

Invertebrates of geothermally influenced aquatic and terrestrial ecosystems: longitudinal and lateral linkages.

Ian Boothroyd ^{*1}

¹ Golder Associates (NZ) Limited

New Zealand has a range of geothermally-influenced ecosystems with distinctive ecological features and biotic communities. In geothermally-influenced streams, distinctions in aquatic flora and fauna occur longitudinally downstream from the source of thermal springs and also laterally within the aquatic-terrestrial ecotone. Despite the significance of geothermal areas within New Zealand, studies of the ecology of these extreme environments have been sporadic. However, recent studies of geothermal ecosystems in New Zealand have determined the diversity and characteristics of aquatic geothermal ecosystems and within the aquatic-terrestrial ecotone. Amongst the more prominent features of aquatic geothermal ecosystems are members of the dipteran family, particularly Ephydriidae and Chironomidae. In this paper the invertebrate communities of several geothermal ecosystems are described, and some of the environmental factors influencing their distribution are examined.