



Top: Despite the rats, Breaksea Island has the only thriving robin population in western Fiordland. This can be attributed to the island's isolation and security from stoats. Photo: Bruce Thomas.

Bottom: Cook recorded large colonies of broadbilled prion breeding in Fiordland, but today there are only a few small colonies; the remnant group on Hawea Island will have a chance to expand now the rats have gone. Photo: Bruce Thomas.

Breaksea Island The Next Step

After the Hawea Island experience it was much easier to make a commitment, with confidence, to a rat eradication programme on Breaksea Island, but logistically such an operation will be much harder. Breaksea Island is a comparatively huge chunk of land, covered with beech and podocarp forest, with thick coastal scrub along seaward cliffs, and it has several inaccessible cliff areas and inshore rock stacks. Undaunted, the DSIR and Fiordland National Park personnel involved felt the idea was far too important to abandon. It has been designated a National Park Centennial Project for Fiordland National Park — but with no special funding. Approaches for large-scale financial support have been made, and so far ICI (NZ) Ltd have made a major contribution by donating 500kg of Talon 50WB poison. As well, the Ministry of Works and Development provided a surplus building, and Southern Lakes Helicopters Ltd donated flying time to help transfer it to Breaksea Island. This has now been made into a fine base camp.

By far the greatest commitment has gone into the construction of a network of con-

tour tracks to provide ready access to all parts of Breaksea Island. Unexpected help came early in 1987 when two teams of Operation Raleigh Venturers, young people from all over the world, spent several weeks under canvas in difficult conditions, marking and cutting the first of these tracks. Since then volunteers from all over New Zealand have been working alongside Park staff on the massive task, getting to and from the island with help from Fiordland Travel Ltd and Electricorp to cross Lake Manapouri, and then by m.v. *Renown*.

The Future

The tracks on Breaksea Island and the 1000 bait tunnels should be in place by the end of summer 1988. The poisoning will probably begin in May 1988 and should take about a month to complete. At the end of the initial campaign the tunnels will need to be kept baited with poison until at least the following winter, and regular checks made for rodent sign. This will be done in conjunction with the continuing programme to evaluate the conservation benefits of eliminating rats from Hawea Island. The progress of several pairs of robins recently transferred from

Breaksea to Hawea Island will also need to be followed, and eventually Fiordland skinks and rare insects can be transferred to this now rat-free haven.

Similar possibilities exist for Breaksea Island once the rats are eliminated, but this project has other far more important implications. A recent 2-year poisoning campaign by Wildlife Service/DoC Eastern Region against rats and rabbits on similar-sized Whale Island has apparently been successful⁴. However, the method used there of broadcasting baits is not appropriate on Breaksea or other islands where sensitive fauna would be placed at risk. The comparatively safe, well-controlled eradication techniques being developed at Breaksea Sound are now helping in the preparation of contingency plans for important island Nature Reserves (such as The Snares) that are at risk from invasion by rodents. Perhaps the next major campaign against rats could be on Kapiti Island, where there is already an excellent system of tracks, used during the eradication of possums. 🦜

References

- 1 Sparrman, A., 1953. *A Voyage Round the World with Captain James Cook in H.M.S. Resolution*. Robert Hale Ltd., London.
- 2 Beaglehole, J.C., 1974. *The life of Captain James Cook*. Adam and Charles Black, London.
- 3 Hill, S., Hill, J., 1987. *Richard Henry of Resolution Island*. John McIndoe, Dunedin.
- 4 K. Owen, personal communication.

Acknowledgements

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Dedication

Sir Charles Fleming, 1916 — 1987

This article is dedicated to the memory of Charles Fleming KBE, FRS, who took a keen interest in the Breaksea rat eradication programme. In a letter to BWT (September 1986) he wrote, "The prospect of progressive improvement of conditions by following up your success on 'OG2' (Hawea Island) with a real attempt on Breaksea Island is stimulus for me to live another decade!"; but he died on 11 September 1987 before this was finally achieved. Undoubtedly a rangatira of New Zealand natural sciences, he has left a written legacy that will influence scientific thinking in this country for many generations to come. Haere ra te tohunga me o matauranga, haere, haere, haere.

Bruce Thomas has taken part in many biological surveys in western Fiordland since 1974, and is particularly interested in the ecology and conservation of New Zealand lizards — including the rare Fiordland skink. Rowley Taylor has long been concerned with the impact of introduced mammals on the New Zealand flora and fauna, and more recently has studied the dispersal of stoats and rodents to offshore islands and the practicalities of their eradication and control. Both authors have carried out field studies on a wide variety of native and introduced fauna throughout New Zealand, including offshore and outlying islands, and also in Antarctica. They derive great satisfaction from working at the interface of basic research and conservation management.