

RANGE EXTENSION AND SUPPLEMENTARY
DESCRIPTION OF *BATHYCONCHOECIA DEEVEYAE*
(OSTRACODA: HALOCYPRIDIDAE)

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Abstract.—The halocyprid ostracode species *Bathyconchoecia deeveyae* Kornicker, 1969 is reported from the western Atlantic off Surinam. Previously it was known only from the eastern Pacific and Indian oceans. Because the single specimen from the western Atlantic is a female more mature than the unique holotype, it is described and illustrated.

Introduction

The R/V *Knorr*, operated by the Woods Hole Oceanographic Institution, collected in 1972 at a depth of 508–523 m in the western Atlantic off Surinam a bottom sample containing a single specimen of *Bathyconchoecia deeveyae* Kornicker, 1969. This species had previously been known from single specimens collected in the eastern Pacific off Peru at a depth of 520 m (Kornicker 1969:403), and off the southwest coast of India in a vertical plankton haul from 200 to 0 m (George 1971:141). The Indian specimen is an adult male. The holotype of *B. deeveyae* from off Peru is a female at the A-1 or A-2 stage of development. The specimen from off Surinam is more mature (A-1 or adult female) than the holotype, and is therefore, described and illustrated here.

Bathyconchoecia deeveyae Kornicker, 1969

Figs. 1–4

Bathyconchoecia deeveyae Kornicker, 1969:403, pl. 1, figs. 1, 2.—Kornicker and Angel, 1975:3.

Holotype.—USNM 123335, juvenile female, carapace preserved in alcohol; slide of appendages lost.

Type-locality.—Pacific Ocean, 07°53'S, 80°30'W, depth 520 m, benthic trawl.

Material.—USNM 157494, female (A-1 instar or adult), western Atlantic, off Surinam, 07°45'18"N, 54°24'00"W, depth 508–523 m, R/V *Knorr*, cruise 25 (Surinam transect), sta 297, 28 Feb 1972, epibenthic sled.

Description of female (A-1 instar or adult) (Figs. 1–4).—Carapace with linear dorsal margin except for slight bulge near middle, and also at posterior corner of each valve in vicinity of glands (Fig. 1a, b); anterodorsal corner

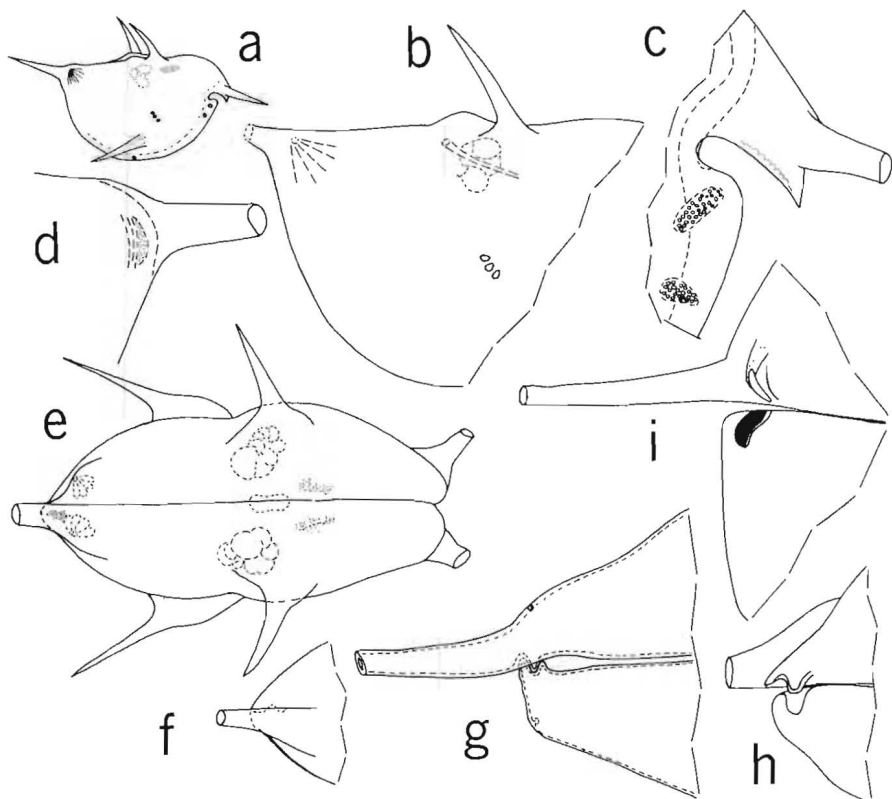


Fig. 1. *Bathyconchoecia deeveyae*, USNM 157494: a, Lateral view of complete specimen; b, c, Details from "a"; d, Left lateral view of posterodorsal part of complete specimen showing main tooth of right valve (stippled) seen through translucent left valve; e, Dorsal view of complete specimen excluding tips of anterior and posterior spines; f, Detail of dorsal end of "e" showing configuration of posterior hingement; g-i, Ventral views of posterior end of valves showing posterior hinge structures; g, With valves closed; h, With valves partly open; i, With valves flattened under cover slip (socket of left valve filled-in, tooth of right valve not filled-in).

evenly rounded except for long spine on right valve; rostrum with pointed tip and long spine pointing forward and outward (Fig. 1a-d).

Ornamentation (Fig. 1a, e): Right and left valves with 2 anterior spines, 2 dorsal spines near middle, and 2 lateral spines below valve middle; right valve with additional posterior spine. Surface with abundant shallow punctae but without frills between punctae.

Central adductor muscle attachments (Fig. 1a, b): Consisting of 3 small oval scars.

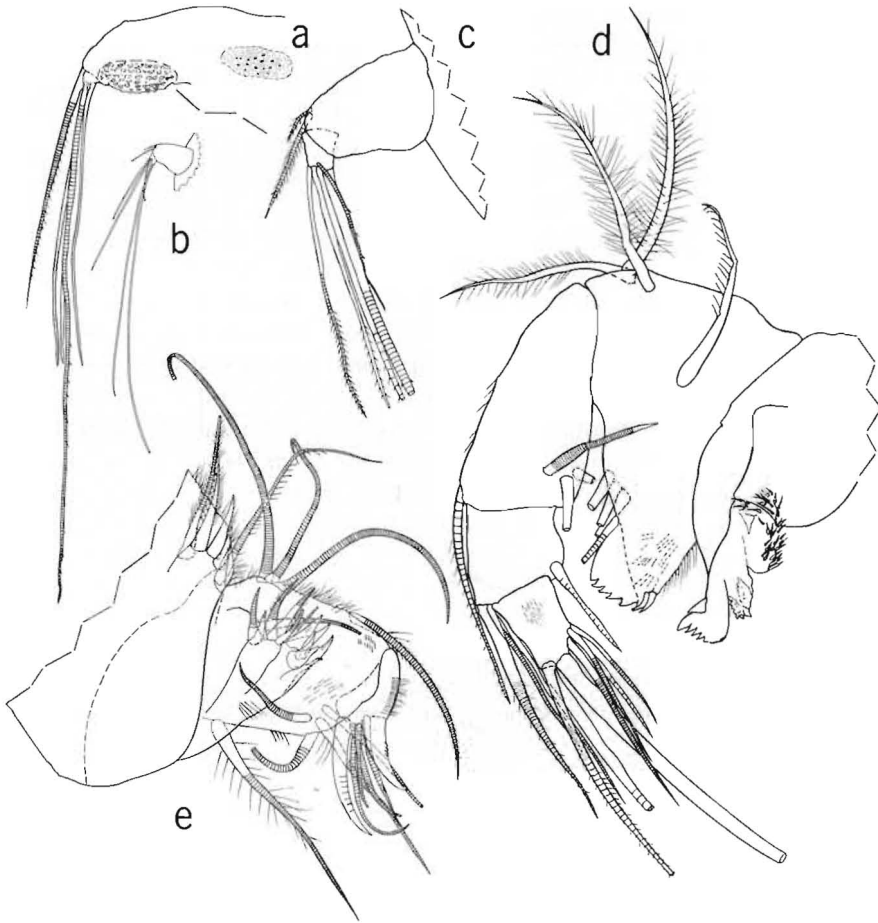


Fig. 2. *Bathyconchoecia deeveyae*. USNM 157494: a, 1st antenna; b, Endopodite of 2nd antenna; c, Detail of "b"; d, Mandible; e, Maxilla.

Glands (Fig. 1a–c, e): Symmetrically located in posterodorsal corner of each valve, opening at apex of small mound. 3 additional glandular openings on infold: 2 just ventral to incisur, 1 near middle of ventral margin (Fig. 1a, c).

Hingement (Fig. 1d, f–i): Posterodorsal corner of right valve with elongate tooth fitting into socket of left valve; elongate tooth anterior to socket of left valve fitting into poorly defined socket anterior to tooth of right valve; edge of valve posterior to socket of left valve fitting into depression posterior to tooth of right valve (Fig. 1h).

Size: USNM 157494: length excluding spines 1.49 mm; length including spines 2.31 mm; height excluding spines 1.10 mm; height including spines 1.42 mm; width including spines 1.35 mm; maximum width of carapace (excluding spines) anterior to lateral spines 0.75 mm; maximum width of carapace (excluding spines) posterior to lateral spines 0.68 mm.

First antenna (Fig. 2a): Shaft short with indistinct segmentation. Oval brown pigmented area present at proximal end; darker pigment cells clustered near middle of oval. Brushlike structure with about 207 filaments in about 9 rows, each with about 23 filaments. Dorsal bristle on segment following brushlike structure stout, spinous, about two-thirds length of brushlike filaments. Terminal segment with 4 bristles (3 slightly longer than bristle on previous joint, 1 much longer, reaching well past brushlike filaments and with widely scattered marginal spines).

Second antenna: Protopodite bare. Exopodite with 9 joints: joint 1 with short medial bristle extending past distal end of 2nd joint; joints 2–8 with long bristles with natatory hairs; 9th joint with 4 bristles (1 small, bare; 1 slender, about same length as joints 2–9, with scattered small spines; 1 slender, about same length as joint 1, with scattered small spines; 1 long with natatory hairs); joints 2–7 with minute spines forming row along part of distal margin. Endopodite 2-jointed (Fig. 2b, c): 1st joint with 2 spinous bristles (proximal of these less than one-half length of other); 2nd segment with 3 distal bristles (middle bristle longer than others; all with widely scattered faint spines on proximal part), and 2 longer bristles on small pedestal, both with widely scattered small spines (shorter of latter 2 bristles about three-fourths length of other bristle).

Mandible (Figs. 2d, 3a, b): Coxa: proximal list with about 11 minute teeth; distal list obscure but with about 12 teeth (Fig. 3b); short stout bristle on anterior ventral corner of spinous anterior part of coxa missing on both limbs. Basis with 1 distal anterior bristle, 3 distal lateral bristles near anterior margin, 1 hirsute medial bristle near middle and 3 hirsute dorsal bristles near anterodorsal corner; ventral incisor edge with 5 teeth followed by single tooth, a short tubelike bristle and a short clawlike bristle (Fig. 3a). Endopodite: 1st joint with 1 distal dorsal bristle and 3 bristles near distal ventral corner (2 medial, 1 lateral); 2nd endopodial joint with 1 distal ventral bristle and 3 distal dorsal bristles; 3rd joint with 4 ventral bristles (1 on lateral side) and 3 terminal bristles (ventral of these very long, clawlike).

Maxilla (Fig. 2e): Precoxale endite with 2 long, slender, ringed bristles (distal of these could be on basis) and 5 short, stout, hirsute unringed bristles; coxale endites each with 6 short bristles. Basis with 1 short lateral bristle. Endopodite: 1st joint with 4 anterior bristles (3 proximal, 1 distal), 5 posterior bristles (1 proximal and 4 near distal ventral corner); end joint with 2 stout claws and 4 slender bristles.

Fifth limb (Fig. 3c, d): Endopodite with 2 stout claws; endopodite plus

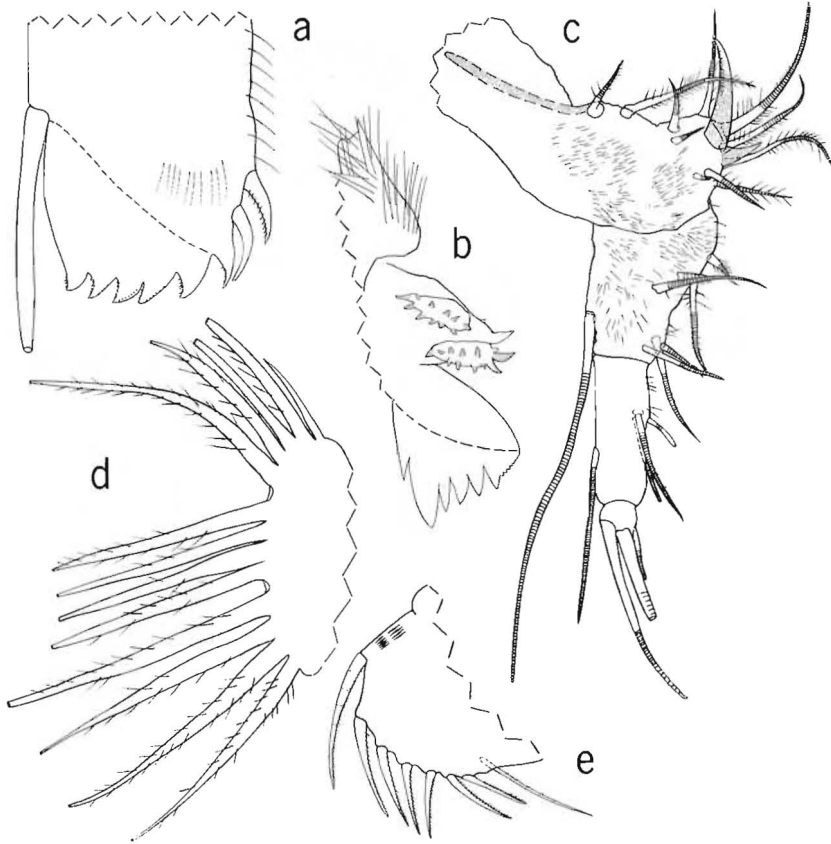


Fig. 3. *Bathyoconchoecia deeveyae*, USNM 157494: a, b, Details from Fig. 2d; c, d, 5th limb; e, Left lamella of furca and single posterior bristle.

protopodite with total of about 11 slender ringed bristles. Exopodite: 1st joint with 1 very long, subterminal, dorsal bristle, and 7 short, slender, ringed bristles on or near ventral margin; 2nd joint with 1 subterminal dorsal bristle and 3 bristles near middle of ventral margin; end joint with 3 bristles (2 clawlike). Epipodial appendage with bristles forming 3 groups, each with 4 hirsute bristles (proximal group with 1 smaller additional bare bristle proximal to the 4 hirsute bristles).

Sixth limb (Fig. 4a, b): Protopodite with 1 spinous ventral bristle. Exopodite: 1st joint with 3 spinous ventral bristles (1 near middle, 2 terminal), 1 long terminal dorsal bristle, and 1 lateral bristle; 2nd joint with 4 bristles near ventral margin (2 medial, 2 lateral); 3rd joint with 1 ventral and 1 dorsal

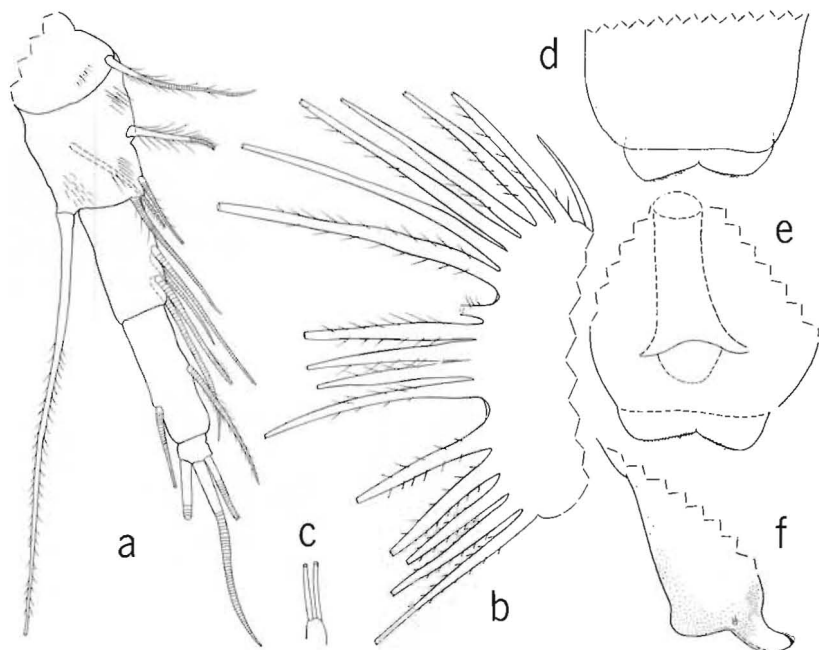


Fig. 4. *Bathyconchoecia deeveyae*, USNM 157494: a, b, 6th limb; c, 7th limb (distal part of bristles broken off on both limbs); d-f, Upper lip: d, Anterior view; e, Posterior view showing semicircular mouth and tubular esophagus (both dashed).

bristle; end joint with 3 bristles. Epipodial appendage consisting of hirsute bristles forming 3 groups of 6, 6, and 5 bristles (the former proximal group with additional smaller proximal bristle with small marginal spines or bare).

Seventh limb (Fig. 4c): Consisting of 2 bristles on small lobe (bristles broken on both appendages of specimen).

Furca (Fig. 3e): Each lamella with 7 claws with teeth along posterior margins; long unpaired, spinous bristle present following claws; claw 1 with 4 faint sutures.

Upper lip (Fig. 4d-f): Projecting posteriorly, terminating in thin divided lamina with posteriorly pointed spines along edge.

Bellonci organ: None observed.

Remarks.—The specimen from off Surinam is referred to *B. deeveyae* rather than to *B. septemspinosa* Angel, 1970, because of not having frills between punctae on the carapace surface (for illustration of frills see Kornicker and Angel 1975: fig. 9c, d). *Bathyconchoecia septemspinosa* has been collected only along the west coast of Africa. It is very closely related to *B. deeveyae*, and could be conspecific with it.

On the basis of the number of furcal claws, the specimen of *B. deeveyae* from Surinam is 1 stage older than the holotype of the species from the eastern Pacific. The adult male of *B. deeveyae* described by George (1971:143) bears 7 furcal claws, the same number on the specimen described herein. This suggests that the Surinam specimen is an adult. However, additional specimens and work are required before problems concerning taxonomic relationships of the widely separated specimens thus far collected can be resolved.

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