



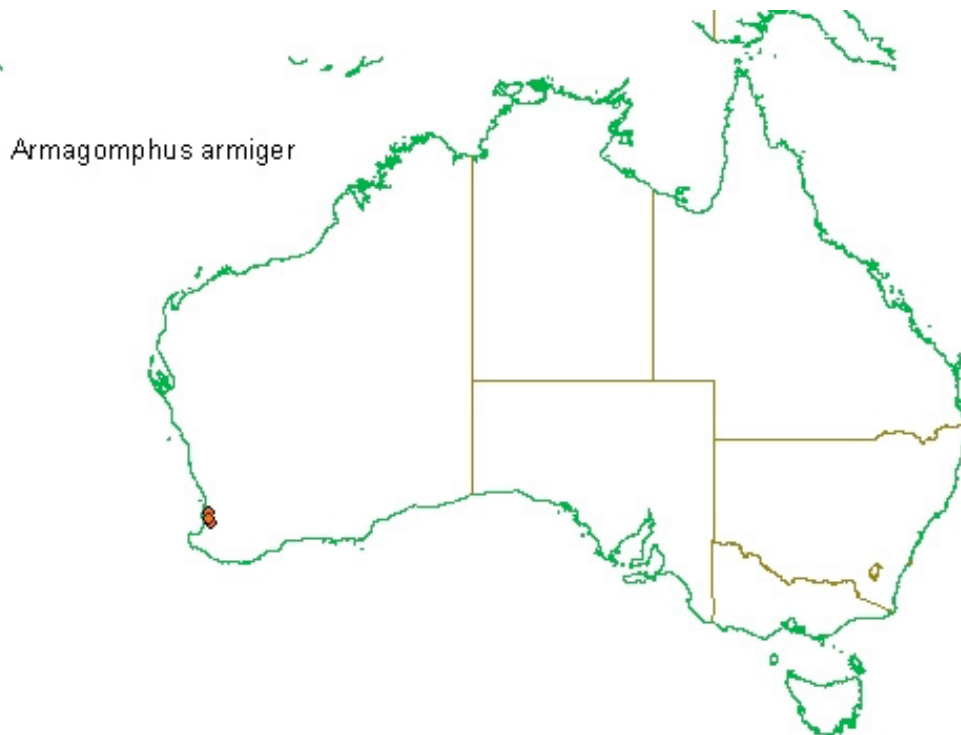
Family Gomphidae

Habitat Profile for *Armagomphus armiger* (Tillyard)

Armagomphus armiger (Tillyard) is a regionally endemic species of dragonfly from south west Western Australia ((Theischinger 2001; Trayler *et al.* 1996). Theischinger (2001) recorded that this species inhabits rapid flowing streams. In this study they were found in rapidly flowing permanent streams but from only 3 locations. Generally they were in lowland forested streams in rainfall above 1000mm (Chart a) (Sutcliffe 2003), and close to the stream source (Chart b) with substrate dominated by sand and silt with >15% detrital cover (Chart c). The streams were <5m wide (Chart d) with pH slightly acid, turbidity and alkalinity (Chart e) were low and conductivity was less than 330 μ S/cm (Chart f).

The following generalities can be made about the other parameters listed in the Table: relatively low temperature (11-14.6 °C), pH was in range of 6.3-7.1 and very low turbidity (<2 NTU).

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



Distribution of *Armagomphus armiger* in Australia.

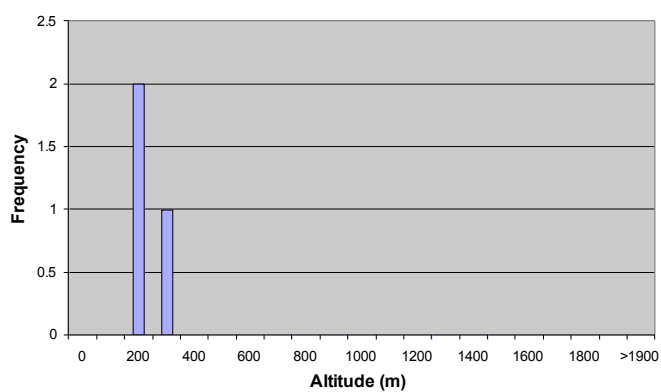


Armagomphus armiger, nymph

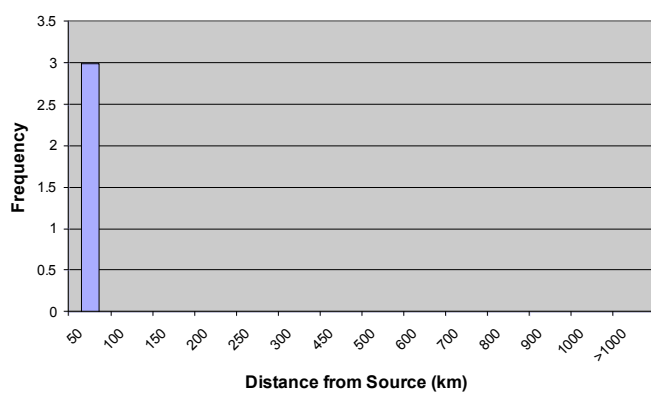


Charts of *Armagomphus armiger*

a) Altitude

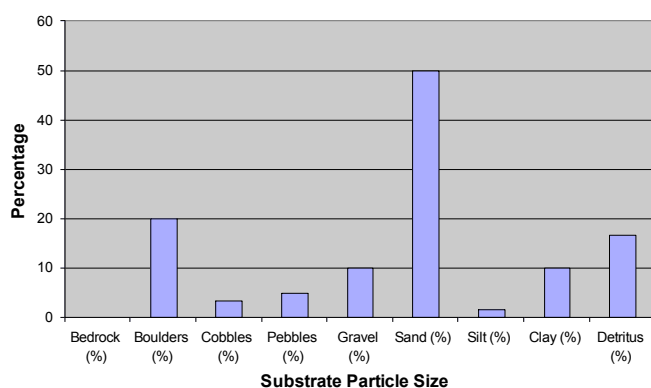


b) Distance from source

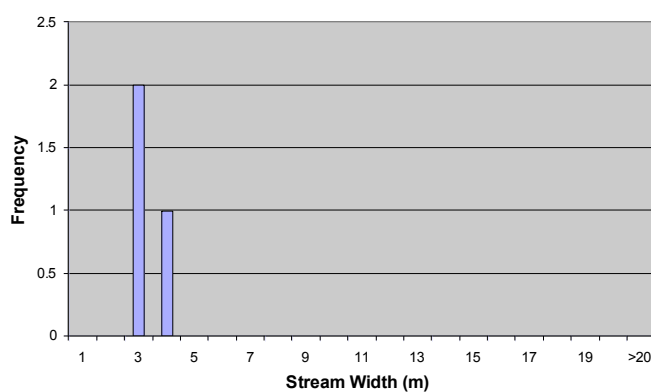




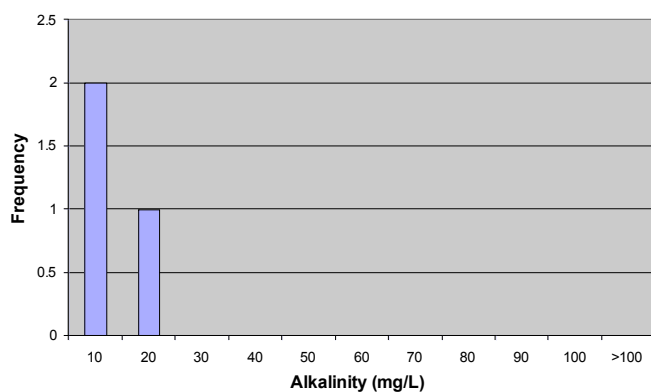
c) Substrate Particle Size



d) Stream Width



e) Alkalinity



f) Conductivity

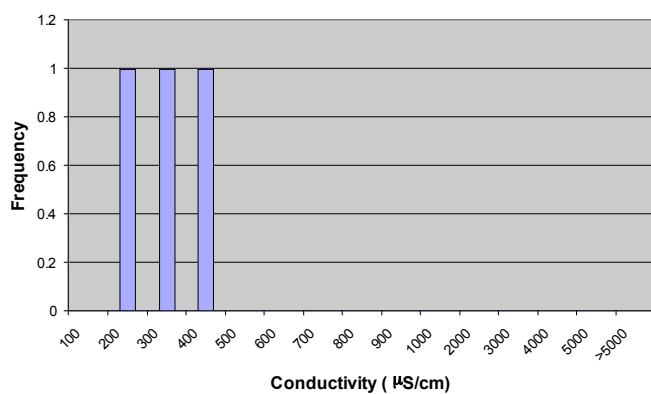




Table. Mean, median and range for selected physical and chemical parameters and habitat categories for *Armigomphus armiger* (N= number of records).

	Mean	Median	Range	N
Altitude (m)	202	200	161-245	3
Distance from source (km)	10.3	11	8-12	3
Width (m)	3.0	3.0	2.5-3.5	3
Depth (m)				
Water temperature (°C)	12.5	11.9	11-14.6	3
Conductivity (µS/cm)	231	202	165-326	3
pH	6.62	6.43	6.3-7.1	3
Turbidity (NTU)	1.3	1	1-2	3
Oxidised Nitrogen (mg/L)	0.030	0.030	0.020-0.030	3
Total N (mg/L)	0.13	0.13	0.09-0.17	3
Total P (mg/L)	0.007	0.005	0.005-0.010	3
Alkalinity (mg/L)	10.3	10	8-13	3

References

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

Theischinger G (2001) 'Preliminary keys for the identification of larvae of the Australian Synthemistidae, Gomphomacromiidae, Pseudocorduliidae, Macromiidae and Austrocorduliidae.' (Cooperative Research Centre for Freshwater Ecology: Albury)

Trayler KM, Davis JA, Horwitz P, D. M (1996) Aquatic fauna of the Warren bioregion, south-west Western Australia: Does reservation guarantee preservation? *Journal of the Royal Society of Western Australia* **79**, 281-291.