



## FAMILY ECNOMIDAE

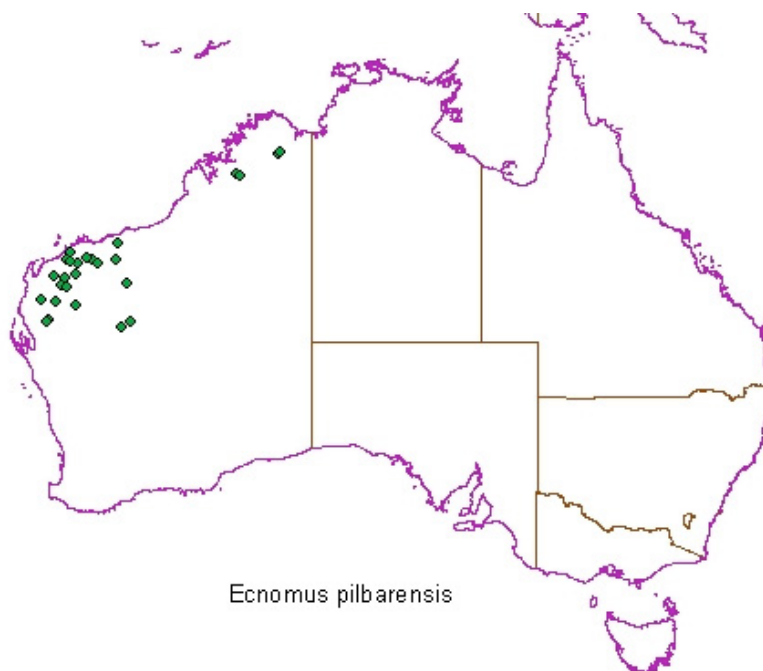
### Habitat profile for *Ecnomus pilbarensis* Cartwright

*Ecnomus pilbarensis* Cartwright was recorded from 64 northern Western Australian localities in this study. Adults of this widespread northern Australian species have also previously been recorded from the Northern Territory and north eastern Queensland (Cartwright 1990).

In this study, *E. pilbarensis* was generally recorded in channel and pool habitat samples from low to moderate altitude streams between 50-550 m (Chart a), between 14-605 km from the source (Chart b), with moderate to high alkalinity between 19-340 mg/L (Chart c) and moderate to high conductivity between 70-4090  $\mu\text{S}/\text{cm}$  (Chart d).

The following generalities can be made about the other parameters listed in the Table: moderate to relatively high recorded water temperatures ranged from 17.5 to 30.8 °C, mostly alkaline pH between 6.9-8.9, and low to high turbidity generally <80 NTU.

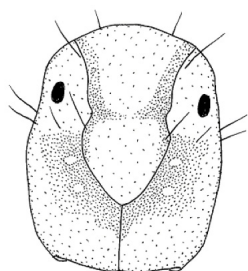
Mean, median and range for selected physical and chemical parameters and habitat categories are given in the Table.



Distribution of *Ecnomus pilbarensis* in Australia.

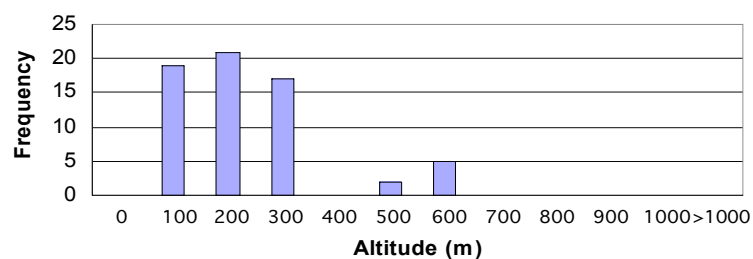


*Ecnomus pilbarensis*, head and typical habitat

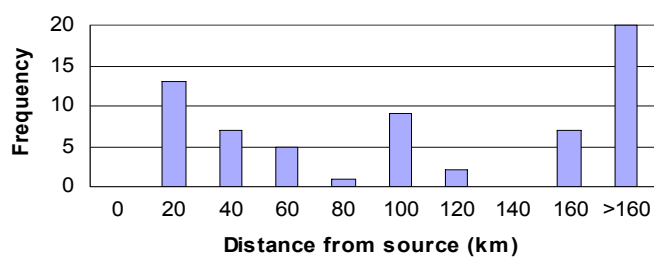


Charts for *Ecnomus pilbarensis*

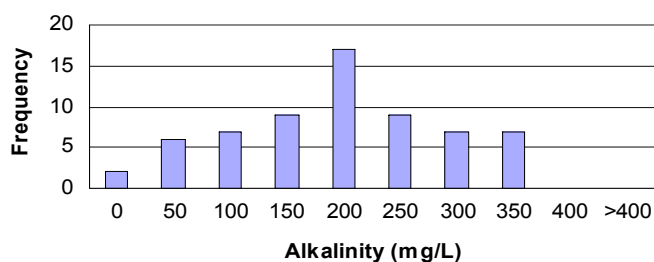
a) Altitude



b) Distance from source

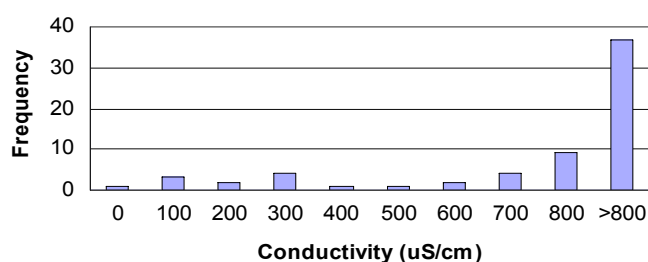


c) Alkalinity





d) Conductivity



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

	Mean	Median	Range	N
Altitude (m)	231	235	50-560	64
Distance from source (km)	172	95	14-605	64
Stream width (m)				
Stream depth (m)				
Water temperature (°C)	25.1	25.5	14.6-32.7	64
Conductivity (µS/cm)	1436	834	45-6600	64
pH	8.0	7.9	6.9-10.1	64
Alkalinity (mg/L)	195	190	19-340	64
Turbidity (NTU)	32	3.1	0.2-610	64
Total N (mg/L)	0.65	0.33	0.08-10	64
NO <sub>3</sub> -N (mg/L)	0.26	0.01	0.01-9.8	64
Total P (mg/L)	0.035	0.01	0.005-1.3	64
P SR (mg/L)	0.007	0.005	0.005-0.03	64

References

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