

## RAPID PUBLICATION NOTE

FIRST RECORDS OF *PROSOPISTOMA SEDLACEKI* IN AUSTRALIA  
(EPHEMEROPTERA: PROSOPISTOMATIDAE)

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Five nymphs of a mayfly tentatively identified as *Prosopistoma sedlaceki* (Peters) have been collected from four north Queensland rivers. These are the first records in Australia of the widely distributed but little-known family, the Prosopistomatidae.

The Prosopistomatidae is a little-known family of mayflies that has been recorded from Europe, Africa, Asia, the Sunda region, New Guinea and the Solomon Islands (Gillies 1954; Peters 1967). This note records its discovery in north Queensland.

During a recent biological survey of north Queensland streams five nymphs of *Prosopistoma* were collected as follows: South Mossman River (16° 27'S 145° 23'E), May 19, 1976, one specimen. River ca 15 m wide, 1-2 m deep, with coarse sand and "rubble" substrate; North Johnstone River (17° 32'S 145° 58'E), June 20, 1976, two specimens. River ca 200 m wide, 1 m deep, with rock and rubble substrate; South Johnstone River (17° 35'S 146° 02'E), September 30, 1976, one specimen. River tidal but non-saline, ca 70 m wide, 1-4 m deep, with mud and sand substrate; Herbert River (18° 37'S 146° 11'E), June 1, 1976 one specimen. Just upstream of tidal zone; width of river ca 80 m, 0-3 m deep, with rock, rubble and sand substrate.

The five specimens captured ranged from 1.5 to 4.3 mm in total length; the largest specimen was probably a last-stage nymph. This large nymph closely resembles that of *Prosopistoma sedlaceki* (Peters 1967) and is provisionally assigned to this species.

These four rivers are subject to large seasonal fluctuations in flow, but all were sampled during the dry season. With the exception of the South Johnstone River, all sites had substrates similar to those inhabited by larval prosopistomatids elsewhere (Peters 1967). Other rivers sampled in north Queensland had different substrates, and produced no prosopistomatids. Several sampling methods were employed during the survey, but *Prosopistoma* was collected only by drift nets with a maximum mesh size of 0.45 mm (see Elliott 1970). The fact that kick-sampling and close examination of rubble at all sites produced no prosopistomatids suggests that the larvae inhabit inaccessible areas, perhaps under large rocks, or boulders in rapidly flowing or deep water.

The Prosopistomatidae is a small family and adults are known of only a few species. With their range from Europe and Africa through the Old World tropics to the Solomons, it is not surprising that a species closely allied to *P. sedlaceki* has been found in north Queensland. Indeed, it seems likely that the range of *Prosopistoma* in Australia is wider than we have recorded, particularly to the north of Mossman.

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**References**

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