



Family Libellulidae

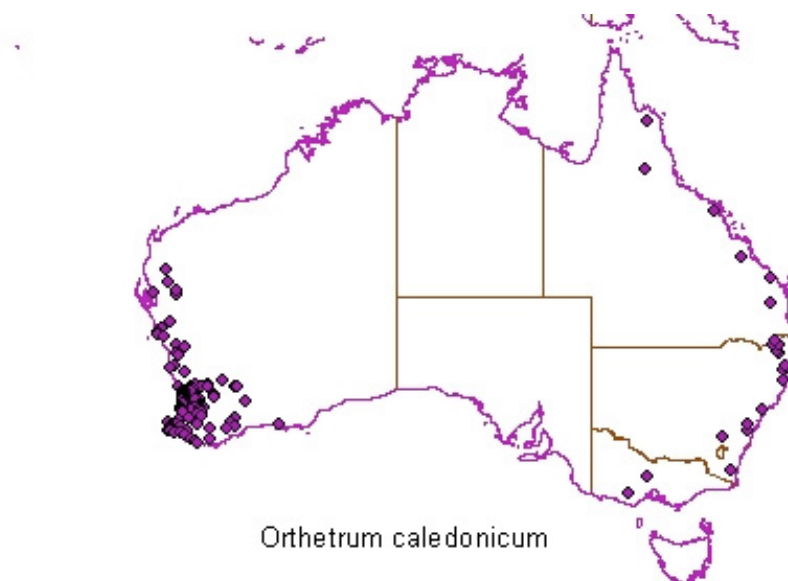
Habitat Profile for *Orthetrum caledonicum* (Brauer)

Orthetrum caledonicum (Brauer) is a widespread species found Australia-wide but not including Tasmania (Houston and Watson 1988; Watson *et al.* 1991). They were recorded from 130 samples from coastal north east Queensland to Victoria and in the south-west of Western Australia up to the Pilbara in this study.

Orthetrum caledonicum was generally found in edge and channel habitats in lowland streams generally below altitudes of 100m (Chart a), but <80km from the stream source (Chart b) with substrate dominated by sand and silt with >15% detrital cover (Chart c). The streams were generally <0.3m deep (Chart e) and <10m wide (Chart d) with low alkalinity generally <200mg/L (Chart f) and with very high conductivity ranging from 80 to 30000 $\mu\text{S}/\text{cm}$ (Chart g).

The following generalities can be made about the other parameters listed in the Table: water temperature between 8.2-35.4 °C, pH was alkaline in the range of 5.8-9.3 and low to moderate turbidity (0.2-89 NTU).

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



Distribution of *Orthetrum caledonicum* in Australia.

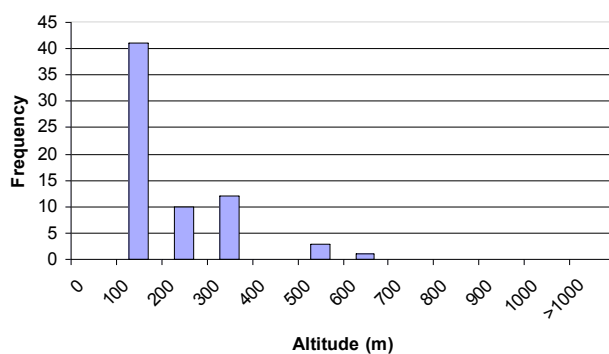


Orthetrum caledonicum, nymph and typical habitat

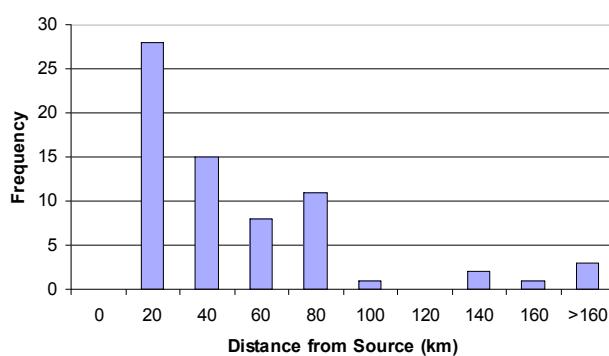


Charts for *Orthetrum caledonicum*

a) Altitude

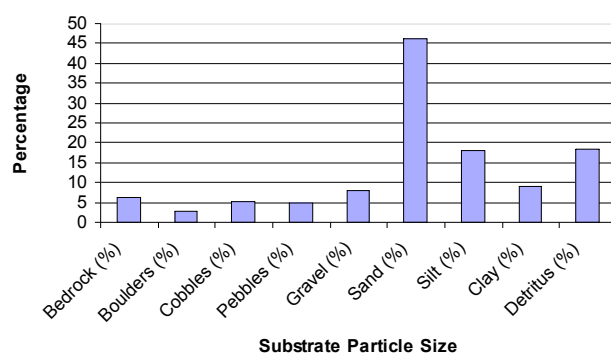


b) Distance from source

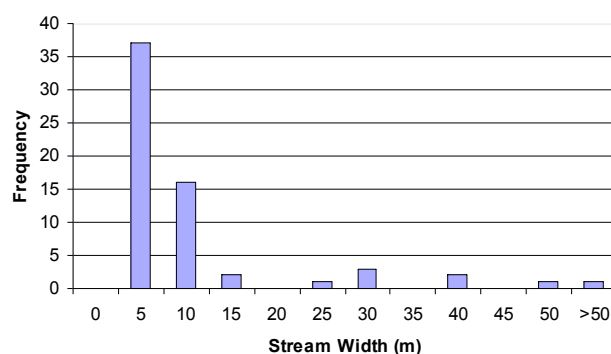




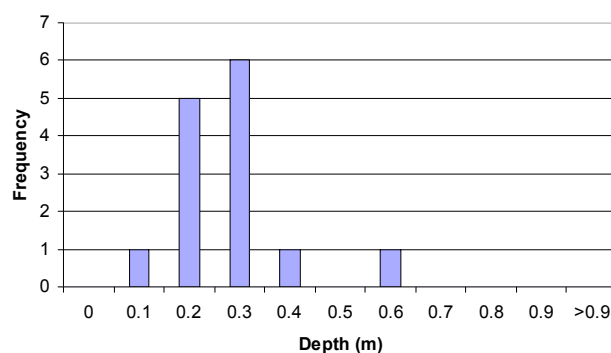
c) Substrate Particle Size



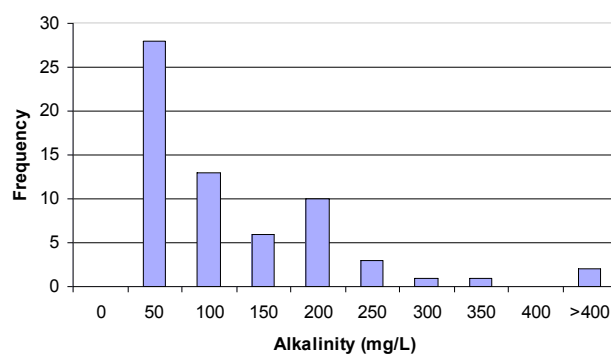
d) Stream Width



e) Depth



f) Alkalinity





g) Conductivity

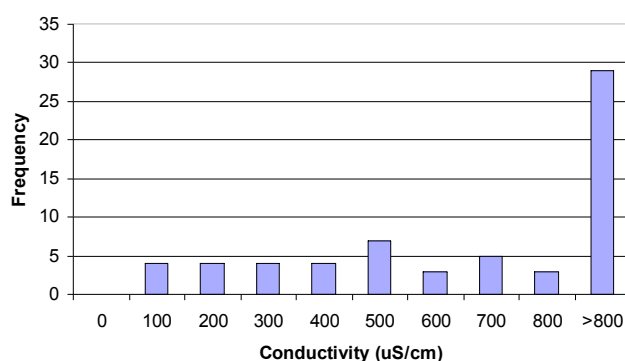


Table. Mean, median and range for selected physical and chemical parameters and habitat categories for *Orthetrum caledonicum* (N= number of records).

	Mean	Median	Range	N
Altitude (m)	119	60	5-550	67
Distance from source (km)	43.3	33.4	2.8-223.3	69
Width (m)	9.4	5.0	0.4-80	63
Depth (m)	0.26	0.25	0.1-0.6	14
Water temperature (°C)	18.9	18.1	8.2-35.4	64
Conductivity (µS/cm)	3752	757	80-30200	63
pH	7.6	7.8	5.8-9.3	65
Turbidity (NTU)	8.9	4.6	0.2-89	64
Oxidised Nitrogen (mg/L)	0.158	0.025	0.010-1.010	56
Total N (mg/L)	0.969	0.810	0.030-3.200	58
Total P (mg/L)	0.049	0.020	0.005-0.510	64
Alkalinity (mg/L)	102.4	65.5	11.5-550	64

References

Houston WWK, Watson JAL (1988) Odonata. In 'Zoological Catalogue of Australia'. (Eds DW Walton and WWK Houston) pp. 33-132. (Australian Government Publishing Service: Canberra)

Watson JAL, Theischinger G, Abbey HM (1991) 'The Australian Dragonflies. A guide to the identification, distributions and habitats of Australian Odonata.' (CSIRO: Canberra and Melbourne)