Captive Rearing of Takahe

By Craig Robertson New Zealand Wildlife Service

For the past ten years the New Zealand Wildlife Service has been researching and preparing an intensive management plan dedicated to the preservation of the endangered takahe.

There are three parts to this plan:

- To enhance and expand the existing wild population and re-establish further wild mainland populations.
- To establish an additional population on a predator-free island.
- To develop a captive rearing station.

The third part of this plan is now fully operational at the Burwood Bush Takahe Rearing Unit, part of the Gorge Hill Scientific Reserve, a 1350 hectare area of red tussock and beech forest about 35 km east of Te Anau. One of the last remaining extensive areas of lowland red tussock, at present it is being managed jointly by the Wildlife Service and the Lands and Survey Department.

Significant increase

When the flightless takahe was rediscovered by Dr Geoffrey Orbell in the Murchison Mountains of Fiordland in 1948 the population stood at about 500 birds. By 1982 it had declined to an all-time low of 120 birds but now stands at approximately 180 wild birds — a significant 20 percent increase in numbers over the past two years.

In the wild, takahe usually rear only one chick each breeding season, yet most pairs have a two egg clutch. Most nests will have two 'good' eggs (fertile and developing); in some both eggs will be infertile.

Between 1982 and 1985 an egg manipulation programme was carried out, the aim being to ensure that each pair had a fertile egg. Eggs are 'candled' (shining a light through the shell) to determine the presence of an embryo. Fertile eggs were transferred to nests which had infertile eggs, and from each of fifteen nests one egg was removed and taken to Burwood Bush to be artificially incubated. From 1986 no egg transfers will be made, but instead whole clutches from 10 pairs will be removed for artificial incubation. It is hoped that the pairs which have had eggs removed will relay. This has already proved successful with several pairs.

Artificial rearing

Captive rearing methods and research carried out on takahe at the National Wildlife Centre at Mt Bruce and the Te Anau Wildlife Park have helped develop the new technique. At present the National Wildlife Centre has six adult birds and this year, for the first time, twin chicks. Altogether eight takahe chicks have been reared to independence at Mt Bruce.

The Wildlife Service first attempted artificial rearing of takahe (isolation technique), at the Te Anau Wildlife Park in a temporary

Top: **A takahe emerges out of a tussock igloo as a Wildlife Officer comes in from the other side in search of fertile eggs. One of the two eggs normally laid is either transferred to a nest with infertile eggs or taken back to the incubator at Burwood Bush. The remaining egg is left on the nest to hatch.** *Photo: Craig Robertson*

Bottom: **Takahe eggs hatching in the incubator.** *Photo: Craig Robertson.*

Top: **Takahe chicks reared artifically have as little human contact as possible. Here a model surrogate parent made from fibreglass stands aside while a puppet feeds the chicks a range of food, including tussock, potato, dog and baby food.** *Photo: Craig Robertson.*

Bottom: **Near Lake Te Anau, the Wildlife Service has fenced off a 10-hectare area against predators. Plans are to do likewise for 800 hectares, although the cost could be enormous.** *Photo: Craig Robertson*