

DESCRIPTION OF THE HITHERTO UNKNOWN MALES OF  
*ARGIOPE REINWARDTI* (DOLESCHALL, 1859) AND  
*CYRTOPHORA MONULFI* CHRYSANTHUS, 1960  
(ARANEAE, ARGIOPIDAE)

by

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With 12 text-figures

During 1970 Dr. M. H. Robinson, Mrs. B. Robinson and Miss Y. Lubin, of the Bishop Museum Field Station in Wau (T.P.N.G.) studied Argiopid spiders in that part of eastern New Guinea. They collected many specimens and sent them to me for identification. Among these materials there were the hitherto unknown males of two species. The descriptions of these males are given here.

***Argiope reinwardti*** (Doleschall, 1859) (figs. 1-4)

*Epeira trifasciata* Doleschall, 1857: 416 (♀); 1859: pl. 1 fig. 3 (♀) - preocc.

*Epeira reinwardti* Doleschall, 1859: 31, pl. 15 fig. 5 (♀).

*Argyope reinwardti* (Doleschall), Chrysanthus, 1971: 15, figs. 20-22 (♀).

Roewer (1942: 741) synonymized *Argiope plana* L. Koch, 1867, with *A. reinwardti* and assumed that the male described and figured by Keyserling (1886: 133, pl. 10 fig. 5) as *A. fasciata* Hentz (= *plana* L. Koch) was the male of *A. reinwardti*. A study of the female syntypes of *A. plana* and the male of *A. fasciata* (Zoologisches Museum, Hamburg), however, convinced me that all belong to *A. trifasciata* (Forskål, 1775) (cf. Bonnet, 1955: 695).

As far as I know the male of *A. reinwardti* never has been described or figured.

Three males and six females have been sent to me, all collected in the Wau Valley in the course of 1970. One of the males was found at the border of a web of one of the females, together with a male of *A. aetherea* (Walckenaer), the other males in the neighbourhood of a web of *A. picta* L. Koch. It is a known fact that Argiopid males sometimes start courting at a "wrong" web. The three males do not belong to one of the other *Argiope* species collected in that region, viz., *A. picta* L. Koch, *A. aetherea* (Walckenaer), *A. aemula* (Walckenaer) and *A. trifasciata* (Forskål), all of which the males are known.

Male. — Cephalothorax (fig. 1) length 1.9 mm, width 2.0 mm, flat, yellowish grey with some lighter streaks radiating from the thoracal groove

and with a narrow dark brown border along the anterior third. Width of the eye region 0.8 mm. Chelicerae, maxillae and labium dark brown with greyish white tips. Sternum length 0.9 mm, width 1.0 mm, greyish white with two small shiny white blots near the coxae of the first legs and a few of the same colour on the posterior tip of the sternum. Legs dorsally yellowish brown, ventrally dark brown, metatarsi and tarsi greyish white; measurements: I 8.5, II 8.0, III 4.5, IV 6.5 mm. Pedipalpus: fig. 3.

Abdomen (fig. 1) length 2.0 mm, width 1.6 mm, brownish grey with numerous small greyish white spots and some indistinct brown transversal lines near the tip. Underside (fig. 2): central field dark brown, bordered by two rows of white blots, lateral parts brownish grey. This pattern strongly resembles the pattern on the underside of the female abdomen (fig. 4); in several *Argiope* species this resemblance is very helpful to associate the sexes correctly (cf. *A. picta*, *A. aetherea* and *A. catenulata*; Chrysanthus, 1958, figs. 2-3, 8-9, 14-15). In most species the dorsal side of the male abdomen does not show any pattern. Spinnerets rather dark brown.

**Cyrtophora monulfi** Chrysanthus, 1960 (figs. 5-10)

*Cyrtophora monulfi* Chrysanthus, 1960: 26, figs. 14-18 (♀).

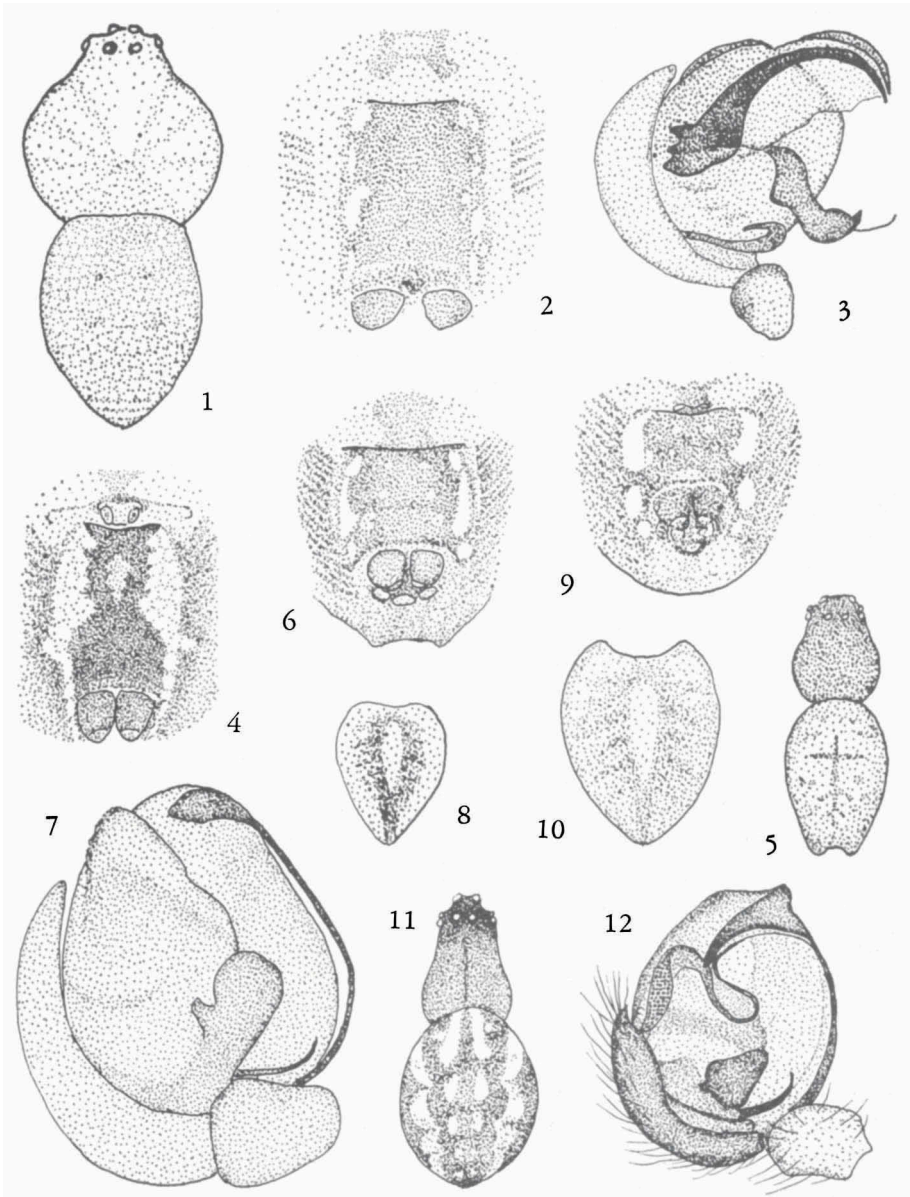
In my 1960 paper I described this new species after five females from Merauke on the southern coast of West New Guinea, collected by Br. Monulf in the course of 1956/57.

Miss Lubin examined many webs of this species, only in one of these webs two males were found (24.v.1970). Although this observation does not give absolute certainty that these males belong to *C. monulfi*, this fact, together with the great similarity of the ventral pattern of the abdomen and of the pattern of the sternum with the same parts of the female (cf. figs. 6 and 9, figs. 8 and 10), convinced me that they are the males of *C. monulfi* (cf. my remarks on *Argiope reinwardti*).

Male. — Cephalothorax (fig. 5) length 1.1 mm, width 0.9 mm, dark greyish brown. Width of the eye region 0.6 mm. Chelicerae, maxillae and labium brown with broad yellowish brown tips. Sternum (fig. 8) length 0.7 mm, width 0.5 mm; yellowish brown with a rather dark brown pattern. Legs yellow with many dark brown rings; measurements: I 3.5, II 3.1, III 2.0, IV 2.8 mm. Pedipalpus: fig. 7.

Abdomen (fig. 5) length 1.5 mm, width 1.0 mm, grey, central mark and many small dots brown. Ventral side (fig. 6) rather dark brown with a row of snow-white blots at either side of the central field. Spinnerets dark brown. The tip of the abdomen slightly bifid.

As pointed out in my 1960 paper, this species is closely allied to *C. beccarii*



Figs. 1-4. *Argiope reinwardti* (Doleschall). 1, ♂; 2, ♂, abdomen, underside; 3, ♂, left palp, underside; 4, ♀, abdomen, underside. Figs. 5-10. *Cyrtophora monulfi* Chrysanthus. 5, ♂; 6, ♂, abdomen, underside; 7, ♂, left palp, inner side; 8, ♂, sternum; 9, ♀, abdomen, underside; 10, ♀, sternum. Figs. 11-12. *C. beccarii* (Thorell). 11, ♂; 12, ♂, left palp, inner side. 1, 5, 10, 11,  $\times 14$ ; 2, 6, 8,  $\times 25$ ; 3,  $\times 60$ ; 4, 9,  $\times 7$ ; 7,  $\times 105$ ; 12,  $\times 75$ .

(Thorell); the epigynes and vulvae are very similar; the same must be noted about the pedipalpi (cf. figs. 7 and 12). The dorsal pattern of the males, however, is quite different (cf. figs. 5 and 11).

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