



Family Gripopterygidae

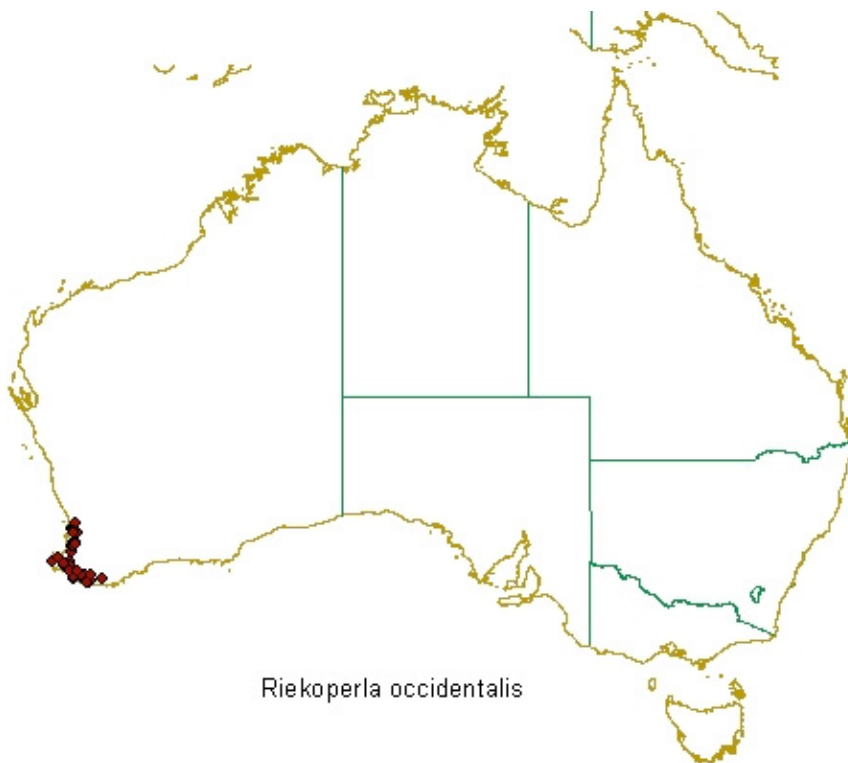
Habitat Profile for *Riekoperla occidentalis* Hynes and Bunn

Riekoperla occidentalis Hynes and Bunn is also an endemic stonefly from Western Australia. This species was recorded from 55 samples from south-west Western Australia. Hynes and Bunn (1984) recorded this species from Foster Brook, south of Perth, but Sutcliffe (2003) recorded the present extended distribution.

R. occidentalis was collected from main channel samples from streams that were at low altitude (<300m) (Chart a), within 20km from their source (Chart b) and with a substrate dominated by sand and with high (>25%) detrital cover (Chart c). The streams were usually <5m wide (Chart d) with low turbidity, low alkalinity (Chart e) and moderate conductivity (Chart f).

The following generalities can be made about the other parameters listed in the Table: relatively low temperature (7.9-19.1 °C), pH was acid, range 4.3-7.4 and turbidity was low (<20 NTU).

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

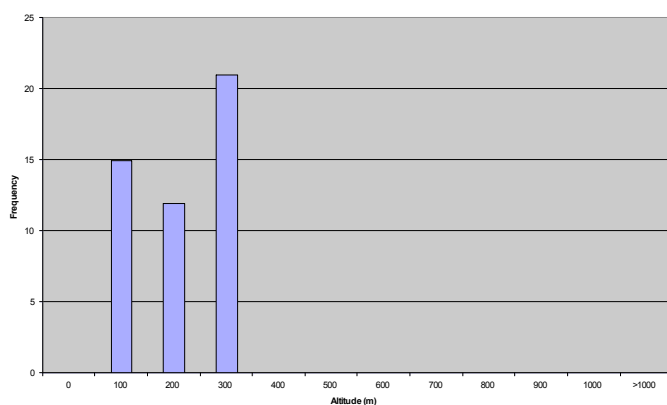


Distribution of *Riekoperla occidentalis* in Australia.

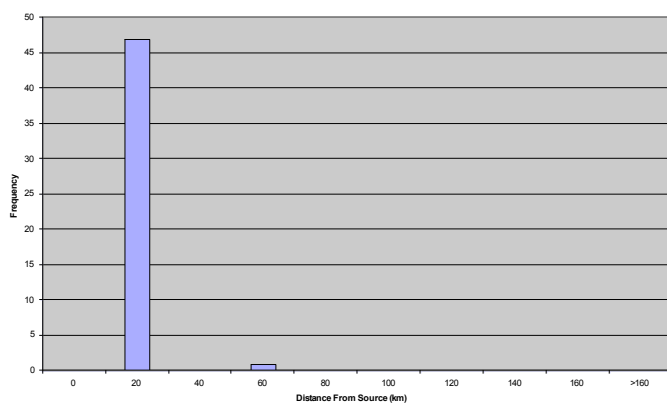


Charts for *Riekoperla naso*

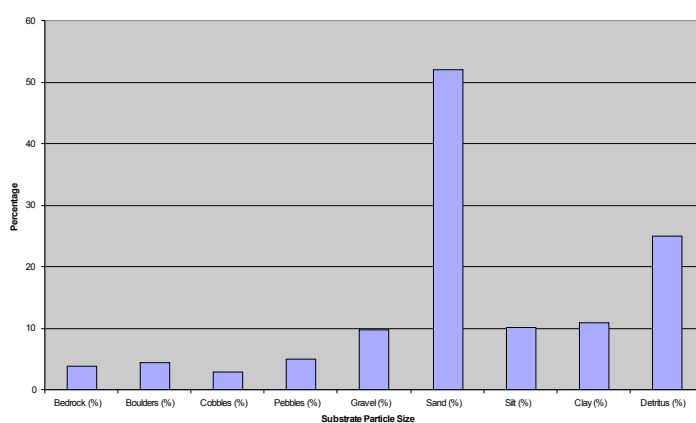
a) Altitude



b) Distance from source

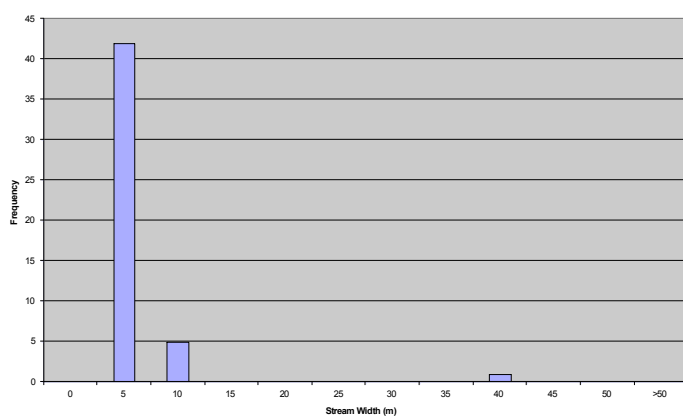


c) Substrate Particle Size

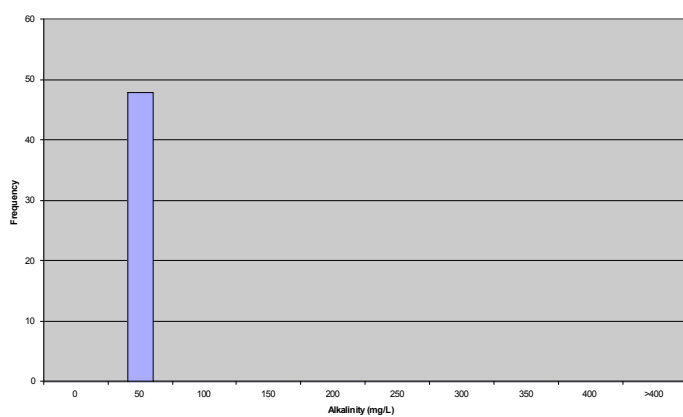




d) Stream Width



e) Alkalinity



f) Conductivity

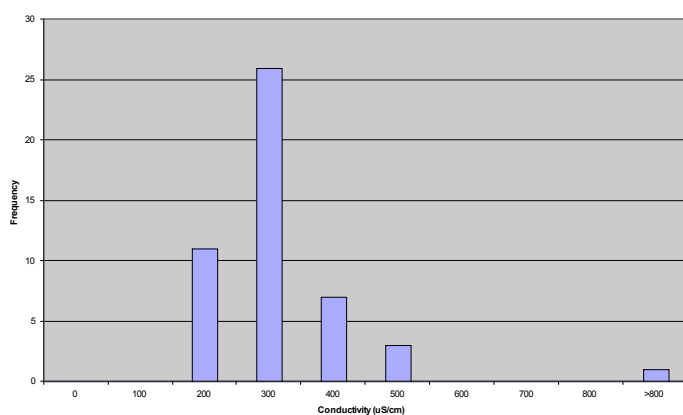




Table. Mean, median and range for selected physical and chemical parameters and habitat categories for *Riekoperla occidentalis* (N= number of records).

	Mean	Median	Range	N
Altitude (m)	155	190	6-300	48
Distance from source (km)	8.3	6	2-52	48
Width (m)	3.7	2.5	1-40	48
Depth (m)				
Water Temperature (°C)	12.2	12.2	7.9-19.1	48
Conductivity (µS/cm)	278	246	136-1351	48
pH	6.2	6.4	4.3-7.4	48
Turbidity (NTU)	2.0	1.0	0-20	48
NO ₃ -N (mg/L)	0.041	0.020	0.010-0.046	48
Total N (mg/L)	0.301	0.150	0.060-1.500	48
Total P (mg/L)	0.025	0.005	0.005-0.760	48
Alkalinity (mg/L)	10.1	9.0	1-30	48

References

Hynes HBN, Bunn SE (1984) The stoneflies (Plecoptera) of Western Australia. *Australian Journal of Zoology* **32**, 97-107.

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