to hitherto unrecorded families will be discovered in future collections, especially those from different localities and from deeper water.

¹ Numbers in parentheses refer to Literature Cited, page 15.

Holotypes of all new species described here are deposited in Bishop Museum.

Illustrations for this paper are based on camera lucida drawings.

SUPERFAMILY FLABELLIFERA (CYMOTHOIDEA)

The superfamily Flabellifera can be distinguished from the Cheliferia by the fact that the first pair of legs is not chelate, and from the other four superfamilies of marine isopods by the fact that the uropods are lateral and usually form, together with the telson, a caudal fan. The abdominal appendages (pleopoda) are for the most part natatory in this superfamily. (See key to the superfamilies of Hawaiian isopods, Miller, 6, p. 296.)

The Flabellifera, as now constituted, is the largest and most diverse of the five marine isopod superfamilies, here as possibly elsewhere, with seven families represented in Hawaiian waters. Edmondson (3) records five of these—Anthuridae, Cirolanidae, Limnoriidae, Cymothoidae, and Sphaeromidae—the two additional flabelliferan families being Corallanidae and Aegidae.

KEY TO THE FAMILIES OF HAWAIIAN FLABELLIFERA
(Adapted from Richardson, 9)

1. Uropoda lateral and superior, outer branch arching over base of telson. Body nearly cylindrical, generally much more than five times longer than wide**Anthuridae.**
- 1a. Uropoda lateral. Body more or less elliptical, or less than five times longer than wide.....2.
2. Abdomen (pleon) usually composed of six free segments. Coxal plates or epimera (except first) not fused to thorax (peraeon).....3.
- 2a. Abdomen composed of three segments (first generally concealed by thorax).
Coxal plates generally fused to thorax.....**Sphaeromidae.**
3. Uropoda with both branches well-developed, lamelliform.....4.
- 3a. Branches of uropoda claw-like or styliiform.....**Limnoriidae.**
4. Maxillipeds with palp free, margins of last two articles more or less setose, never furnished with hooks.....5.
- 4a. Maxillipeds with palp embracing cone formed by distal parts of mouth organs; inner margin and apex never setose; apex and sometimes inner distal margins, at least in males and females without eggs, being furnished with outward curved hooks.....6.
5. Mandibles with distal half stout, conspicuous, molar plate well-developed with teeth on superior margin.....**Cirolanidae.**
- 5a. Mandibles with distal half narrow, most or all of it concealed by upper and lower lips, usually without molar process.....**Corallanidae.**

6. Antennae of both pairs with well-defined peduncle and flagellum. Mandibles with secondary plate very often visible; palp with no inflated joint. Maxillipeds with palp composed of five, or sometimes of two articles, the last article in the latter case being rather short and obtuse **Aegidae.**
- 6a. Antennae much reduced, without clear distinction between peduncle and flagellum. Mandibles with no secondary plate; palp in adults with first joint or both first and second joint inflated. Maxillipeds always with palp composed of two joints, last rather long and narrow, subacute **Cymothoidae.**

FAMILY ANTHURIDAE

Richardson's description (9) with amendments suggested by Barnard's revision of the family (2) follows:

Body long and narrow, nearly cylindrical in form. Head comparatively small. Segments of thorax well-defined and without distinct epimera. Abdomen comparatively short, with the anterior segments sometimes completely or partially fused. Mouth parts normal or modified for suction. Statocysts paired, unpaired or absent. First pair of legs subchelate; the following two pairs either similar to first or only exceptionally subchelate or as large as first pair. First pair of pleopoda large and expanded, more or less covering the others, especially in female. Uropoda with outer or superior branch arching over the base of the telson.

KEY TO THE HAWAIIAN ANTHURIDAE

1. Mouthparts adapted for biting. Paired statocysts at base of telson.....2.
- 1a. Mouthparts modified for piercing (mandible and first maxilla lancet-like)3.
2. Pleon sutures distinct. Body not pigmented. Third (second free) article of maxilliped not constricted in middle.....
..... **Apanthura inornata**, n.sp.
- 2a. Pleon sutures indistinct. Body pigmented. Third article of maxilliped constricted in middle..... **Mesanthura hieroglyphica**, n.sp.
3. Inner and distal edge of exopodite of uropods with blunt denticulations. Telson and uropodal branches broad and truncate at tip.....
..... **Paranthura bellicauda**, n.sp.
- 3a. Margin of exopodite of uropods smooth. Apex of telson and uropodal branches rounded..... **Paranthura ostergaardi**, n.sp.

Genus *Apanthura* Stebbing

Barnard (2) gives the following generic description:

"Eyes usually present, absent in the deeper water species. Peraeon segments not pitted. Pleon with the sutures distinct. Telson not indurated, rather thin, dorsally smooth and convex. Antenna 1 with flagellum of 1 joint or obscurely 2-3-jointed, or occasionally brush-like in ♂. Antenna 2 with flagellum rudimentary. Mandible with 3rd palpal joint shorter than or subequal to 1st, sometimes

with a comb of setae, sometimes with only an apical tuft. Maxilliped 5-jointed. Peraeopod 1 usually with a tooth on palm near base, unguis typically long. Peraeopods 2 and 3 with 6th joint somewhat ovate. Peraeopods 4-7 with 5th joint underriding 6th. Pleopod 1 not indurated. Uropods not indurated, exopod folding over telson. Oostegites 4 pairs (*A. xenocheir*, *apud* Stebbing)."

***Apanthura inornata*, new species (fig. 1).**

Holotype female. Body rectilinear, elongate, about 10 times longer than wide: 3.75 mm. by 0.35 mm. Color (in alcohol) pale yellowish with no chromatophores visible.

Head about as long as wide. Anterolateral lobes and median rostral process prominent. Frontal margin excavate on each side of rostrum. Eyes distinct, darkly pigmented. Flagellum of first antenna composed of three articles, that of second antenna composed of four articles. Basal article of flagellum in second antenna large, followed by three small rudimentary articles. Mandible with broad incisive process bearing three or four teeth, subtended by a multi-toothed process, and a single toothed bristle in the setal row. More proximally, mandible bears a blunt molar process and a three-jointed palp. First article of mandibular palp about twice as long as third, the second three times longer than third. Maxilla with short rudimentary inner plate bearing a single apical bristle, and a long slender outer lamella toothed at apex. Maxilliped typical of genus with five (four free) articles, the third not constricted in middle.

Thoracic segments increase gradually in width from first to fourth somite posterior to which the width of segments is about the same. Relative lengths of thoracic somites are expressed by the formula $7 < 3 < 2 < 1 = 4 = 5 = 6$. First peraeopod stout, subchelate. Propodus proximally greatly expanded bearing on its palmar surface a distally toothed, ridge-like process. Dactyl and unguis indistinctly separated and forming an arcuate finger with a small accessory unguis on inner curvature. A stout seta emerges between base of unguis and accessory unguis. Other peraeopods ambulatory, the fifth joint underriding the sixth.

Abdomen composed of a distinctly segmented pleon of six somites, and a spatulate telson. Sides of pleon roughly parallel. Sixth segment of pleon broadly cleft in middorsal line, with posterior margin indistinct. Telson flat or slightly convex dorsally. Apex of telson slightly concave with characteristic apical tuft of setae. Paired statocysts present at base of telson. Exopod of uropod arches widely over telson, its apex slightly indented, and its margin fringed with plumose setae. Tip of endopod extends beyond apex of telson.

Oahu: Diamond Head reef (type locality), Sept. 23, 1938, Gordon Mainland.

Only one specimen of this new species of *Apanthura* has been collected. Five species of the genus have previously been described of which only two have been reported from the Pacific Ocean, namely, *A. sandalensis* Stebbing from the Loyalty Islands and the eyeless *A. coppingeri* Barnard from Dundas Straits. The new species differs from *A. coppingeri* in having large eyes, and from *A. sandalensis* it differs in having a rather large flattened ridge on the palmar surface of the gnathopod instead of a small tooth.

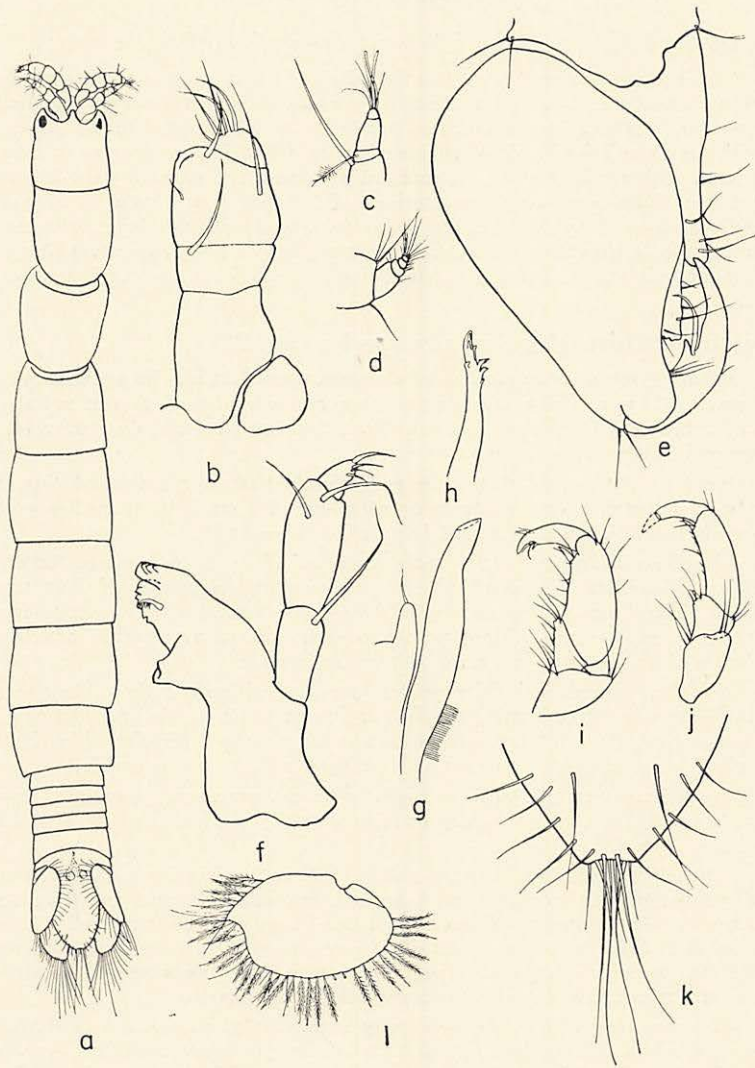


FIGURE 1.—*Apanthura inornata*, holotype female: a, dorsal view; b, maxilliped; c, first antenna; d, second antenna; e, gnathopod; f, mandible; g, maxilla, proximal part; h, maxilla, exopod, distal part; i, second pereopod; j, seventh pereopod; k, apex of telson; l, exopod of uropod.

Genus *Mesanthura* Barnard

Barnard (2) gives the following description of this genus:

"Eyes present. Peraeon without dorsal pits. Pleon short, sutures absent or extremely obscure. Telson not indurated, dorsally smooth, convex or sometimes nearly flat. Antenna 1 with flagellum brush-like in ♂, 2-jointed in ♀. Antenna 2 with flagellum 2-4-jointed. Mandible with 3rd palpal joint as long as or longer than 1st, with comb of setae. Maxilliped 5-jointed, the narrow waist-like 3rd (2nd free) joint being very characteristic. Peraeopod 1 with palm of 6th joint distally excavate, unguis long. Peraeopods 2 and 3 with 6th joint cylindrical. Peraeopods 4-7 with 5th joint underriding 6th. Pleopod 1 not indurated. Uropods not indurated; exopod apically notched, folding down over telson. Oostegites 4 pairs."

Mesanthura hieroglyphica, new species (fig. 2).

Holotype male. Body rectilinear, elongate, about 12 times longer than wide: 4.8 mm. by 0.4 mm. Color pale brown with dorsal side of head, thorax and abdomen marked with characteristic black chromatophore patterns; distinctive black loops on last four thoracic segments.

Head a little longer than wide and slightly narrower than first thoracic segment. Frontal margin excavate on each side of a small blunt median point. Anterolateral lobes small and acutely rounded. Eyes small.

Flagellum of first antenna of male composed of six densely setose, flattened articles. Flagellum of second antenna rudimentary, composed of four small articles. Flagellum of first antenna of female two-jointed, that of second four-jointed. A minute scale tipped with two setae evident at terminal article of peduncle of first antenna in female; not visible in male.

Mandible with short incisive process provided with about three blunt teeth. Mandibular palp three-jointed, the first and third subequal, the second twice as long as either, the third furnished with a comb of setae. First maxilla simple, terminating in well-developed teeth. Maxilliped with four free articles.

Thoracic segments subequal in width; sides of thorax nearly parallel. Length relations of thoracic segments may be represented by the formula $7 < 6 < 5 = 1 < 2 < 3 = 4$.

Subchelate first leg with unguis about half as long as dactylus. Propodus with palmar margin irregular and bearing a few setae. Second and third legs unlike first leg; propodus of second and third legs subcylindrical and not expanded as in first leg; superior margin of merus produced to meet propodus thus concealing superior margin of carpus. Peraeopods 4 to 7 ambulatory, the carpus somewhat triangulate and slightly underriding the propodus.

Abdomen composed of an indistinctly segmented pleon and a long, broadly spatulate telson. The first five segments of the pleon are indicated by short lateral suture lines; the sixth by a distinct suture completely separating it from the preceding series of partially fused segments. The second to fifth segments, inclusive, each bears a transverse row of melanophores. Dorsal surface of telson flat or slightly convex, ventral surface more convex. Anterior two-thirds of telson with about 20 black pigment spots. A pair of statocysts apparent at base of telson.

Uropods with peduncle and inner branch subequal in length. Outer branch slightly notched apically, arching over base of telson. First pleopoda operculate.

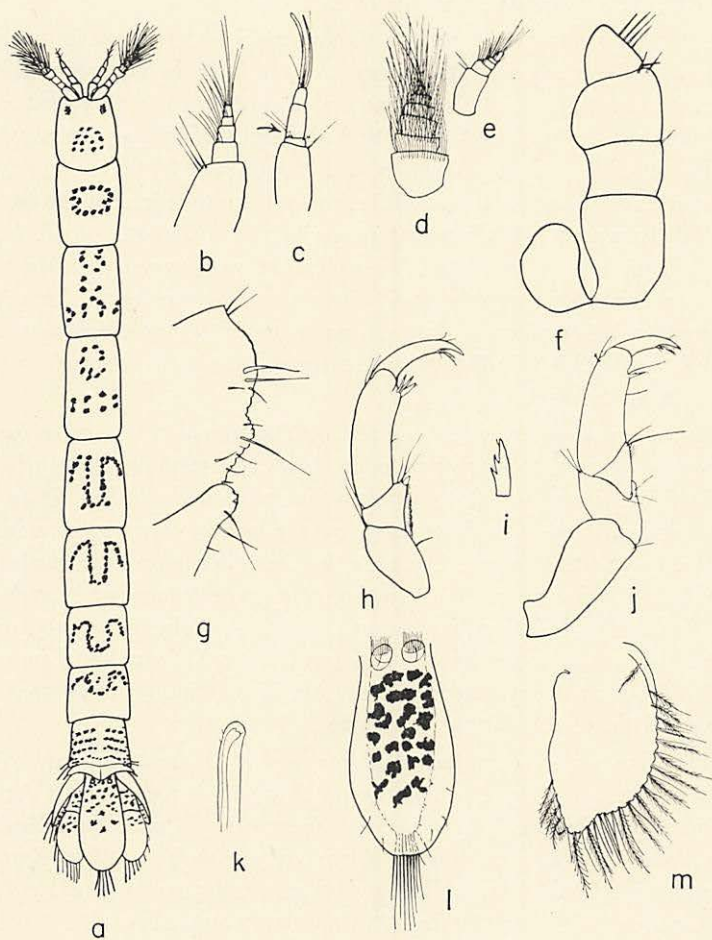


FIGURE 2.—*Mesanthura hieroglyphica*: a, male, dorsal view; b, flagellum of second antenna, female; c, flagellum of first antenna, female (arrow points to antennal scale); d, flagellum of first antenna, male; e, flagellum of second antenna, male; f, maxilliped; g, palmar margin of propodus of gnathopod, female; h, seventh peraeopod; i, two-pointed seta at inferodistal angle of propodus of seventh peraeopod; j, second peraeopod; k, stylus of male second pleopod; l, telson; m, exopod of uropod.

Oahu: Kawela Bay (type locality), July 24, 1939, M. A. Miller. Waikiki, date unknown, Edmondson.

Our new species, *Mesanthura hieroglyphica*, corresponds nicely to Barnard's description of the genus *Mesanthura* in all essential features. Barnard states, "This genus is well-defined both structurally and by the extensive development of pigment to form a pattern which is characteristic of each species. . . Structural features separating the species are hard to find. All the species are dwellers in the littoral or shallow water." Unfortunately, only two specimens of *M. hieroglyphica* have been collected. The pigment pattern as described for the type is unlike that of any of the other five species in the genus. Edmondson's specimen is dark brown with extensive black markings on the dorsal side of all thoracic segments in a distinct pattern similar to that found in the type.

An antennal scale here observed on the first antenna of a female specimen has not, to our knowledge, been reported previously in the Anthuridae. Because of its minute size and its position, it is not readily seen, hence may have been overlooked in other species in the family. It was not found, however, in the other Hawaiian anthurids described in this paper. This vestige of a second flagellar branch has only been reported thus far among isopods on the first antenna of *Bathynomus*, the cryptoniscan larvae of some Epicaridea, *Limnoria*, and on the second antenna in certain Asellota, being an important key characteristic in the family Janiridae.

The five previously described species of *Mesanthura* and their localities are as follows: *M. catemula* (Stimpson) from South Africa, *M. maculata* (Haswell) from New South Wales and New Zealand (also from Ceylon according to Kirtisinghe, 4), *M. ocellata* Barnard from Siam, *M. albolineata* Barnard from Singapore, and *M. pulchra* Barnard from the West Indies. *Paranthura miersi* Haswell from Port Jackson probably should also be added to this list since Barnard (2) states that it seems to him "to be undoubtedly a *Mesanthura*" and may even be "specifically identical with *M. maculata*."

Genus *Paranthura* Bate and Westwood

Barnard (2) gives the following description of *Paranthura*:

"Eyes well developed. Peraeon not strongly keeled dorsolaterally, no dorsal pits, but usually a fine impressed line across anterior margin of posterior segments; segment 7 short. Pleon short, sutures more or less distinct, more distinct

laterally than dorsally. Telson flat or convex dorsally, sometimes concave dorsally, more or less convex ventrally, thin, not indurated, without statocyst. Antenna 1 with brush-like flagellum in ♂, 4-6-jointed in ♀. Antenna 2 with flagellum in both sexes composed of a single flattened joint which is very characteristic. Mandibles with comb of setae on 3rd palpal joint. Maxilliped 3-jointed, 2nd and 3rd joints subequal, 2nd joint not apically produced. Peraeopod 1 with palm entire with more or less prominent basal tooth, unguis short. Peraeopods 4-7 with 5th joint cylindrical, not underriding 6th. Pleopod 1 not indurated. Uropods with narrow or moderately broad exopods folding over telson. Oostegites 3-4 pairs.

"This genus comprises species which are yellowish or pale, more or less suffused with darker speckling or patches, which however never form a clearly outlined pattern. They are mostly inhabitants of shallow water."

The foregoing description fits the two Hawaiian species of *Paranthurus* herein described with one important exception, namely, that the flagellum of the second antenna in these is composed, not of "a single flattened joint" but of several joints. The same is true for *P. elegans* Menzies (5), and probably for other species in the genus; for example, *P. punctata* (Stimpson), *vide* Barnard (1, p. 348a). In all specimens observed the flagellum in both sexes consists of a large flattened basal joint followed by a series of minute terminal joints partially obscured by setae so that without proper magnification the flagellum might appear as a single joint. High magnification is needed to determine the exact number of articles.

Paranthurus bellicauda, new species (fig. 3).

Holotype ovigerous female. Length 6.0 mm., width at fourth thoracic segment 0.9 mm. Body elongate, gradually widening from anterior to posterior. Dorsal surface of whole body spotted with irregular sprinkling of large, branched, black chromatophores.

Head longer than wide and slightly narrower than first thoracic segment. Frontal margin excavate on each side of a blunt median point. Anterolateral lobes small; eyes small.

First antenna more slender than second, with flagellum not distinct from basal articles. Flagellum of second antenna rudimentary, composed of a large flattened basal article followed by six minute articles bearing long setae.

Mandible with lancet-like incisive process extending beyond palp. Mandibular palp composed of three articles; the third as long as the first and furnished with setae, the second as long as first and third combined. First maxilla spear-like, with inner apical edge serrate. Maxilliped with two free subequal segments, plus a terminal rudimentary article partially obscured by apical setae.

Length relations of thoracic segments may be expressed by the formula $7 < 6 < 5 = 1 < 2 = 3 < 4$. First three peraeopods similar, subchelate, the first being the strongest. Unguis not distinguishable in the arcuate finger of these peraeopods. Propodus greatly enlarged and expanded, especially proximally, with a convex palmar margin fringed with many setae. Peraeopods 4 to 7 ambulatory with subcylindrical carpus not underriding propodus.

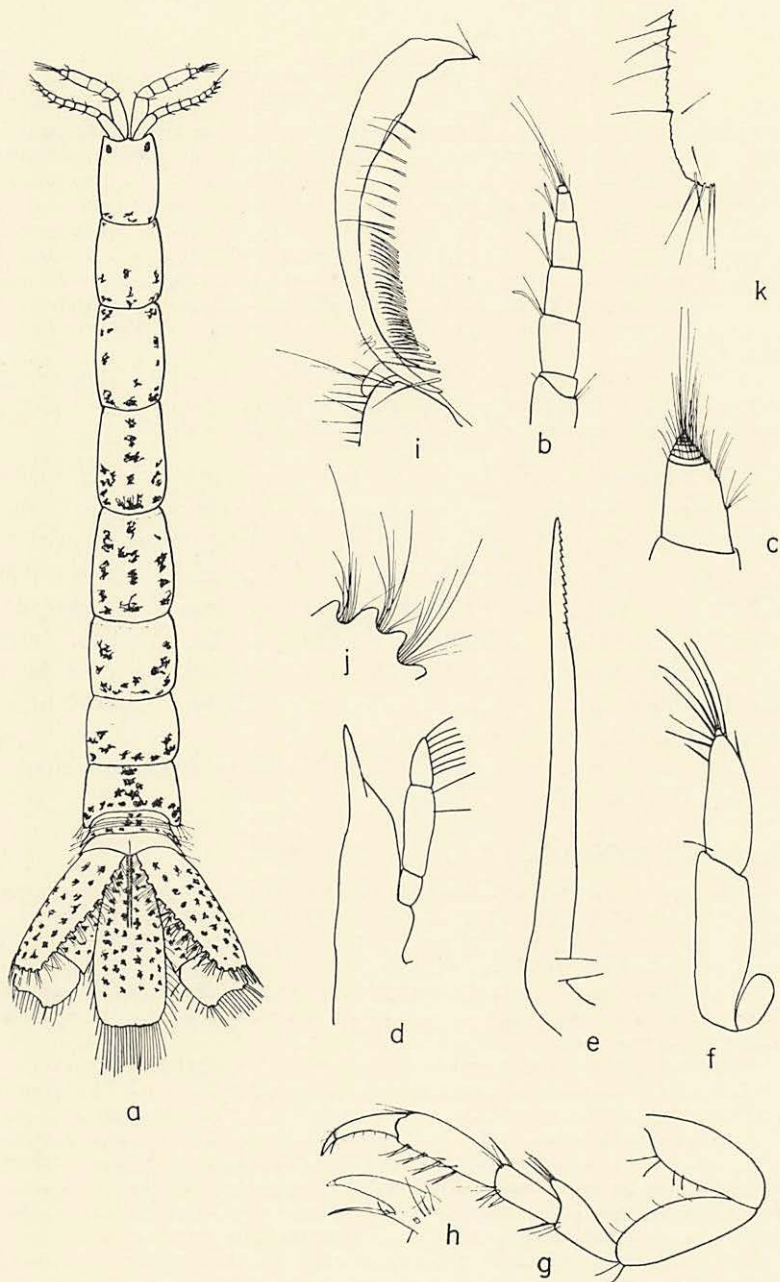


FIGURE 3.—*Paranthura bellicauda*, holotype female: a, dorsal view; b, flagellum of first antenna; c, flagellum of second antenna; d, mandible; e, maxilla; f, maxilliped; g, seventh leg; h, unguis of seventh leg; i, palm of gnathopod; j, outer margin of exopod of uropod; k, left border and apex of telson.

Pleotelson wide and flaring, composed of a very short, faintly segmented pleon and a broad, apically truncate telson. Posterior margin of telson bears a slight median concavity and a fringe of about 54 marginal setae. Lateral edges of telson minutely serrate. Dorsal side of telson concave, ventral side convex. Flexor-tensor muscles visible through dorsal wall of telson. No statocyst in telson.

Uropods broad, with branches truncate at tip. Apex of endopod slightly excavate. Distal and inner margin of exopod provided with a row of blunt denticles, between which are brushes of setae. Exopod arching broadly over telson.

Oahu: Halona (type locality), Sept. 12, 1938, Miller and A. H. Banner.

Unfortunately, only one specimen of *Paranthura bellicauda* has thus far been collected. It closely resembles *P. verrillii* Richardson from the Bermudas, especially in the character of the denticulated uropods. The main difference between the two species, aside from localities, is in the shape of the telson, which tapers from the base to apex in *P. verrillii* (according to the figures), whereas the converse is true in *P. bellicauda*. Incidentally, Barnard (2) states that *P. verrillii* is the female, and hence a synonym of *P. infundibulata* Richardson which is also found in the Bermudas and the West Indies.

***Paranthura ostergaardi*, new species (fig. 4).**

Holotype ovigerous female. Body narrow, elongate, about eight and one-half times longer than wide: 6.8 mm. by 0.8 mm. Color yellowish white. Dorsal surface sparsely and irregularly speckled with small black chromatophores.

Head with frontal margin excavate on each side of a small median blunt point. Anterolateral angles strongly produced in acutely rounded lobes extending forward much beyond the level of the rostrum. Eyes moderately large.

Flagellum of first antenna in female five- or six-jointed. First antenna in male with a brushlike flagellum composed of about seven flattened, densely setose joints. In small males, presumably younger, the antennal brush is not developed, although the flagellar articles are flattened and may bear a few bristles. Second antenna similar in both sexes with flagellum composed of five articles, a relatively large flattened basal article followed by four minute setiferous annuli.

Mandible with lancet-like incisive process extending beyond triarticulate palp. Comb of setae on third palpal joint. First maxilla spearlike, with serrated inner apical margin. Maxilliped composed of two subequal free articles plus rudimentary terminal article partially obscured by an apical tuft of setae.

Thoracic segments loosely articulated, the posterior portion of each segment overlapping the depressed anterior part of the next. Transverse lines cross the anterodorsal surface of each segment, anterior to which segments become narrower and dorsally depressed. Posterior thoracic segments slightly wider than anterior ones. Their length relations may be expressed by the formula $7 < 6 = 1 < 2 = 3 = 4 < 5$.

First three pereopods similar, subchelate, the first being the strongest. Finger arcuate with but slight indication of an unguis. Palmar margin of ex-

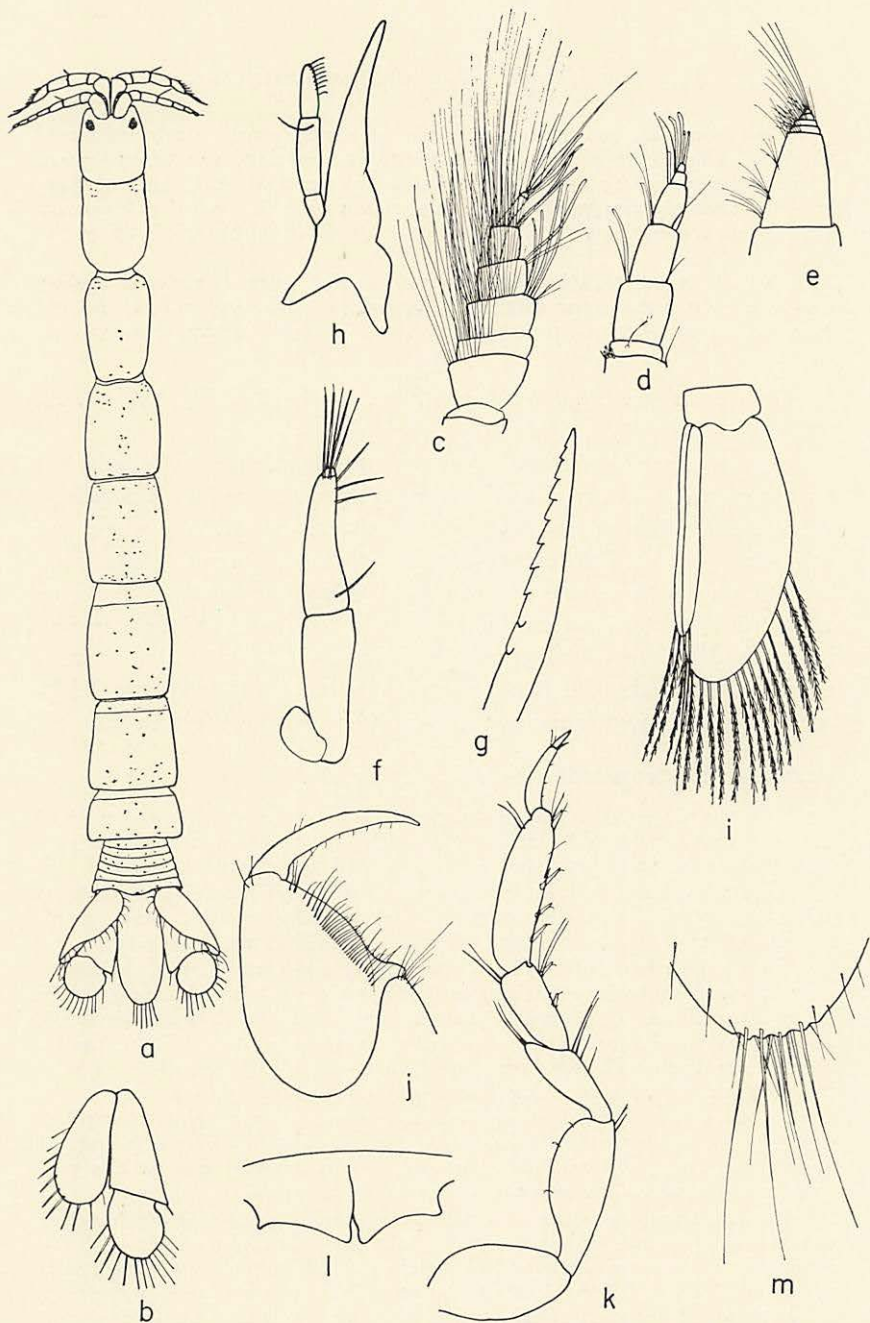


FIGURE 4.—*Paranthura ostergaardi*: a, female, dorsal view; b, uropod; c, flagellum, first antenna, male; d, flagellum, first antenna, female; e, flagellum of second antenna; f, maxilliped; g, maxilla; h, mandible; i, first pleopod; j, gnathopod; k, seventh leg; l, posterior margin of sixth abdominal somite; m, distal margin of telson.

panded propodus slightly convex and subtended by a comblike row of stout setae. Carpus triangulate, merus apically strongly produced, its distal excavated margin bracing against the convexity of the outer basal portion of the propodus. Basis and ischium moderately stout. Peraeopods four to seven ambulatory, their carpal joints cylindrical and not underriding the propodus. Unguis short.

Pleotelson composed of a six-segmented pleon and a linguiform telson. Apex of sixth segment cleft in middorsal line with opening of cleft bordered by pointed projections that extend posteriorly beyond inner angles of excavations for uropods; posterior margin concave on either side of the median points. Apices of uropodal branches rounded. Endopod half as long as peduncle. Margins of uropodal branches and apex of telson furnished with long plumose setae. First pleopod operculate, membranous.

Oahu: Waikiki (type locality), March 18, 1930, Edmondson; July 31, 1939, Miller (holotype and paratypes). Black Point, Feb. 20, 1939, Miller. Kaaawa, April 9, 1929, Edmondson. Kawela Bay, July 20, 1939, Miller.

Kauai: Nawiliwili, April 13, 1941, Henry Kawasaki. Moloaa, April 13, 1941, Kawasaki.

The above-described species is named for Jens M. Ostergaard, now retired from the University of Hawaii, in appreciation for his sympathetic interest. It apparently is the most common anthurid in shallow waters around Oahu, and is the "undetermined anthurid" figured by Edmondson (3).

The following species of *Paranthura* are now known from the Pacific Ocean.

- P. bellicauda*, new species: Hawaiian Islands
- P. ostergaardi*, new species: Hawaiian Islands
- P. elegans* Menzies: California
- P. porteri* (Boone): Chile
- P. gracilipes* Nordenstam: Juan Fernandez Island
- P. nana* Nordenstam: Juan Fernandez Island
- P. skottsbergi* Nordenstam: Juan Fernandez Island
- P. punctata* (Stimpson): Tasmania, New South Wales, New Zealand, South Africa
- P. flagellata* (Chilton): New Zealand, New South Wales
- P. involuta* Whitelegge: New South Wales
- P. lifuensis* Stebbing: Loyalty Islands, China Sea
- P. japonica* Richardson: Japan

Because of inadequate descriptions of many species, comparisons are difficult. However, a few points of similarity and differences be-

tween *P. ostergaardi* and other Pacific species of *Paranthura* may be noted. As far as we can determine, *P. ostergaardi* most closely resembles *P. gracilipes* Nordenstam (8) from Juan Fernandez. It differs from the latter in the relative lengths of the thoracic segments and in the pointed, rather than rounded, posterior borders of the mid-dorsal cleft in the sixth abdominal somite. It also bears some resemblance, especially in the caudal fan, to *P. lifuensis* Stebbing (11) and *P. japonica* Richardson (10), but differs from these two species in having a distinctly segmented pleon rather than one in which sutures are visible only along the sides. More pronounced differences separate *P. ostergaardi* from the remaining species.

The presence of a terminal rudimentary fourth (third free) article on the maxilliped of some species of *Paranthura* may prove to be a useful subgeneric character, especially since the number of articles in the maxillipeds is an important characteristic in separating genera in the Anthuridae. It occurs in both Hawaiian species herein described, in *P. lifuensis* Stebbing and in *P. punctata* (Stimpson). This minute article is not figured or mentioned in descriptions of several species, *P. nana* Nordenstam (8), for example, but because of its small size it can easily be overlooked. It was not found, however, on careful examination of specimens of *P. elegans* Menzies (5) in which the distal article of the maxilliped terminates in a narrow point.

SUMMARY

A key is given to seven families of the isopod superfamily Flabellifera (Cymothoidea) that occur in Hawaii and the known representatives of the family Anthuridae—four new species—are keyed and described. The new anthurid species are *Apanthura inornata*, *Mesanthura hieroglyphica*, *Paranthura bellicauda*, and *P. ostergaardi*, all of which have type localities in Oahu.

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