

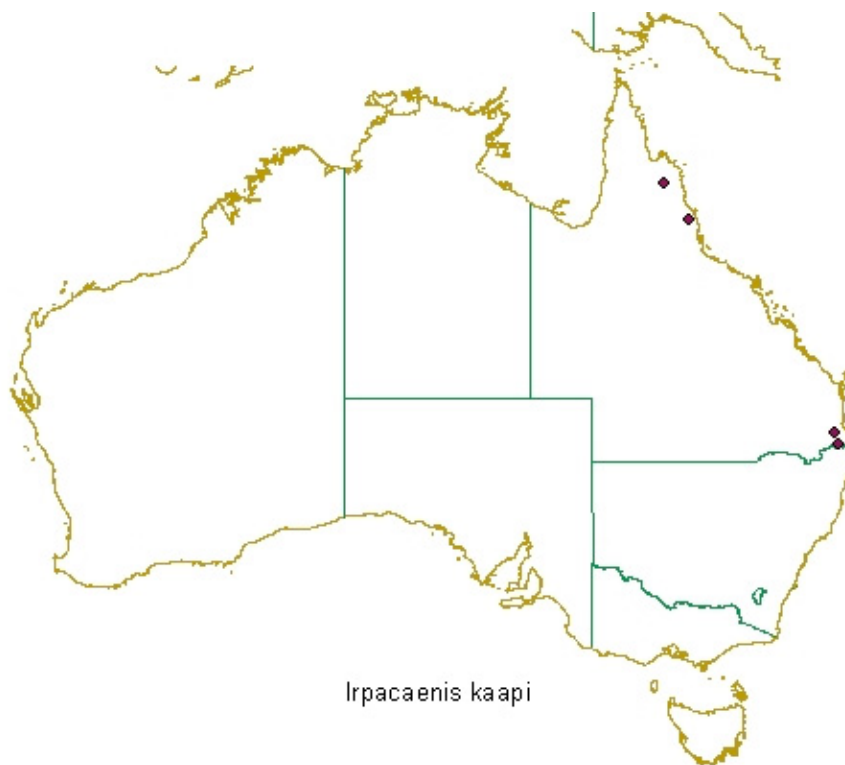


Family Caenidae

Habitat Profile for *Irpacaenis kaapi* Suter

Irpacaenis kaapi was found at only 5 localities in Queensland in streams at low altitude (generally <100m) (Chart a), and less than 80km from the source (Chart b). The streams were generally shallow, less than 0.4m deep (Chart e) and less than 10m wide (Chart d) and the substrate was dominated with cobbles and there was high detrital coverage (>15%) (Chart c). The streams were slightly alkaline with pH between 7.2 and 8.7, low turbidity, and moderately high alkalinity (13-275mg/L) (Chart f), high conductivity (Fig g) with low levels of algae (<30% cover) and no macrophytes. *I. kaapi* was found in flats in water less than 0.4m deep (Chart e) and with flows usually below 0.2m/sec. The streams flow through light to medium grazed land that has a riparian zone of sparse trees with no canopy cover. The upstream catchment was moderately developed.

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



Distribution of *Irpacaenis kaapi* in Australia

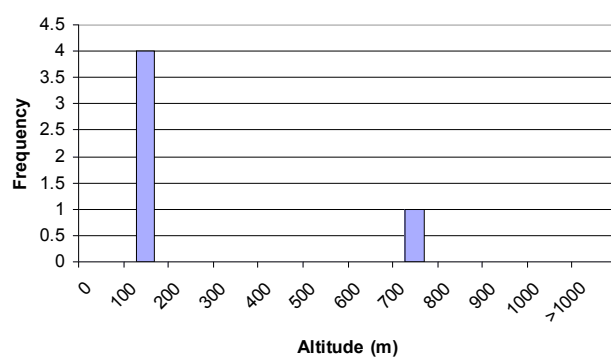


Typical habitat of *Irpacaenis kaapi*

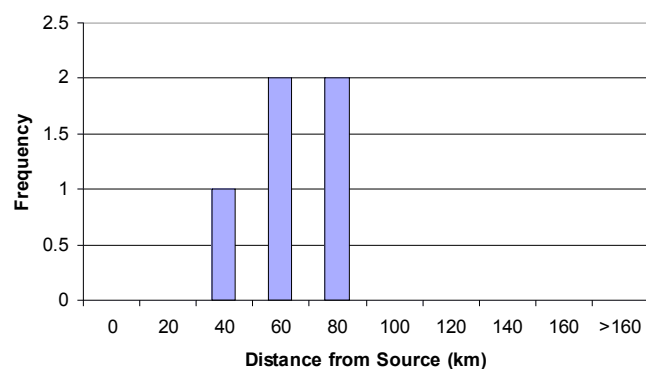


Charts for *Irpacaenis kaapi*

a) Altitude

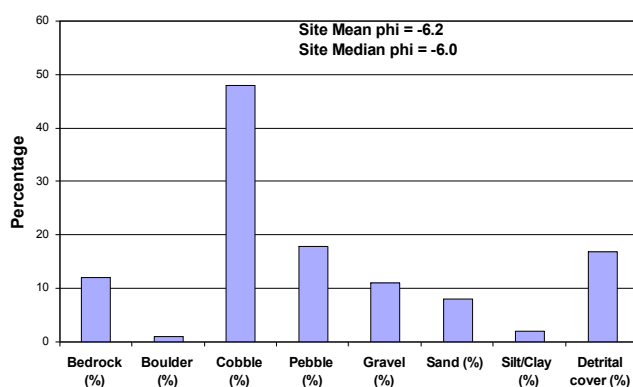


b) Distance from source

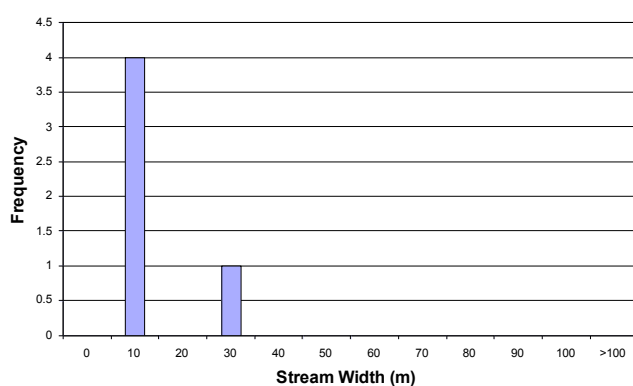




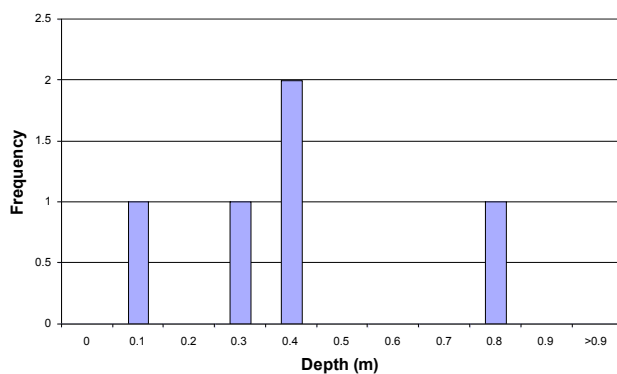
c) Substrate Particle Size



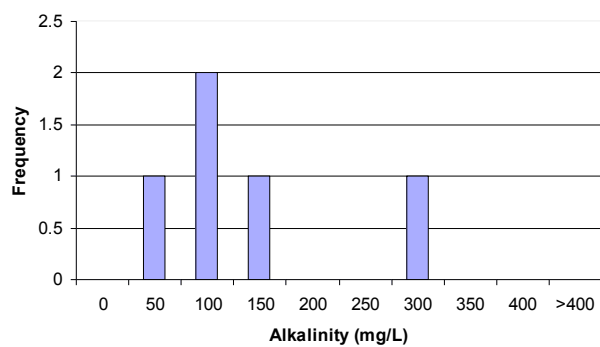
d) Stream Width



e) Depth



f) Alkalinity





g) Conductivity

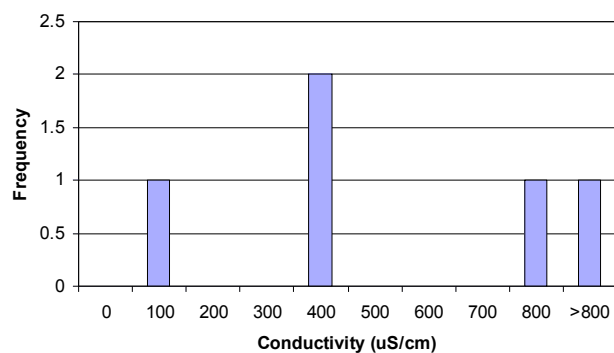


Table. Mean and median physical and chemical parameters and habitat categories for *I. kaapi*.

	Mean	Median	Range	N
Altitude (m)	187	70	19-685	5
Distance from source (km)	51	41.3	29-73	5
Width (m)	9.3	4.0	3.5-30	5
Depth (m)	0.37	0.35	0.07-0.8	5
Water Temperature	21.5	22.7	18.7-24.4	5
Conductivity (μS/cm)	463	311	50-902	5
pH	7.7	7.5	7.2-8.7	5
Turbidity (NTU)	6.9	7.0	2-13.8	5
NO ₃ -N (mg/L)				
Total N (mg/L)	0.437	0.250	0.160-1.07	5
Total P (mg/L)	0.042	0.031	0.011-0.110	5
Alkalinity (mg/L)	113.6	75	13-275	5