Tonyosynthemis, a new dragonfly genus from Australia
(Insecta: Odonata: Synthemistidae)

G. THEISCHINGER

Abstract: Tonyosynthemis (type species: Synthemis claviculata TILLYARD) is established on characters of adults and larvae.

Key words: Tonyosynthemis, new genus, north-eastern Australia.

Introduction

Affinities of Synthemis cyanitincta TILLYARD and Synthemis claviculata TILLYARD were discussed by TILLYARD (1910), of Synthemis ofarrelli THEISCHINGER & WATSON and both, S. claviculata and S. cyanitincta, by THEISCHINGER and WATSON (1986). CARLE (1995) erected the tribe Eusynthemistini with type genus Eusynthemis FÖRSTER and included in it also Choristhemis TILLYARD and Austrosynthemis which he established for S. claviculata, S. cyanitincta (type species) and S. ofarrelli. In general, CARLE's (1995) view on the Synthemistidae appears to me very sound. Some of my more recent work on adults and particularly larvae does not only support my earlier placement of Choristhemis barbarae MOULDS in Eusynthemis (THEISCHINGER 1995) but also the close ties of the species included by CARLE in Austrosynthemis with Choristhemis TILLYARD, as suggested by CARLE (1995). Morphological details of adult Austrosynthemis cyanitincta and particularly of the larva of Austrosynthemis claviculata (TILLYARD), however, indicate specialisations unique in Synthemistidae. A new genus, Tonyosynthemis, based on A. claviculata, is therefore established below. A brief diagnosis of Tonyosynthemis and a comparative diagnosis of Austrosynthemis (as restricted here) are given. The larva of Tonyosynthemis claviculata is described for the first time. Austrosynthemis, now regarded as monotypic, is considered the sister group of Tonyosynthemis.

Tonyosynthemis gen. nov. (Figs 1-7)

Type species: Synthemis claviculata TILLYARD

Adults (Figs 1-3)

Size: Medium (hindwing generally longer than 30 mm).

Colouration: Largely black with vivid yellow pattern; wing bases (subcostal space) not blackened.

Abdomen: Tergum 7 of male ventrally with short hairs and without distal hair-brush
Male anal appendages: Apical portion of superior appendages distinctly club-shaped (Fig. 2).

Female genitalia: Valves narrow, with laterodistal point; styli well developed (Fig. 3).

Larvae (Figs 4-7)

Total length 18.5-19.5 mm.

Head: Prementum (Fig. 5) abruptly widening from short narrow base; ligula with median lobe hardly developed; labial palp with 7 dentitions (including very small one next to movable hook) and with 6 larger palpal setae; generally 5 primary premental setae and 6 secondary premental setae; postmentum with mediobasal notch. Postocular lobe (Fig. 6) strongly differentiated, almost bilobed.

Prothorax: Pronotal lobe (Fig. 7) strongly developed and with short appressed setae.

Abdomen: Two substantial obtuse laterodorsal processes each on segments 4-9 (Fig. 4).

Species included: *Synthemis claviculata* TILLYARD, *Synthemis ofarrelli* THEISCHINGER & WATSON.

Distribution: North-eastern Australia.


*Austrosynthemis* CARLE (Figs 8-13)

Type species: *Synthemis cyanitincta* TILLYARD.

Adults (Figs 8-10)

Size: Rather small (length of hindwing about 25 mm).

Coloration: Largely greyish- to blackish brown with very pale bluish pattern; wing bases (subcostal space) distinctly blackened.

Abdomen: Tergum 7 of male ventrally with long hairs and with well developed distal hair-brush (Fig. 8).

Male anal appendages: Apical portion of superior appendages tapered (Fig. 9).

Female genitalia: Valves wide, with subbasal point close to midline; styli generally absent or vestigial (Fig. 10), sometimes moderately developed on one side only, rarely moderately developed on each side.

Larvae (Figs 11-13)

Head: Postocular lobe not strongly differentiated (Fig. 12).

Prothorax: Pronotal lobe (Fig. 13) with long prominent setae.

Abdomen: Dorsal surface of segments 4-9 smooth without any processes (Fig. 11).

Species included: *Austrosynthemis* CARLE is considered in this paper to be monotypic.

Distribution: South-western Australia.
Discussion

Discussing affinities amongst the Eusynthemistini, CARLE (1995) mentioned an *Austrosynthemis-Choristhemis* pair (p. 419) and a *Choristhemis-Eusynthemis* pair (p. 422) which I found somewhat confusing. A *Choristhemis-Eusynthemis* pair and an *Austrosynthemis-Tonyosynthemis* pair are proposed in this paper. The two pairs are considered as each others sister groups.

References


Address of the author: Günther THEISCHINGER
2A Hammersley Rd, Grays Point,
N.S.W. 2232, Australia