

Extract from the manuscript of the paper:

Yu, X., Xue, J., Hämäläinen, M., Liu, Y. & Bu, W. 2015. A revised classification of the genus *Matrona* Selys, 1853 using molecular and morphological methods (Odonata: Calopterygidae). *Zoological Journal of the Linnean Society* 174(3): 473–486. DOI: 10.1111/zoj.12253

(pp. 480, 482–483)

***Matrona (Matrona) mazu* Yu, Xue & Hämäläinen sp. nov.**

Type material: Holotype male : China, Hainan, Wuzhishan, Shuiman, alt. 620–720 m, 17.v.2007, Yu Xin leg. Deposited at Institute of Entomology, Life Sciences College of Nankai University, Tianjin, China.

Paratypes (all from China, Hainan): 2 males, Wuzhishan, Shuiman, alt. 620–720 m, 17.v.2007, Yu Xin leg.; 1 female, Wuzhishan, Shuiman, alt. 700 m, 14.iv.2009, Xi Li leg.; 1 female, Wuzhishan, Shuiman, alt. 700 m, 13.vii.2009, Jiao Kelong leg.; 2 males, Wuzhishan, 30–31.iii.2008, Zhang Hao-miao leg.; 1 male, Wuzhishan, 17.iv.2009, Zhang Hao-miao leg.; 2 males, Wuzhishan, 9.v.2011, Zhang Hao-miao leg.; 1 female, Wuzhishan, 26.iv.2008, Zhang Hao-miao leg.; 7 males, 3 females, Jianfengling, alt. 850 m, 29–30.vi.1993, Colin G. Treadaway leg.; 1 male, Jianfengling, alt. 900 m, 7.vi.2007, Yu Xin leg.; 1 male, Bawangling, alt. 750 m, 9.vi.2007, Yu Xin leg.; 2 males, Diaoluoshan, 15.viii.2008, Xie Qiang leg.; 2 males, Diaoluoshan, 24.iv.2008, Zhang Hao-miao leg.; 1 male, Wanning, 13.xii.2010, Wang Rui leg.; 1 male, Yinggeling, Yinggezui, 28.iv.2011, Zhang Hao-miao leg.; 6 males, Yinggeling, 20–23.vii.2013, Yang Jie & Wang Yanhui leg.; 2 males, Yinggeling, 6.viii.2013, Yang Jie leg.

Etymology: Named after Mazu, a legendary Chinese woman Lin Moniang, who lived in Fujian in 960–987 during the Song Dynasty. In south-eastern coastal regions of China, including Hainan, Mazu is widely worshipped as a goddess of the sea, who protects fishermen and sailors.

Description of male

Head: Eyes in life brown above, pale bluish-grey below (cf. Fig. 7). Labrum dark metallic, in some specimens with a pair of tiny yellowish spots. Base of mandibles dark, with yellowish marking on outer side. Anteclypeus dark metallic green, with paler central greyish area basally. Postclypeus shining metallic green, frons and vertex metallic green. Antennae with anterior surface of scape obscurely pale, pedicel black with a distinct yellowish spot at base anteriorly, apical segments blackish brown.

Thorax: Prothorax shining metallic green. Synthorax shining metallic green, metepimeron partly narrowly bordered with yellowish-ochre. Basal border of metepisternum in front of stigma obscurely yellowish. Venter of synthorax a mixture of black and pale yellow-ochre. Legs black, with the exception of small pale dots on middle and hind trochanters and middle and hind coxa with lateral yellow stripes. Middle and hind tibiae moderately bent, hind tibiae more distinctly so (Fig. 8a).

Wings: Wings blackish opaque, the tip of forewing hyaline. In the basal half of both wings the reticulation is distinctly bluish-white, which gives the wing base a milky appearance when viewed from certain angles.

Wings proportionally broad especially in hindwing; in the holotype the length/largest breadth ratio is 2.85 in hindwing. Median space of both wings with several reticulated cross-veins. In holotype the cubital field with 22–25 cross-veins in forewing and 29–29 in hindwing; quadrangle with 6–7 cross-veins in forewing and 7–7 in hindwing. Antenodals (the costal series) number 47–48 in forewing and 41–41 in hindwing.

Abdomen: Metallic green throughout, lower third of the side of S10 yellowish. Latero-ventral edge of S6–8 obscurely pale brownish. Ventral side of S8–10 pale brownish yellow. Appendages of typical shape for the genus; black, except the basal part of the inferiors which is pale on the underside.

Measurements (mm): Abdomen (incl. appendages) 53–56 (53 in holotype); hind wing 36–40 (36 in holotype).

Description of female

Head: Eyes in life brown above, lower part extensively pale greenish. Labrum mainly yellowish with lower margin black; at middle of upper margin dark colour extends down forming a black circle. Clypeus, frons and vertex as in male. Antennae with scape and most of pedicel conspicuously creamy yellow, the apical segments black.

Thorax: Prothorax metallic green. Synthorax metallic green with metepimeron broadly bordered with pale ochre. Pale markings on basal parts of metepisternum and mesepimeron more extensive than in male (Fig. 8b). Legs as in male.

Wings: Wings brown, with basal area obscurely subhyaline. Whitish pseudopterostigmata rather broad, crossed with 6–8 cross-veins. Venation resembles that in male.

Abdomen: Dark sepia brown throughout above and in basal segments, an obscure pale stripe ventro-laterally on S2. Lower lateral half of S9–10 obscurely pale. A distinct mid-dorsal pale stripe on S8–10, narrowest on S8.

Measurements (mm): Abdomen (incl. appendages) 49–51; hind wing 41.5–43.

Distribution: Confined to Hainan Island, where widespread.

Differential diagnosis

Superficially resembles *M. basilaris*, but the male of *M. mazu* differs from it by its proportionally distinctly broader and shorter wings (cf. Fig. 6a, 6b and Supporting Information: S3). In males there are also minor differences in the colour pattern. In *M. mazu* the scape and pedicel of antennae have pale yellowish markings, but are all black in *M. basilaris*. The yellow markings on the underside of the synthorax are more extensive in *M. mazu*. No clear distinguishing characters to separate females of these two species have been found.

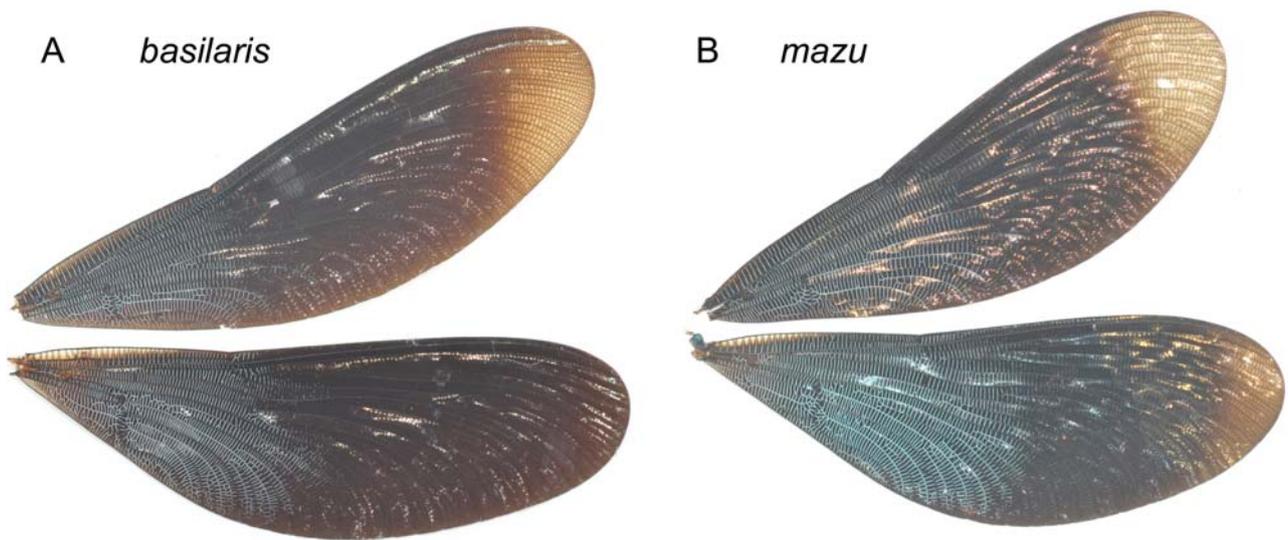


Figure 6. Right wings of males of *Matrona* species: a) *M. basilaris* (Qingliangfeng, Zhejiang); b) *M. mazu* sp. nov. (Baisha, Hainan; paratype, HaNBS02).



Figure 7. Male of *Matrona mazu* sp. nov.; photo taken by Graham T. Reels in Wuzhishan, Hainan, 16 April 2008.



Figure 8. Habitus of *Matrona mazu* sp. nov.: A, holotype male; B, paratype female from Wuzhishan.