

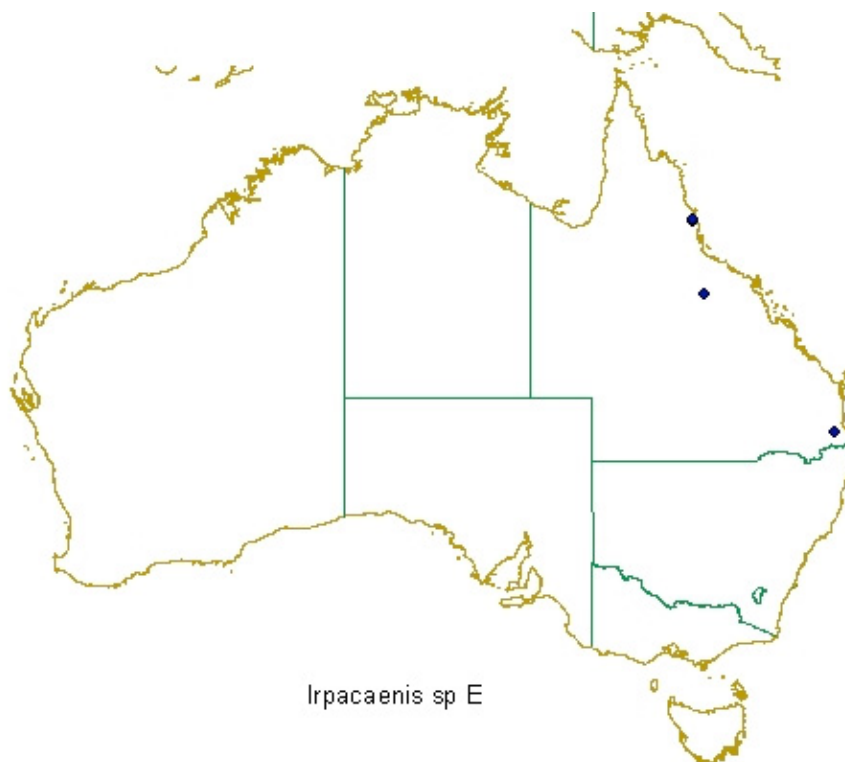


## Family Caenidae

### Habitat Profile for *Irpacaenis sp E*

*Irpacaenis* sp E was found at only 5 localities in Queensland at altitudes <200m (Chart a) and usually <80km from the stream source (Chart b). It was recorded from fourth order streams with slightly alkaline pH, very low turbidity, moderate conductivity, medium to coarse gravel substrate with less than 20% detrital cover (Chart c). The streams were wide, generally less than 20m wide (Chart d), but *Irpacaenis* sp E was found in riffles in water less than 0.3m deep (Chart e) and with flows usually greater than 0.5m/sec. The streams flow through light to medium grazed land that has a riparian zone of trees with 30% canopy cover. The upstream catchment was lightly developed (approx. 25%) and near natural without barriers or extractions. The alkalinity was low (Chart f) as was the conductivity (Chart g).

Mean and median physical and chemical parameters and habitat categories are given in the Table.



Distribution of *Irpacaenis* sp E in Australia

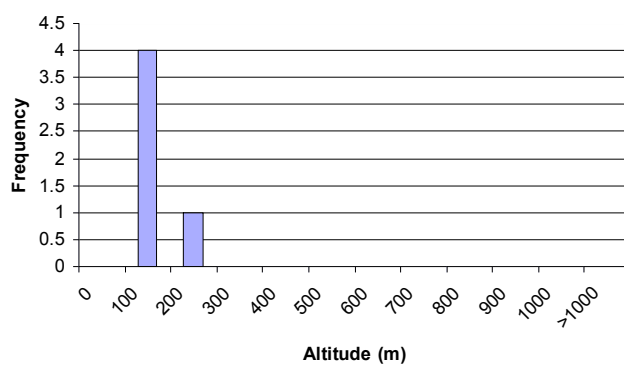


*Irpacaenis* sp E, nymph and typical habitat

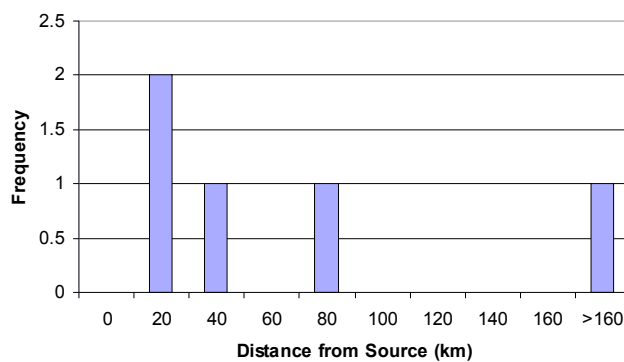


Charts for *Irpacaenis* sp E

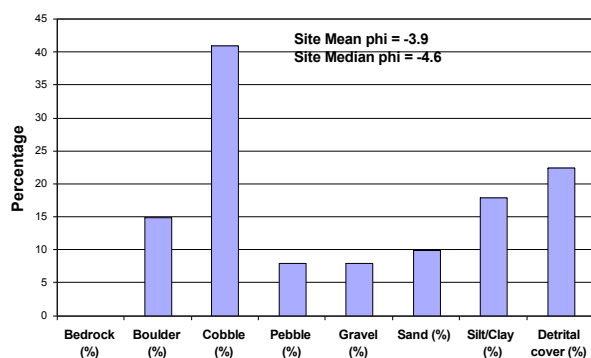
a) Altitude



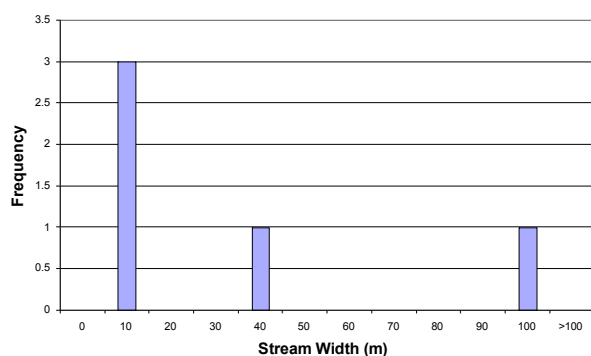
b) Distance from source



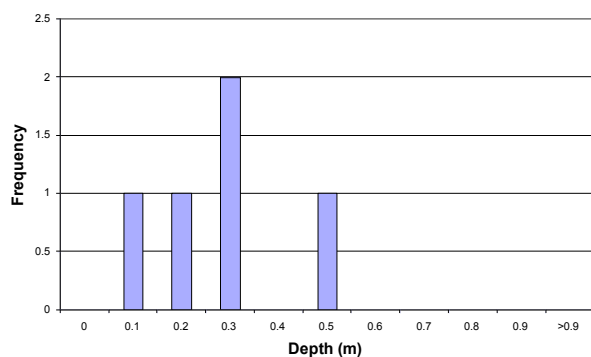
c) Substrate Particle Size



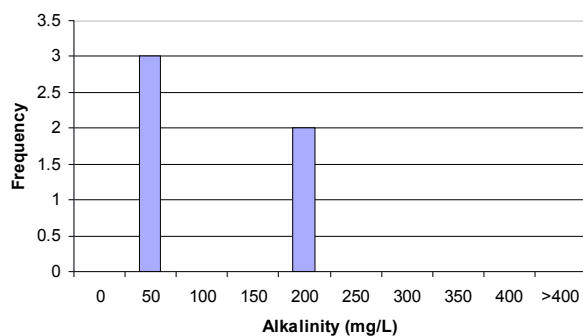
d) Stream Width



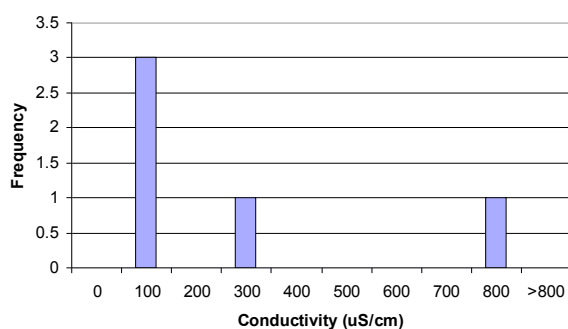
e) Depth



f) Alkalinity



g) Conductivity



**Table.** Mean and median physical and chemical parameters and habitat categories for *Irpacaenis* sp E.

	Mean	Median	Range	N
Altitude (m)	51.6	19	15-190	5
Distance from source (km)	65	31	8-206	5
Width (m)	32.6	10	6-100	5
Depth (m)	0.28	0.30	0.10-0.50	5
Water Temperature	23.0	23.0	17.4-27.5	5
Conductivity (μS/cm)	224	44	26-730	5
pH	7.6	7.7	6.9-8.2	5
Turbidity (NTU)	1.7	0.5	0.4-5.2	5
NO <sub>3</sub> -N (mg/L)	0.472	0.160	0.160-1.51	5
Total N (mg/L)	0.472	0.160	0.160-1.151	5
Total P (mg/L)	0.032	0.013	0.001-0.073	5
Alkalinity (mg/L)	1.76	0.5	0.4-5.2	5