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CRABS OF THE FAMILY HOMOLODROMIIDAE, II. *DICRANODROMIA FELDERI*, NEW SPECIES, FROM THE WESTERN ATLANTIC, WITH NOTES ON THE TYPE SERIES OF *D. OVATA* A. MILNE EDWARDS, 1880

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ABSTRACT

A new species of the homolodromiid crab genus *Dicranodromia* A. Milne Edwards is described from the western Atlantic. The new species, *Dicranodromia felderi*, differs from *D. ovata* A. Milne Edwards, the only previously reported member of the genus in the western Atlantic, in having more slender appendages, ventral margins of the ambulatory legs bearing a strong keel rather than being rounded, and a more acutely spined anterior border on the carapace. Certain characters of the holotype of *D. ovata*, a badly damaged female, are redescribed, and it is suggested that at least 2 of the female paratypes, as well as some of Rathbun's (1937) figures and description of *D. ovata*, belong to another undescribed Atlantic species. The new species is compared to all other species currently placed in the genus.

The genus *Dicranodromia* was erected by A. Milne Edwards in 1880 to accommodate a fairly large (26-mm carapace length) female of a new species, *Dicranodromia ovata* A. Milne Edwards, from 180 fathoms (329 m) off Barbados (Milne Edwards, 1880: 32). In addition to the holotype, three other specimens from three localities were reported by Milne Edwards, from off Havana, Cuba; Guadeloupe (Leeward Islands, French Antilles); and Key West, Florida. The original paper contained no figures, and it was not until 1883 that a figure of a species of *Dicranodromia* first appeared in the rare "Recueil des figures de Crustacés nouveaux ou peu connus," a list of plates distributed in limited amounts (50 copies) by A. Milne Edwards. However, the figure in Milne Edwards' "Recueil des figures" (1883, pl. 7) was of a different species, the eastern Atlantic *Dicranodromia mahieuxii* A. Milne Edwards, 1883 (often subsequently misspelled as *D. mahyeuxi*). Preliminary figures of *D. ovata* first appeared in Bouvier's (1896) tome on dromiacean crab evolution, but it was not until 1902 that full illustrations of *D. ovata* appeared (Milne Edwards and Bouvier, 1902: 15, pl. 2, pl. 4, figs. 1–4).

The genus *Dicranodromia* today contains four described species, distributed as follows: *D. ovata* A. Milne Edwards, 1880, from the western Atlantic and Gulf of Mexico (although some of Rathbun's (1937) localities in her table 16 refer to an undescribed species); *D. mahieuxii* A. Milne Edwards, 1883, from the Bay of Biscay, Azores, and off the Sahara coast from 454–1,330 m (Monod, 1956; Zariquiey Alvarez, 1968; Manning and Holthuis, 1981); *D. doederleini* Ortmann, 1892, known only from Sagami Bay and Tosa Bay, Japan, from 85–270 m (Sakai, 1965, 1976); and *D. baffini* (Alcock and Anderson, 1899), apparently reported only from the Travancore coast of India (in 833 m) (what is now the southern two-thirds of Kerala) and the Andaman Islands (in 461–561 m), although there are specimens labeled *D. baffini* from other localities among the holdings of the National Museum of Natural History (USNM). Although only one species, *D. ovata*, has been reported from the western Atlantic or Gulf of Mexico, there are several undescribed Atlantic species, either labeled *D. ovata* or lacking labels, in the holdings of the National Museum of Natural History, Smithsonian Institution, Washington, D.C. One such species is described herein.

MATERIALS AND METHODS

All specimens upon which the species description is based are in the holdings of the National Museum of Natural History, Smithsonian Institution, Washington, D.C. (USNM), and were previously labeled *Dicranodromia ovata* A. Milne Edwards. Additional specimens were borrowed from the Museum of Com-

parative Zoology at Harvard University (MCZ) (the female holotype of *D. ovata*, MCZ 6510, and 2 female paratypes, MCZ 6511 and MCZ 2745) and the Muséum National d'Histoire Naturelle (third female paratype, MNHN MP-B24324). Illustrations were made with the aid of a Wild M5APO dissecting stereoscope and drawing arm.

Abbreviations are as follows: CL = carapace length measured from front margin of carapace between rostral horns to posterior border of carapace along midline; CW = maximum width of carapace, usually at about three-fourths of distance of carapace from frontal border; RH = length of rostral horns; LT = distance between tips of lateral teeth (postorbital projections) of carapace.

Dicranodromia felderi, new species
Figs. 1–5

Male Holotype.—USNM 252204 (formerly in lot USNM Acc. No. 271921, with 1 ♀ and 1 other ♂); western Atlantic, Lesser Antilles, east of Dominica, RV *Oregon* Station 5928, 15°38'N, 61°12'W, 320 fathoms (585 m), shrimp trawl, 4 March 1966.

Designated Paratypes.—USNM 252206, 1♂(CL = 18.7, CW = 15.7, RH = 1.7, LT = 11.1, measurements approximate, crab badly damaged), 1 ♀ (CL = 25.9, CW = 22.0, RH = 2.5, LT = 14.5 approximately, right tooth broken), both with damaged carapace; same collection data as for holotype. USNM 221962, 1 ♀ (ovigerous), CL = 26.2, CW = 22.1, RH = 3.4, LT = 14.8; Caribbean Sea, south of Grenada, RV *Oregon* Station 5039, 11°40'N, 62°33'W, 320–340 fathoms (586–622 m), shrimp trawl, 24 September 1964. USNM 221961, 1 ♀ (ovigerous), CL = 32.0, CW = 26.8, RH = 3.3, LT = 16.8; Caribbean Sea, east of Dominica, RV *Oregon II* Station 10829, 15°34'N, 61°10'W, 346 fathoms (633 m), shrimp trawl, 2 December 1969; 14 embryos removed for larval description by J. Martin. This animal larger, more setose, and slightly darker than other types. USNM 221960, 1 ♂, CL = 19.7, CW = 16.0, RH = 2.4, LT = 10.6; Caribbean Sea, east of Dominica, RV *Oregon II* Station 10825, 15°42'N, 61°08'W, 350 fathoms (641 m), shrimp trawl, 1 December 1969. USNM 252205, 1 ♂, CL = 24.8 mm, CW = 21.0 mm, RH = 2.5 mm, LT = 14.7 mm, Caribbean Sea, off Panama; RV *Oregon II* Station 11229, 350 fathoms (641 m), March 1974.

Table 1. Measurements of the holotypes of *Dicranodromia felderi*, new species, and *D. ovata* A. Milne Edwards, 1880 (MCZ 6510). All measurements are in mm.

	D. felderi (USNM 252204)	*D. ovata* (MCZ 6510)
Carapace length	21.0	26.0***
Carapace width	17.9	23.0 (approximate)
Length of rostral horns	2.1	2.0
Distance between tips of rostral horns	2.1	2.5
Distance between tips of post-orbital teeth	11.4	12.6
Right chela*		
Length	16.7	14.3
Height	5.8	6.0
Pereiopod 2 length (right)		
Dactylus	7.6	4.2
Propodus	11.0	10.4
Carpus	8.1	9.4
Merus	17.5	14.8
Pereiopod 3 length (right)		
Dactylus	9.1	4.9
Propodus	13.8	12.1
Carpus	9.3	11.0
Merus	16.9	15.0
Pereiopod 4 length (right)		
Propodus	4.6	4.1
Carpus	5.6	6.3
Merus	8.8	9.5
Pereiopod 5 length (right)		
Propodus	6.5	5.9
Carpus	5.8	6.2
Merus	10.3	9.6
Telson**	11.6	16.9

* Chela length measured along ventral propodal border; height at greatest height, usually just distal to articulation with carpus.
** Telson length may be a function of sex, as the holotypes consist of a male (*D. felderi*) and a female (*D. ovata*).
*** From Milne Edwards and Bouvier, 1902. Holotype damaged and difficult to measure. See Figs. 4, 5.

Diagnosis

Carapace more or less smooth, with scattered long, simple setae. Rostral horns, anterolateral teeth (postorbital projections), and suborbital teeth all acute. Chela with 6 or 7 obvious teeth on fixed finger of propodus; propodus bifid distally with dactylus fitting between and usually extending ventrally beyond propodal finger. Cheliped coxa with heavy, flattened, ventral surface; cheliped basi-ischium with heavy flattened ventral surface having anterior ridge. Pereiopods 2 and 3 with obvious carinate ventral border on merus and with flattened ventromedial surface of coxa.

Description

Size.—Measurements of the holotype are given in Table 1; selected measurements of the paratypes are given above. The type series ranges in carapace length from 19.7–32 mm.

Carapace (Figs. 1a, b, 2a–c).—Inflated, longer than broad, broadest at about three-

fourths length from anterior border, with rounded indistinct lateral borders. Covered on all areas with scattered simple setae. Cervical groove faint. Rostral teeth triangular, bluntly tipped. Anterolateral teeth (postorbital projections) acute, extending laterally beyond cornea. Subocular projections acute, extending anteriorly well beyond eyes and anterolateral teeth.

Mouthparts (not figured).—Third maxilliped pediform but somewhat flattened, lacking spinules or with very few spinules on endopod, exopod with cluster of spinules on distomedial border. External face covered with long, simple setae. Other mouthparts not examined.

Chelipeds (Figs. 1, 2d–g, 3a).—Heavy, longer than carapace, moderately setose. Chela with scattered tubercles amid simple setae on outer surface. Dactylus with flattened, triangular depression just distal to dorsal articulation with propodus; depression bearing more setae than surrounding surface (Fig. 2f). Dactylus closing into cleft tip of propodal finger and usually extending ventrally slightly beyond it. Fixed finger of propodus with 6 or 7 evenly spaced rounded teeth along cutting border. Merus unarmed ventrally. Basi-ischium with obvious flattened ventral surface terminating anteromedially in blunt ridge. Coxa with flattened crescent-shaped ventral surface (Figs. 1b, c, 3a).

Pereiopods 2 and 3 (Figs. 1, 3a, b).—Long, slender, bearing simple setae. Dactylus long, slender, slightly recurved, more than 8 times longer than wide (width measured at midpoint along dactylus), approximately 70% length of propodus and just exceeding (1.05 times length of) carpus. Curved ventral border bearing 15–18 stout spines. Propodus with stout spine on distoventral border. Merus with strong, obvious carinate ridge or keel along ventral margin. Basi-ischium flattened and smooth ventrally. Coxa with flattened crescent-shaped ventromedial surface as in cheliped.

Pereiopods 4 and 5 (Figs. 1a, 3c, d).—Both terminally subchelate (character of family), with dactylus closing against heavy distal spines on propodus. Propodus of pereiopod 4 equal in length to or shorter than carpus; propodus of pereiopod 5 just longer than carpus. Dactylus of pereiopod 4 with 4–6 heavy spines along curved border; dactylus of pereiopod 5 with fewer spines. Tip of dactylus and tips of all spines sclerotized.

Male Pleopods (Fig. 3e–g).—First pleopods very heavy, 3-segmented. Ultimate (distalmost) segment in posterior view (when abdomen extended and pleopods directed downward) (Fig. 3e) with distinct groove angling toward distomedial border; this groove lined with minute setae. Tip of ultimate segment with brushlike covering of longer setae. Inner surface of distalmost segment (Fig. 3f) with complex arrangement of grooves and ridges, terminating distally in cluster of long simple setae. Penultimate (middle) segment with medial setose ridge and lateral border of plumose setae on inner surface; medial ridge equally obvious when viewed from inner surface (Fig. 3f). Basal segments fused. Second pleopod long, exceeding length of first pleopod, 3-segmented. Ultimate segment with groove (partial segmentation ?) at base, narrowing and becoming sclerotized at about midlength. Distal one-fifth heavily sclerotized, with minute spinules visible only under high magnification.

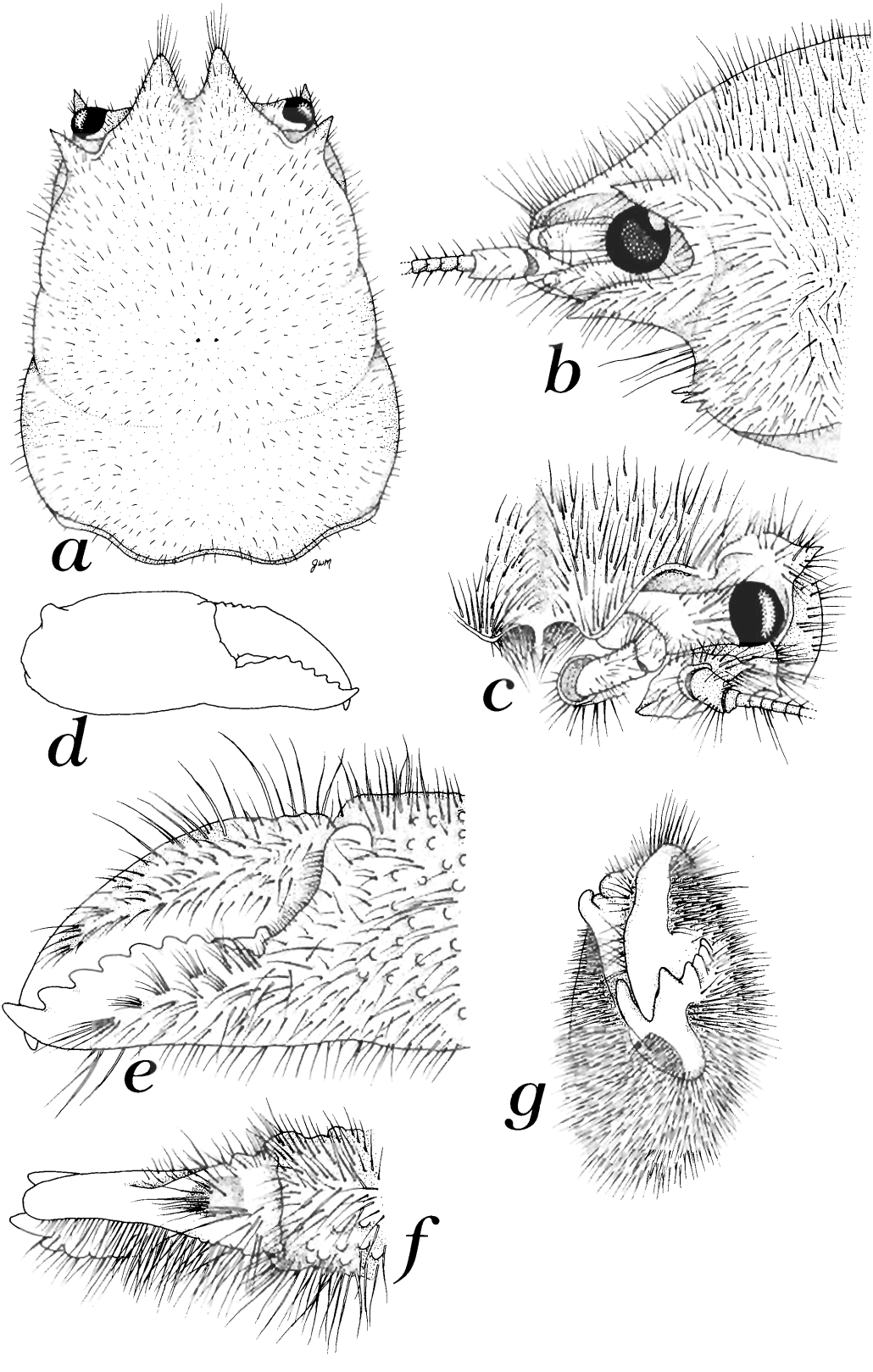
Telson (Fig. 3a).—Long, slightly tapering distally with triangular terminal border, covered with same long, simple setae as on carapace and pereiopods.

Etymology.—I am pleased to name this species after Darryl L. Felder in recognition of his excellent contributions to western Atlantic and Gulf of Mexico decapods and for the encouragement and assistance he continues to give to students and colleagues.

Remarks on Additional (nonparatypic) Material

In addition to the designated paratypes listed earlier, there are two lots among the USNM holdings that contain specimens very likely attributable to this species. However, for these lots the identification could not be confirmed because of the state of the specimens or because some character(s) seemed at odds with the characters of the type series; these specimens are therefore tentatively referred to *D. felderi* until such time that we

Fig. 1. *Dicranodromia felderi,* male holotype. *a,* dorsal view; *b,* ventral view; *c,* higher magnification of area within black box in *b,* showing ventral carinate border (arrow) on merus of pereiopod 2.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have a better grasp of variability within this genus.

Lot 1.—USNM 81931, 1 ♀, off Bahia de Cardenas, Cuba, 490 fathoms (948 m), 23°18′N, 80°46′W, RV *Atlantis* Station 3474, 10 May 1939, Harvard–Havana Expedition. Additional label in vial bears MCZ No. 10664.

The chelipeds are missing on this specimen. The merus of pereiopods 2 and 3 are carinate as in *D. felderi,* but there are more small tubercles on the carapace, reminiscent of the smaller paratypes of *D. ovata.* However, the carapace bears the long, simple setae typical of *D. felderi.* The carapace is damaged. This specimen is slightly smaller than the selected types of *D. felderi,* and smaller than the holotype of *D. ovata,* but is larger than either of the paratypes of *D. ovata* and larger than the series of small crabs examined and illustrated by Rathbun (1937) and thought by her to be *D. ovata.* Measurements are: CL = 16.4, CW = 13.4, RH = 2.1, LT = 9.3. This is probably a small *D. felderi.*

Lot 2.—USNM 252207, RV *Oregon II* Station 10844, 12 August 1969, 344 fathoms (630 m), 17°24′N, 62°28′W; 3 ♀♀ (1 ovigerous), 3 ♂♂ (1 badly damaged), CL from 16.0 (smallest ♀, ovigerous) to 24.2 (largest ♂).

This lot presents more of a problem than does the above female. All 6 specimens have a dark grey carapace in alcohol, whereas most of the types of *D. felderi* are quite pale or are light brown. The ventral carinate "keel" is present on the merus of pereiopods 2 and 3 as in *D. felderi.* Some specimens bear 1 or 2 lateral tubercles on the carapace as in Rathbun's series of *D. ovata,* but the carapace is dorsally glabrous (not as in *D. felderi,* and unlike any of the types or Rathbun's specimens of *D. ovata*). The outer face of the chela appears much more tuberculate (granulose), and the carpus of the cheliped is dorsally nodulose with a slightly more distinct longitudinal dorsal groove. The inner surface of the chela is also granulose, unlike *D. felderi.* The grooves of the carapace appear more obvious (but this is possibly related to the lack of setae). The ventral surfaces of the legs and the sternum are less setose than in the series of *D. felderi.* The chelae differ in that, in larger individuals, the fixed finger is bifid but the dactylus just meets the propodus, resting in the groove of the propodus but not significantly overreaching it and with tips not crossing in side view as in the type series of *D. felderi.*

Comparison of *D. felderi* with Other Species of *Dicranodromia*

There are no other descriptions of any species of *Dicranodromia* that show a carinate ventral border on any of the anterior ambulatory legs (pereiopods 2 and 3). However, many early descriptions do not provide information or illustrations for the ventral borders of these legs, and this character may be present in some of the species that I have not yet seen. Fortunately, sufficient characters are visible from existing descriptions to easily distinguish the new species from any previously known species.

The differences between *D. felderi* and *D. ovata,* the only previously reported western Atlantic species, are striking. The ventral borders of pereiopods 2 and 3 are rounded in *D. ovata* (Fig. 4b), and these legs are covered with short setae of uniform length, quite unlike the sparse setation of *D. felderi.* The frontal border of the carapace in *D. ovata* differs in that the rostral teeth are broader, the postorbital teeth are rounded with only minute tubercles, the suborbital projection is rounded, and the ocular region is more clearly defined, sheltering the eyestalk to a greater degree (Fig. 5a–c). The chela of *D. ovata* (Fig. 5d) is bifid on the distal border of the propodal finger, but not nearly as deeply cleft as that in *D. felderi,* and the movable finger does not extend below the plane of the propodus when the chela is closed. The upper border of the propodal finger does not bear obvious teeth in the holotype of *D. ovata,* but this absence may

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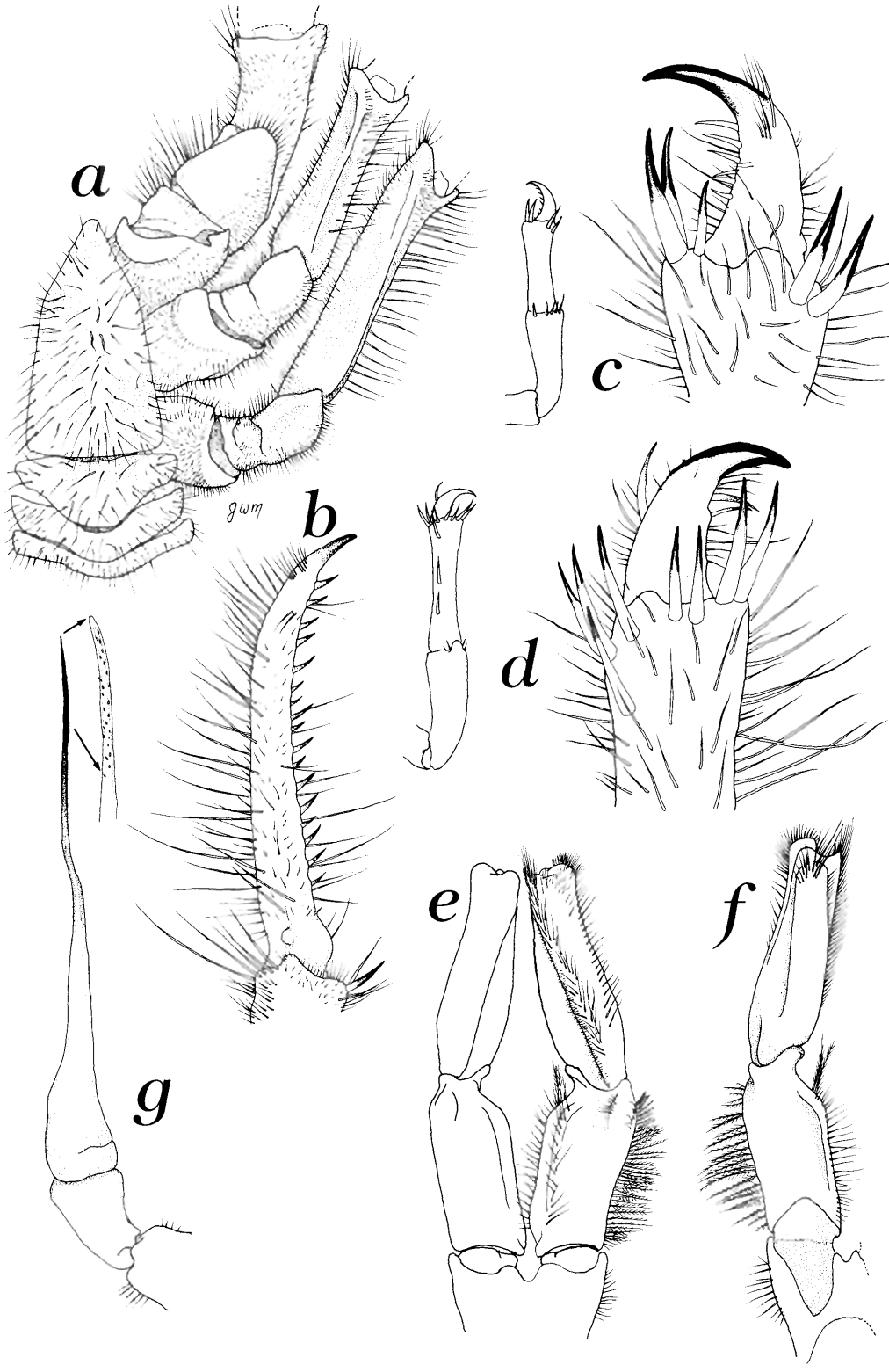
Fig. 2. *Dicranodromia felderi,* male holotype, carapace and chelae. *a,* carapace, eyes, and suborbital projections; *b,* lateral view of anterior region of carapace, eyes, and antennae; *c,* frontal view of left orbital region; *d,* outline of right chela; *e,* distal extremity of left chela; *f,* dorsal view of extremity of left chela; *g,* left chela viewed end-on, showing overreaching dactylus extending between cleft tip of propodal finger.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be a function of age. The dactylus of pereiopods 2 and 3 is short and stout in *D. ovata* (Fig. 5e), and the fourth and fifth pereiopods (Fig. 5f) are also stouter than in *D. felderi.*

The eastern Atlantic species, *D. mahieuxii* A. Milne Edwards, has (based on illustrations in Milne Edwards and Bouvier, 1900, pl. IX, figs. 1–11) a much more spinose anterior border on the carapace, with distinct spines just medial to the orbits that are lacking in all other species. The carapace and legs of *D. mahieuxii* also appear spinose in these illustrations, and the chelae are not illustrated as having dorsal teeth on the propodal cutting border. Additionally, *D. mahieuxii* is a rather small species, with reported carapace lengths of 9 mm and 6.25 mm (Milne Edwards and Bouvier, 1900: 16).

Dicranodromia doederleini Ortmann, known only from Japan, has never been adequately illustrated, making comparisons difficult. Ortmann's (1892) original line drawings (his pl. 26, figs. 4, 4st, and 4z) give little information, but the impression is that the species is more spinose on the carapace and covered with rather long setae. If the color photograph in Miyake (1983, pl. 2, fig. 1) is indeed *D. doederleini,* then this species is in fact relatively more setose than *D. felderi.* A specimen labeled *D. doederleini* that was collected in the Philippines exists at the National Museum of Natural History (USNM uncatalogued, RV *Albatross* Station 5423, 31 March 1909). That specimen, a mature male (CL = 23.0 mm), is not as spinose as the *D. doederleini* in Ortmann's figures nor is it as setose as the animal photographed in Miyake's (1983) book, but it clearly differs from *D. felderi* in having rounded (not carinate) ventral borders on the merus of pereiopods 2 and 3.

Finally, *Dicranodromia baffini* (Alcock and Anderson), originally described as the type of the new genus *Arachnodromia* (by Alcock and Anderson, 1899), is perhaps the most similar to *D. felderi* with respect to the size and shape of the carapace and the relative lengths of the legs (based on Alcock and Anderson, 1899, and Alcock, 1901). However, in the original description, and again in Alcock (1901), it is distinctly stated that the walking legs are cylindrical in *D. baffini,* and the eyestalks are described as being long and slender. The first two legs are described as being smooth beneath a thick tomentum, which is not the case in *D. felderi.* Although I have not seen any of the types of *D. baffini* Alcock and Anderson, I have seen a specimen labeled *D. baffini* among the holdings of the National Museum of Natural History (USNM 128563, Philippine Islands, North Mindanao, 15.3 miles (24.6 km) northwest of Camp Overton Light, 8°15′20″N, 123°57′00″E). That specimen, an immature female, differs greatly from *D. felderi* in having rounded ventral margins on the merus of the walking legs and in being much more spinose on the carapace and all appendages. It is possible that the Philippine specimen belongs to another undescribed species, since *D. baffini* has not been reported from the Philippines. If it is in fact *D. baffini,* then this species differs even more from *D. felderi* than the illustrations of Alcock suggest.

Notes on the Type Series of *Dicranodromia ovata* A. Milne Edwards, 1880

The original description of *Dicranodromia ovata* by A. Milne Edwards (1880: 32) lists a total of four specimens, one each from off Havana, Barbados, Guadeloupe, and Key West, Florida (24°15′N, 82°13′W). The holotype of *D. ovata* A. Milne Edwards (MCZ 6510, from Barbados) is a rather large (CL = 26 mm), badly damaged, ovigerous female, held together with twine and with several appendages detached (Figs. 4, 5). The two MCZ female paratypes are much smaller (MCZ 6511, CL = 6.1 mm; MCZ 2745, CL = 10.4 mm). The paratypic specimen from off Havana (MNHN MP–B24324) is

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Fig. 3. *Dicranodromia felderi,* male holotype, pereiopods and pleopods. *a,* ventral view of telson, posterior abdominal somites, and bases of pereiopods 1 (cheliped), 2, and 3; *b,* anterior face of dactylus of pereiopod 3; *c,* distal 3 segments of left pereiopod 4 (on left) and close-up of dactylus-propodus junction (right); *d,* distal 3 segments of left pereiopod 5 (left) and close-up of dactylus-propodus junction (right); *e,* first pleopods, posterior view, setae omitted on right gonopod; *f,* anterior view, left first pleopod; *g,* posterior view of second pleopod, tip magnified further at right to show minute spinules on diatal one-fourth.

Fig. 4. *Dicranodromia ovata* A. Milne Edwards, 1880, female holotype (MCZ 6510). *a,* dorsal view; *b,* ventral view. Note relatively stout appendages, broad rostral horns, rounded postorbital (anterolateral) teeth, smoothly rounded ventral borders of merus in pereiopods 2 and 3, and fairly uniform covering of short setae.

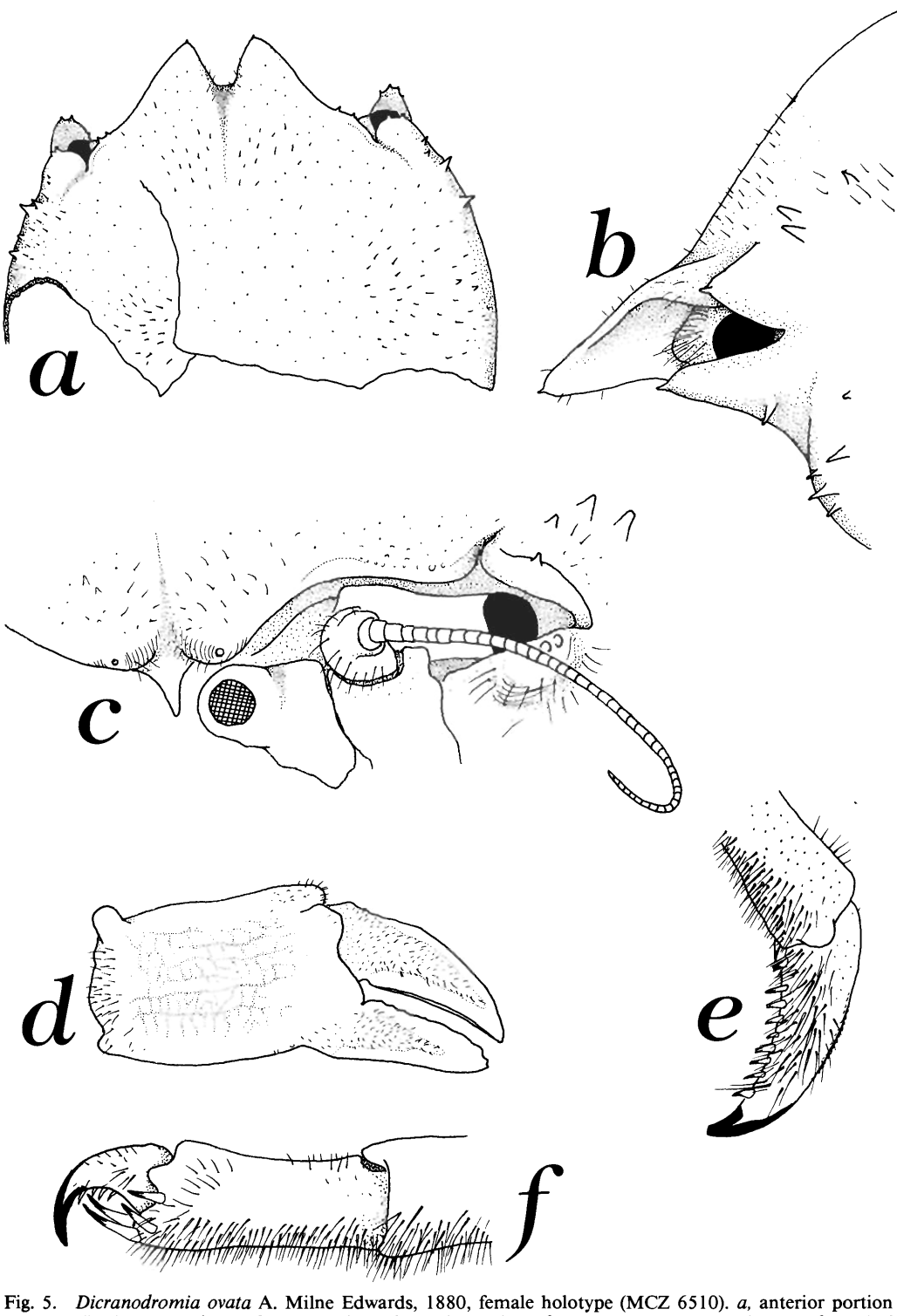

Fig. 5. *Dicranodromia ovata* A. Milne Edwards, 1880, female holotype (MCZ 6510). *a,* anterior portion of carapace (broken posteriorly); *b,* lateral view of anterior region of carapace, antennae omitted; *c,* frontal view of left orbital region; *d,* outline of right chela; *e,* dactylus of pereiopod 3; *f,* dactylus, propodus, and distal border of carpus of pereiopod 5.

badly damaged, lacking a carapace and thereby making comparisons difficult, but is also very small. All three female paratypes appear to be mature females. Although not ovigerous and without an expanded telson, the abdomen and pleopods are well developed and the pleopods are very setose. It is perhaps surprising that the size difference did not alert subsequent workers, such as Rathbun (1937), to suspect that there was more than one species in the type series. On the other hand, we know very little about size and sexual maturity among dromiaceans, and a size difference per se should not be taken as evidence of distinct species. In addition to the fourfold difference in size between mature females (MCZ 6510 versus MCZ 6511), there are a number of morphological differences between the holotype and the three paratypes. These include, in at least the two MCZ paratypes, an overall increase in spination of the carapace, slighter chelipeds, longer setae, and a slightly different frontal border of the carapace. Unfortunately, when Rathbun (1937) compiled her monograph on North American "oxystomatous and allied" crabs, she did not provide illustrations or photographs of any of the type series, most of which are housed at Harvard's Museum of Comparative Zoology. Instead, she photographed and illustrated two specimens in the National Museum of Natural History. Rathbun's (1937) photograph (pl. 13, figs. 3, 4) is of a small (CL = 8.5 mm) ovigerous female taken from 105–110 fathoms (192–201 m) off American Shoal, Florida (USNM 57069). That specimen is morphologically more similar to Milne Edwards' paratypes than to the holotype. Rathbun's only illustration (1937: 60, fig. 15) is of the telson of a very small but apparently mature male (CL = 6.1 mm, USNM 68887) with well-developed first and second pleopods. This specimen, collected off Barbados (125+ fathoms (228.5 m), State University Survey of Iowa, Station 63, 1918), does not appear in Rathbun's table of material examined for *Dicranodromia ovata*. The figure of the telson (Rathbun, 1937, fig. 15) is inaccurate, as the telson of male specimen USNM 68887 is much more spinose than in the figure, and the long terminal setae of the telson in her figure are not apparent, although it is possible that these setae have been broken at some time during the interim. More curious still is that, in her table 16, Rathbun stated "Type, figured" for the holotype, MCZ 6510. The type was not figured in Rathbun's monograph, but perhaps she was indicating simply that it had been figured previously. The only previous figures, beautiful drawings provided by Milne Edwards and Bouvier (1902), are also misleading in that the holotype was not exclusively figured. Plate II, figs. 1–16 in Milne Edwards and Bouvier (1902) are of a "femelle de petite taille," whereas plate III includes figures of the female "exemplaire de moyenne taille" (which is probably the holotype) (figs. 2, 4) as well as figures of a "petit exemplaire femelle" (fig. 3) and of one "exemplaire de moyenne taille" (fig. 1). It is possible that the paratypes (MCZ 6511, MCZ 2745, and MNHN BP–B24324) belong to a different species from the holotype. Because of the popularity of Rathbun's (1937) monograph, publications in subsequent years may have employed the name *Dicranodromia ovata* A. Milne Edwards when actually referring to the smaller species in Rathbun's volume. I hope to clarify the status of the type series in a future paper.

Discussion

The description of *D. felderi* raises the number of species of *Dicranodromia* to five and the number of species in the Homolodromiidae (which includes only *Dicranodromia* and *Homolodromia* A. Milne Edwards, 1880) to eight. The distinction between these two genera was based originally on several characters involving the carapace and orbits. Some of these characters, such as the more oval carapace, better formed orbits, and more triangular mouthfield in *Dicranodromia,* are rather subjective differences and in any case do not hold up under close scrutiny (see Báez and Martin, 1989). Although the type species of the two genera differ in these characters, other more delicate species of *Dicranodromia,* such as *D. felderi,* are very similar to species of *Homolodromia* in the form of the carapace and in the extent to which the eyestalks and antennules are shielded beneath the frontal borders of the carapace. The single character that seems to consistently separate *Dicranodromia* from *Homolodromia* is the nature of the minute chelae on per-

eiopods 4 and 5. In *Homolodromia,* the propodus extends to form an opposing thumb-like process against which the dactylus closes, whereas in *Dicranodromia* the dactylus closes against spines of the propodus, and the propodal border itself does not extend distally. This difference is slight, and it is easy to envisage the intermediate condition that, if found, would effectively provide the basis for synonymizing these two genera.

Homolodromia has a distribution that suggests a Gondwana origin (Báez and Martin, 1989), with the northern extent being the Caribbean Sea (for *H. paradoxa*). Species of *Dicranodromia* are known from slightly more northern waters, with the northern limits being the Azores (*D. mahieuxii*) and Japan (*D. doederleini*). The southernmost published record of the genus is apparently the Andaman Islands of the Indian Ocean (from about 10–14°N) (Alcock and Anderson, 1899, *D. baffini*), a range that approximates that of *D. felderi* in the western Atlantic. However, there is, among the holdings of the National Museum of Natural History, a single specimen of a young female labeled *D. baffini* that was collected from slightly further south and in the western Pacific (USNM 128563, Philippine Islands, North Mindanao, 15.3 miles (24.6 km) northwest of Camp Overton Light, 8°15′20″N, 123°57′00″E). The identity of this specimen can not be confirmed until it is compared to the types of *D. baffini,* but it appears to differ markedly from Alcock and Anderson's illustrations of *D. baffini* (as *Arachnodromia*) and is probably a distinct species.

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