



## FAMILY ECNOMIDAE

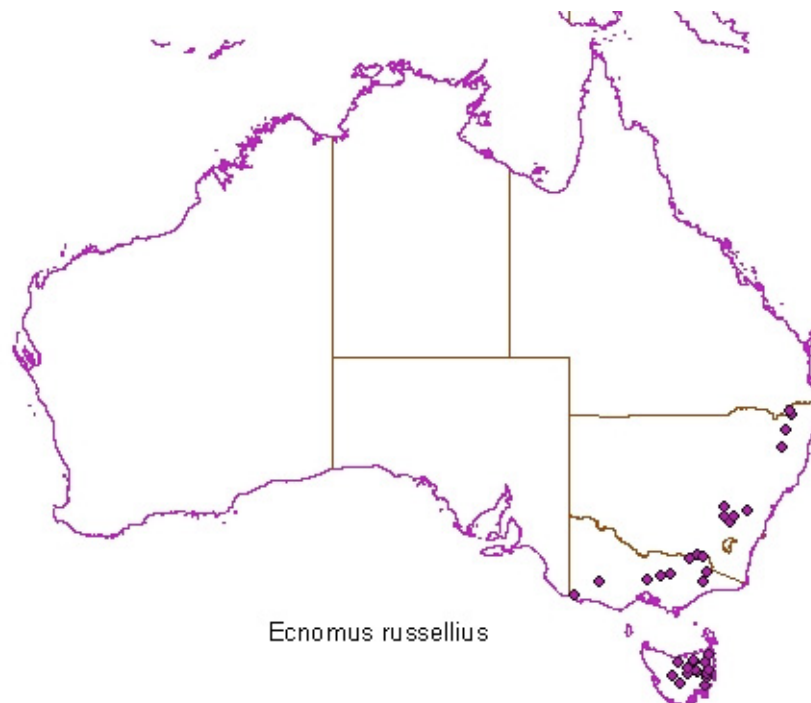
### Habitat profile for *Ecnomus russellius* Neboiss

*Ecnomus russellius* Neboiss was recorded from 49 Tasmanian, Victorian and New South Wales localities in this study. This is a widespread and common species, previously recorded from Tasmania, eastern Australia to south eastern Queensland (Cartwright 1990).

In this study, *E. russellius* was generally recorded in sweep and kick habitat samples from low to moderate altitude streams below 950 m (Chart a), <110 km from the source (Chart b), with predominantly cobbles, pebbles and gravel substrate with low (<5%) detritus cover (Chart c). Streams were mainly small to medium with width <33 m (Chart d), depth <0.4 m (Chart e), with low to high alkalinity <290 mg/L (Chart f) and moderate conductivity mostly below 800µS/cm (Chart g).

The following generalities can be made about the other parameters listed in the Table: moderate recorded water temperature ranged between 8.5-23 °C, circum-neutral pH mostly between 5.7-8.7, and low turbidity <15 NTU.

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



Distribution of *Ecnomus russellius* in Australia.

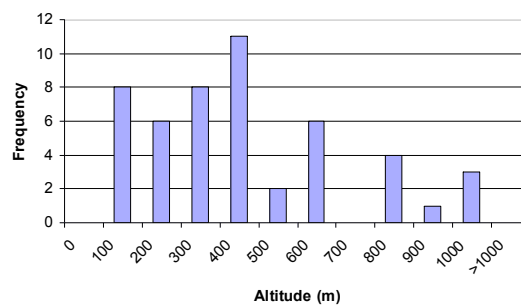


## Typical habitat of *Ecnomus russellius*

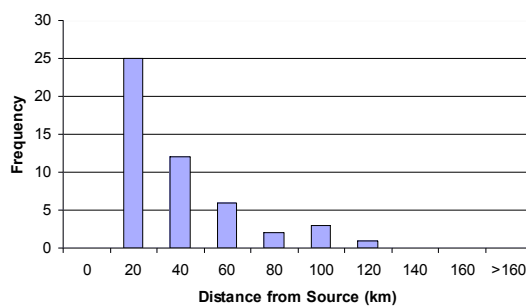


## Charts for *Ecnomus russellius*

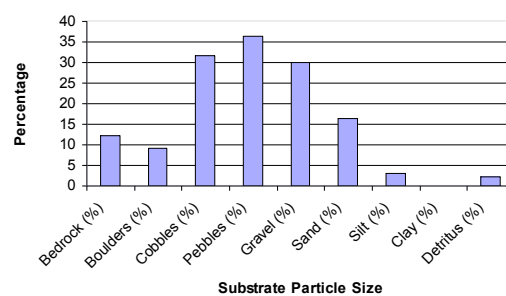
### a) Altitude



### b) Distance from source

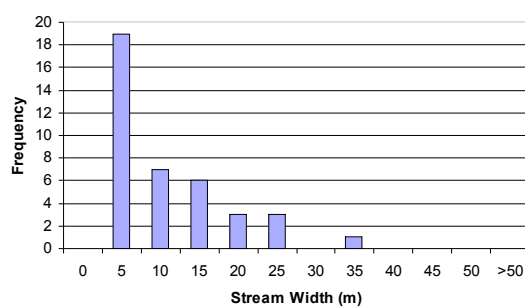


### c) Substrate Particle Size

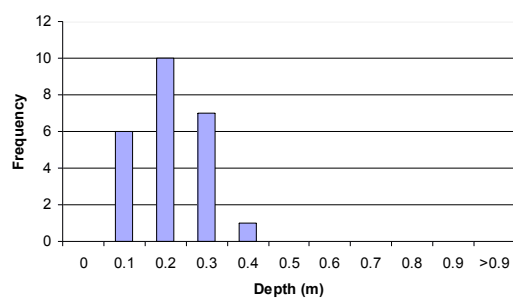




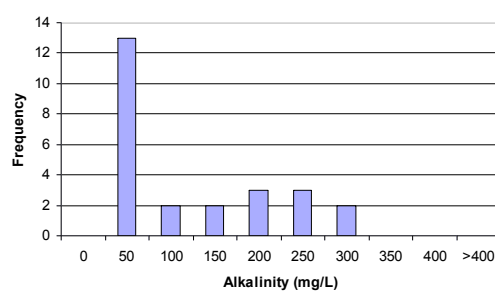
d) Stream Width



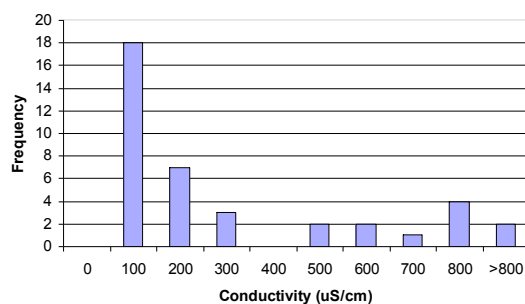
e) Depth



f) Alkalinity



g) Conductivity





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

	Mean	Median	Range	N
Altitude (m)	365	320	10-950	49
Distance from source (km)	31	19	4-110	49
Stream width (m)	8.7	6.3	1-33.3	39
Stream depth (m)	0.17	0.15	0.07-0.37	23
Water temperature (°C)	15.6	16.0	8.5-23	25
Conductivity (µS/cm)	281	102	22.2-1708	39
pH	7.6	7.8	5.7-8.7	25
Alkalinity (mg/L)	102.5	50	6-290	23
Turbidity (NTU)	3.9	2.3	0.7-15	23
Total N (mg/L)				
NO <sub>3</sub> -N (mg/L)	0.083	0.025	0.003-0.59	23
Total P (mg/L)	0.053	0.020	0.003-0.350	25
P SR (mg/L)				

#### References

Cartwright D (1990) The Australian species of *Ecnomus* McLachlan (Trichoptera: Ecnomidae). *Memoirs of the Museum of Victoria* **51**, 1-48.