



## FAMILY PHILOPOTAMIDAE

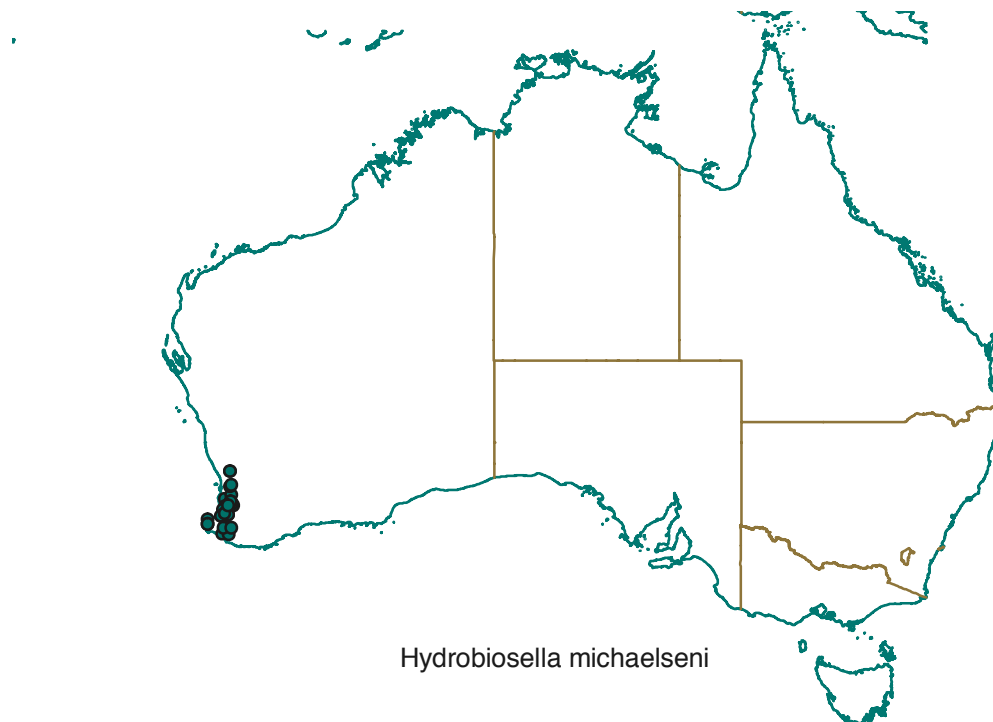
### Habitat profile for *Hydrobiosella michaelsoni* (Ulmer)

*Hydrobiosella michaelsoni* (Ulmer) was recorded from 24 Western Australian samples in this study. This species is endemic to the south west of Western Australia (Sutcliffe 2003).

Generally *H. michaelsoni* was recorded in riffle samples from streams at low altitudes between 45-256 m (Chart a), a short distance from the source at <52 km (Chart b), with predominantly medium sized substrates of pebbles, cobbles and gravel (Chart c) with >20% detritus. The streams had low alkalinity between 5-45 mg/L (Chart d) and low to moderate conductivity mainly <700  $\mu$ S/cm (Chart e).

The following generalities can be made about the other parameters listed in the Table: cool to moderate recorded water temperatures between 8.2-15.7°C, circum-neutral pH in the range of 5.5-7.6, and very low turbidity (<8 NTU).

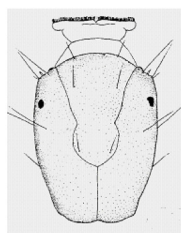
Mean, median and range for selected physical and chemical parameters and habitat categories are given in Table 1.



Distribution of *Hydrobiosella michaelsoni* in Australia

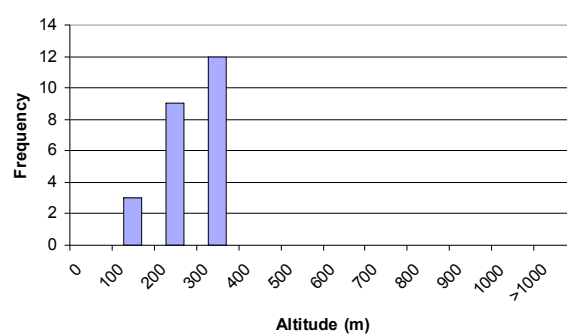


## Dorsal view of head of *Hydrobiosella michaelsoni* larva

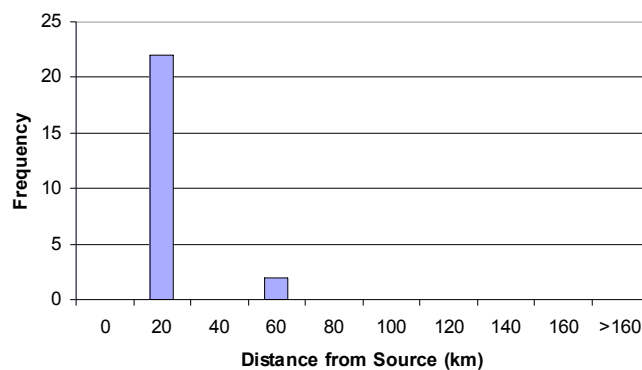


## Charts for *Hydrobiosella michaelsoni*

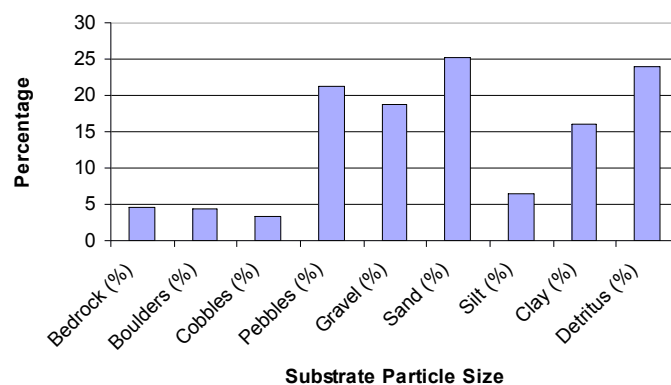
### a) Altitude



### b) Distance from source

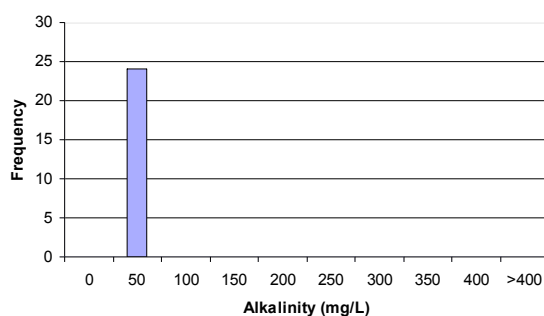


### c) Substrate Particle Size

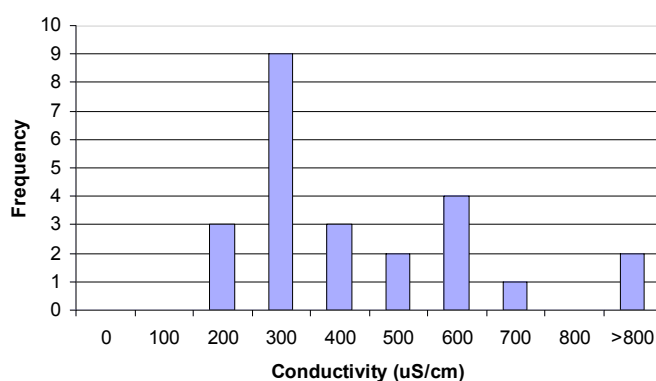




d) Alkalinity



e) Conductivity



**Table.** Mean, median and range for selected physical and chemical parameters and habitat categories for *H. michaelsoni* (N= number of records).

	Mean	Median	Range	N
Altitude (m)	189	201	45-256	24
Distance from source (km)	11.7	7	3-52	24
Stream width (m)				
Stream depth (m)				
Water temperature (°C)	11.8	11.4	8.2-15.7	24
Conductivity (µS/cm)	395.2	304	148-1153	24
pH	6.7	6.8	5.5-7.6	24
Alkalinity (mg/L)	14	11.5	5-45	24
Turbidity (NTU)	1.9	1.1	0.4-8.0	23
Total N (mg/L)	0.207	0.150	0.080-0.550	24
NO <sub>3</sub> -N (mg/L)	0.042	0.030	0.010-0.150	24
Total P (mg/L)	0.007	0.005	0.005-0.030	24

References

Sutcliffe K (2003) The conservation status of aquatic insects in south-western Australia. Doctor of Philosophy thesis, Murdoch University.