Munidopsis reynoldsi (A. Milne Edwards, 1880) (Crustacea, Decapoda, Galatheidae): lectotype designation and redescription

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ABSTRACT

A lectotype for the deep-sea squat lobster *Munidopsis reynoldsi* (A. Milne Edwards, 1880) from the Caribbean region is selected herein. The female lectotype is redescribed and illustrations of the types are given. Comparison with and illustrations of a non-type male from the Caribbean is also included.

KEY WORDS
Munidopsis,
squat lobster,
deep-sea,
benthos,
Caribbean Sea.

RÉSUMÉ

Munidopsis reynoldsi *(A. Milne Edwards, 1880) (Crustacea, Decapoda, Galatheidae) : désignation d'un lectotype et redescription.* Un individu femelle est choisi comme lectotype de *Munidopsis reynoldsi*, espèce profonde des Caraïbes. Ce spécimen est redécrit et illustré, et comparé à un mâle non-type.

MOTS CLÉS
Munidopsis,
océan profond,
benthos,
Caraïbes.

INTRODUCTION

Munidopsis reynoldsi was originally described as a species of the genus *Galathodes* A. Milne Edwards, 1880 on the basis of two specimens, the male MCZ 4747 and the female MNHN-Ga 288, both from the *Blake* station No. 138, 1878-1879 (Peirce & Patterson 1879). It was described in only a few lines: "*Cette espèce doit se placer à côté du* Galathodes abbreviatus, *mais elle s'en distingue par ses épines gastriques plus saillantes, par son rostre plus relevé, par l'absence d'épines sur les anneaux de l'abdomen et par la longueur des pattes ambulatoires ; celles de la seconde paire dépassent les pinces, leur cuisse est armée en dessus d'une série d'épines*" (A. Milne Edwards 1880: 56).

Because no holotype was designated, a lectotype for *M. reynoldsi* is selected herein. The female syntype (MNHN-Ga 288) is better preserved than the male syntype and is here chosen. The male (MCZ 4747) is the paralectotype. Opportunity is taken here to elaborate on the taxonomy of this deep-sea species, providing a redescription of the female lectotype and illustrations of the types. Comparison with and illustration of a non-type male from the Caribbean is also included.

ABBREVIATIONS

MCZ	Museum of Comparative Zoology, Cambridge;
MNHN	Muséum national d'Histoire naturelle, Paris;
TA&M	Texas A&M Oceanography Collections;
stn	station;
cl	carapace length measured on the midline of the carapace from the tip of the rostrum to the posterior margin of the carapace;
cw	maximum carapace width;
mm	millimeters.

Munidopsis reynoldsi (A. Milne Edwards, 1880) (Figs 1-4)

Galathodes Reynoldsi A. Milne Edwards, 1880: 56.

M. (*Galathodes*) *Renoldsi* [*sic.*] – Henderson 1885: 414.

Munidopsis reynoldsi – A. Milne Edwards & Bouvier 1894: 225, 273, 275 [key]. – Benedict 1902: 325 [synonymy]. – Chace 1942: 74 [key]. – Pequegnat & Pequegnat 1970: 139 [key]; 1971: 5 [key], 22 [synonymy].

Munidopsis Reynoldsi – A. Milne Edwards & Bouvier 1897: 80 [redescription], pl. 6, Figs 1-5.

Munidopsis Reynoldsii – Doflein & Balss 1913: 176, 178 [distribution].

MATERIAL EXAMINED. — **Caribbean Sea.** *Blake*, stn 138, off Saint Croix, Frederickstadt, 4277 m, 1878-1879: ♀ lectotype, cl 20.8, cw 11.4 (MNHN-Ga 288); ♂ paralectotype, cl 16.0, cw 9.0 (MCZ 4747). — *Alaminos*, Cruise 70A10, stn 48, 14°29.5'N - 74°28.8'W, 4086 m, 24.VII.1970: 1 ♂, cl 20.4, cw 11.0 (TA&M 2-0597) (W. E. Pequegnat and L. H. Pequegnat det.).

DISTRIBUTION. — Caribbean Sea: off Saint Croix, Frederickstadt; Colombian Basin (14°29,5'N - 74°28,8'W), 3700-4277 m.

REDESCRIPTION (lectotype female)

Carapace distinctly longer than broad (rostrum excluded), moderately arched transversely; cervical groove well distinct, conspicuous shallow transverse depression in anterior part of cardiac region. Rostrum curved upwards, narrow, lateral margin with acute spines directed forwards, tip exceeding eyestalks by about four times their length, distinct dorsal carina bearing obsolescent tiny tubercles. Anterolateral angle a sharp spine. Gastric region strongly inflated; anterior gastric region bearing sharp spine on both sides of midline, and posterior to each another less developed spine; remainder of gastric region with short tubercles. Anterior branchial region bearing strong anterolateral spine followed by scattered moderate acute tubercles dorsally. Posterior branchial region bearing strong anterolateral tooth and distinct oblique and transverse rugae laterally; rugae with tendency to being transversely continuous across central part of cardiac region. Posterior margin concave, preceded by narrow raised ridge with tiny tubercles. Lateral plate with small rounded tubercles, projecting anteriorly below antennal peduncle; angular anterior tip bearing distinct spine.

Abdominal somites unarmed; transverse ridge of segment 2 smooth, divided into anterior and posterior parts by concave trough, that of seg-

ments 3 and 4 obsolescent; segments 5 and 6 smooth, 6 slightly raised posteriorly in middle. Telson divided into eight plates.

Eyes small; well exposed, ommatidia almost absent; peduncle movable, extended into strong smooth mesiodorsal spine directed obliquely upward at low angle; a much shorter lateral spine near base of cornea.

Basal article of antennular peduncle with slender dorsolateral carina continued into anterior acute spine; below it a broader anterior sharp spine directed obliquely laterally, flanked by inflated surface bearing cluster of irregular spinules. Antennal peduncle with fixed short basal article; subsequent articles movable, second bearing sharp spine on its anterolateral angle, third with serrate distal margin and acute spine on its mesiolateral angle.

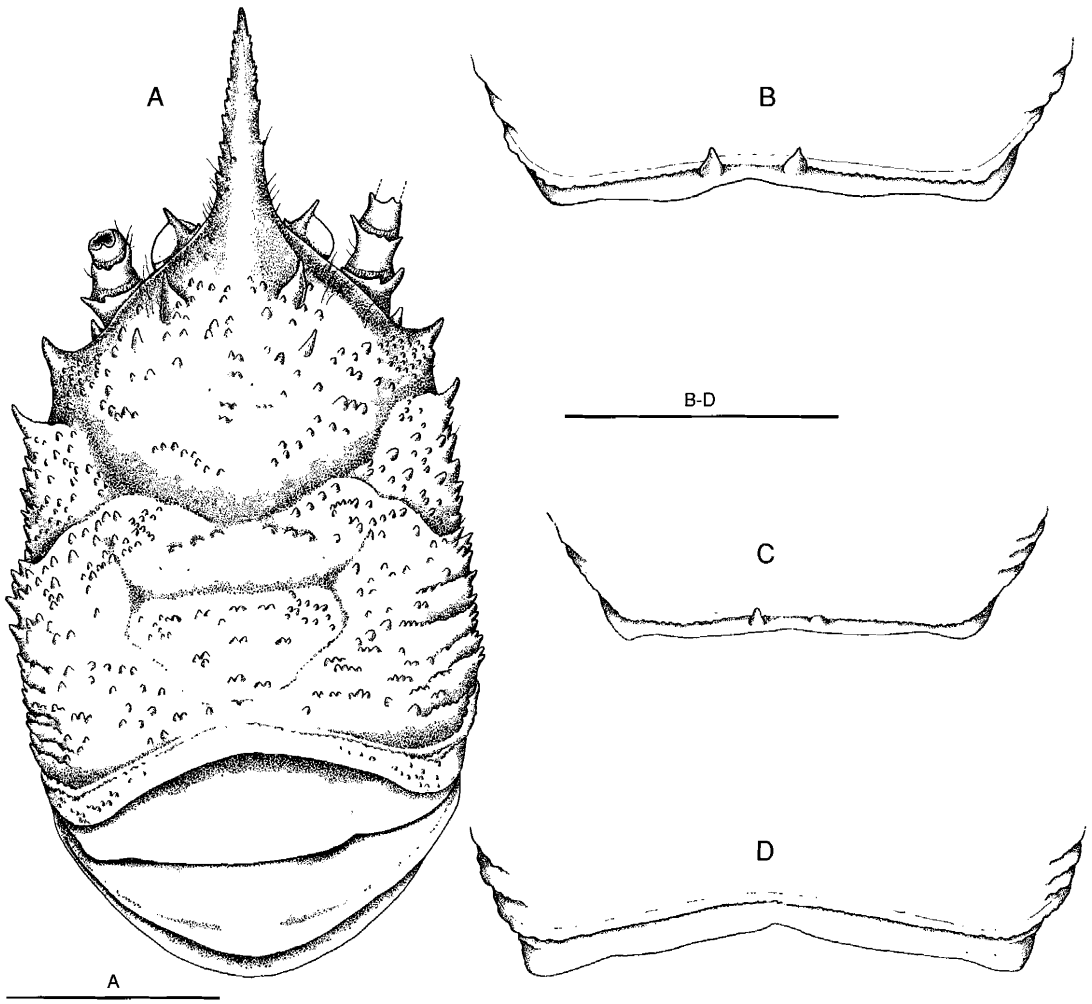

FIG. 1. — *Munidopsis reynoldsi* (A. Milne Edwards, 1880); **A**, dorsal view of the lectotype ♀ (MNHN-Ga 288); **B-D**, schematic view of the posterior margin of the carapace; **B**, ♂ from the *Alaminos* Cruise (TA&M 2-0597); **C**, paralectotype ♂ (MCZ 4747); **D**, lectotype ♀ (MNHN-Ga 288). Notice the two spines of the posterior margin of the carapace much more stronger in the male from the *Alaminos* collections, poorly developed in the male paralectotype and absent in the female lectotype. Scale bars: 5 mm.

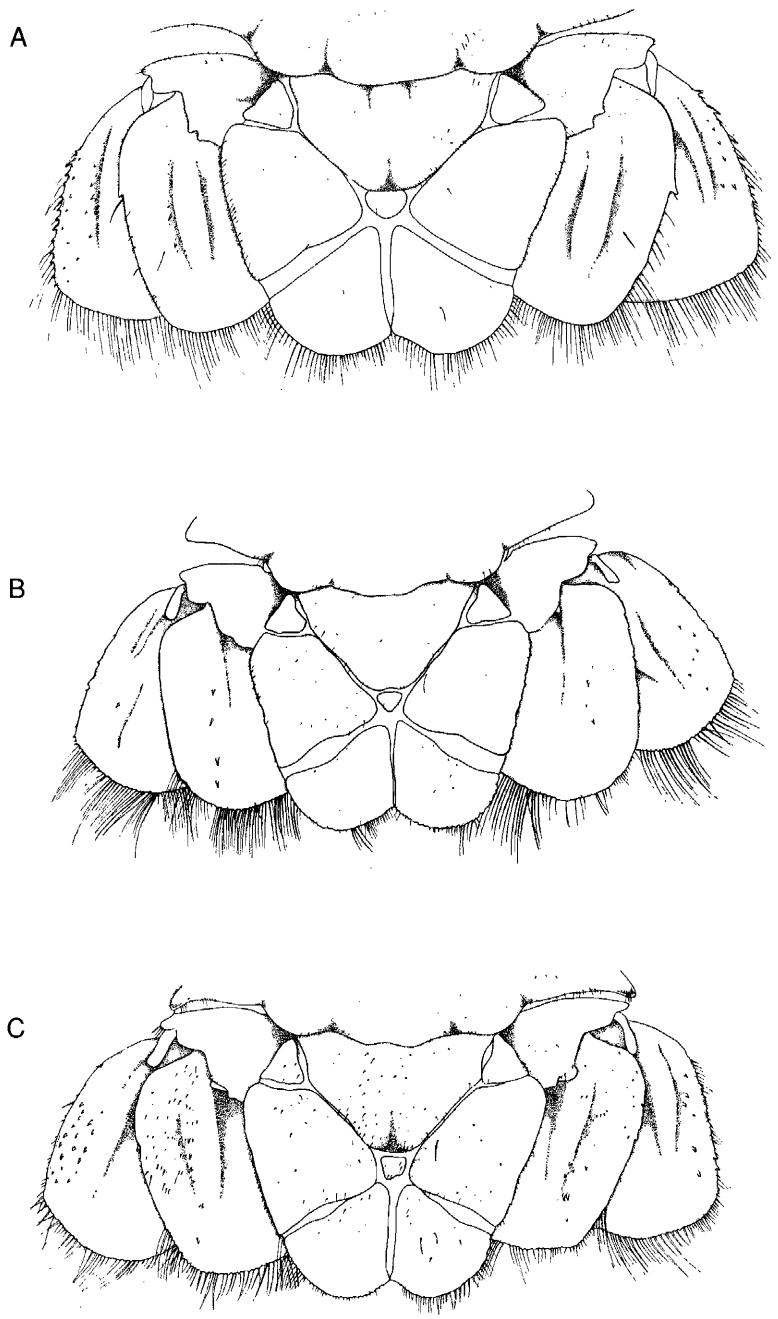

FIG. 2. — *Munidopsis reynoldsi* (A. Milne Edwards, 1880), dorsal view of the uropods, telson plates and posterior margin of abdominal segment 6; **A**, male from the *Alaminos* Cruise (TA&M 2-0597); **B**, paralectotype ♂ (MCZ 4747); **C**, lectotype ♀ (MNHN-Ga 288). Scale bars: 2 mm.

Third maxilliped with ischium longer than merus; bearing mesial crest armed with finely uniform, evenly-spaced corneous-tipped spines. Merus with four irregular acute spines on flexor margin. Carpus, propodus and dactyl about as long as two more proximal articles together, flexor surface of each bearing dense setation mesially, and distally on propodus and dactyl. Sternite at base of third maxilliped forming opposed lobes on each side of midline, irregularly serrate on margin and divergent.

Chelipeds subequal, with many spines and fewer acute tubercles; ischium with mesial row of seven rounded spines, irregular smaller spines on disto-ventral margin, and scattered tubercles and rugosities ventrally; merus clearly extending beyond end of rostrum, bearing row of four strong mesial spines, terminal one strongest, five to six spines along lateral margin; carpus spiny on ventral surface tending to smooth; mesial and lateral

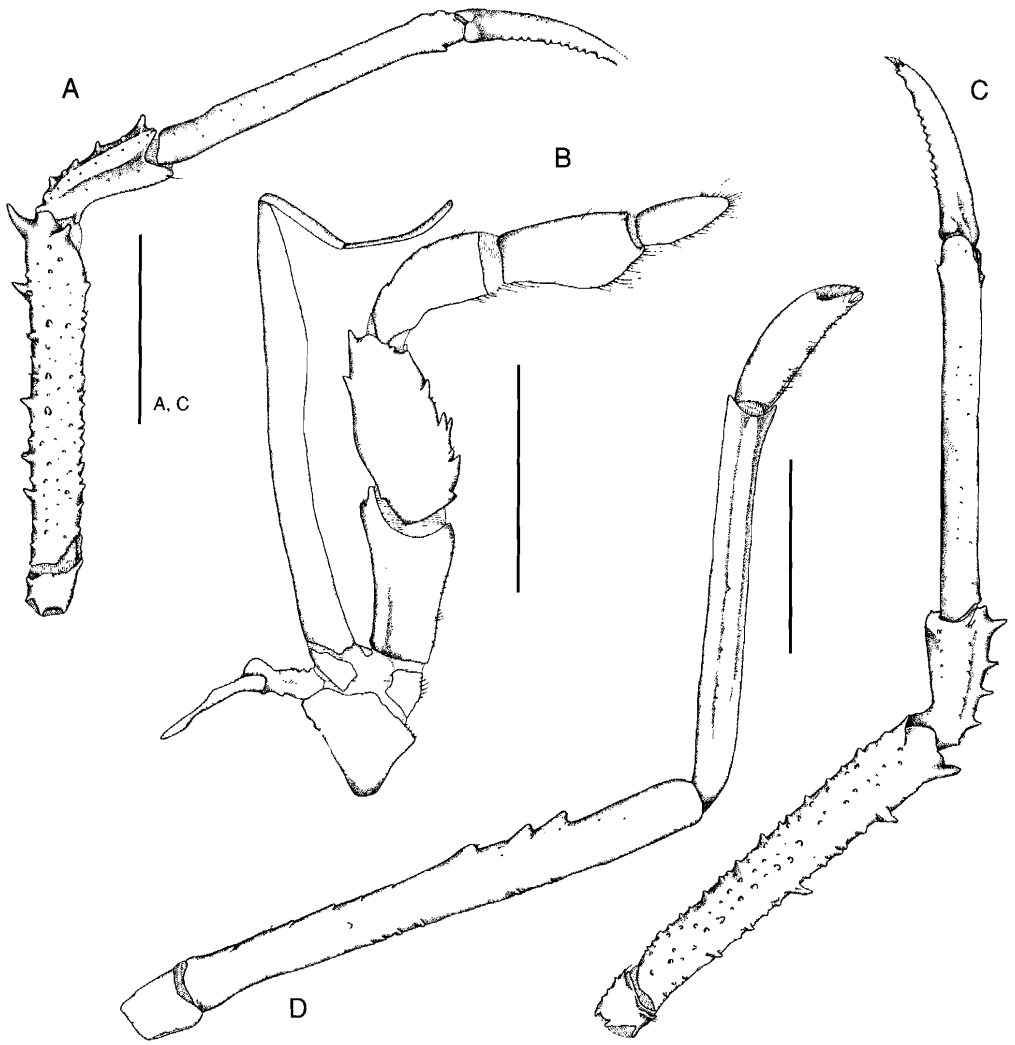

FIG. 3. — *Munidopsis reynoldsi* (A. Milne Edwards, 1880), external view of the third maxilliped (Mxp3) and thoracic appendages from the paralectotype ♂ (MCZ 4747); **A**, right P3; **B**, left Mxp3; **C**, left P3; **D**, left P5. Scale bars: A, C, D, 5 mm; B, 6 mm.

surfaces of palm with short scattered tubercles; fingers about as long as palm, spooned especially at tips, prehensile edges armed with rounded teeth, tips close fitting. Epipods absent from chelipeds and all walking legs.

VARIATIONS

The unique specimen caught by the RV *Alaminos* (TA&M 2-0597) is considerably larger than the type material, both male and female. Pequegnat & Pequegnat (1971: 22) found that the *Alaminos* material "is more hirsute" than the male paralectotype. The two spines of the posterior margin of the carapace are much stronger in the male from the *Alaminos* collections than in the male paralectotype; they are absent in the female lectotype. Also, the two gastric spines are more prominent in the *Alaminos* specimen than

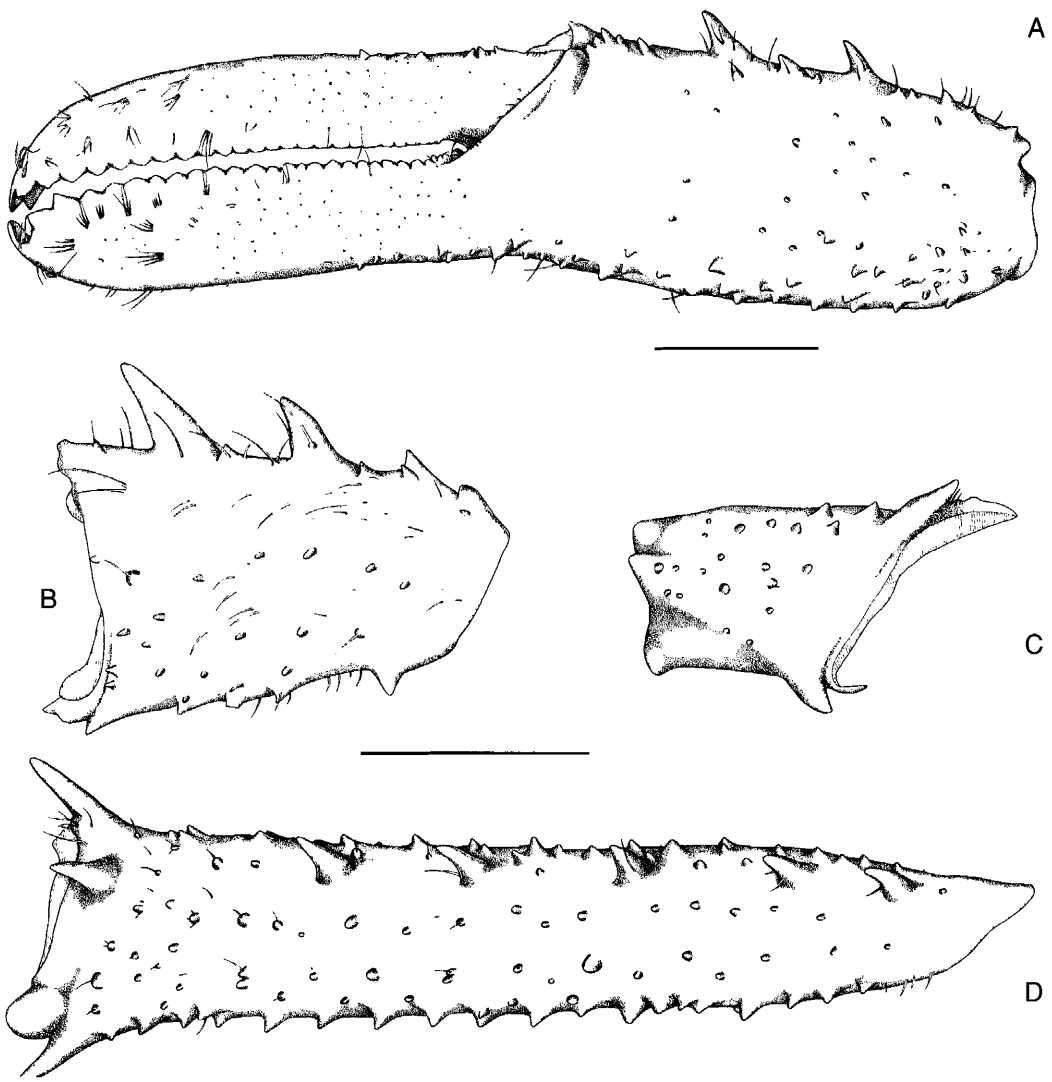

FIG. 4. — *Munidopsis reynoldsi* (A. Milne Edwards, 1880), external view of left cheliped from the lectotype ♀ (MNHN-Ga 288); **A**, dactylus and propodus; **B**, carpus; **C**, ischium; **D**, merus. Scale bars: A, 4 mm; B-D, 6 mm.

in the types. However, the mesiodorsal spine of the ocular peduncle is far weaker in the *Alaminos* material than in the female lectotype, while in the male paralectotype the mesiodorsal spine of the ocular peduncle is slightly larger than in the *Alaminos* specimen.

REMARKS

In 1897, A. Milne Edwards & Bouvier briefly redescribed and illustrated the male and the female syntypes of *M. reynoldsi*. The illustration of the male (pl. 6, fig. 1) has two inaccuracies: (1) the two spines on the posterior margin of the carapace (Fig. 1B-D) in the male paralectotype are not shown on A. Milne Edwards & Bouvier's drawing (Pequegnat & Pequegnat 1971: 22); (2) the telson plates are not properly represented (this report), actually *M. reynoldsi* has eight telson plates instead of seven (Fig. 2A-C).

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