

A revision of the spider genus *Macopaeus* (Araneae : Salticidae)

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Introduction

The genus *Macopaeus* Simon, 1900 formerly included three species. The type species *M. spinosus* Simon belongs in the subfamily Lyssomaninae and is clearly related to *Asemonea* O. P.-Cambridge and *Pandisus* Simon. The original description of *M. spinosus* was based on a female, but Simon (1900) did not indicate the number of specimens examined. A female type specimen was examined by Roewer (1965) who diagnosed the genus but did not provide a description of the species. Despite the fact that this specimen has been subsequently lost and that the epigyne has never been figured, the spines on leg I are arranged in a distinctive manner and it is possible to identify the species with reasonable certainty. The other two species *M. madagascarensis* Peckham & Peckham from Madagascar, and *M. celebensis* Merian from Celebes are not related to *M. spinosus*, but belong in the genus *Brettus* Simon which has recently been revised by the author (Wanless, 1979).

In the present paper *Macopaeus* is redefined; *M. spinosus*, *Brettus celebensis* comb. n., and *B. madagascarensis* comb. n., are described and figured; and a neotype is designated for *M. spinosus*. The measurements were made in the manner described by Wanless (1978).

Genus *MACOPAEUS* Simon

Macopaeus Simon, 1900 : 381. Type species *Macopaeus spinosus* Simon, by original designation and monotypy. Simon 1901 : 394, 397, 399. Merian, 1911 : 303. Petrunkevitch, 1928 : 181. Roewer, 1954 : 932; 1965 : 6. Bonnet, 1957 : 2684.

DEFINITION. Spiders of medium size (4.0–8.0 mm). *Carapace*: longer than broad, moderately high with elevated eye region (Fig. 1A, C); fovea long, sulciform, positioned midway between posterior lateral eyes and posterior thoracic margin. *Eyes*: with black surrounds except anterior medians; disposed as in figure 1A; all relatively large; posterior ocular quadrangle longer than broad, entire quadrangle about 50% of carapace length. *Clypeus*: moderately high, slightly concave. *Chelicerae*: of medium size, more or less vertical; promargin with 4 teeth, retromargin with 8. *Maxillae*: of medium length, blades rounded, outer lateral margins slightly excavated; slightly divergent. *Labium*: subtriangular, about half maxillae length, lateral margins slightly excised basally. *Sternum*: cordiform. *Pedichel*: short. *Abdomen*: elongate ovoid; spinnerets of medium length, anteriors robust, medians and posteriors slender; tracheal system not examined. *Legs*: long and slender; legs I with robust ventral spines on metatarsi and distal half of tibiae; other leg spines less robust, more scattered on legs II and less numerous on legs III and IV; claws pectinate, tufts present. *Female palp*: long and slender. *Epigyne*: openings distinct, spermathecae large; vulva not examined.

A fuller definition can only be given when the male is discovered and additional material becomes available for study.

AFFINITIES AND DIAGNOSIS. *Macopaeus* evidently belongs in the subfamily Lyssomaninae and seems to lie near *Asemonea* and *Pandisus*, two closely related genera both of which are known from Madagascar. It is separated from *Pandisus* by the large posterior median eyes, and from *Asemonea* by having the posterior ocular quadrangle longer than broad.

Macopaeus spinosus Simon

(Fig. 1A-F)

Macopaeus spinosus Simon, 1900 : 381, ♀, Madagascar, Antongil (MNHN, Paris) [not examined, presumed lost]. Simon, 1901 : 396, 399. Petrunkevitch, 1928 : 181. Roewer, 1954 : 932; 1965 : 6. Bonnet, 1957 : 2684..

REMARKS. Roewer (1965) examined, but did not describe the type specimen of this species which has been subsequently lost. The specimen described below agrees more or less with the original description (Simon, 1900) and with subsequent remarks made by Simon (1901) in respect of leg I spination, and is here formally designated neotype.

DIAGNOSIS. *M. spinosus*, known only from the female is separated from all other known lyssomanids by the disposition of the eyes and structure of the epigyne (Fig. 1A, E).

MALE. Unknown.

FEMALE NEOTYPE. *Carapace* (Fig. 1A, C): pale amber with brownish marginal bands and faint bands extending from posterior lateral eyes to near posterior thoracic margin; thinly clothed in short amber hairs with iridescent violet hairs in eye and foveal regions. *Eyes*: fringed by whitish hairs that are iridescent under some angles of illumination. *Clypeus*: sparsely covered in pale amber hairs. *Chelicerae*: yellow-brown, shiny; thinly clothed in amber hairs; promargin with 4 teeth, retromargin with 8. *Maxillae and labium*: whitish yellow to pale yellow. *Sternum* (Fig. 1F): whitish yellow; glossy, with scattered pale amber hairs. *Coxae*: subequal in size; pale yellow. *Abdomen*: whitish yellow with black markings; thinly clothed in fine iridescent pale amber hairs; spinnerets pale yellow. *Legs*: pale yellow to light amber with sooty lateral markings; legs I (Fig. 1B) with strong spines, those on the tibiae restricted to distal half of segment. *Epigyne* (Fig. 1E): vulva not examined.

Dimensions (mm): total length 5.6; carapace length 2.32, breadth 1.84, height 1.36; abdomen length 3.2; eye row widths, anterior medians 1.2, anterior laterals 1.48, posterior medians 0.8, posterior laterals 1.0; quadrangle length 1.2. *Ratios*: AM:AL:PM:PL:15:9.5:6:8; AMM:CL (clypeus):15:6.

DISTRIBUTION. Madagascar.

MATERIAL EXAMINED. Neotype ♀, Madagascar, Beanana, ii. 1970 (*A. Lambillon*, MT. 142.599 part) (MRAC, Tervuren).

Brettus celebensis (Merian) comb. n.

(Fig. 2A-D)

Macopaeus celebensis Merian, 1911 : 304, ♀. Holotype ♀, Celebes, Wald bei Duluduo (NM, Basel, 88a) [Examined]. Roewer, 1954 : 932. Bonnet, 1957 : 2684.

AFFINITIES AND DIAGNOSIS. *B. celebensis* is closely related to *B. anchorum* Wanless from India, but may be distinguished by the relatively short and wide seminal ducts (Fig. 2C). The presence of dense dorsal fringes on tibiae I (evidently lacking in *B. anchorum*) may also be a useful diagnostic character.

MALE. Unknown.

FEMALE HOLOTYPE. *Carapace* (Fig. 2A, D): dark brownish orange; clothed in recumbent short white hairs. *Eyes*: with black surrounds except AM; anteriors fringed in whitish hairs. *Clypeus*: clothed in whitish hairs. *Chelicerae* (Fig. 2B): brownish orange; clothed in pale brown hairs; promargin with 3 teeth, retromargin with 6 or 7. *Maxillae*: orange to yellow-Orange with median brown markings. *Labium*: brown tipped yellow-orange. *Sternum*: brownish orange with darker margins, shiny; clothed in fine whitish hairs. *Coxae*: unequal in size, I and IV slightly largest; brownish orange. *Abdomen* (detached, shrunken and partly rubbed): brown-black, clothed in recumbent pale yellowish hairs, iridescent under some angles of illumination. *Legs*: brown to yellow-brown; clothed in fine whitish iridescent hairs

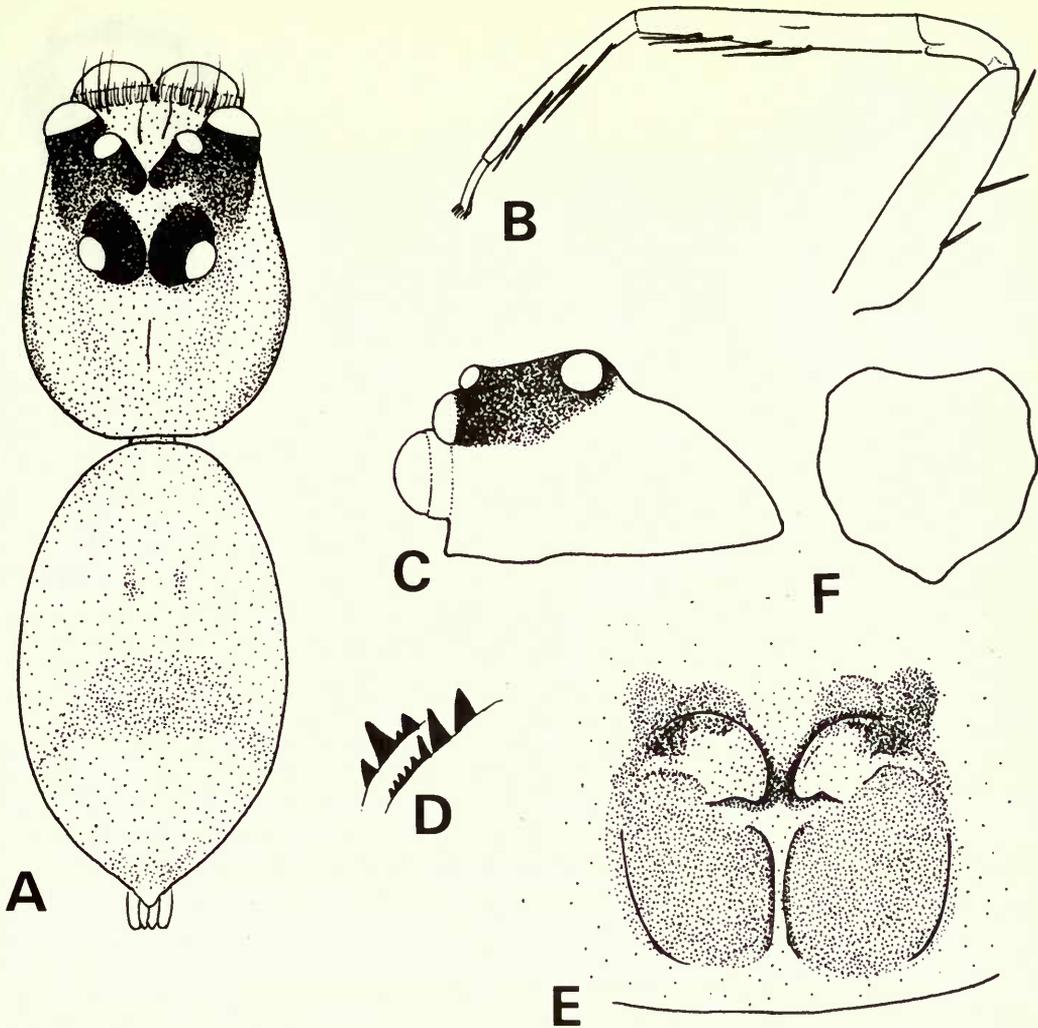


Fig. 1 *Macopaeus spinosus* Simon, neotype ♀: A, dorsal view, B, leg I; C, carapace, lateral view; D, cheliceral teeth, inner view; E, epigyne; F, sternum.

with dense grey-black ventral fringes on femora I, patellae I and tibiae I, also dense dorsal fringes on tibiae I; spines strong and numerous. *Palps*: long and slender; pale brown to whitish yellow. *Epigyne* (Fig. 2C): very similar to that of *B. anchorum*, but the ducts are wider and do not extend to the posterior margin of the somewhat rectangular opening; vulva not examined.

Dimensions (mm): total length about 6.6; carapace length 2.96, breadth 2.28, height 1.6; abdomen length 3.6; eyes, anterior row 1.48, middle row 1.04, posterior row 1.28; quadrangle length 1.2. *Ratios*: AM : AL : PM : PL : 14 : 7.5 : 5 : 6; AL - PM - PL : 7.5 - 11; AM : CL (clypeus) : 14 : 6.

DISTRIBUTION. Celebes.

MATERIAL EXAMINED. Holotype ♀, data given in synonymy.

Brettus madagascarensis (Peckham & Peckham) comb. n.

(Fig. 3A-D)

Macopaeus madagascarensis Peckham & Peckham, 1903 : 182, ♀. Holotype ♀, Madagascar (MCZ, Harvard) [Examined].

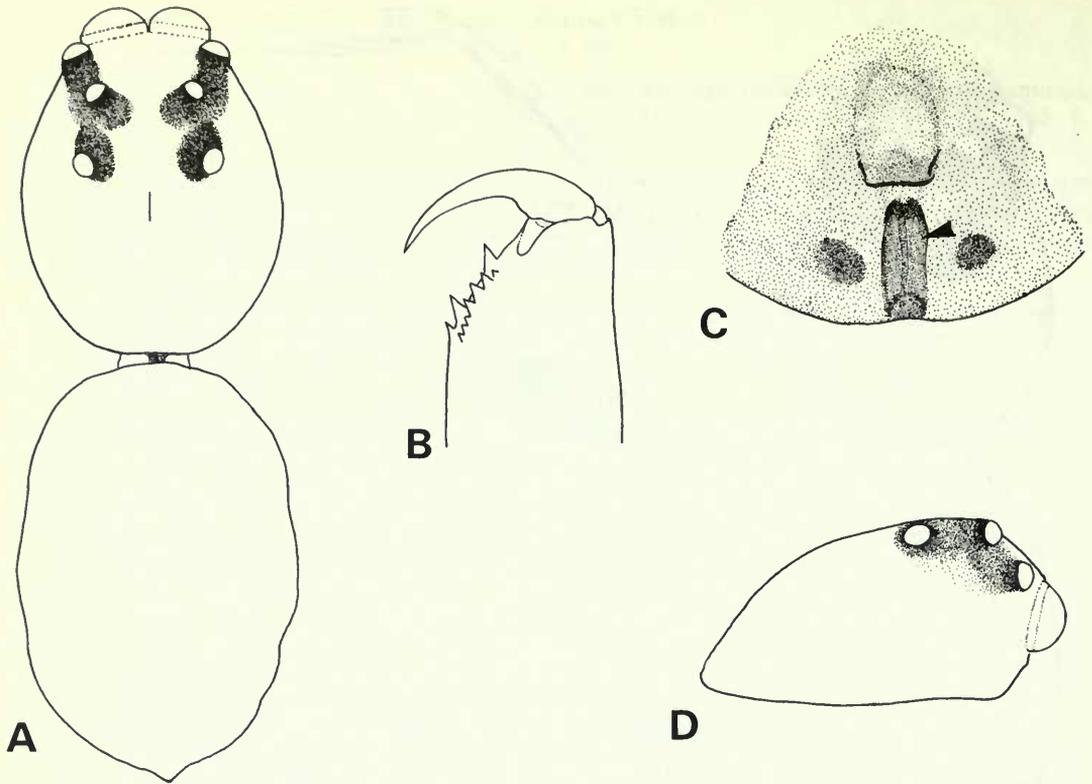


Fig. 2 *Brettus celebensis* (Merian), holotype ♀: A, dorsal view; B, chelicera; C, epigyne; D, carapace, lateral view.

M. madagascariensis: Roewer, 1954 : 932; 1965 : 6. Bonnet, 1957 : 2684. [Unjustified emendation].

AFFINITIES AND DIAGNOSIS. *B. madagascariensis* is a distinctive species readily separated from other known species of *Brettus* by the structure of the epigyne (Fig. 3C) and distribution.

MALE. Unknown.

FEMALE HOLOTYPE. *Carapace* (Fig. 3A, D): brown with margins and eye region clothed in recumbent short white hairs (long bright red hairs in eye area, described in the original description are no longer evident). *Eyes*: with black surrounds except AM; anteriors fringed in whitish hairs. *Clypeus*: clothed in whitish hairs. *Chelicerae* (Fig. 3B): yellow-brown with sooty markings; irregularly clothed in short whitish and long yellow-brown hairs; promargin with 3 teeth, retromargin with 5. *Maxillae and labium*: yellow-brown to light brown. *Sternum*: pale brown, shiny. *Coxae*: unequal in size, I and II largest; pale brown to brown. *Abdomen* (detached, shrunken and partly rubbed): brown-black; irregularly covered in recumbent short whitish hairs, iridescent under some angles of illumination. *Legs*: mostly detached and broken, I and II missing; generally dark brown to yellow-brown; spines moderately strong and numerous. *Palps*: missing. *Epigyne* (Fig. 3C): vulva not examined.

Dimensions (mm): total length about 4.4; carapace length 2.2, breadth 1.76, height 1.27; abdomen length 2.04; eyes, anterior row 1.16, middle row 0.8, posterior row 1.0; quadrangle length 0.96. *Ratios*: AM : AL : PM : PL : 10.5 : 6 : 4.5 : 5; AL - PM - PL : 6 - 8; AM : CL : 10.5 : 4.

DISTRIBUTION. Madagascar.

MATERIAL EXAMINED. Holotype ♀, data given in synonymy.

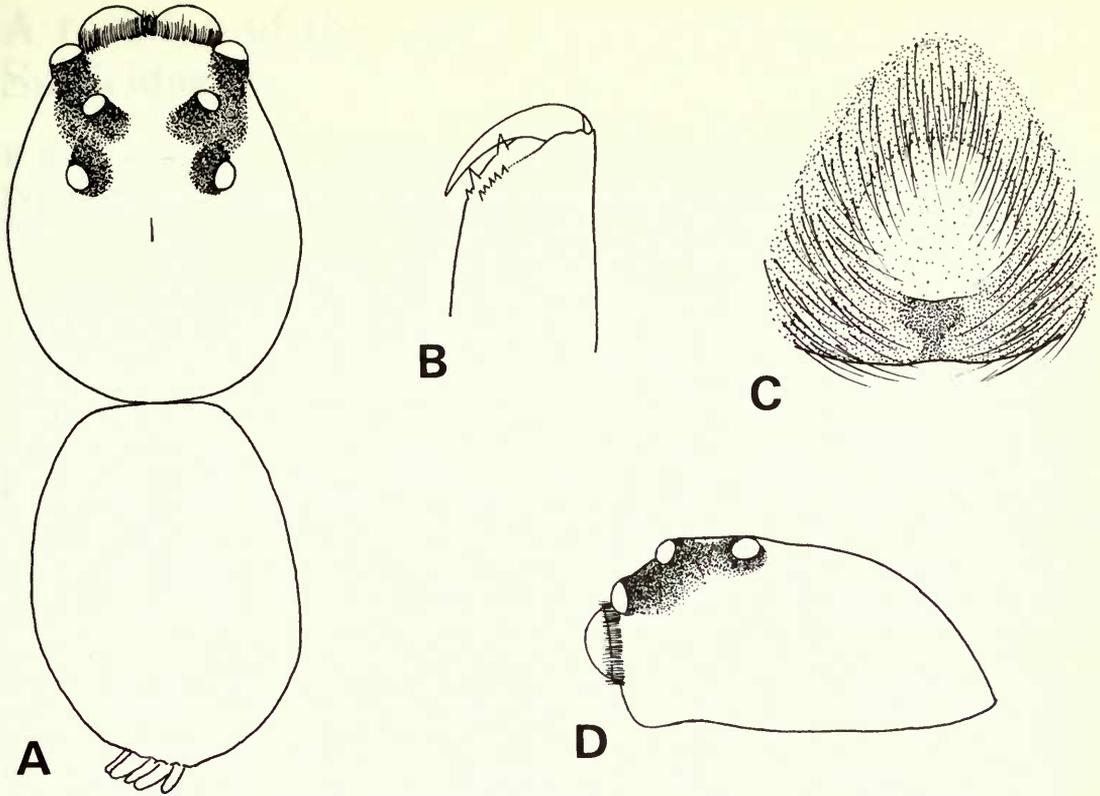


Fig. 3 *Brettus madagascarensis* (Peckham & Peckham), holotype ♀: A, dorsal view; B, chelicera; C, epigyne; D, carapace, lateral view.

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