

Mahoenui was at its most gloomy when Ecology Division DSIR proposed a last-ditch rescue attempt: to take as many wetas as possible into captivity, breed them, and release the offspring onto a rat-free island. Mike Meads of Ecology Division had already shown that it was possible to establish new populations of wetas on islands, when he successfully transferred some giant wetas from Mana Island to Maud Island in 1977.

In December 1986, a team of seven people from Ecology Division and the Wildlife Service spent four days searching at Mahoenui. They found 13 wetas, most of them in the skirts of dead fronds on some scattered tree ferns in the corner of a farm paddock. Three pairs were taken by Ecology Division to form the nucleus of a captive breeding population.

In 1987, the Department of Conservation (DoC) began some on-site management. This included erecting an electric fence to exclude stock and goats from the area of tree ferns where the last wetas were collected, and creating artificial refuges by hanging sacking around tree fern trunks.

Late in 1987, DoC called a meeting of interested DSIR and DoC staff to discuss the management and future of the population. Local DoC staff made an intensive search of the area several weeks after this meeting, and found giant wetas throughout 300 ha of adjacent gorse. The discovery was greeted with some relief, as it meant the situation was not as critical as had been believed.

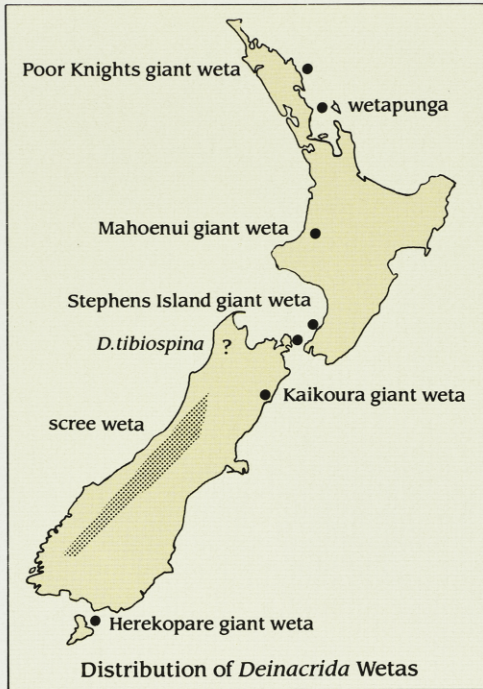
The next move by DoC was to prepare a Species Recovery Plan which outlined management options. The options included leaving the population alone, managing the site, breeding and maintaining the wetas in captivity, and establishing new populations. The course of action is currently being considered. In the meantime, Ecology Division's captive breeding programme is continuing, and DoC is keeping an eye on the situation at Mahoenui.

Kaikoura Giant Weta

The Kaikoura giant weta was described from a single specimen by Buller in 1894, and it remained virtually unknown until 1966 when another animal was found. In 1984, a party of surveyors reported to Ecology Division that they had found a female giant weta under a gatepost on a farm near Kaikoura. This sparked several searches by Ecology Division and the Wildlife Service in the following years, and giant wetas fitting the description of Buller's Kaikoura giant weta were found in very low numbers at a few scattered localities. Because it would be difficult to manage such a sparse and widely distributed species, Mike Meads proposed captive breeding and release on a predator-free island.

Very few wetas were found. Three searches in three years turned up only seven wetas. Although some were taken into captivity for breeding, a major stumbling block was that all the animals were of different ages, and they were unable to mate. It wasn't until 1987 that an adult female and an adult male were available together, and the breeding programme could get under way.

The distribution of the Kaikoura giant weta is still unclear. Reports of giant wetas



Giant wetas used to be found in forest and scrub throughout New Zealand, but since the arrival of humans much of their habitat has been modified or destroyed, and introduced predators such as rats have taken a heavy toll. Four species of giant wetas, including the three largest species, are now found only on rat-free offshore islands, and the situation for the Kaikoura and Mahoenui giant wetas on the mainland is precarious.

from various sites along the Kaikoura coast trickle in, but a lack of staff and money limits efforts to confirm them. It can be a time-consuming business searching for wetas. On the most recent survey, in September 1987, 11 wetas were found during a week of searching, and each weta took, on average, nearly five person-hours to find.

Conservation Battles

Trying to get support for a conservation programme for giant wetas is an uphill battle — people are fascinated by giant wetas, but most don't actually like them. While cute black robins, for example, produce great feelings of tenderness and protectiveness, giant wetas, no matter how endangered or deserving, provoke reactions of either dislike or apathy. "Cold prickly" animals just don't have the instant appeal that "warm fuzzy" ones have.

While dislike or apathy can make it hard to take conservation action for a species, they are not insurmountable problems. There are examples of positive feelings and enlightened conservation programmes that show it is both possible and beneficial to conserve invertebrates. In Japan, for example, a dragonfly sanctuary has played upon reverence of the insect as a symbol of power and harbinger of bumper crops, to the benefit of both the insects and the local people. The dragonflies have been saved from the effects of habitat destruction and pesticides by the creation of a 50 hectare sanctuary, and the local economy is benefiting from the estimated 100,000 tourists that will visit the sanctuary each year.

In New Zealand a large part of the problem is a lack of knowledge about invertebrates. Even though they far outnumber the other animals in our wildlife, both in diversity and in sheer numbers, they are inconspicuous and poorly studied. The number of experts on insects, for example, is small

compared to the number of experts on birds, despite the bewildering array of insect species they have to deal with. There is a corresponding lack of information available within schools or to the general public, which means that people seldom get an opportunity to learn about New Zealand's invertebrate fauna. As long as people remain ignorant about invertebrates they will continue to neglect and undervalue them.

What we do know is that one of the biggest threats to invertebrates is the gradual loss of habitat caused by land development. Although it is sometimes necessary to concentrate conservation efforts on a single species, such as the giant weta, the most effective way of conserving as many invertebrates as possible is to conserve a wide range of habitats.

When talking about conservation of invertebrates, one of the most commonly asked questions is: "Why conserve them"? There are many answers to that question, based on economic, moral, spiritual and emotional reasons, and an article like this can't begin to do justice to them. One of the basic arguments in support of conservation is that all species, including giant wetas, are part of a complex ecosystem. Like every other part of the ecosystem they have a role, even though it might not be immediately apparent to us what that role is. To maintain the integrity and health of the ecosystem, and thereby ultimately our own health and well-being, we need to maintain the individual species which make up the ecosystem. And that includes giant wetas.

The histories of the Kaikoura and Mahoenui giant wetas show how easy it is for an insect, even one as relatively conspicuous as a giant weta, to be overlooked until it is nearly too late. Their stories highlight how difficult it is to do anything about saving invertebrates, because there are few precedents for it, there is little mana attached to it, and it is difficult to enlist public and financial support. One of the biggest conservation battles ahead of us will be to persuade people that invertebrates can be as endangered as any bird or mammal, and that conservation efforts on their behalf are not only possible, but are also valid, worthwhile and necessary.

Ecology Division DSIR acknowledges with thanks Forest and Bird, in particular the Lower Hutt Branch, for their financial support of the captive breeding programme for the Mahoenui and Kaikoura giant wetas.

How you can help to save our giant wetas

In January the Society launched a "Breed a Weta Campaign". We asked members to donate \$10 towards the cost of a weta breeding box and thereby becoming registered as the sponsor of a weta box. Once hatched, each weta requires a separate box because of their cannibalistic tendencies. Please send your donation in multiples of \$10 to Forest and Bird Weta Appeal, PO Box 631, Wellington. To date we have raised more than \$1000, enough for 100 breeding boxes.