



Family Caenidae

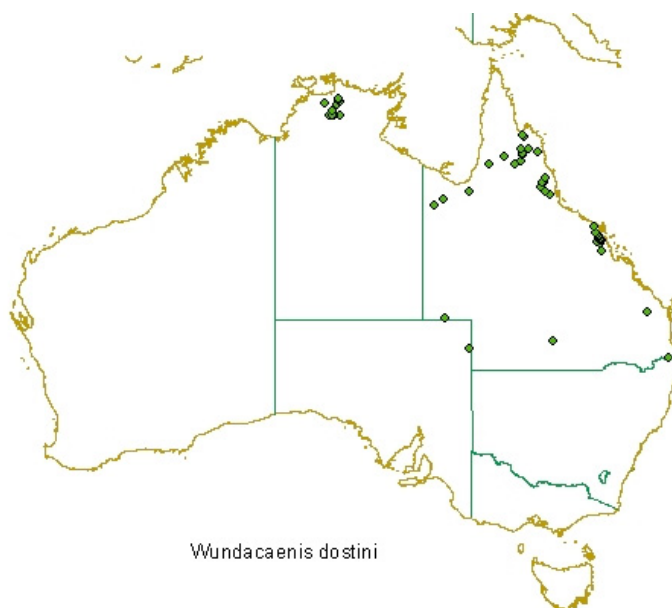
Habitat Profile for *Wundacaenis dostini* Suter

Wundacaenis dostini was found at 68 localities in Queensland and the Northern Territory (Chart). This species was recorded in the Magela Creek system in the Northern Territory as “*Tasmanocoenis* sp B” by (Marchant 1982) and as Caenidae Genus B sp 1 by (Suter 1992). Subsequently, (Suter 1993) erected the new genus *Wundacaenis* to include this species. (Suter 1992) recorded this species from flowing waters often associated with clumps of the aquatic macrophyte *Eriocaulon*.

Wundacaenis dostini was recorded from fifth order streams at low altitude generally less than 300m (Chart a), and far from the stream source (Chart b). The streams were slightly alkaline (pH 6.9-9.4), of low turbidity, moderate to high conductivity (54-900uS/cm) (Chart g), with a sand dominated substrate with approximately 20% detrital cover (Chart c) and with low levels of algae and macrophytes (<30% cover). The streams were wide, generally greater than 12m wide (Chart d), but *W. dostini* was found in edge and microphyte samples from slow moving pools in water less than 0.3m deep (Chart e). Alkalinity was generally low (Fig f). The streams flow through medium grazed land that has a riparian zone of trees with <30% canopy cover. The upstream catchment was moderately developed (approx. 50%) with minor dams and structures and some extractions.

The following generalities can be made about the other parameters listed in the Table: recorded water temperature between 10.3-34.5 °C, pH mostly in range of 6.9-9.4 and low turbidity of 0.5-110 NTU.

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



Distribution of *Wundacaenis dostini* in Australia.

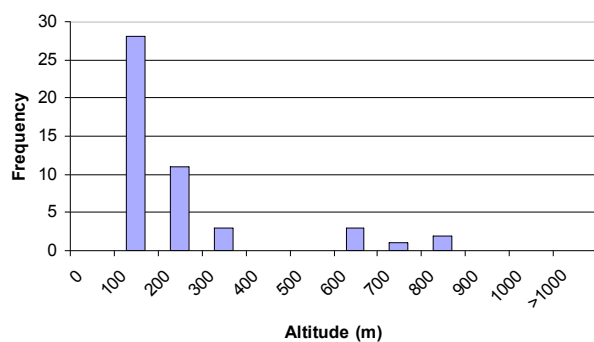


Wundacaenis dostini, nymph and typical habitat

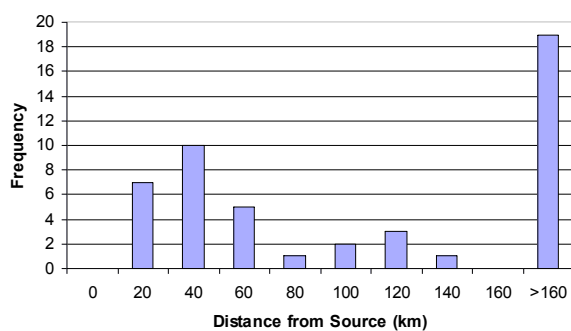


Charts for *Wundacaenis dostini*

a) Altitude

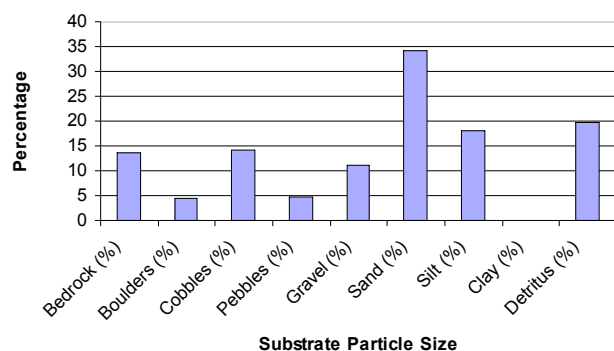


b) Distance from source

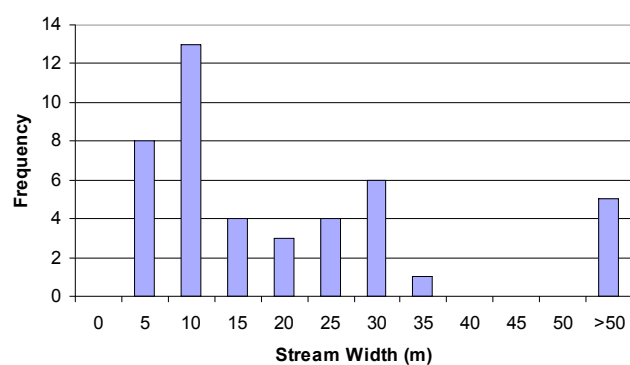




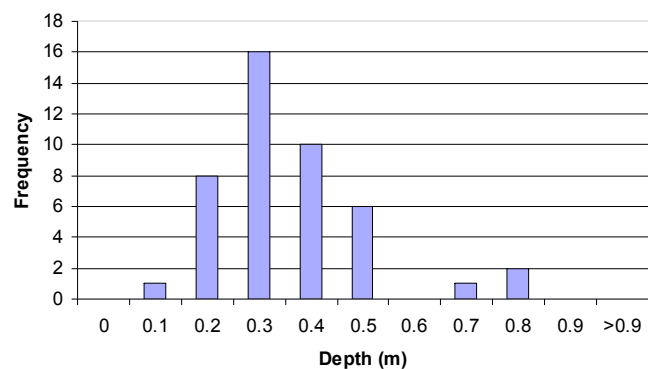
c) Substrate Particle Size



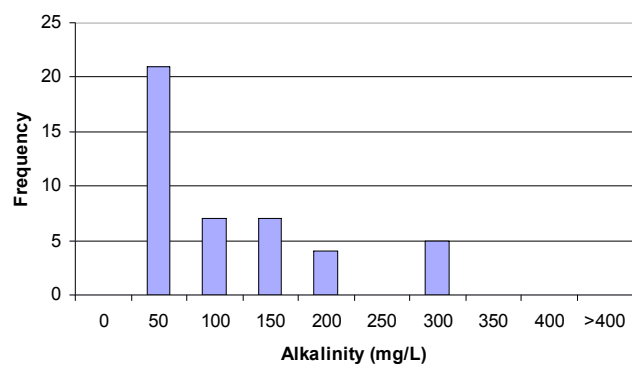
d) Stream Width



e) Depth



f) Alkalinity





g) Conductivity

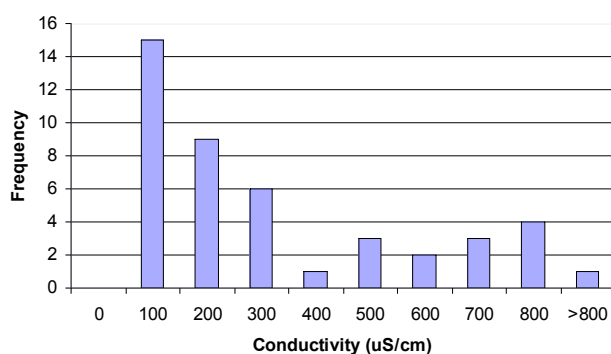


Table. Mean and median physical and chemical parameters and habitat categories for *Wundacaenis dostini*.

	Mean	Median	Range	N
Altitude (m)	148	75.4	5-795	48
Distance from source (km)	239	86	5-1250	48
Width (m)	21.2	12.0	2-100	44
Depth (m)	0.34	0.30	0.10-0.80	44
Water Temperature (°C)	25.4	25.9	10.3-34.5	44
Conductivity (µS/cm)	287	163	54-902	44
pH	7.9	7.9	6.9-9.4	44
Turbidity (NTU)	7.4	3.0	0.5-110	44
NO ₃ -N (mg/L)				
Total N (mg/L)	0.456	0.410	0.120-1.910	44
Total P (mg/L)	0.037	0.019	0.006-0.510	44
Alkalinity (mg/L)	88.8	55	12-290	44

References

Marchant R (1982) Seasonal variation in the macroinvertebrate fauna of the billabongs along the Magela Creek, Northern Territory. *Australian Journal of Marine and Freshwater Research* **33**, 329-342.

Suter PJ (1992) 'Taxonomic key to the Ephemeroptera (Mayflies) of the Alligator Rivers Region, Northern Territory. Open File Record 96.' (Supervising Scientist for the Alligator Rivers Region: Sydney)

Suter PJ (1993) *Wundacaenis*, a new genus of Caenidae (Insecta: Ephemeroptera) from Australia. *Invertebrate Taxonomy* **7**, 787-803.