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A new species of *Austrosticta* TILLYARD from Australia (Insecta: Odonata: Zygoptyera: Isostictidae)

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Abstract: *Austrosticta frater* sp. n. is described after 2 males from Queensland, Australia, and compared with *A. fieldi* TILLYARD and *A. soror* SJÖSTEDT.

Key words: *Austrosticta*, new species, Australia.

Introduction

The dragonfly material collected during the annual family holidays 1997 (Müller, Theischinger, Zwick) was found to include a single male of an undescribed *Austrosticta* from north-eastern Australia. A second male of the new species was found in the Australian National Insect Collection, CSIRO, Canberra (ANIC).

The new species is described below; the terminology follows CHAO (1953) and WATSON & O'FARRELL (1991).

The material is lodged at the ANIC.

Austrosticta frater spec. nov. (Figs 1-3)

Austrosticta fieldi; WATSON et al. 1991: 136 (partly).

Types - Holotype ♂: Queensland, small pond nr Lakeland, 1.4.1997, G. Theischinger and L. Müller (ANIC). Paratype: 1♂, Queensland, Dugald River, 197 miles S of Normanton, 8.4.1973, A. Allwood and T. Angeles (ANIC).

Similar to both *A. fieldi* TILLYARD and *A. soror* SJÖSTEDT but differring in structure, particularly the male anal appendages, and in the colour pattern of the synthorax.

Name: Frater = Latin for "brother", a match for soror (= Latin for "sister").

Male (Figs 1-3)

Dimensions: Hindwing 19.0-21.0 mm; abdomen 30.0-31.0 mm.

Head: Labium off white; labrum glossy black with anterior and lateral margins broadly greenish- to brownish yellow, or, largely greenish- to brownish yellow and black only mediobasally; upper, outer face of mandibles and genae to level of

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median ocellus greenish- to brownish yellow; clypeus black; outer two fifths or more of anterior frons greenish- to brownish yellow, medial fifth or less black; rear of occiput greenish- to brownish yellow, rest of top of head black; postgenae black, greenish- to brownish yellow around lower portion of eye; antennae blackish brown, only part of outer face of scape and much of pedicel dull brownish yellow.

Prothorax: Pronotum glossy black with anterior rim of anterior lobe, posterior rim of posterior lobe including lateral horns, and an area of variable size along lateral margin greenish- to brownish yellow; propleuron greenish- to brownish yellow; coxa and trochanter greenish- to brownish yellow; femur greenish- to brownish yellow, on outer face partly or wholly lined with blackish brown; tibia and tarsus pale to dull brownish yellow, tips of tarsal segments and claws dark brown.

Synthorax: Greenish- to brownish yellow, marked with black as illustrated (Fig. 1); the large frontal patch and the lateral stripe continuous or almost so across base of mesopleural suture; terga and sterna greenish- to brownish yellow; legs largely greenish- to brownish yellow, outer face of femora partly or wholly lined with reddish- to blackish brown, tips of tarsal segments and claws dark brown.

Wings: Bases largely pale greenish- to brownish yellow; membrane hyaline; veins pale to dark brown; pterostigma pale brown, slightly longer in hindwing than in fore; 8-10 / 6-8 postnodals; CuP subtending 3-5 cells.

Abdomen: Tergites 1-9 greenish- to brownish yellow with dorsal face almost completely glossy black; in dorsal aspect only a narrow laterobasal bar or two laterobasal spots appear pale, whereas the pale lateral areas cannot be seen from above; sternites pale to dark brown; segment 10 largely greenish- to brownish yellow, but broadly black dorsally.

Anal appendages (Figs 2,3): Pale greenish- to brownish yellow; superiors short, forcipate, with apex rather elongate and slender; mesal tooth slightly beyond midlength of appendage, well sclerotized; inferiors much longer than superiors, forcipate but not strongly curved, not subapically widened, slightly convex dorsally and without ventrally projecting lobe.

Female unknown.

Discussion

Austrosticta frater sp. n. (Figs 1-3) is most probably the sister species of both *A. fieldi* (Figs 4, 5) described from Tennant's Creek, Northern Territory (TILLYARD 1908) and *A. soror* (Figs 6, 7) described from the Kimberleys in the north of Western Australia (SJÖSTEDT 1917). It differs from both species in synthoracic colour pattern, in particular by the continuity of the black synthoracic frontal area and lateral stripe,

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and in the shape of the male anal appendages, particularly by the dorsally slightly convex inferior appendages which lack a prominent ventral lobe. In spite of appearing less similar to any of the two known species than they do to each other, *A. frater* is probably not sympatric with either one of them. As *A. filedi* and *A. soror* are very similar to each other and in cases hard to separate, material has been misidentified in the past, and it seems possible that the recorded coexistence of these species in the Kimberleys (WATSON et al. 1991) is based on such misidentifications.

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References

CHAO H.F. (1953): The external morphology of the dragonfly Onychogomphus ardens NEEDHAM. — Smithson. misc. Collns **122**/6: 1-56.

SJÖSTEDT Y. (1917): Results of Dr. E. Mjöberg's Swedish scientific expeditions to Australia 1910-1913. 16. Odonata. — Ark. Zool. **11**(11): 1-44.

TILLYARD R.J. (1908): On a collection of dragonflies from Central Australia with descriptions of new species. — Proc. Linn. Soc. N.S.W. **32**: 761-767.

WATSON J.A.L. & F.A. O'FARRELL (1991): Odonata (dragonflies and damselflies). — In CSIRO (ed.): The Insects of Australia. 2nd ed. (Melbourne University Press: Melbourne).

WATSON J.A.L., THEISCHINGER G. & H.M. ABBEY (1991). The Australian dragonflies. A guide to the identification, distributions and habitats of Australian Odonata. — CSIRO Australia, Canberra and Melbourne.

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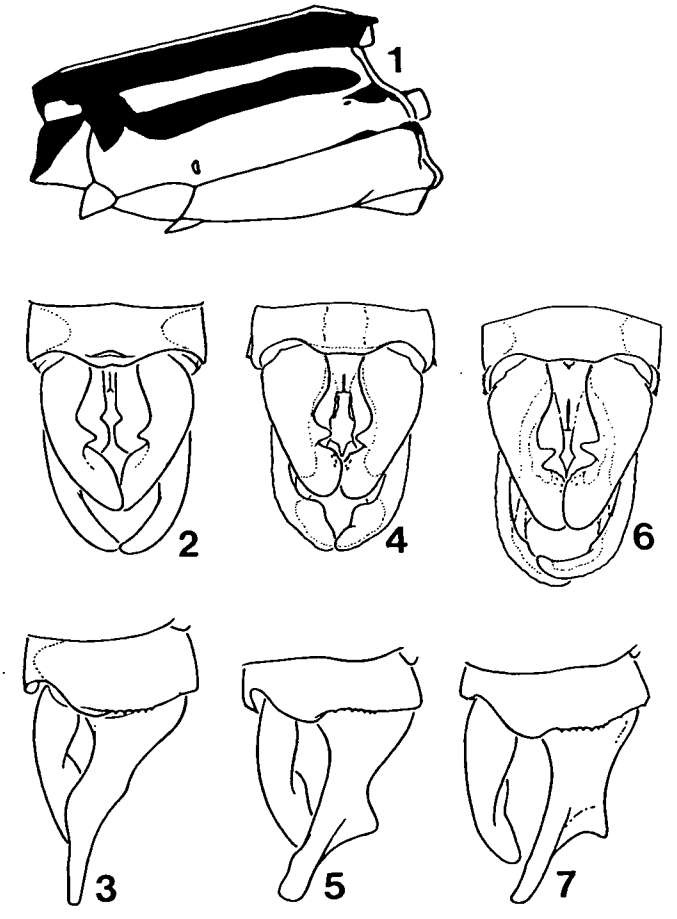

Figs 1-3. *Austrosticta frater* sp. n., male: 1, synthorax, lateral aspect; - 2, 3, anal appendages: 2, dorsal aspect; - 3, lateral aspect. **Figs 4, 5.** *Austrosticta fieldi* TILLYARD, male anal appendages: 4, dorsal aspect; - 5, lateral aspect. **Figs 6, 7.** *Austrosticta soror* SJÖSTEDT, male anal appendages: 6, dorsal aspect; - 7, lateral aspect.

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