



## Family Coenagrionidae

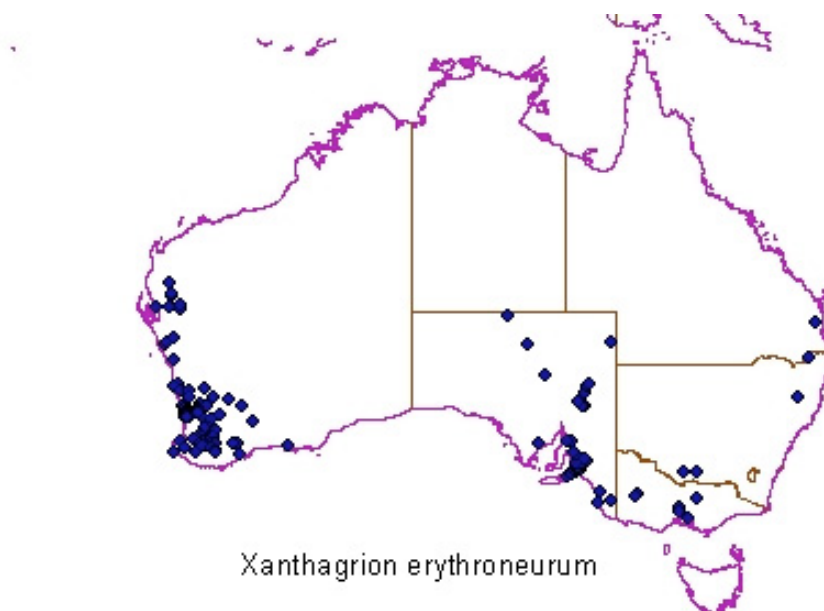
### Habitat Profile for *Xanthagrion erythroneurum* (Selys)

*Xanthagrion erythroneurum* (Selys) is the only known species in this genus in Australia (Watson *et al.* 1991) and is widespread in all states and territories in Australia. (Houston and Watson 1988; Watson *et al.* 1991). In this study they were recorded from 116 samples from the southern half of the Australian mainland in Queensland, New South Wales, Victoria, South Australia and in Western Australia.

*Xanthagrion erythroneurum* was generally found in edge, sweeps and macrophyte habitats in lowland streams and pools generally below altitudes of 300m (Chart a), and over a wide range of distances from the stream source, but generally >80km from the source (Chart b) with substrate dominated by sand, silt and clay with <20% detrital cover (Chart c). The streams were generally <10m wide (Chart d) with moderate alkalinity generally <350mg/L (Chart e) and with high to very high conductivity > 800  $\mu$ S/cm (Chart f).

The following generalities can be made about the other parameters listed in the Table: water temperature between 8.5-23.3 °C, pH was alkaline in the range of 6.5-8.8 and low to moderate turbidity (0.9-120 NTU).

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



Distribution of *Xanthagrion erythroneurum* in Australia.

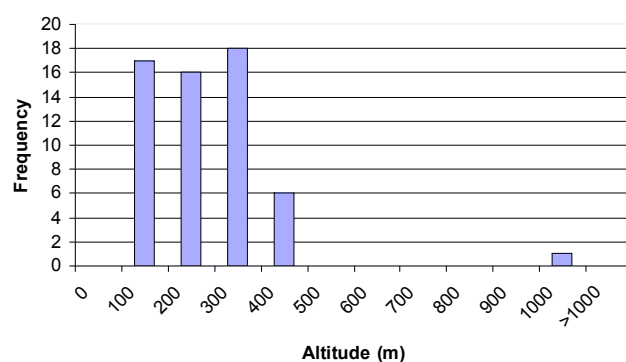


*Xanthagrion erythroneurum*, nymph and typical habitat

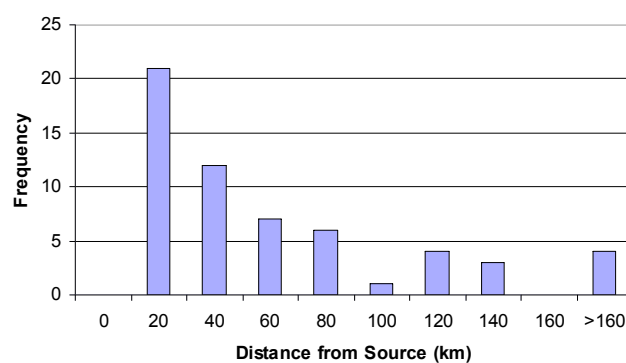


Charts for *Xanthagrion erythroneurum*

a) Altitude

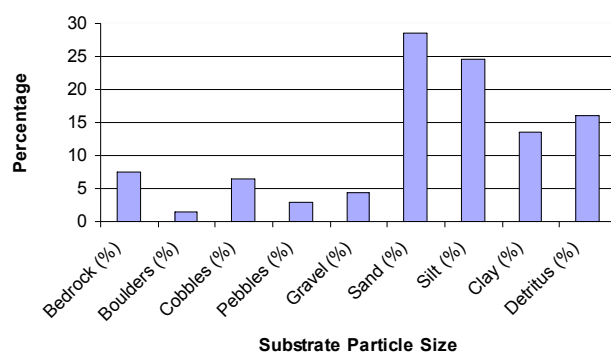


b) Distance from source

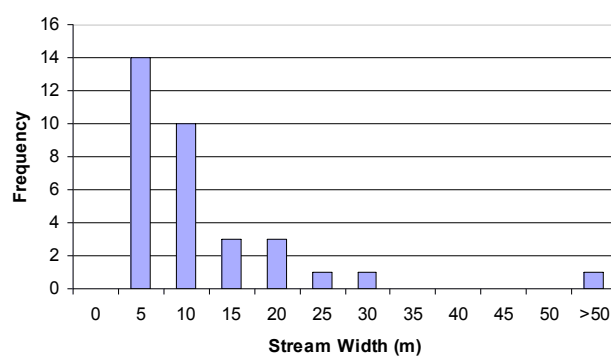




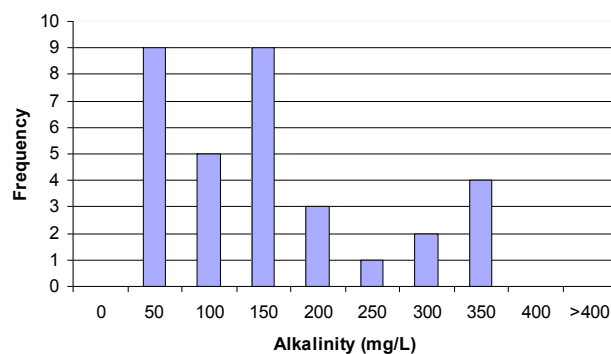
c) Substrate Particle Size



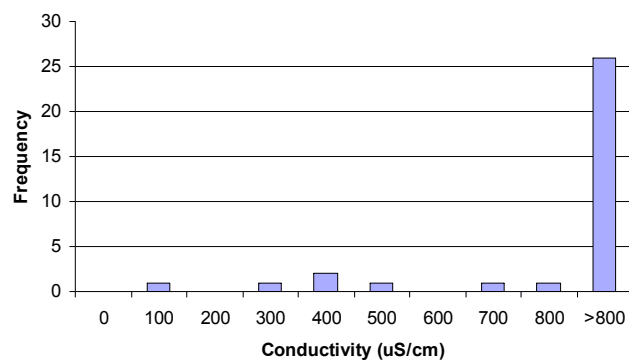
d) Stream Width



e) Alkalinity



f) Conductivity





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

	Mean	Median	Range	N
Altitude (m)	189	160	5-990	58
Distance from source (km)	52.5	39.0	1.3-213.3	58
Width (m)	16.9	6.0	1.0-290	33
Depth (m)				
Water temperature (°C)	15.0	14.8	8.5-23.3	33
Conductivity (µS/cm)	5314	2370	68-19300	33
pH	7.7	7.8	6.5-8.8.6	32
Turbidity (NTU)	10.9	4.2	0.9-120	32
Oxidised Nitrogen (mg/L)	0.337	0.013	0.005-3.498	33
Total N (mg/L)	1.328	1.075	0.135-5.600	32
Total P (mg/L)	0.112	0.03	0.006-1.800	33
Alkalinity (mg/L)	131	120	11-342	33

## 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)