

Left: Don Merton checks one of the tit foster parents. Photo: Rick Thorpe Right: The precipitous nature of Little Mangere Island's terrain is shown in this photo of a wildlife officer climbing down from the summit. Photo: Rod Morris



Five birds, including *only one effective breeding pair* (Old Blue and her mate Old Yellow) existed in September 1980. However, an intense management programme developed since then resulted in a spectacular recovery to about 116 birds by early 1990. This recovery can be attributed largely, if not entirely, to innovative management which included manipulating the behaviour of both black robins and Chatham Island tits living in the wild.

This involved:

- Manipulating robin nesting cycles, and fostering eggs and young to other species, so increasing production by over 100 percent. Improved nest security virtually eliminated accidental losses during incubation and nestling periods.
- Establishing the major robin population on South East Island. This move has vastly increased the area of habitat available to the black robin, so that for the first time this century the species has sufficient space to increase and expand. (Little Mangere, where the species was confined for almost a century, and Mangere to which the depleted population of seven birds was transferred in 1976, each had about 5 ha of habitat, whereas South East Island has more than 100 ha). Survival, particularly of

juveniles and unattached birds, has improved markedly since their release in 1983 on South East Island.

The result is that there is now a younger, more productive and successful breeding population.

How It Was Done

But to return to 1980....

WE HAD TO FIRST quickly determine the feasibility of this daring proposal in a species whose numbers were so incredibly low. We were also mindful of the immense logistic problems associated with living and working on a small, remote island for around four months each year.

Summarised below are some immediate objectives we had to resolve in order to pioneer the cross-fostering programme which was to continue each spring and summer from 1980 to 1988:-

- obtain basic biological information for the black robin and three potential foster species;
- determine the limits of tolerance within which the robin and three potential foster species would permit us to operate;

- gauge reaction to manipulation of nest contents in donor and host species;
- gauge reaction of host and donor species to alien and artificial eggs, and clutches of different size and colour to their own;
- gauge reaction of host and donor species to reduced and increased clutch size;
- gauge reaction of host and donor species to increased and reduced incubation periods;
- gauge reaction of host and donor species to nestlings of alien species, to nestlings of differing age, and of their introduction to nests at different times of the breeding cycle;
- determine the time that embryos at various stages of development might safely remain out of incubation in the cool Chatham Islands climate;
- determine what constitutes normal incubation, brooding and nestling feeding routines in host and donor species;
- determine incubation, nestling and fledging periods of host and donor species; and
- closely observe breeding robins and up to 40 pairs of potential foster parents in order to find their nests early in the nesting cycle, log their progress, and prepare some to receive robin eggs.

We also had to develop ways of safely handling tiny fragile eggs and nestlings in and out of enclosed Chatham Island warbler