

tered number) in regard to those of *roycei* are given in the table below:

The species is dedicated to its collector, Mr. R. D. Royce.

***Kraussia nitida* Stimpson 1858**

Kraussia nitida, Stimpson, 1858, p. 40.—1907, p. 87, pl. 10 fig. 4.—Miers, 1884, p. 235.—Henderson, 1893, p. 379, pl. 37, fig. 9.—Alcock, 1899, p. 98.—Calman, 1900, p. 24.—Rathbun, 1902, p. 132, fig. 13—1910, p. 366.—1911, p. 211.—Laurie, 1906, p. 421.—Balss, 1922, p. 98.—1935, p. 131—1938, p. 271, fig. 11, 12.—Urita, 1926, p. 11.—Sakai, 1934, p. 305.—1935, p. 138, pl. 41, fig. 2.—1939, p. 430, pl. 52, fig. 2, text-fig. 20.—1965, p. 107, pl. 49, fig. 2.

Kraussia integra, Borradaile, 1902, p. 270 not *integra* De Haan fide Rathbun 1902.

?*Kraussia hendersoni* (under *nitida* pars), Rathbun, 1902, p. 132.

?*Kraussia hendersoni*, Rathbun, 1906, p. 875, pl. 14, fig. 2.—Balss, 1922, p. 98.—Montgomery, 1931, p. 433.

Type locality: Kagosima, Japan.

Preliminary remarks.—The descriptions and illustrations of *nitida* in the literature are ambiguous. In the absence of the type specimen which is lost like the main part of Stimpson's material, no better reference exists. The selection of a topotype specimen from Kagosima (or at least Japan), its designation as neotype and a redescription of the species seems to be necessary. Sakai (1934) records one made from Kagosima. Provisionally the descriptions and illustrations of *nitida* by Stimpson (1858, 1910) and Sakai (1939, 1965) for Japanese specimens must be considered as the most accurate. By their shorter and thicker chelipeds, the specimens from the Maldives illustrated by Rathbun (1902) and from Australia illustrated by Balss (1938) seem to belong to a different species. The specimen of Sakai is a little larger (9x9.5) than that of Rathbun (7.7x8.4) and a little smaller than that of Balss (10.5x13).

A specimen from the Irian Gulf is identified with reserve (*nitida* Stimpson?) by Stephensen (1945) and as such the illustration of its male pleopod cannot be used as reference for *nitida*. Only a re-examination of the type specimen of *hendersoni* (in the USNM) will allow one to confirm or deny the validity of the species contested by Balss (1935) but not by Sakai (1965).

The species *nitida* s.l., as it is understood by Balss (1938) for example, seems to correspond to a composite taxon including two or three different species, and it must be considered that no accurate definition of *nitida* exists.

***Kraussia ?nitida* Stimpson 1858**

(Fig. 11)

Material.—WAM.260-70, one female of cl:7, cb:7.5, Loc: West Approaches to Mermaid Str., Dampier Archipelago, W.A. Coll: R. D. Royce on

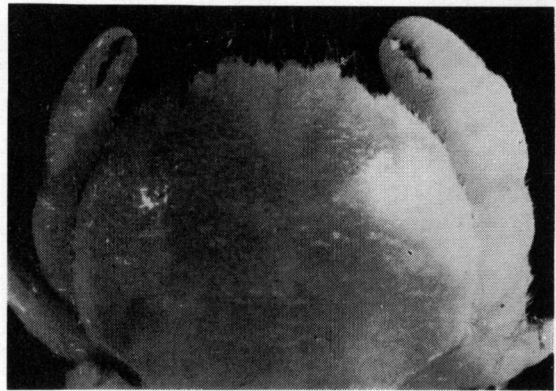


Figure 11.—*Kraussia nitida*?, WAM 261-70, female of cl:7, cb:7.5.

"Davena", 27.4.1960, Det: M. E. Clarke as *nitida*; WAM. 261-70, female of cl:12.2, cb:13, Loc: off Cape Cleveland Qsld., dredged 16 faths., Coll: W. Goode on "Dorothea", 24.11.1962, Det: M. E. Clarke as *K. nitida*.

Observations.—The two specimens have the lobes of the frontal border rounded. The chelipeds of the largest specimen (WAM 261-70) perfectly agree with the figures of *nitida* by Balss (1938) which illustrates a female of the same size. Even the fixed finger of the major cheliped has the two teeth on the cutting edge as illustrated by Balss (1938) the distal being comparatively much larger. On the minor cheliped, the fingers are a little larger and an elongate subdistal tooth is well developed on the cutting edge of the fixed finger. A re-examination of Balss's material or other new material from Australia and its comparison with Japanese material could demonstrate that these specimens belong to a species distinct from *nitida*. The specimens, being females, cannot provide information on the pleopod, and the use of the present material as type for a new species will be unwise. On the smaller specimen the palm and fingers, mainly of the minor cheliped, are much more elongate. Such material emphasizes the uncertain situation of *nitida* as understood by Balss (1938).

Kraussia* aff. *nitida

(Figs. 12, 13, 23F)

Kraussia (nitida Stimpson?), Stephensen, 1945, p. 138, fig. 33.

Material.—NMS.1965.10.10.6, male of cl:10.5, cb:12, Loc: Pulau Paway, off Singapore, Coll: Tweedie 1934, Det: as *nitida* by Balss 1938, (handwritten label), not recorded in literature.

	(265)	(268A)	(268B)	(270)	(274)	<i>roycei</i>
carapace length	14.6	14.5	12	13	9	13.2
carapace breadth	18	17.8	14.5	16	11	14
ratio cb : cl	1.23	1.22	1.20	1.22	1.22	1.07

Diagnosis.—Frontal border feebly quadrilobate, median incision shallow, rounded lateral lobes little prominent and separated by a feeble concavity. Inner supra orbital angle little prominent and antennal sulcus shallow.

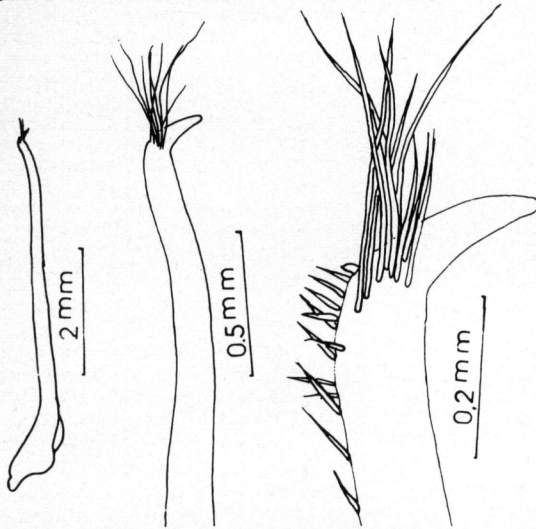


Figure 12.—Male pleopod 1 of *K. aff. nitida*, NMS. 1965.10.10.6 of cl:9.8, cb:10.8.

Two chelipeds with palm of same length; major cheliped with palm higher, upper border of palm longer and two fingers shorter than on minor cheliped. Fixed finger of major cheliped clearly shorter than half height of palm, of minor cheliped clearly longer than half height of palm. Outer surface of palm ornamented with a distal vertical row of large granules, and some other smaller granules distributed on distal half. Both chelipeds with superior border of dactyli canaliculated and granular on proximal half. Dactyli of pereopods 2-4 sickle-shaped and relatively elongate. Male pleopod 1 with apex bent nearly at right angle and a subdistal bunch of long setae; inner side of pre-apical region ornamented with a row of 13-14 acicular spines.

Observations.—The frontal margin with round lobes differs strongly from that of *nitida* illustrated by Sakai (1939) for a specimen of nearly the same size, as well as from the illustrations of any other authors. The chelipeds are nearly similar to those illustrated by Balss (1938, fig. 11, 12); the palm of the major cheliped is higher on Balss's figure than on the present specimen. On the figure of Balss (1938, fig. 11) the height of the palm is 0.62 its total length (fixed finger included) and 2.7 the length of the

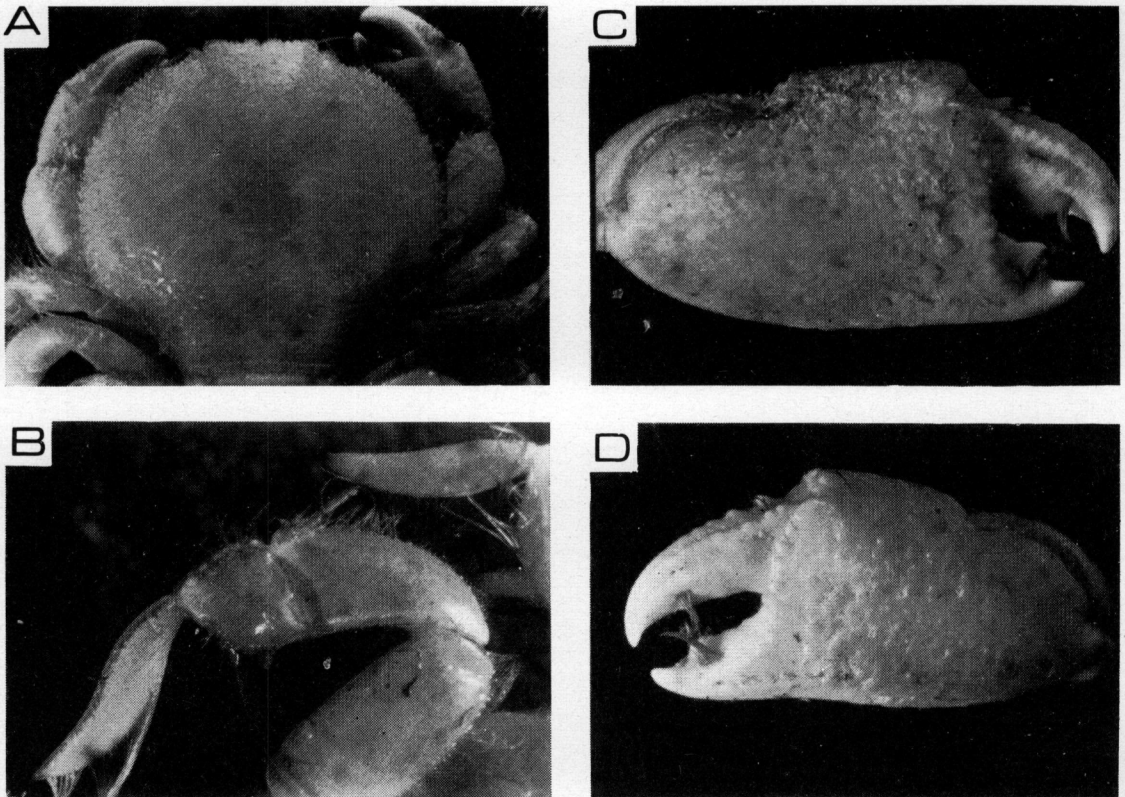


Figure 13.—*Kraussia aff. nitida*, NMS.1965.10.10.6, male of cl:9.8, cb:10.8. A, dorsal view.—B, pereopods 4, 5.—C, major cheliped.—D, minor cheliped.

fixed finger; on the present specimen it is respectively 0.56 and 2.5. The specimen of Balss (1938) was a female from Shark Bay, probably of breadth of carapace 14 supposing that he had illustrated his larger specimen; Balss records for 3 females from Shark Bay carapace breadths of 14, 11, 13.

Stephensen (1945) mentions that his specimen has the hands more slender than on the figures of Balss (1938) and also that "the fixed finger in right chela has but one tooth (besides the apical tooth) and the movable fingers of the hands are on the convex side smooth, not denticulate." The present specimen seems to agree with the first two characters given by Stephensen, but it has the dactyli clearly denticulate. The male pleopod of the present specimen is identical with that illustrated by Stephensen (1945, fig. 33) and suggests that the two specimens belong to the same species. The material of Balss (1938) or a part of it could also belong to the present form, of which the identity with *nitida* Stimpson has still to be demonstrated.

***Kraussia marquesa* nov. sp.**

(Figs. 14, 15, 23G and H)

Type specimen: Western Australian Museum.

Type locality: Anaa Atoll, Marquesas Island.

Material.—Holotype (WAM.264-70), male of cl.12.7 x cb:14; pereopods 2-5 left side missing, pereopod 2 right side separated but present, Loc: Anaa Atoll, Sta An IV +V, depth 30-60 feet, Coll: Marquesas Exped. 1967, Date: 29.10.1967; ? NMS.1969.11.20.5, male of cl:15.33, cb:18.66, Loc: Puerto Galera, Mindoro, Philippines, Coll: Univ. Philippines. One cheliped missing, only two ambulatory legs present. Dry specimen now re-generated and maintained in alcohol.

Diagnosis.—(Holotype). Carapace strongly granular all over; the margin of carapace with strong and acute granules. Front quadrilobate, salient beyond orbit and with an open deep median incision. Antennal notch well marked; no trace of sinus on upper orbital border. Lateral margin of carapace with feeble but clearly indicated lateral notch. Two chelipeds similar with high palm and short fingers. Fixed finger of right cheliped approximately one-third of height of palm, of the left cheliped one-fourth of the height of palm. Outer surface of the palm strongly granular with black pigment of fixed finger extending on palm.

Dactyli of pereopods 2 and 5 with strong acute granules on anterior border; one row of granules on that of pereopod 2 and two rows on that of pereopod 5; the dactyli of pereopods 3 and 4 sickle-shaped, and without granules on anterior border. Male pleopod 1 with apex nearly straight (a little bent) with a few subdistal long acicular setae and some strong short pre-apical spines.

Observations.—By its chelipeds with very high palm and short fingers, *marquesa* differs from *nitida* as illustrated by Stimpson (1907) and

Sakai (1939, 1965) as well as from *nitida* illustrated by Balss (1938). The two chelipeds with high palm and short fingers, the black pigment of the fixed finger extended on the palm as well as the strong granulation of the carapace of *marquesa* are characters close to those of *integra* and *bongensis* as described and illustrated in the present paper. *K. marquesa* differs from the two by the antennal sinus separating the front from the inner supra orbital angle, and the absence of sinus on the supra orbital border. That sinus is on those species always well marked and continued on the dorsal surface of the carapace by a longitudinal depression, distinctly indicated on the figure of Sakai (1939, 1965) and very clear on the specimens of the present collection.

The extension of the black pigment on the palm has, in my opinion, specific value as a character and must lead to a comparison of *marquesa* with *hendersoni*, a species separated from *nitida* by Rathbun (1902) mainly on the basis of the black pigment of the palm and the different shape of the front.

The specimen from Puerto Galera is identified with reserve as *marquesa*. It strongly differs from the holotype by its frontal border with median incision deeper and lateral lobes triangular and deeply excavated, inner supra-orbital

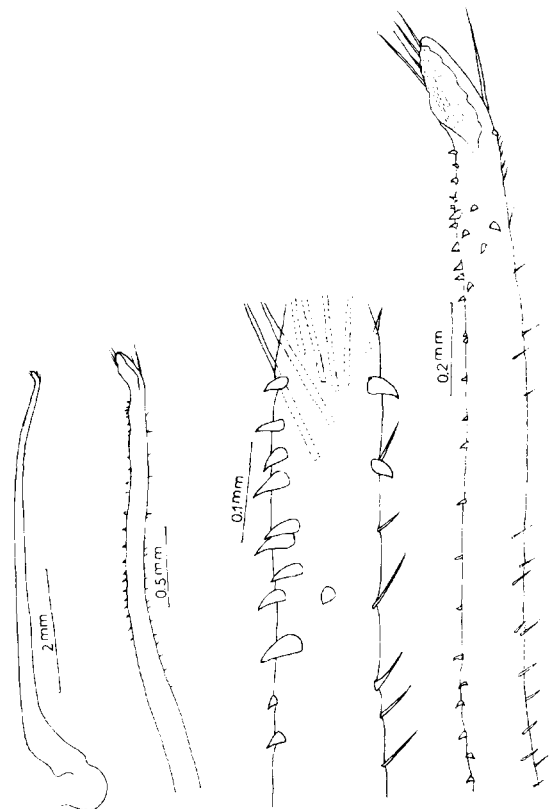


Figure 14.—Male pleopod 1 of *K. marquesa*, WAM 264-70 of cl:12.2, cb:14.