

# On the spider genus *Cynapes* (Araneae : Salticidae)

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## Introduction

The genus *Cynapes* Simon, 1900 at present includes two known species, the type species *Cynapes wrightii* (Blackwall) from the Seychelles and *C. baptizatus* (Butler) from Rodriguez. Two species previously included in the genus are removed elsewhere: *C. albolineatus* (Peckham & Peckham) from Madagascar is returned to *Bavia* Simon, 1877, the genus in which it was originally described, while *C. canosus* Simon from Mauritius is transferred into *Marengo* Peckham & Peckham, 1892.

*Cynapes baptizatus* and *Marengo canosa* comb. nov. are described below. *C. wrightii* has not been included because it has recently been described elsewhere (Wanless, in press). *Bavia albo-lineata* comb. rev. will be dealt with when *Bavia* is revised as preliminary observations suggest that this placement is doubtful, unfortunately I am unable to propose a more satisfactory solution at the present time.

Wanless (in press) has suggested that *Cynapes* may be synonymous with *Baviola* Simon, 1897. The structure of the genitalia shows that the genera are closely related, but they can be separated by the shape of the carapace and eye formula. These latter characters were extensively used by early salticid workers for defining genera and the failure to consider genitalic characters has largely resulted in the present unsatisfactory taxonomy of the family. Somatic characters can nevertheless provide evidence of relationships particularly in cases when the genitalia are relatively simple and of similar forms. For the present, *Cynapes* is therefore considered to be a valid genus, but it may ultimately be synonymized with *Baviola* or, as seems more likely, be given a subgeneric rank. Subgenera have not often been used in this family and they cannot for the moment be justified as too many tropical Salticidae are poorly known, and it is impossible to present an overall view of the relationships.

## Genus *CYNAPES* Simon

*Cynapes* Simon 1900 : 393. Type species *Salticus wrightii* Blackwall, by original designation.

Simon, 1901 : 462, 467, 469, 471. Petrunkevitch, 1928 : 186. Bonnet, 1956 : 1334. Wanless (in press).

**DEFINITION.** Medium to large spiders ranging from about 5.0 to 8.0 mm in length. Species sexually dimorphic. Distinctive colour markings present, not hirsute. Legs I heaviest especially in females. *Carapace*: longer than broad, moderately low with convex lateral margins; fovea in shallow depression behind PL. *Eyes*: anteriors subcontiguous, apices more or less level or slightly recurved; posterior median eyes small, slightly closer to AL than to PL; posterior and anterior rows subequal in width; quadrangle length between 40 and 50 per cent of carapace length. *Clypeus*: low. *Chelicerae*: robust, moderately porrect, sometimes with an apophysis on anterior surface; promargin with 3 or 4 teeth, retromargin with 6 or 7. *Maxillae*: moderately elongate, parallel or slightly convergent. *Labium*: elongate tongue-shaped. *Sternum*: scutiform to elongate scutiform, sometimes slightly narrowed anteriorly. *Abdomen*: elongate with a pattern; spinnerets closely grouped, posteriors slightly longer than the rest, anteriors more robust; tracheal spiracle a transverse slit just in front of the anterior spinnerets or positioned midway between the middle of the abdomen and the anterior spinnerets (internal system not examined). *Legs*: legs I heaviest, sometimes with scanty ventral fringes; not scopulate, spines numerous and strong on legs I-II but fewer and weaker on legs III-IV. *Epigyne*: simple and of similar forms; orifice

rounded with obscure lateral openings leading to convoluted fertilization ducts. *Female palp*: long and slender, clothed in hairs. *Male palp*: simple, of variable form; tegulum with distal coiled or partly coiled embolus; tibial apophysis slender, unmodified.

DIAGNOSIS AND AFFINITIES. *Cynapes* is closely related to *Baviola*, but may be distinguished by the low carapace and the presence of a broad space between the posterior lateral eyes and carapace margin; the space being much greater than the diameter of the posterior eye.

#### List of species in the genus *Cynapes* Simon, 1900

*Cynapes wrightii* (Blackwall, 1877)

*C. baptizatus* (Butler, 1876)

#### *Cynapes baptizatus* (Butler)

(Fig. 1A–K)

*Salticus baptizatus* Butler, 1876 : 440, ♀. Holotype ♀, Rodriguez (BMNH.1876.13) [Examined]. Butler 1879 : 501, 507, 509, pl. LII.

*Cynapes baptizatus*: Simon, 1901 : 467. Roewer, 1954 : 980. Bonnet, 1956 : 1335. Prószyński, 1971 : 395. Wanless (in press).

DIAGNOSIS. *C. baptizatus* can be readily distinguished from *C. wrightii*, the only other species in the genus, by having the tracheal slit positioned just in front of the anterior spinnerets. In *C. wrightii* the slit is clearly positioned a short distance away from the spinnerets, with the intervening space clothed in short hairs.

MALE FROM RODRIGUEZ (previously undescribed). *Carapace* (Fig. 1E): orange-brown with faint sooty markings, foveal region and posterior half of quadrangle pale yellow; from below AL to posterior lateral margin a white haired band with scattered white hairs in pale yellow areas (mostly rubbed in specimens at hand). *Eyes*: with black surrounds; anteriors subcontiguous with apices more or less level, fringed in white hairs. *Clypeus*: white haired. *Chelicerae* (Fig. 1F): with frontal apophyses; orange-brown; promargin with 3 teeth, retromargin with 6. *Maxillae and labium*: orange-brown. *Sternum* (Fig. 1G): pale yellow. *Abdomen*: pale yellow with black bands above and blackish lateral markings, venter light yellow tinged black; spinnerets whitish yellow. *Legs*: legs I heaviest, tarsi pale yellow, other segments yellow-brown to orange-brown tinged black with scanty ventral white haired fringes on tibiae and patellae; other legs pale yellow. Spination of legs I: metatarsi with 2 pairs of ventral spines, tibiae with 3 pairs, patellae with 1 spine, femora with 2 dorsal and 2 prolaterals. *Palp* (Fig. 1C, H): yellow-orange heavily blackened, but cymbium white tipped.

*Dimensions* (mm): total length 5.68; carapace length 2.36, breadth 2.06; abdomen length 3.36; eyes, anterior row 1.6, middle row 1.38, posterior row 1.64; quadrangle length 1.08. *Ratios*: AM : AL : PM : PL :: 12.5 : 7 : 1.1 : 6; AL–PM–PL :: 7–9.

FEMALE FROM RODRIGUEZ. Body form and colour markings (Fig. 1A, D), more or less as in ♂, except for the following: *Chelicerae*: lacking apophyses; promargin with 4 teeth, retromargin with 6. *Sternum* (Fig. 1I): more attenuate in front (to allow for the heavier coxae I). *Legs*: legs I massive; spines: metatarsi with 2 ventral pairs, tibiae with 3, on both segments prolateral spines rather small, patellae with 1 spine, femora with 3 dorsal and 2 distal prolaterals; other leg spines few and generally weak. *Palps*: light yellow. *Epigyne* (Fig. 1J, K): pale with indistinct circular orifice and posterior fertilization ducts.

*Dimensions* (mm): total length 8.16; carapace length 3.44, breadth 2.96; abdomen length 5.0; eyes, anterior row 2.10, middle row 1.88, posterior row 2.2; quadrangle length 1.44. *Ratios*: AM : AL : PM : PL :: 16 : 8 : 1.5 : 7; AL–PM–PL :: 9–13.

VARIATION. Another male measures 5.0 mm total length, 2.60 mm carapace length. Females vary from 6.5 to 8.1 mm total length, 2.7 to 2.96 mm carapace length (5 specimens). The conformation of the fertilization ducts is inconsistent, but the general appearance of the epigynes does not show much variation. Some individuals are paler, probably as a result of long preservation.

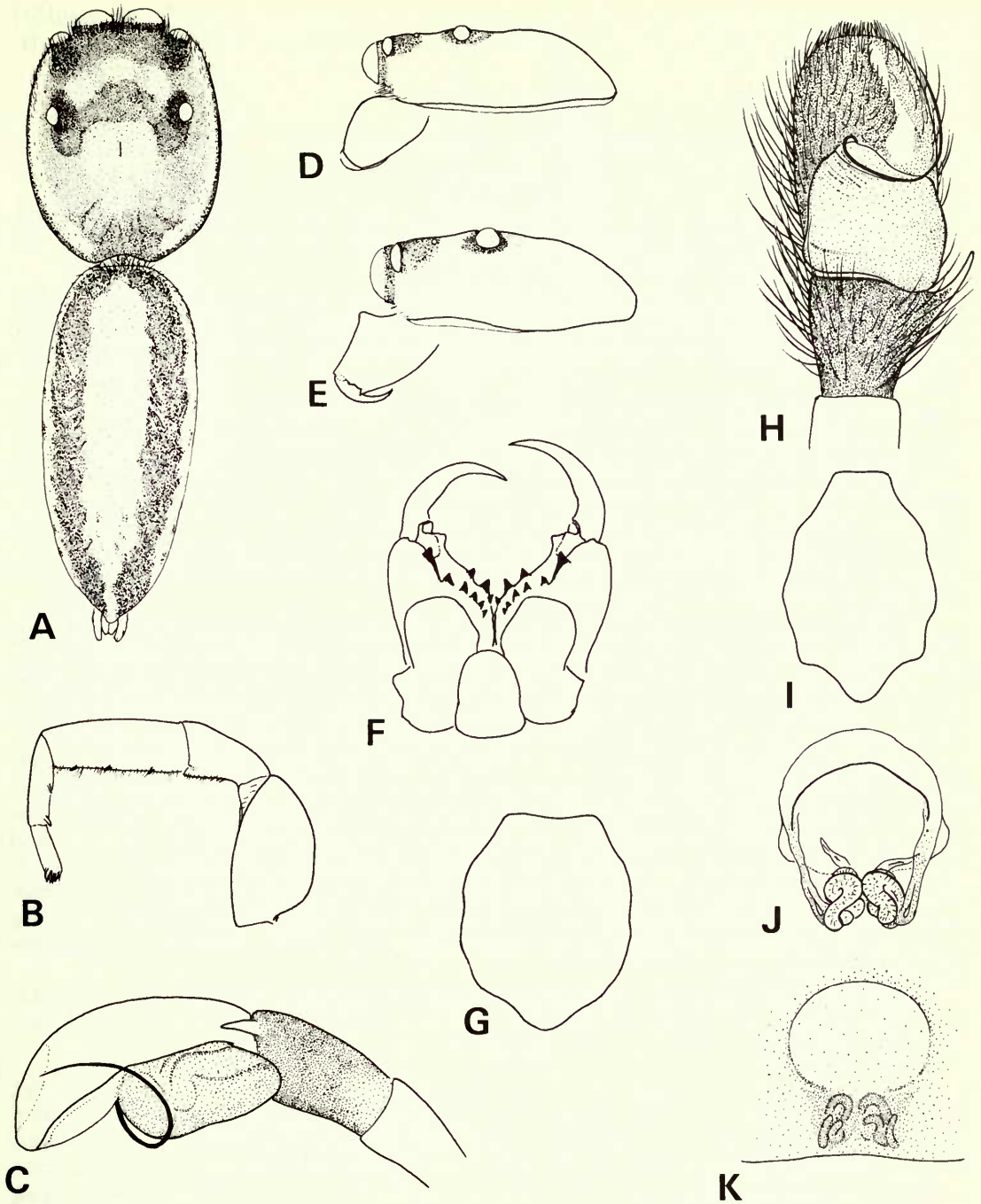


Fig. 1 *Cynapes baptizatus*, ♂: C, palp, lateral view; E, carapace, lateral view; F, chelicerae; G, sternum; H, palp, ventral view. ♀: A, dorsal view; B, leg I; D, carapace, lateral view; I, sternum; J, vulva; K, epigyne.



## DISTRIBUTION. Rodriguez.

MATERIAL EXAMINED. Holotype ♀, Rodriguez, Transit of Venus Exped., 1874–75, (*G. Gulliver*) (BMNH.1876.13). RODRIGUEZ: x. 1918, 2. ♂♂, 5 ♀♀ (*H. P. Thomasset & H. J. Snell*) (BMNH. 1952.3.6.95–104).

*Marengo canosa* (Simon) comb. nov.

(Fig. 2A-K)

*Cynapes canosa* Simon, 1900 : 393, ♂, ♀. LECTOTYPE ♂, PARALECTOTYPE ♀ (here designated) Mauritius (MNHN, Paris, no. 20353) [Examined]. Simon, 1901 : 462, 463, 467. Roewer, 1954 : 980. Bonnet, 1956 : 1335. Prószyński, 1971 : 396.

The female here designated paralectotype is smaller than the lectotype male and as such does not agree with the original description (Simon, 1900). However, as the remaining data are in agreement it is assumed that Simon's measurement is erroneous, and that the specimens are syntypes.

AFFINITIES AND DIAGNOSIS. Uncertainties as to the affinities of this species arise from the suspicion that the specimens described below may not be conspecific, principally because of differences in the position of the posterior lateral eyes in relation to the carapace width (Fig. 2A, G). The structure of the genitalia is in broad agreement with the genus as defined in Wanless (1978). However, legs I are not grossly enlarged, the chelicerae are not set well back and, furthermore, in the male they are moderately correct with low lateral keels. These characters serve to distinguish *M. canosa* from all other known species of *Marengo*, but the generic placement will have to be reconsidered when more is known of tropical salticids.

MALE LECTOTYPE. *Carapace* (Fig. 2A, B): Dark reddish brown with an iridescent sheen in eye area; clothed with short scattered white hairs forming an obscure band encircling eye region, fovea lacking. *Eyes*: with black surrounds; anteriors subcontiguous with apices slightly recurved; fringed in white hairs. *Clypeus*: low; orange-brown edged black with scattered light brown hairs. *Chelicerae* (Fig. 2I): dark orange, shiny, lateral margins black forming slightly raised keels; promargin with 3 teeth, retromargin with 6 followed by a blunt apophysis. *Maxillae*: brown. *Labium*: brown with blackish lateral depressions. *Sternum* (Fig. 2F): orange-brown. *Abdomen*: yellow-brown lightly mottled black with a dark reddish brown scutum sparsely clothed in fine silky white hairs (mostly rubbed). *Legs*: legs I heaviest, dark orange-brown with scanty ventral fringes on tibiae and patellae; other legs yellow-brown to light orange-brown. Spination of legs I: metatarsi with 2 pairs of stumpy spines; tibiae with 3 distal pairs of normal spines, but proximal pair offset; patellae with 1 spine; femora with 3 distal dorsal and 2 prolateral spines. Other leg spines weaker and fewer especially on legs III–IV. *Palp* (Fig. 2D, E): orange-brown; embolus apparently with 3 spirals.

*Dimensions* (mm): total length 5.16; carapace length 2.4, breadth 2.16; abdomen length 2.84; eyes, anterior row 1.64, middle row 1.58, posterior row 1.84; quadrangle length 1.04. *Ratios*: AM : AL : PM : PL :: 12 : 7 : 1.2 : 6.3; AL–PM–PL :: 7–8.

FEMALE PARALECTOTYPE. *Carapace* (Fig. 2G): dark reddish brown, weakly iridescent in eye region; thinly clothed in short whitish hairs; fovea lacking. *Eyes*: with black surrounds; anteriors subcontiguous, apices more or less level, fringed in white hairs. *Clypeus*: low; orange edged black, sparsely white haired. *Chelicerae* (Fig. 2H): finely rugose; yellow-orange, weakly iridescent; promargin with 3 teeth, retromargin with 5. *Maxillae*: brownish orange. *Labium*: blackish tipped brownish orange. *Sternum*: orange-brown tinged black. *Abdomen*: pale yellow-brown with faint blackish mottling; spinnerets blackish. *Legs*: legs I only slightly heavier than the rest. Yellow-brown. Spination of legs I: metatarsi with 2 pairs of ventral spines; tibiae with 3 pairs; patellae with 1 spine; femora with 3 dorsals and 1 prolateral. Other leg spines generally weak and fewer except for the femoral spines. *Palp*: yellow-brown. *Epigyne* (Fig. 2K): vulva not examined.

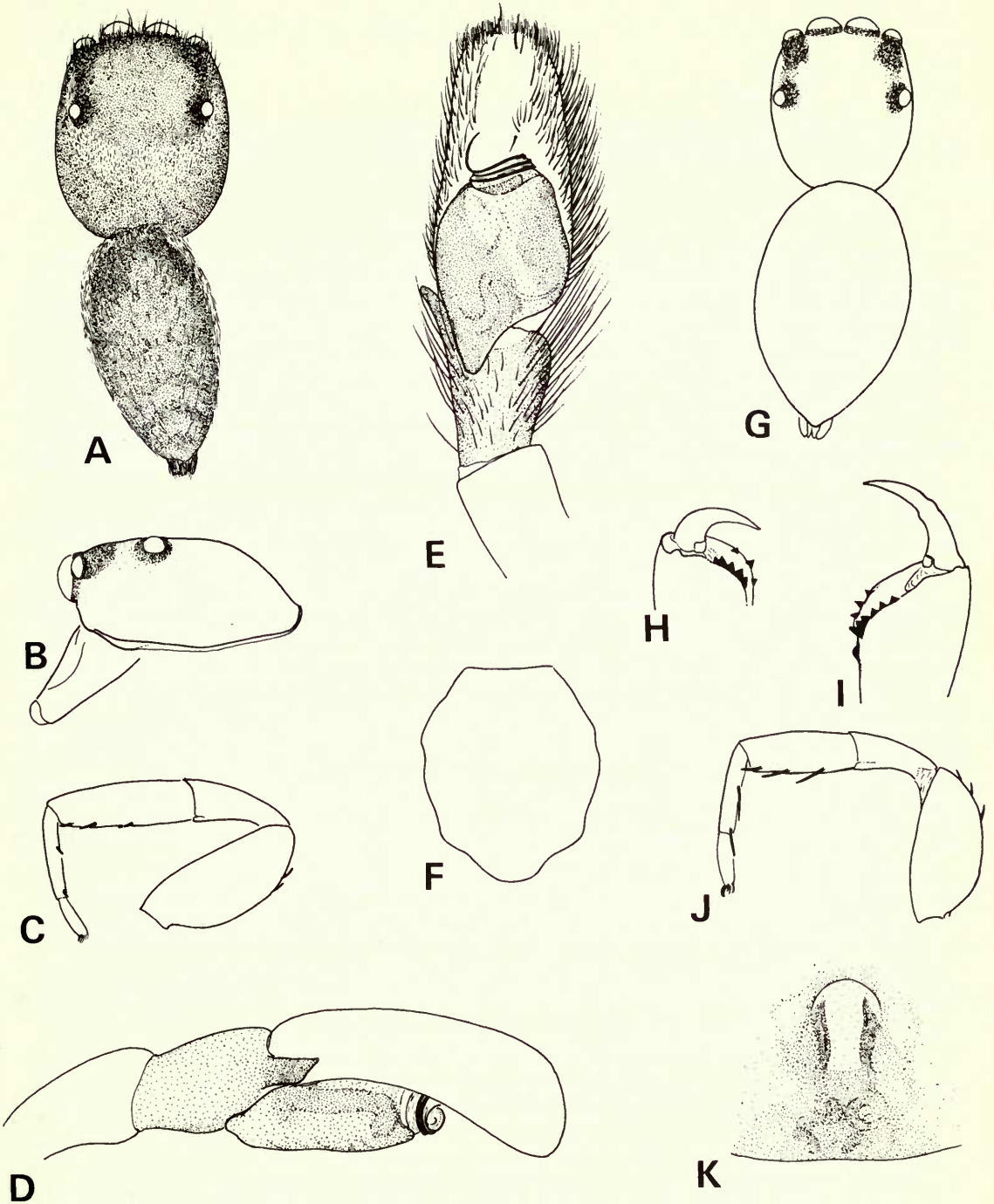


Fig. 2 *Marengo canosa*, lectotype ♂: A, dorsal view; B, carapace, lateral view; C, leg I; D, palp, lateral view; E, palp, ventral view; F, sternum; I, chelicera. Paralectotype ♀: G, dorsal view; H, chelicera; J, leg I; K, epigyne.

*Dimensions* (mm): total length 4.36; carapace length 1.78, breadth 1.54; abdomen length 2.72; eyes, anterior row 1.36, middle row 1.28, posterior row 1.52; quadrangle length 0.84. *Ratios*: AM : AL : PM : PL :: 10 : 6 : 1.1 : 5; AL-PM-PL :: 6-6.5.

VARIATION. Unknown.

DISTRIBUTION. Mauritius.

MATERIAL EXAMINED. Lectotype ♂, paralectotype ♀, Mauritius (*Ch. Alluaud*) (MNHN, Paris, no. 20353).

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