



## Family Ameletopsidae

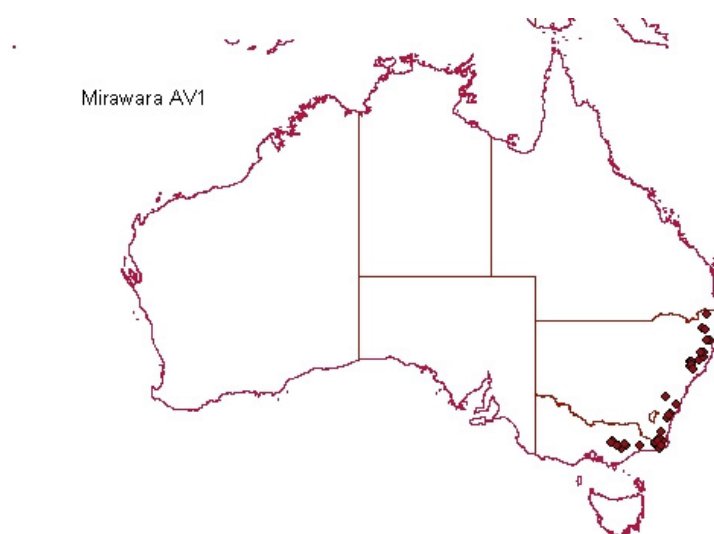
### Habitat Profile for *Mirawara AV1*

*Mirawara* spp are predatory mayflies that are large (up to about 30mm long) and active swimmers. The genus *Mirawara* was established by Harker (1954) for a species (*M. aapta*) in the upper Murrumbidgee River at Adaminaby, New South Wales. Riek (1955) described an additional two species, *M. purpurea* from the Australian Alps near Canberra and *M. megaloprepia* from Queensland. The Queensland species was recorded from Lamington National Park in southern Queensland to Mackay. Campbell (1981) also collected nymphs from the Atherton Tablelands near Cairns. *Mirawara* AV1 was recorded from 38 sites from the Australian Alps in Victoria up the eastern drainages of New South Wales to the Queensland border (Chart ). *Mirawara* AV1 is probably *M. aapta*, but verification with adults has not been possible.

*Mirawara* AV1 was recorded generally from low altitude streams but was also present at altitudes above 1000m (Chart a), and usually within 50km from the stream source (Chart b). The substrate was dominated by boulders and cobbles with less than 10% detrital cover (Chart c) and the streams ranged from 2-30m wide (Chart d) and *Mirawara* AV1 was found in depths of <0.5m (Chart e). The streams had circum-neutral pH with low turbidity, alkalinity (Chart f) and conductivity (Chart g).

The following generalities can be made about the other parameters listed in the Table: recorded water temperature between 8-23.2 °C, pH mostly in range of 5.8-8.1 and low turbidity of <12 NTU.

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



Distribution of *Mirawara* AV1 in Australia.

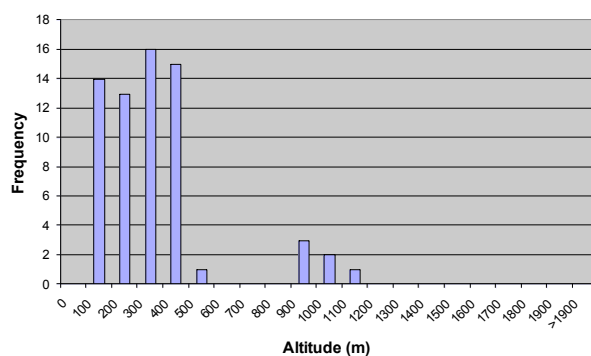


*Mirawara* AV1, nymph, head and typical habitat

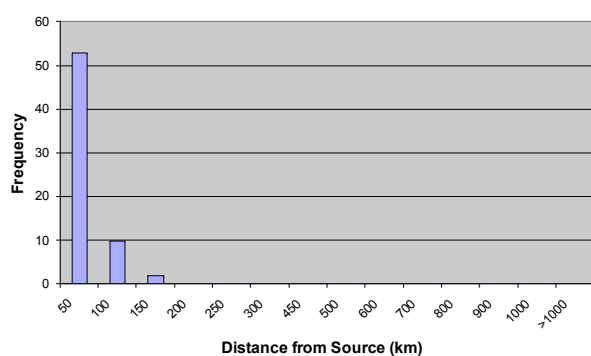


Charts for *Mirawara* AV1

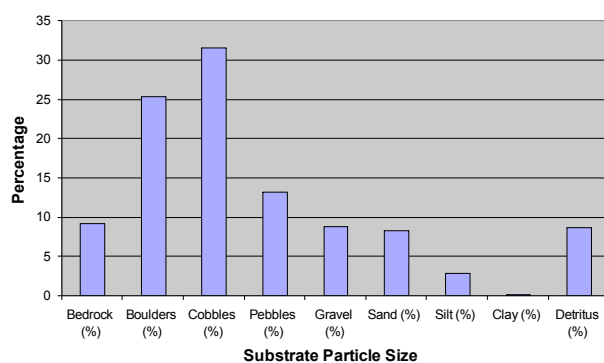
a) Altitude



b) Distance from source

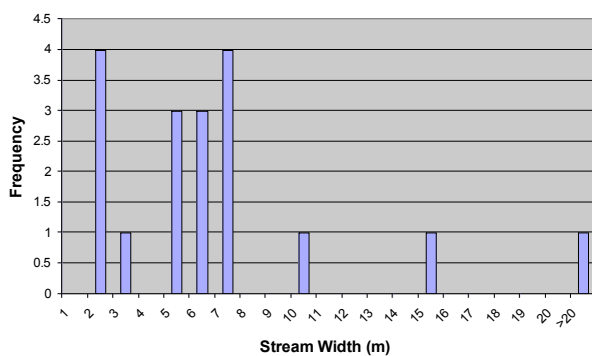


c) Substrate Particle Size

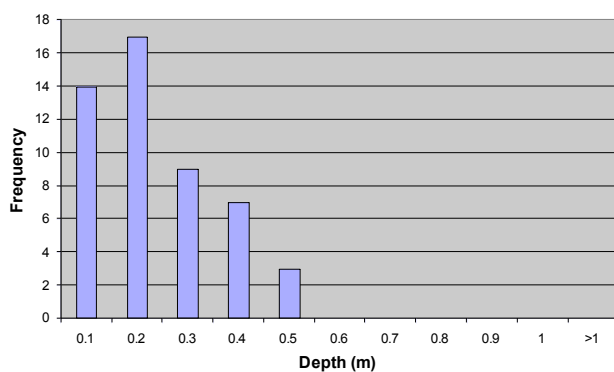




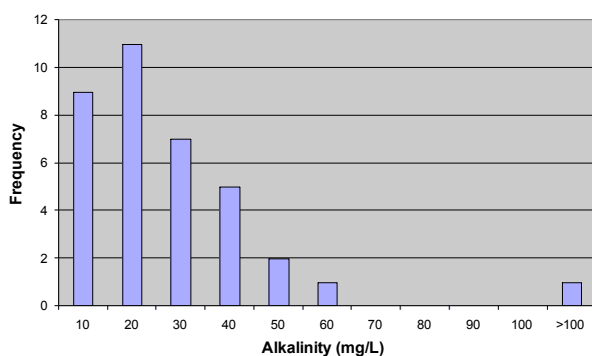
d) Stream Width



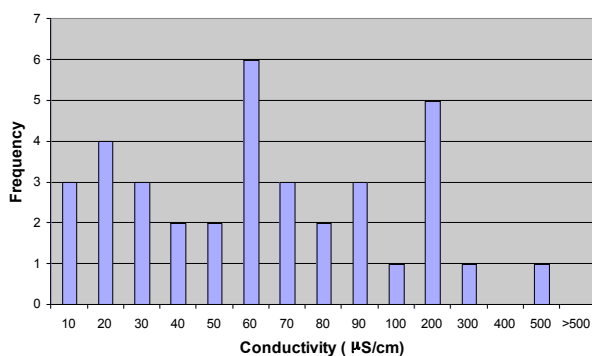
e) Depth



f) Alkalinity



g) Conductivity





**Table.** Mean and median physical and chemical parameters for *Mirawara AVI*.

	Mean	Median	Range	n
Altitude (m)	273	230	20-1010	65
Distance from source (km)	26.6	15.7	0.7-117.5	65
Width (m)	7.05	6	2-30	18
Depth (m)	0.22	0.2	0.41-0.5	50
Water Temperature	16.3	15.8	8-23.2	36
Conductivity (µS/cm)	78	57	9-467	36
pH	7.4	7.4	5.8-8.1	36
Turbidity (NTU)	2.1	1.2	0-12	35
Oxidised Nitrogen (mg/L)	0.021	0.01	0-0.160	15
Total N (mg/L)				
Total P (mg/L)	0.010	0.010	0-0.025	33
Alkalinity (mg/L)	25.5	19	6-190	36

## References

Campbell IC (1981) Biogeography of some rheophilous aquatic insects in the Australian region. *Aquatic Insects* **3**, 33-43.

Harker JE (1954) The Ephemeroptera of Australia. *Transactions of the Entomological Society of London* **105**, 241-268.

Riek EF (1955) Revision of the Australian Mayflies (Ephemeroptera) I. Subfamily Siphonuridae. *Australian Journal of Zoology* **3**, 266-280.