

THE AUSTRALIAN GENUS *GERALDTONIA* DISTANT (HOMOPTERA: FULGOROIDEA: FLATIDAE)

M. J. FLETCHER

New South Wales Department of Agriculture, P.M.B. 10, Rydalmere, N.S.W. 2116.

Abstract

Geraldtonia uniformis Distant is the female of *G. protea* Distant and the 2 names are synonymised as *G. protea*. First figures are given of the head, tegmen and male genitalia.

Introduction

The genus *Geraldtonia* was described by Distant (1910) with 2 species, *G. protea* and *G. uniformis*, both new. Two varieties (var. a and var. b), based on colour pattern, were described for *G. protea* and 1 (var. a) for *G. uniformis*. The type-series in the British Museum (Natural History) contains 4 specimens corresponding to *G. protea*, *G. protea* var. b, *G. uniformis* and *G. uniformis* var. a. The whereabouts of Distant's specimen of *G. protea* var. a is unknown.

The following abbreviations are used: ANIC—Australian National Insect Collection, CSIRO, Canberra; BCRI—Biological and Chemical Research Institute, N.S.W. Department of Agriculture, Rydalmere; BM—British Museum (Natural History), London; SI—Smithsonian Institution, Washington.

Geraldtonia Distant

Geraldtonia Distant, 1910: 311.

Distant's description is detailed, the diagnostic characters including the shape of the head (Figs 1-3) and of the tegmen (Fig. 4).

In the characters of the head, *Geraldtonia* closely approaches *Oryxa* Melichar, but the 2 genera were separated by Melichar (1923) by the shape of the anterior prolongation of the head, described as a short obtuse cone in *Oryxa*, and as straight or angulately rounded in *Geraldtonia*.

Vein Cu is branched at about two-fifths its length from its base, the anterior branch joining the last branch of M (Fig. 4). This feature links *Geraldtonia* to *Sephena* Melichar, *Paratella* Melichar and *Neomelicharia* Kirkaldy, but in all these genera the frons is more or less convex, with at least a percurrent median longitudinal carina, and the vertex is very short, not extending in front of the eyes. In *Geraldtonia*, the frons is evenly concave across the disc, with an indication of the median carina at the very apex only (Fig. 1). The vertex extends some distance in front of the eyes and is anteriorly rounded, and, on the disc, is bilaterally convex (Figs 2-3).

Geraldtonia protea Distant (Figs 1-6)

Geraldtonia protea Distant, 1910: 312.

Geraldtonia uniformis Distant, 1910: 313, syn. n.

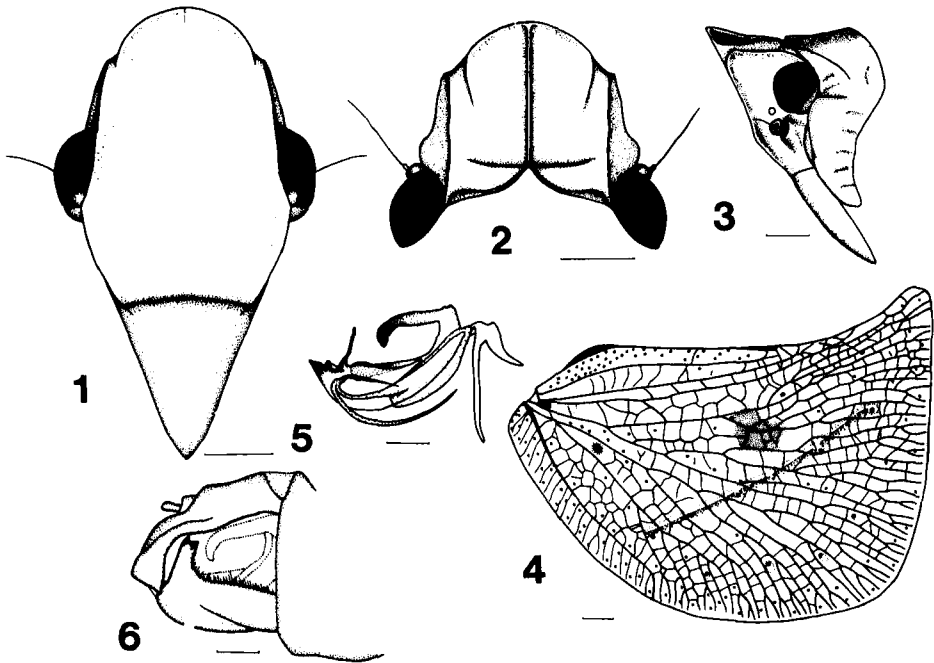
Types.—QUEENSLAND: *Lectotype* ♂ (here designated), Geraldton, near Cairns (Meek), Tring Museum 1903-62, labelled "*Geraldtonia protea* Dist. type", probably in Distant's hand (BM); *paralectotype* ♂, same data as lectotype, but lacking determination label (BM).

Other material examined.—QUEENSLAND: 1 ♀, Queensland (F. P. Dodd), 1907-129 (*syntype* of *G. uniformis* Distant) (BM); 1 ♀, Geraldton, near Cairns (Meek) (*syntype* of *G. uniformis* Distant, represents *G. uniformis* var. a) (BM); 1 ♂, Cairns (Koebele) (SI); 1 ♂, 1 ♀, Kuranda, i.1904 (F. P. Dodd), F. W. Goding Collection (SI); 1 ♂, The Intake, Redlynch, Cairns, 30.xi.1967 (R. Dobson) (ANIC); 1 ♀, locality and date unknown (D. P. Norris) (BCRI).

Notes

The species is distinctive in size (Table 1) and form (Figs 1-4), and the 2 colour forms correspond to the 2 sexes.

The spot in the centre of the tegmen is present only in the male and this feature prompted Distant to separate the sexes as distinct species. The spot varies from a small elliptical brown spot to a broad brown patch extending from the centre of the tegmen to the apex of the clavus. In some specimens, the spot is broken up by a series of white spots as described by Distant in typical *G. protea* and in var. a.



FIGS 1-6—*G. protea*: (1-3) facial, dorsal and lateral views of head; (4) tegmen; (5) aedeagus; (6) male terminalia, position of aedeagus indicated by dotted lines (scale line = 0.5 mm for 1-3, 5-6 and 1.0 mm for 4).

TABLE 1
MEASUREMENTS (mm) OF DIAGNOSTIC FEATURES OF *G. PROTEA*

	Males			Females		
	N	\bar{X}	SD	N	\bar{X}	SD
Length of clavus	5	8.50	0.35	4	10.48	0.48
Length of claval margin	5	12.34	0.55	4	15.41	0.51
Width of costal cell	5	1.27	0.03	4	1.61	0.09
Width of costal area	5	0.86	0.02	4	1.02	0.06
Length of tegmen from base to end of R	5	12.76	0.70	4	14.92	0.85
Width of tegmen between apices of clavus and costal cell	5	8.86	0.71	4	11.06	0.89
Length of vertex	5	0.96	0.04	4	1.01	0.05
Width of vertex	5	1.05	0.03	4	1.13	0
Length of pronotum	5	0.85	0.03	3	0.89	0.01
Length of frons	5	1.84	0.07	4	2.04	0.04
Width of frons	5	1.37	0.07	4	1.50	0.02
No. of spines at apex of hind tibia	9	6-7 (78% 6)		7	6-7 (86% 6)	
No. of spines at apex of hind tarsal segment 1	9	7-8 (78% 8)		6	6-8 (17% 6, 33% 7, 50% 8)	

Figs 1-2 are of the lectotype and Figs 3-6 are of the specimen from Redlynch in ANIC. Measurements of diagnostic features of males and females are given in Table 1.

Acknowledgments

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References

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