



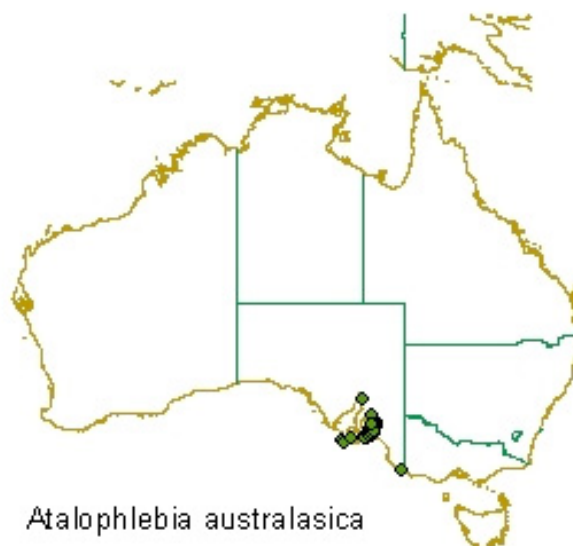
## Family Leptophlebiidae Habitat Profile for *Atalophlebia australasica* Tillyard

*Atalophlebia australasica* was recorded from 135 South Australian localities in this study. Previously, Campbell (1988) listed this species from NSW, Vic and SA, including lotic freshwater habitats but the taxonomy of this genus has improved greatly since 1988 (Dean 1999) and this may explain the differences in the recorded distributions.

In this study, *A. australasica* was generally recorded in edge habitat samples from streams <345 m altitude (Chart a), between 4-62 km from the source (Chart b), with predominantly finer substrates of silt, sand and clay and with low to moderate detritus cover (Chart c). Streams were between 2-15 m wide (Chart d), moderate to high alkalinity ranging between 95-410 mg/L (Chart e) and medium to very high conductivity ranging from 300-9000  $\mu\text{S}/\text{cm}$  (Chart f).

The following generalities can be made about the other parameters listed in the Table: recorded water temperature between 12-20.5 °C, pH mostly in slightly alkaline range of 7.2-8.5 and very low turbidity of 1.6-30 NTU.

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



Distribution of *Atalophlebia australasica* in Australia.

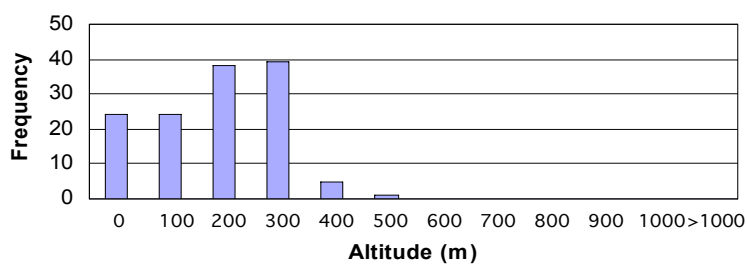


*Atalophlebia australasica*, nymph and typical habitat

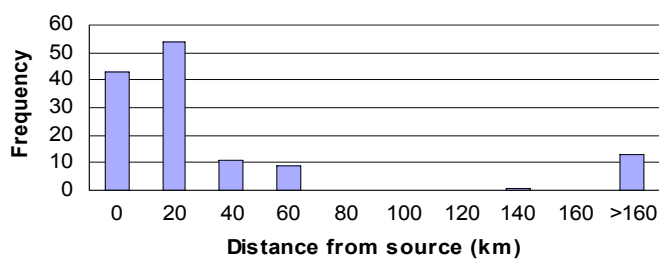


Charts for *Atalophlebia australasica*

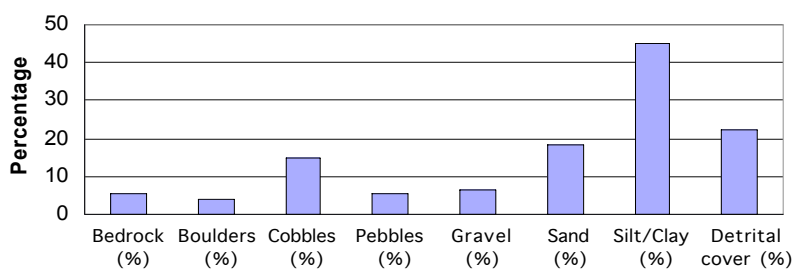
a) Altitude



b) Distance from source

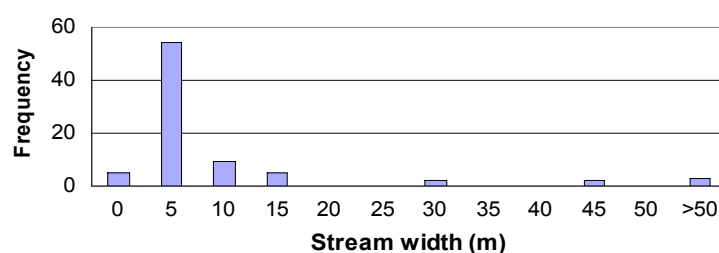


c) Substrate Particle Size

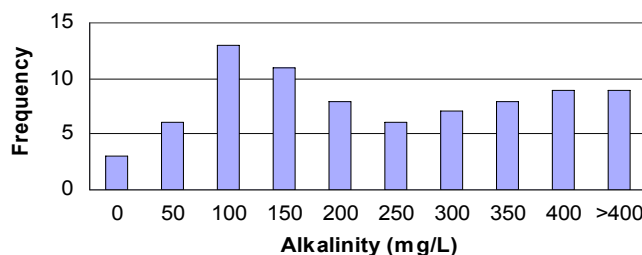




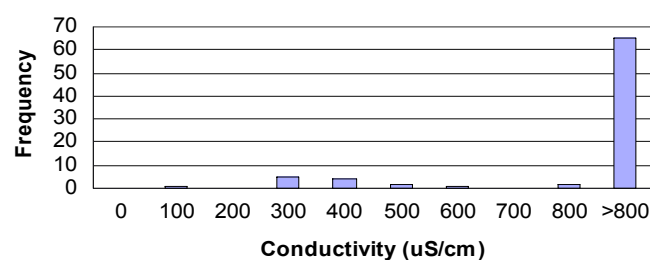
d) Stream Width



e) Alkalinity



f) Conductivity



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

|                           | Mean  | Median | Range      | N   |
|---------------------------|-------|--------|------------|-----|
| Altitude (m)              | 185   | 185    | 5-525      | 131 |
| Distance from source (km) | 137   | 14     | 2-1976     | 131 |
| Stream width (m)          | 9.8   | 5.1    | 1.8-85     | 80  |
| Stream depth (m)          | 0.16  | 0.15   | 0.1-0.35   | 80  |
| Water temperature         | 15.7  | 15.4   | 11.4-22.4  | 80  |
| Conductivity (uS/cm)      | 4757  | 3188   | 137-35250  | 80  |
| pH                        | 7.9   | 8.0    | 6.8-9.2    | 80  |
| Turbidity (NTU)           | 30    | 7.2    | 0.6-660    | 79  |
| NO <sub>3</sub> -N (mg/L) | 0.089 | 0.011  | 0.0025-1.8 | 80  |
| Total N (mg/L)            | 1.23  | 0.75   | 0.135-11.4 | 79  |
| Total P (mg/L)            | 0.133 | 0.042  | 0.009-1.75 | 79  |
| Alkalinity (mg/L)         | 236   | 220    | 17-590     | 80  |



## References

Campbell IC (1988) Ephemeroptera. In 'Zoological Catalogue of Australia' pp. 1-22.  
(Bureau of Flora and Fauna: Burwood)

Dean JC (1999) 'Preliminary key to the Australian mayfly nymphs of the family Leptophlebiidae. Identification guide No. 20.' (Cooperative Research Centre for Freshwater Ecology: Albury)