

Anzora and Dworena, two new genera erected for Australian species formerly placed in Paratella and Sephena.
(Homoptera: Fulgoridae)

by John T. Medler¹

Introduction

The genera *Paratella* and *Sephena* were established by Melichar (1902) for complexes of species having distribution principally in New Guinea. However, three of Melichar's new species of *Paratella*, i.e., *fumaria*, *fusco-nigra* and *modesta*, were known only from localities in Australia and/or New Zealand. Kirkaldy (1906) described *Sephena argus*, *cinerea* and *rubida* from specimens collected in Australia. He commented that they had the appearance of *Paratella* while having the characters of *Sephena* assigned by Melichar.

Melichar (1923) and Metcalf (1957) each retained the above named species in *Paratella* and *Sephena*. The type specimens of the species named above were examined in connection with my research on Kirkaldy and Melichar types, results of which are given in articles that have been submitted for publication elsewhere. To avoid duplicate citation of new synonymies, all synonymies given in this article should be considered to have prior designation by Medler, in press.

ANZORA Medler, new genus

Type: *Massila unicolor* Walker, 1862, here designated.

In profile, dorsum of head smoothly convex from posterior margin to frontal area, vertex and frontal area merging without a delimiting margin. In dorsal view, anterior margin of head shallowly convex, paralleling curvature of pronotal anterior margin. Frontal area longer than wide, ratio 7 to 5, median carina shallow, extending nearly full length of front. Pronotum twice longer than dorsum of head, indistinctly carinate medially, postocular eminence narrowly raised ridgelike. Mesonotum obscurely tricarinate. Longitudinal veins and crossveins of tegmina weakly outlined on the membrane, submarginal line of crossveins irregular and indistinct; veins R and S united in a short stem distad of the basal stem. Metatibial lateral spines 2, apical spines usually 8, sometimes reduced to 6 or 7.

Distribution: Australia; introduced into New Zealand.

The new genus has affinity with *Melicharia* Kirkaldy, 1900, in shape of the head, two metatibial lateral spines, and general shape of the tegmina. However, *Poeciloptera sinhalana* Kirby, 1891, type of the genus *Melicharia*, has R, S, and M veins arising together at the node of the basal stem. The new genus is readily distinguished from *Nephesa spargula* Walker, 1870, type of the genus *Sephena* Melichar, 1902, by presence of the two metatibial lateral spines. The genus appears to have no close relative in Australia.

Anzora unicolor (Walker)

Massila unicolor n. sp., Walker, 1862, p. 315.

Lectotype female - Moreton Bay, Pascoe, British Museum (NH).

Massila unicolor, Melichar, 1902, p. 159. (Listed only).

Sephena cinerea n. sp., Kirkaldy, 1906, p. 457.

Lectotype male - Sydney, N. S. W., Koebele, Bishop Museum.

Melicharia unicolor, Distant, 1910, p. 304. (Listed only).

Sephena cinerea, Myers, 1923, p. 428.

Sephena cinerea, Tillyard, 1926, p. 170, pl. 6, fig. 9.

Melicharia unicolor, Metcalf, 1957, p. 327.

Sephena cinerea, Metcalf, 1957, p. 367.

Sephena cinerea, Dietz and Helmore, 1979, p. 11, fig. 7, 9.

Melicharia unicolor, Fletcher, 1979, p. 68, fig. 7-8.

Sephena cinerea, Spiller and Wise, 1982, p. 196.

Diagnosis: This species occurs in color phases varying from unicolorous sordid white to fuscous gray, as typified by the specific names applied by Walker and Kirkaldy. Fletcher (1979) reported on geographical differences between populations of color phases in Australia. The grayish-white form is collected most commonly in eastern Australia; specimens from western Australia are pale. Hind leg spine formula normally 2:8:7.

Length:- 7-8 mm from anterior margin of the head to apical margin of the tegmina. Females tend to be slightly longer and more robust than the males.

Female genitalia: The genitalia of the lectotype of *unicolor* in the British Museum are illustrated (Fig. 1). The third valvulae of the ovipositor are strongly sclerotized and bladelike with margins finely serrate; styles oval, the inner sides of the posterior margin with about 12 evenly spaced teeth of nearly equal size.

Male genitalia: The genitalia of the lectotype male of *cinerea* in the Bishop Museum are illustrated (Fig. 2). The genital characters are the same as those of a specimen of *unicolor* illustrated by Fletcher (1979). Portion of anal segment basad of anal orifice about 1/4 length of portion apicad of anal orifice; aedeagus thickened, with a pair of curled processes arising apically and directed basally, crossing each other; posterior margin of pygofer not projecting; apico-dorsal margin of style pointed, extended narrowly.

S. cinerea is known as the gray planthopper in the (1923) reported that *cinerea* was introduced from Australia, common in Auckland Province, and capable of carrying fireblight disease of apple and pear trees. Tillyard (1926) added that the species had spread into the North Island and was very abundant. The illustration of Tillyard, pl. 6, fig. 9, is inadequate, o. H. Swezy were determined as *cinerea* by Muir (BFBM). Tillyard's speci-

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mens in the Bishop Museum from Auckland and Hamilton, 1921, are mislabeled as *Siphanta granulata*. Eighteen specimens from West Australia, Victoria and New South Wales labeled *Melicharia unicolor* (Walker) by M.J. Fletcher were examined (MV). In addition to syntypes, specimens from Australia, Port Hocking, ii.'04, Helms; Sydney, ii.'06, Helms, 24.i.'05 and ii.'05, Koebele, are in the BPBM.

The host plants of *cinerea* in New Zealand were listed by Spiller & Wise (1982), as follows: *Citrus* sp., *Crataegus* sp., *Eucallonia* sp., *Malus sylvestris*, *Phoradendron tenax*, and *Pyrus communis*.

DWORENA Medler, new genus

Type: *Sephena hyacintha* Kirkaldy, 1906, here designated.

In dorsal view, anterior margin of vertex shallowly convex, its curvature roughly paralleling pronotal anterior margin, projecting slightly at the middle due to terminus of frontal median carina; vertex much wider than long, ratio about 4 to 1. Frontal area slightly longer than wide, lateral margins elevated, thinly carinate from postero-dorsal margin of head to clypeal suture, disc tricarinate, the lateral carinae evanescent ventrally, strongly U-shaped dorsally, the median carina strong, 4/5th length of front, the margin between front and vertex well defined by the U carina. Fronto-clypeal margin transverse, clypeus strongly elevated from the margin, convex laterally, rostrum extending beyond mesocoxae. In lateral view, genal space anterior to eye following curvature of front, convex dorsally and slightly elevated above dorsal margin of the eye. Pronotum twice longer than vertex, lateral margin carinate on anterior half, postocular eminence small and conical. Pronotum and mesonotum with longitudinal median carina, mesonotum with lateral carinae not as strong as the median carina. Tegmina brown to very dark brown, with dark pustules and contrasting pigment spots scattered irregularly on membrane; veins R, S and M arising together at node of the basal stem, discal cell closed by crossvein bearing pigment spot at center, about 20 terminals at apical margin, forked premarginally but without crossveins forming a submarginal line, both angles obtusely rounded, apical margin oblique between the angles. Metatibial lateral spines 1, apical spines 7.

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Length: 6.5 - 9 mm, with females in populations slightly longer and more robust than the males.

Distribution: Australia.

The new genus is easily distinguished from *Paratella* by the smaller relative size, brown to very dark brown pigmentation, and distribution restricted to Australia. Also, the configuration of the frontal carinae is different from that found in either *Paratella* or *Sephena*. The

origin of R, S, and M veins at the same point on the basal stem differs from *Nephesa spargula* Walker, 1870, type of the genus *Sephena*, which has a short but distinct R + S stem apical of the basal stem.

Nothing seems to be known about the biology of species in the genus.

Key to species

Length 6-7 mm, Queensland distribution, aedeagus with long apical process directed basally.....
.....*hyacintha* (Kirkaldy)
Length 7-8 mm, New South Wales distribution, aedeagus without a basally directed process arising from apex.....
.....*modesta* (Melichar)

Dworena hyacintha (Kirkaldy)

Sephena hyacintha n. sp., Kirkaldy, 1906, p. 457.

Lectotype male: Queensland, Cairns, Koebele, Bishop Museum.

Sephena argus n. sp., Kirkaldy, 1906, p. 457.

Holotype male: Queensland, Cairns, Koebele, Bishop Museum.

Diagnosis: Specimens dark brown to black in overall color, costal margin of the tegmina a contrasting lighter shade, disc with small irregular pigment spots, largest of which is at the midpoint of the discal cell crossvein. The species is easily recognized by the characters of the male genitalia, as shown in figure 3. Metatibial spine formula 1:7:9.

Length: 6-7 mm.

The holotype of *argus* is morphologically the same as *hyacintha*, including characters of the male genitalia. It differs in having the body lighter brown and the tegmina more translucent. Specimens examined: Type specimens given above; and, 1 male, Queensland, 32km S, Maryborough, 10.ii.'64, J. Sedlacek; 1 female, N. Queensland, Herberton, Evelyn Tableland, 300 m. 11.iii.'56, grasses, *Eucalyptus*, J. L. Gressitt (BPBM): 1 male, N. Australia, 68 4; 2 females, Queensland, 1907-54, Dodd (BMNH): 1 female, Queensland, Kuranda, 3.ii.'08, R. W. Armitage; 1 male, Torres Strait, Prince of Wales Isl., 27-30.v.'69, Neboiss; 1 male, 2 females, N. Queensland, Claudie R., 12.xi.-13.ii., J. A. Kershaw (MV): 2 males, Queensland, Cairns, viii.'04, Koebele (CAS).

Dworena modesta (Melichar)

Paratella modesta n. sp., Melichar, 1902, p. 122.

Lectotype male: Australia borealis, Thorey, Stockholm Museum.

Paratella fumaria n. sp., Melichar, 1902, p. 122.

Lectotype male: New South Wales, Parramatta, Biro, Budapest Museum.

Paratella fusconigra n. sp., Melichar, 1902, p. 121.

Holotype male: Australia borealis, Thorey, Stockholm Museum.

Sephena rubida n. sp., Kirkaldy, 1906, p. 457.

Lectotype female: New South Wales, Koebele, Bishop Museum.

Diagnosis: This species has a very dark appearance due to the black body and dark brown to black tegmina. Small red brown spots are scattered on the disc membrane, with a larger round spot at the middle of the discal cell

crossvein. Metatibial spine formula 1:7:9.

The male genitalia are illustrated (Fig. 4). The short process at the apex of the aedeagus is a diagnostic character.

Length: 6.5-7 mm, with males slightly smaller than females.

Melichar named this species *modesta* in deference to Signoret, whose label on a specimen in the Vienna Museum carried that unpublished name. I examined the syntype (without abdomen) from New Zealand in the Vienna Museum and the only other syntype, a male from Australia, in the Stockholm Museum. Each specimen represented a different genus. The male in the Stockholm Museum was selected as the lectotype to fix the name *modesta* Melichar. The misidentified syntype in the Vienna Museum is the same species as *Anzora unicolor* (Walker).

Specimens examined: Type specimens named above; and 1 female, Port Hacking, 11.04, and 1 female, Sydney, 11.02, Helms; 2 females, Sydney, 24.1 and 31.1.05, Koebele (BPBM); 1 male, S.E. Queensland, Goomburra, 14.x.73, Neboiss (MV); 2 females, New South Wales, 68 4; (BMNH).

Species of doubtful status

I have not seen the type specimens of *Poeciloptera replata* Walker, 1858, p. 334, and *Sephena nigrifrons* Schmidt, 1905, p. 378, which have been recorded from Australia. Melichar (1923) queried a relationship between *replata* and *fuscognira*. Metcalf (1957) listed *replata* as a good species in *Paratella*. The two species possibly may belong in the genus *Dworena*.

Acronyms of Museums for Specimens Examined

BMNH	British Museum (Natural History), London.
BPBM	Bernice P. Bishop Museum, Honolulu.
CAS	California Academy of Sciences, San Francisco.
MV	Museum of Victoria, Abbotsford.

Acknowledgement

I wish to express appreciation to Dr. L. B. O'Brien for helpful suggestions in a review of the manuscript.

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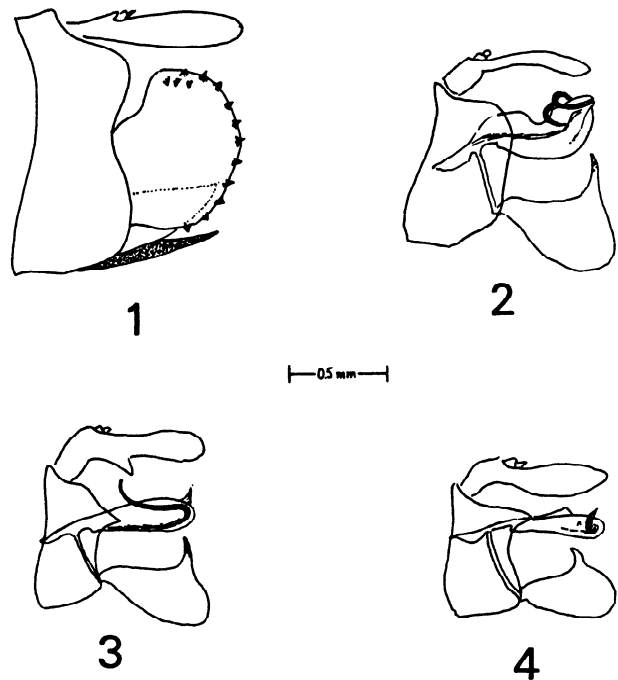
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ABSTRACT

Anzora is erected for *Massila unicolor* Walker with distribution in Australia and New Zealand. *Dworena* is erected to contain *Sephena hyacintha* Kirkaldy and *Paratella modesta* Melichar, with distribution in Australia. The male genitalia of the valid species are illustrated.



Figures 1-4. Left lateral view of genitalia. 1, *Massila unicolor* Walker, lectotype female. 2, *Sephena cinerea* Kirkaldy, lectotype male. 3, *Sephena hyacintha* Kirkaldy, holotype male. 4, *Paratella modesta* Melichar, lectotype male.