A revision of the spider genus Massagris SIMON, 1900 (Araneae, Salticidae)

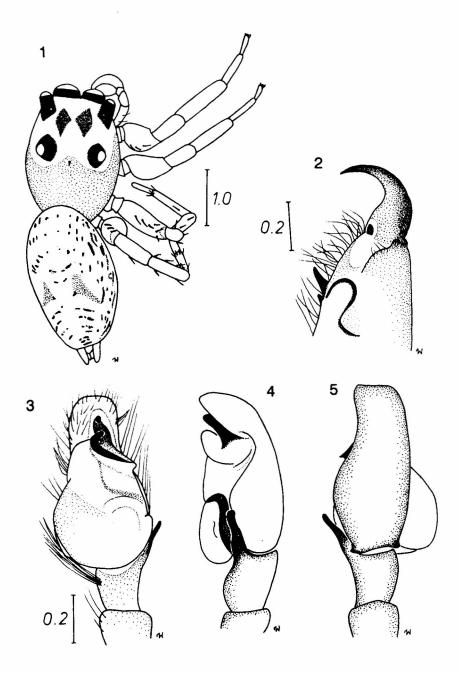
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ABSTRACT. A redescription of the African jumping spider genus Massagris Simon, 1900 is presented. Two species (M. constricta and M. martini) are considered nomina dubia. Descriptions of three new species are given.

INTRODUCTION

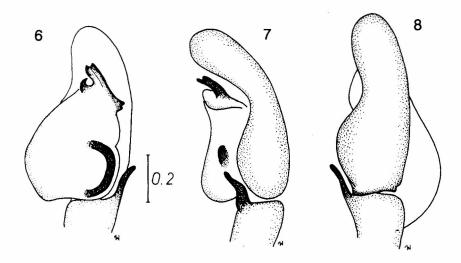
The South-African genus *Massagris* Simon, 1900 is very insufficiently known and requires a redescription. As a result of the revision, two of three nominal species are considered nomina dubia. Simultaneously three new species are described. Unfortunately the SAM collection, in which the specimens forming foundation of this paper are kept, is in a rather poor state of preservation. All specimens are discoloured and to a certain degree bleached, many damaged. Hence, the descriptions of new species are incomplete and should be supplemented in the future, basing on new materials. However, as the genitalia of museum specimens remain quite well preserved, and the genus is morphologically very uniform the descriptions of those species are sufficient for their identification. Atypical position of the eyes of second row (see below) indicates a close relationship with the genus *Tomocyrba* Simon, 1900 known from Madagascar and mountains of East Africa. However, the genera differ considerably in the structure of their copulatory organs. The male palps have coiled embolus, tibial apophysis absent; epigynes are different too (Prószyński & Zabka 1983).



1-5. Massagris mirifica Simon, holotype: 1 - general appearance, 2 - cheliceral dentition, 3-5 - palpal organ, ventral, lateral and dorsal views

MATERIAL

The material constituting the basis of this paper originates from the following collections: SAM - South African Museum, Cape Town; MCZ - Museum of Comparative Zoology, Harvard University, Cambridge, Mass.

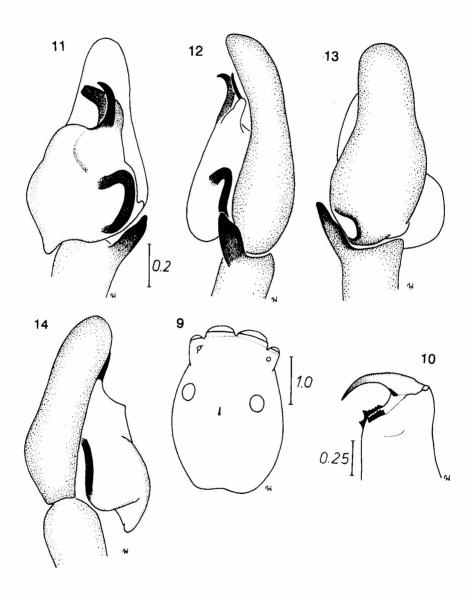


6-8. Massagris mirifica Simon - palpal organ, ventral, lateral and dorsal views

Genus Massagris Simon, 1900

Type species: Massagris constricta Simon, 1900, by subsequent designation.

Small spiders, length about 5 mm. Cephalothorax rather convex, lowers behind eye field. Square eye field occupies ca. half of cephalothorax length. Eyes of second row situated near lateral anterior ones, in comparison with the other Salticidae displaced more anterad (Fig. 9). Clypeus narrow. Chelicerae medium sized, labium trapeziform, sternum truncated in front and pointed posterad. Pedicel short, hidden by anterior margin of abdomen. Abdomen elongate ovoid. Spinnerets small, placed at tip of abdomen. Legs moderately long and slender, femora of first and second pairs a little thicker. Male pedipalp fairly big, tibia with single apophysis, bulbus very convex, embolus composed of two parts. Epigyne oval, medium sized, weakly sclerotized with two rather large shallow depressions.



9-14. Massagris separata sp. n., holotype: 9 - cephalothorax, 10 - cheliceral dentition, 11-14 - palpal organ, ventral, two lateral and dorsal views

SPECIES ACCOUNTS

Massagris mirifica Peckham et Peckham, 1903 (Figs 1 - 8)

Massagris mirificus Peckham et Peckham, 1903: 186, t. XIX, f. 1.

MATERIAL

South Africa: Natal, Durban, 1 M - holotype, [leg. J. F. QUEKETT], (MZC 4132), Cape Prov., East London, 1 M, 1899 (SAM 7853).

DIAGNOSIS

Closely related to *M. honesta*, but palp smaller, bulbus rather pear-shaped and different embolus (cf. Figs 3 and 18).

DESCRIPTION

Male. Carapace convex brown. Eye field lighter with bright polish and two large black spots medially. Eyes surrounded by black. Eyes of second line situated near lateral anterior ones. Near eyes few light hairs. Length of cephalothorax 2.1 mm, length of eye field 1.1, width of eye field I 1.2, width of eye field III 1.1. Clypeus narrow brown, maxillae and labium brown with pale margins. Chelicerae brown, promargin with two teeth, retromargin without teeth (Fig. 2). Sternum yellow. Abdomen elongated, yellowish with delicate pattern composed of brown dots (Fig. 1), at anterior margin light hairs, ventrally abdomen light with darker medial part. Spinnerets pale yellow. Length of abdomen 2.1. Legs light brown, femora I and II thicker. Pedipalps rather big, yellow. Tibial apophysis straight, thin, cymbium very narrow, bulbus pear-shaped, embolus composed of two parts (Figs 3 - 8).

Massagris separata sp. n. (Figs 9 - 14)

MATERIAL

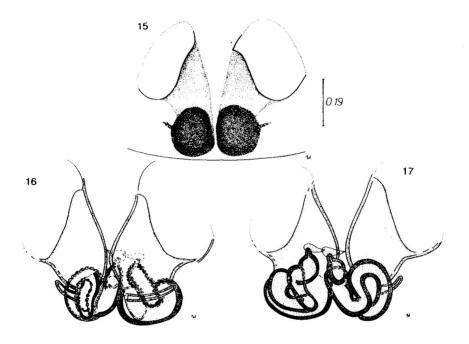
South Africa: locality illegible, 1 M - holotype det. as "M. constricta", 7.XII.1899 (SAM 5715).

DIAGNOSIS

Readily distinguished by the tibial apophysis wider than in other species and by both parts equally long of the embolus (Figs 11, 12).

DESCRIPTION

Male. Carapace and legs brown, abdomen yellowish. Length of cephalothorax 2.8, length of eye field 1.4, width of eye field I 1.6, width of eye field III 1.4, length of abdomen 2.4. Chelicerae with numerous small teeth on promargin and retromargin (Fig. 10). Pedipalps rather big, tibial apophysis wider than in *M. mirifica*, embolus dichotomous (Figs 11 - 14).



15-17. Massagris regina sp. n., paratype: 15 - epigyne, 16-17 - internal structure of epigyne, ventral and dorsal views

Massagris regina sp. n.

(Figs 15 - 17)

MATERIAL

South Africa: Cape Prov., Cape Town, museum garden, 1 F - holotype, IV.1898, leg. W. P[urcell] (SAM 3523), 1 F - paratype, det. as "M. constricta", 1898, leg. R. L[ightfoot] (SAM 3066), 1 F - paratype, det. as "M. constricta" by Peckham, VII.1898,

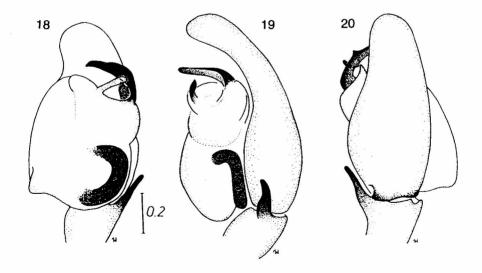
leg. F. Treleaven (SAM 3536), Cape Penisula, 1 F - paratype, VIII.1898, leg. W. P[urcell] (SAM 4411), 1 F - paratype (damaged), IV.1901, leg. W. P[urcell] (SAM 9196), Cape Penisula, Signal Hill, 1 F - paratype (damaged), 1896, leg. W. P[urcell] (SAM 775), 1 F, VI.1900 leg. R. L[IGHTFOOT] (SAM 8539), locality illegible, 1 F - paratype, II.1902, leg. W. P[urcell] (SAM 12 319).

DIAGNOSIS

This species is characterized by the very broad initial part of seminal ducts (Fig. 16).

DESCRIPTION

Female. Morphologically like *Massagris separata*. Carapace brown, abdomen yellowish white, legs yellow. Length of cephalothorax 2.7, length of eye field 1.6, width of eye field I 1.7, width of eye field III 1.6, length of abdomen 3.3. Epigyne weakly sclerotized with two large and shallow copulatory openings (Fig. 15), which were plugged with waxy secretion. Insemination ducts very broad in initial part (Figs 16, 17).



18-20. Massagris honesta sp. n., paratype, palpal organ, ventral, lateral and dorsal views

Massagris honesta sp. n. (Figs 18-20)

MATERIAL

South Africa: Cape Prov., Cape Town, museum garden, 1 M - holotype, XI.1897 (SAM 3146), 1 M - paratype, XII.1902, leg. W. P[URCELL] (SAM 13 415), museum wall, 1 M - paratype, XI.1903, leg. W. P[URCELL] (SAM 13 357), 1 M - paratype, V.1901, leg. R. L[IGHTFOOT] (SAM 8955), 1 M - paratype, IV.1903, leg. R. L[IGHTFOOT] (SAM 13 367), Cape Pennisula, 1 M - paratype, det. as "M. constricta" by Peckham, 1899, leg. Teffery and Wallace (SAM 3184), 1 M - paratype, III.1898, leg. W. P[URCELL] (SAM 4346), locality illegible, 2 MM - paratypes, X.1902, leg. W. P[URCELL] (SAM 12 175), locality illegible, 1 M - paratype (damaged), 1898 (SAM 5693), locality illegible, 1 M - paratype (damaged), 1902 (SAM 12 449).

DIAGNOSIS

Related to *M. mirifica*, but palp biger, bulbus rather rounded and diffrent embolus (cf. Figs 18 and 3).

DESCRIPTION

Male. General appearance and size as in *Massagris separata*, but structure of pedipalp different. Tibial apophysis more delicate and thinner, bulbus very convex, shape of embolus different (Figs 18 - 20).

Nomina dubia

Massagris constricta Simon, 1900

Massagris constricta Simon, 1900: 397. Massagris constricta: Clark 1974: 20.

The type-specimen lost, the original description is inadequate for its certain identification. Also Clark (1974) who had seen the type did not publish any advice. The disappearance of the type of species constituting the type of the genus is a regrettable fact. Fortunately the morphological uniformity of the genus affords possibilities for its easy separation. Most likely one of the newly described species is conspecific with *M. constricta*, but this is impossible to ascertain. In old collection of SAM practically all specimens (belonging actually to three species) are determined as *M. constricta*.

Massagris martini Simon, 1900

Massagris Martini Simon, 1900: 398.

The type-specimen lost, the original description insufficient to identify the species.

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