

BIRDS AND PLANTS

A FRUITFUL RELATIONSHIP?

It is well known that many of New Zealand's unique birds depend on native forest for their survival. It is less well known that birds can help native forests to establish and thrive. The flowers of some forest plants are pollinated by birds while the seeds of many are embedded in attractive, nutritious fruits which encourage birds to eat them and carry them away. Without birds, forest regeneration would be a very different, probably slower process, and many plant species would be unable to survive. Drs Mick Clout and Rod Hay describe what is happening with these vital processes in our forests today.



Top left: What future is there for such trees as tawa, karaka and miro, which today depend almost solely on kereru to distribute their large seed around the forest? In a mutually beneficial relationship, the trees provide a rich food source for the birds, which in turn spread the seeds. Photo: B. W. Thomas

Top right: Nikau fruits are mainly eaten by kereru, although their woody seeds are sometimes used as gizzard stones by kiwi. Photo: R. H. Taylor

The beautiful flowers of kotukutuku (Fuchsia) (Bottom left) and kowhai (Bottom right) provide nectar for bird pollinators such as bellbird and tui. Photo: B. W. Thomas

While most native plants in New Zealand attract insects to carry their pollen from flower to flower, over 30 species lure birds to their flowers. About half of these plants are clearly adapted to pollination by birds; notably *Fuchsia*, kowhai and flax, which have large tube-like flowers from which bellbirds and tuis sip the nectar.

Pollination and birds

Bellbirds, tui, stitchbirds, kaka, red-crowned parakeets, yellow-crowned parakeets, saddlebacks and silvereyes all visit (and potentially pollinate) the flowers of forest plants. However, this is a relatively small number compared with the more than 100 species of birds which visit flowers

in Australia. In fact, throughout many of the mainland forests of New Zealand, the only birds which visit flowers are bellbirds, tui and silvereyes, because stitchbirds and saddlebacks are extinct there and kaka and parakeets are uncommon. Despite this, it is unlikely that any New Zealand plant is threatened by a lack of specialised bird pol-