

A SECOND SPECIES OF *ATRIPECTIDES* MOSELY FROM AUSTRALIA  
(TRICHOPTERA: ATRIPECTIDIDAE)

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**Abstract**

Neboiss, A., 1999. A second species of *Atriplectides* Mosely from Australia (Trichoptera: Atriplectididae). *Memoirs of Museum Victoria* 57: 237–239.

*Atriplectides ikmaleus* sp. nov. is described from the North Queensland Wet Tropics Heritage Area. Its adult and larval features are compared with those of several recently described neotropical atriplectidines.

**Introduction**

Investigation of the North Queensland Wet Tropics Heritage Area (Walker et al., 1993; 1995) revealed many undescribed species of Trichoptera which were given code-numbers pending formal species description. This material included a small number of specimens of *Atriplectides dubius* Mosely from several localities, as well as an undescribed *Atriplectides* species (code-number PT-2010).

*Atriplectides dubius*, hitherto the only Australian atriplectid species known, is widely distributed and has been collected from numerous localities. It was described from Tasmania and subsequently found to be common throughout eastern Victoria and New South Wales. It has been recorded from Queensland as far north as the Mareeba district north of Cairns. It has been taken on Kangaroo Island and in the Adelaide Hills, South Australia, and from southwestern Western Australia. The single Western Australian specimen (Seldom Seen Brook, Jarradale, S. Bunn, 4.xi.1983, NMV collections) is marginally smaller than the average specimens from eastern Australia but shows no structural differences. The new species differs in wing and genital features; it overlaps the northern distribution of *A. dubius*.

Specimens were prepared for examination by clearing the abdomens in cold KOH solution. The dissected and figured specimens are identified by the author's notebook number with the prefix 'PT-'. Material is deposited in the Australian National Insect Collection, Canberra (ANIC) and Museum Victoria, Melbourne (NMV).

*Atriplectides ikmaleus* sp. nov.

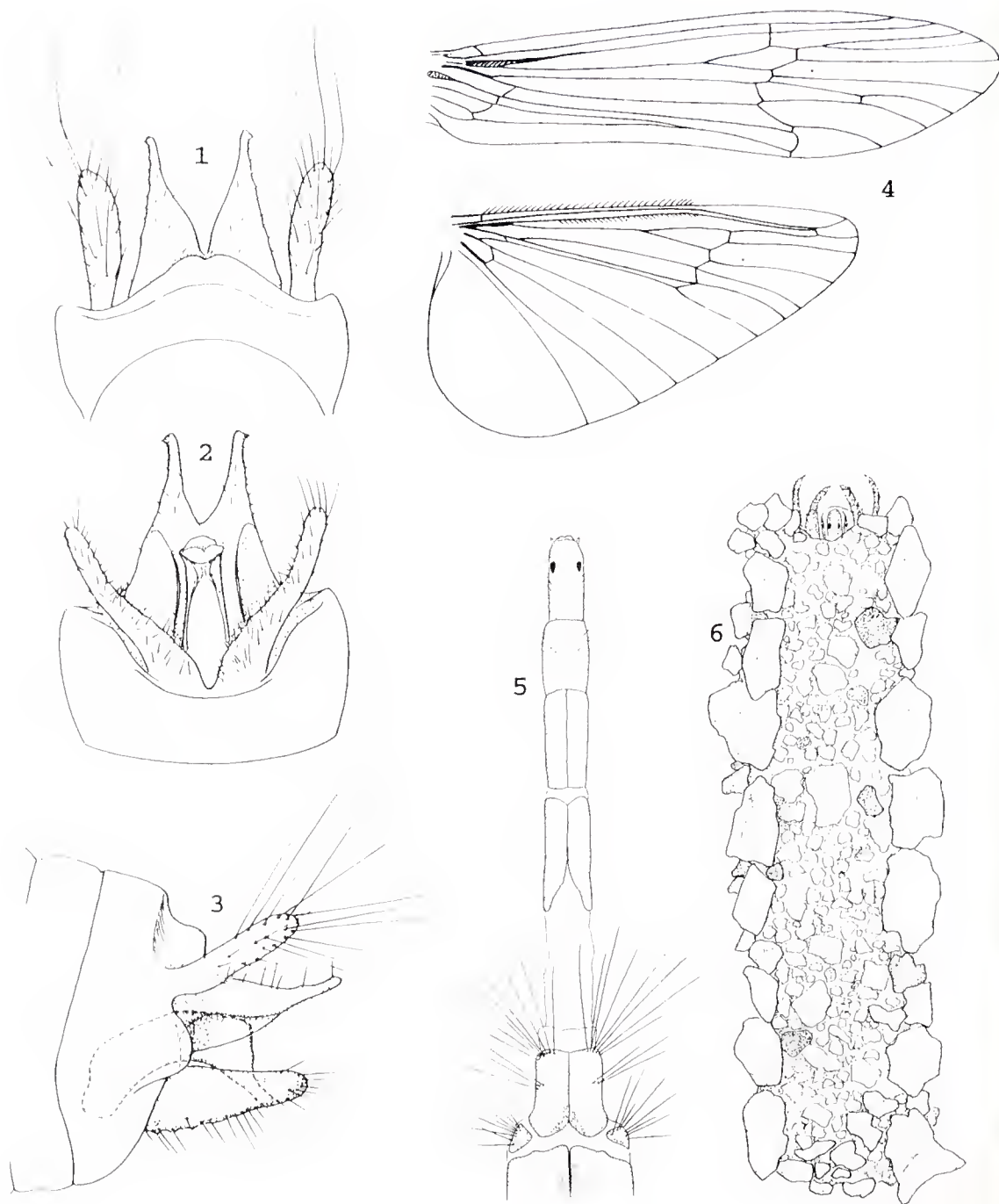
Figures 1–4

*Material examined.* Holotype male, North Queensland, Upper Mulgrave river via Gordonvale, 17°10'S, 145°53'E (Wet Tropics Investigation area 5), 29–30.iv.1970, S.R. Curtis, ANIC (genital prep. PT-2010, illustrated).

Paratype male, North Queensland, Yuccabine Creek, Kirrama State Forest, 18°12'S 145°54'E (Wet Tropics Investigation area 9), xii.1985, R. Pearson & L. Benson, NMV T17263 (genital prep. PT-1588).

*Diagnosis.* Forewing length 15.2–15.4 mm, slightly larger than *A. dubius*. Forewing fork 1 with footstalk short; cross-vein r-m at about distal third of discoidal cell; a small cross-vein between M1+2 and M3+4 about halfway between areolus and wing margin; male genitalia with single-segmented inferior appendages.

*Description.* Male. Wings (Fig. 4) fuscous without mottling (both specimens preserved in alcohol and faded, paratype male slightly teneral). Forewing fork 1 with short footstalk, fork 2 long, broadly sessile; an unusual cross-vein between M1+2 and M3+4 halfway between areolus and wing margin; hind wing Sc joins R1 shortly before wing margin, and at this point small cross-vein connects to R2+3; discoidal cell elongate triangular. Antennae slender, scape short, distinctly bulbous; segment 2 very short, slightly thicker than segment 3, subsequent segments long and slender. Maxillary palpi 5-segmented, first three segments more robust than distal segments, elongate; segments 4 and 5 distinctly thinner.



Figures 1-4. *Atriplectides ikmaleus* sp. nov. 1-3, male genitalia, dorsal, ventral and lateral views; 4, wing venation.

Figures 5, 6. *Atriplectides* sp. (presumably *ikmaleus*). 5, head and thorax, dorsal view; 6, larval case, dorsal view.

Genitalia (Figs 1–3). Abdominal segment IX short, lateral margins slightly lobose; segment X with a deep V-shaped cleavage separating rather slender, triangular, distally tapered lobes. Superior appendages slightly shorter than segment X, stout, rounded distally. Inferior appendages single-segmented, slightly compressed laterally, divergent distally, shorter than segment X. Phallus short, truncate, apically a distinct lip.

Female. Unknown.

*Etymology.* Latinised from *ikmaleos*, Greek — damp, wet — in reference to the wet tropical environment of the North Queensland World Heritage Area

*Remarks.* *Atriplectides ikmaleus* adults are known from only the two North Queensland localities, 150 km apart. The new species is distinguished from *A. dubius* by being larger (forewing 15.2–15.4 versus 12–14 mm), wing venation and the single-segmented inferior appendages of the male genitalia.

Two larval specimens are assigned to this species, collected from the same general area as the paratype (Yuecabine Creek, Kirrama State Forest, x.1983, R. Pearson & L. Benson, NMV). They are figured and keyed out as 'Species AV1' in the 'Preliminary keys ..... Atriplectididae, etc.' by John Dean (in litt.). The sand-grain case (Fig. 6) is broad, dorsoventrally flattened with larger ballast particles attached along the lateral margins. The larva (Fig. 5) is distinguished from that of *A. dubius* (Neboiss, 1978) by the presence of five sclerites on the anterior half of the pronotum; and the hind tarsal claw less than half the length of the tarsus. The number and position of the gills resemble the arrangement in an unidentified Brazilian atriplectidid larva described and figured by Holzenthal (1997) as does also the curiously elongate arrangement of the pronotum, strengthened by additional sclerites. A similar prothoracic arrangement was described by Marlier (1978: 43) in an ondontocerid larva, *Hughscottiella auricapilla* Ulmer, from the Seychelles. This larva differs, however, in having strongly enlarged midlegs and its species was transferred to Atriplectididae by Neboiss (1978: 67).

The Atriplectididae were recently recorded from the Neotropics for the first time by Holzenthal (1997) who erected a new genus, *Neotriplectides*, for a species from Peru, Bolivia and Ecuador (*N. froehlichii* Holzenthal). *Neotriplectides* is characterised by the single-segmented inferior appendages of the male, a feature also seen in the new Australian species. However, the wing venation of the Australian species differs from that of the Neotropical genus.

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