



## Family Gomphidae

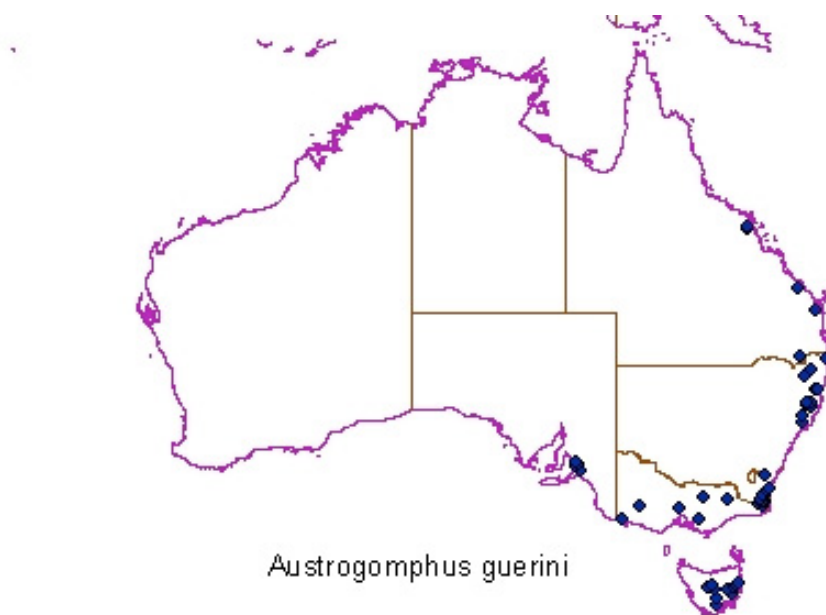
### Habitat Profile for *Austrogomphus guerini* (Rambur)

*Austrogomphus guerini* (Rambur) is a widespread species found in the eastern states of Australia including Tasmania and South Australia (Theischinger 2000; Watson *et al.* 1991). They were recorded from 58 samples from north east Queensland to Tasmania and South Australia in this study.

*Austromphus guerini* was generally found in edge and sweep habitats on the side of lowland streams generally below altitudes of 300m (Chart a), but <60km from the stream source (Chart b) with substrate dominated by gravel and sand with <15% detrital cover (Chart c). The streams were generally <0.3m deep (Chart e) and <20m wide (Chart d) with low alkalinity generally <50mg/L (Chart f) and with high conductivity ranging from 3 to 3200  $\mu\text{S}/\text{cm}$  (Chart g).

The following generalities can be made about the other parameters listed in the Table: water temperature between 8-27.8 °C, pH was in range of 6.1-8.8 and low to high turbidity (0.2-369 NTU).

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



Distribution of *Austrogomphus guerini* in Australia.

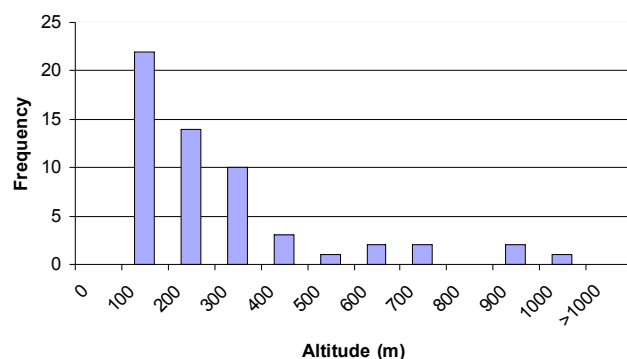


*Austrogomphus guerini*, nymph and typical habitat

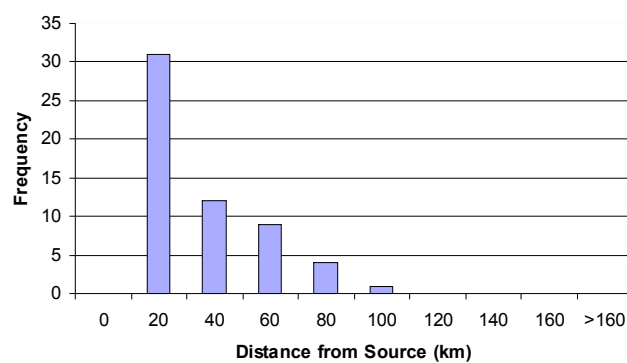


Charts for *Austrogomphus guerini*

a) Altitude

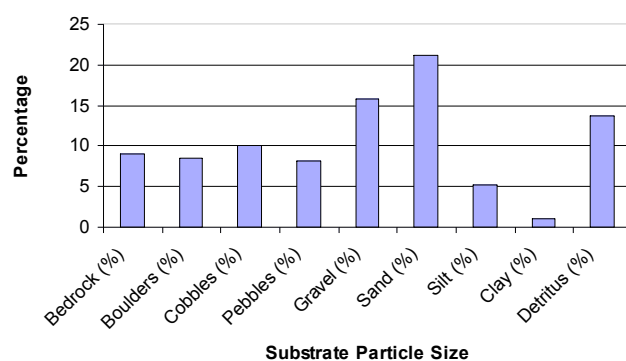


b) Distance from source

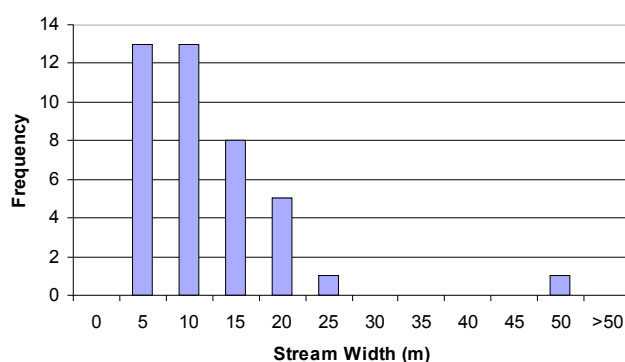




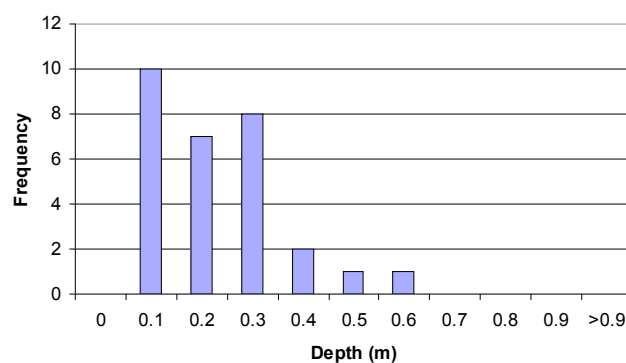
c) Substrate Particle Size



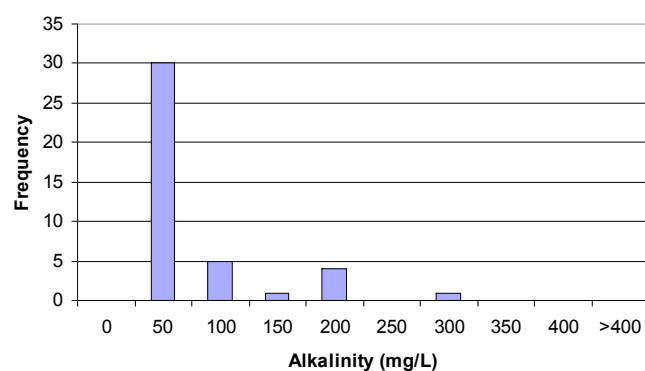
d) Stream Width



e) Depth

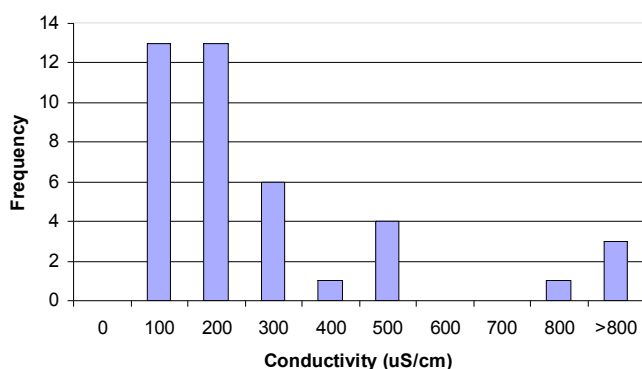


f) Alkalinity





g) Conductivity



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

	Mean	Median	Range	N
Altitude (m)	216	150	5-1000	57
Distance from source (km)	25.3	17.0	1.1-85	57
Width (m)	10.7	10.0	1.9-50	41
Depth (m)	0.21	0.20	0.01-0.60	29
Water temperature (°C)	16.6	15.9	8-27.8	41
Conductivity (µS/cm)	337	159	3-3230	41
pH	7.4	7.4	6.1-8.8	40
Turbidity (NTU)	14.9	2.4	0.2-369	35
Oxidised Nitrogen (mg/L)	0.055	0.010	0.002-0.320	33
Total N (mg/L)	0.565	0.300	0.100-2.86	23
Total P (mg/L)	0.024	0.012	0.002-0.209	38
Alkalinity (mg/L)	55.2	37.0	7-280	41

References

Theischinger G (2000) 'Preliminary key for the identification of larvae of the Australian Gomphidae.' (Cooperative Research Centre for Freshwater Ecology: Albury)

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)