



MAFRI PROJECT SPOTLIGHT
No. 10 December 4, 2001

TROUT RESEARCH GETS THE GO AHEAD

Principal researcher: Kylie Hall

First introduced to Victoria in 1888, trout have now become established as wild populations in many of Victoria's freshwater waterways. Approximately one third of Victoria's freshwater anglers fish almost exclusively for rainbow and brown trout. Due to the popularity of trout as sport fish, there is great public demand for protecting and improving trout habitat and wild trout populations.

The Marine and Freshwater Resources Institute (MAFRI) at Snobs Creek has received \$130K in funding from Fisheries Victoria for two important research projects that will improve our understanding and management of wild trout populations in Victorian streams.

While there is some data available on the health of Victorian rivers and streams, there is a lack of detailed information about the health of fish populations in our rivers and streams. In particular, how environmental and habitat conditions, such as water flow, barriers to fish passage, pesticide and nutrient pollution, streamside vegetation, food availability, salinity and temperature influence the survival of wild fish populations.

The first project will attempt to identify the critical elements and processes that contribute to the survival of juvenile wild trout populations in Victorian streams. Annual surveys of juvenile fish will be undertaken to help detect trends in trout populations over time. Information on environmental and habitat conditions will be collected to determine whether there is any correlation between trout populations and environmental variables, and whether these variables could predict trout numbers in the future.

The second project will look specifically at temperature limitations on wild trout populations. It is well known that trout both require, and prefer cold water. The limits for growth of wild trout are between 4-19°C, and the limits for successful egg development are even lower at 0-15°C. In this project, the cold water resources available to wild trout populations in Victoria will be recorded so that periods of limiting temperatures on trout populations and the impacts of these temperatures on spawning, hatching and mortality of trout can be identified.

The intention of both projects is to build up a long-term data set over several years to identify years where there may be poor survival of wild trout. Equipped with a greater understanding of the habitat and environmental limitations on wild trout populations in Victoria, fisheries and habitat management can be tuned to enhance our trout resources.