

THE SYSTEMATIC POSITION OF *DACTYLOSTYLIS* RICHARDSON
(ISOPODA, ASELOTA) ¹)

BY

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In 1911 Richardson described a new genus and species, *Dactylostylis acutispinus*, and placed it in the Desmosomatidae. The species was based on a single individual collected on July 9, 1883, in 698 meters of water off northwest Africa ("Talisman" Station 70). Unfortunately, Richardson included no illustrations with her description.

Kussakin (1965) tentatively listed *Dactylostylis* as belonging to the Desmosomatidae, but did not attempt to diagnose the genus. He probably had not seen the specimen and was only following Richardson's determination. Wolff (1962) also included *Dactylostylis* in the Desmosomatidae, but without comment.

Recently, J. Forest of the National Museum of Natural History in Paris was kind enough to send to me for personal examination the holotype of *D. acutispinus*. The specimen had been requested as part of my work on a revision of the Desmosomatidae (Hessler, in preparation).

Inspection of the holotype revealed two things. First, *Dactylostylis acutispinus* is definitely not a desmosomatid as we construe the family today. Richardson had placed the genus in this family before Hansen's (1916) revision, at a time when the Desmosomatidae had a much broader meaning and included *Nannoniscus* G. O. Sars, *Macrostylis* G. O. Sars, and *Ischnomesus* Richardson, as well as *Desmosoma* G. O. Sars, *Eugerdia* Meinert, and *Echinopleura* G. O. Sars.

Second, *Dactylostylis* is almost certainly congeneric with *Spinianirella* Menzies, 1962, as determined by comparison with Menzies' illustrations and description of *S. walfishensis*. The body is of the same basic shape (fig. 1a). It is dorsoventrally flattened and lacks major spines on the dorsal surface. The pereopods stem from stalk-like lateral projections of the pereonites; this tendency is best developed on pereonites 2 to 6. The lateral margins of the cephalon and pereonites 1 to 7 bear conspicuous lateral spines. Pereonites 2 to 4 have two such spines, and posterior to the major spine on the cephalon is a modest lateral hump. *Spinianirella walfishensis* lacks lateral spines on pereonite 6, but that is probably not of generic significance.

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Menzies' illustrations of *S. walfishensis* shows a clear articulation between pereonite 7 and the pleon; this is absent on *D. acutispinus*, on which the last pereonite and all the pleonites are fused into a single unit (fig. 1a, d). The pleon has the same shape in both species, as has the somewhat dorsal origin of the uropods. The anus is covered by the pleopods in each case. Much of the body is

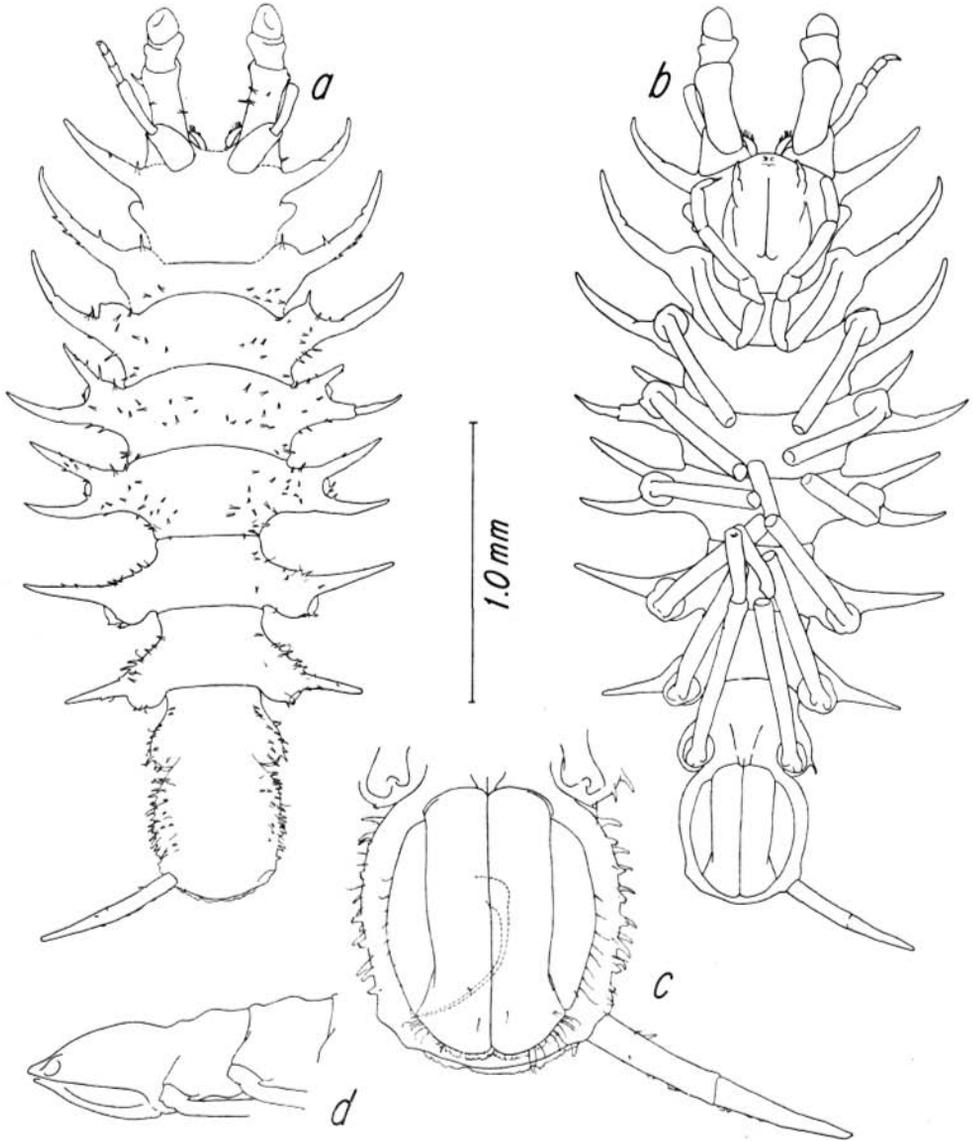


Fig. 1. *Dactylostylis acutispinus* Richardson, 1911. Holotype, mature male. a, dorsal view (dotted lines indicate areas where shape could not be determined precisely); b, ventral view (setae and minor spines are not shown); c, pleon, ventral view (stylet of right pleopod II is indicated by dotted line); d, posterior end of body, lateral view (semidiagrammatic).

ornamented with small, irregularly spaced spines, particularly the lateral margins.

The holotype of *D. acutispinus* was not dissected, and therefore little can be said about the appendages (fig. 1b). The first antenna consists of six segments. The mandibular palp is three-segmented, and the distal segment is of the same shape in both species. The maxilliped appears to be the same, as is the general form of the first pereopod. The distal portions of the other pereopods are missing.

Because of these similarities, the genus *Spinianirella* should be suppressed, and its only species included in *Dactylostylis*, which is redefined below. Menzies (1962) placed *Spinianirella* in the Janirellidae. Wolff (1962) included that family in the Janiridae, a classification which will be followed here.

Janiridae Wolff, 1962

Dactylostylis Richardson, 1911

Synonym. — *Spinianirella* Menzies, 1962: 170, 171, figs. 55 A-F.

Type species. — *Dactylostylis acutispinus* Richardson, 1911: 531.

Other species. — *Dactylostylis walfishensis* (Menzies, 1962).

Diagnosis. — Body moderately compressed. Pereonites tending to be drawn out laterally so that pereopods originate from short, broad stalks; pereonites 5-7 more slender than preceding somites, somewhat stalked anteriorly. All segments of pleon fused; sides of pleon evenly convex; posterior margin broad, truncate, gently convex (fig. 1a, c). Lateral margin of cephalon and all but posterior pereonite(s) with one or two pairs of large, slender, lateral spines; no major dorsal spines; many very small body spines, especially toward lateral margins.

Eyes absent. First and second antennae arising directly from main body of cephalon, not from cephalic stalks. Mandible with well developed palp of three segments; molar process large, distally truncate. Maxillipodal palp more slender than basal endite. Pereopod I prehensile. Pereopods II-VII long, ambulatory, similar to each other (fig. 1b). Pleopods which form operculum cover anal opening. Uropods large, uniramous, styliform, arising just dorsal to postero-lateral margin of pleon (fig. 1a, d).

Distribution. — *D. acutispinus*: eastern Atlantic, 25° 39' N 18° 18' W, 698 meters depth (latitude and longitude taken from label with holotype). *D. walfishensis*: southeastern Atlantic, 25° 33' S 12° 27' E and 34° 35' S 17° 31' E, 1816-2970 meters depth (Menzies, 1962).

Remarks. — The single uropod remaining on the holotype of *D. acutispinus* has an inconspicuous furrow dividing it into two parts; however, it is not possible to decide whether the uropod consists of two segments or is simply damaged.

RÉSUMÉ

Le genre et l'espèce *Dactylostylis acutispinus* Richardson, 1911, sont fondés sur un individu unique qui n'a jamais été figuré. L'examen de cet individu montre que le genre n'appartient pas aux Desmosomatidae, parmi lesquels il a été placé à l'origine, mais aux Janiridae. *Spinianirella* Menzies, 1962, est si semblable à *Dactylostylis* qu'il devrait être considéré comme un synonyme plus récent. *Dactylostylis acutispinus* est figuré, et le genre est redéfini.

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