## Supporting climate adaptation for biodiversity in the Northern Rivers: Aquatic species

Rainforest Habitat may occur Habitat likely to occur



### Eastern freshwater cod

(Maccullochella ikei) were once found in both the Clarence and Richmond River catchments. The Richmond population became extinct following the north coast railway construction in the early 20<sup>th</sup> century. Restocking is ongoing in both catchments with variable success. Being top-order predators, they are impacted by the decline of all other species in the rivers.

## Oxleyan pygmy perch

(Nannoperca oxleyana) are a lowland fish species, that occupy acidic Wallum wetlands. Despite having existed in a fireadapted ecosystem for millions of years, increasingly severe and frequent wildfires may pose a risk to the species.



### Euastacus crayfish

(E. suttoni and simplex) are a semi-aquatic species that inhabit streams and subsurface water in rainforests, sclerophyll forests and alpine heath. This species has a limited ability to travel over land to higher altitude (suitably cooler habitats) making climate change a severe threat.



### Life in rainforest streams

You will never see these Endangered species together they live in different habitats. But they all either occur in, or live in habitats that are fed by, rainforest streams.

Their restricted, and often disconnected, distributions make these species particularly vulnerable to extreme climatic events, such as flooding and wildfires.

We are working to understand how climate change will impact these aquatic species' habitats, to better inform future restocking and managed translocation efforts in the Northern Rivers region.

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The distributions above are generalised from the Department's Species of National Environmental Significance dataset. Underwater image: generative AI.



# Environmental