



# The Nene

## — a Species Restored?

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Hawaii has a record of bird extinction little matched anywhere else in the world, except New Zealand. Fortunately, unlike many areas of the Pacific, Hawaii has an abundance of keen and able workers for conservation.

Much vaunted amongst efforts to protect species has been that carried out on behalf of the endemic Hawaiian goose or nene, *Branta sandvicensis*. This bird is a relative of the Canada goose which is familiar as a game bird here in the South Island, but is characteristic of island forms in being tame, reluctant to fly and poorly adapted to the ravages of introduced predators. Once common in many areas and at all altitudes on the large islands of Maui and Hawaii, the nene is now found in small numbers, chiefly in Haleakala and Volcano National Parks. Its haunts have traditionally centred around the open and dry lava flows which result from recent eruptions. In some places a desert landscape is found a few kilometres from forest which experiences rainfall as high as anywhere in the world!

Once an important food source of Polynesians, nene rapidly became rare from the beginning of the 19th century. By 1900 they had disappeared from the island of Maui and in 1950 only 35 birds were living in the wild. Interest and foresight had led to the establishment of a captive population in Hawaii in 1918 and their

sedentary habits and confiding nature meant that they were easy to keep and breed. The few birds that were kept formed the nucleus of captive colonies later established at Pohakuloa in Hawaii and Slimbridge in Britain. These birds were encouraged to produce more young than they would be able to normally, when their first clutches were removed from them and hatched in incubators. By 1955 most nene were in captivity and the future of wild birds looked bleak. Fortunately, however, it was still possible to take some from the wild to supplement those in captivity in order to alleviate inbreeding problems.

While the species had been brought back from the brink, the nene rescue was really just beginning. A few birds in pens are a poor substitute for a flourishing wild population and reintroductions into the wild were planned. At first, wing-clipped birds were liberated into predator-proof enclosures and the time that it took for their wing feathers to re-develop gave them some chance to adapt to their new surroundings. However, though some of these birds probably bred in the wild there was good evidence that the liberations were doing more for the mongoose population than for that of the birds. A new approach was necessary.

Currently, pinioned birds are allowed to breed in large enclosed areas and their offspring may range freely once they are

The wild population of the Hawaiian goose or nene had dropped to 35 by 1950, but numbers of this trusting bird have now increased to 1000 in the wild. This group was photographed near Haleakala Park headquarters, Maui.

Photo: Rod Hay

independent from their parents and can fly. Results are encouraging but still stop short of allowing us to assume that captive breeding has saved the species in the wild.

Though over 1000 nene now exist, most of those 'in the wild', they still depend heavily on human intervention. What can be done to allow the species to take the final step back to freedom? Firstly, and perhaps most importantly, Hawaii boasts a fine system of National, State and private parks and reserves, particularly on Maui and Hawaii, and this assures that adequate habitat is available. Secondly, the Fish and Wildlife Service is undertaking a research programme to understand the ecology of the mongoose so that reasonable and efficient control measures can be carried out. Like the predatory mammals with which we are familiar in New Zealand, there is little hope of effecting their widespread control. As in New Zealand with kokako, the most efficient way to ensure the protection of vulnerable birds may be to control predators locally and seasonally in key areas.

The case of the nene is evidence of the need for an integrated approach to rare species management. Although these birds would be unlikely to be with us today without captive breeding, protection and restoration of their habitat is vital.

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