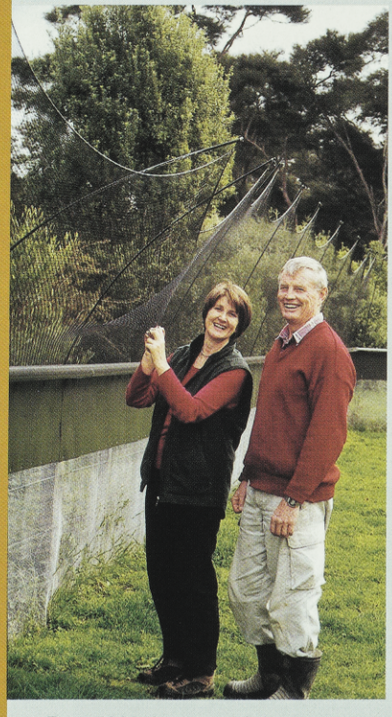
# Successful New Fence Design Excludes Pests From Reserves

David Wallace and Juliette Chamberlain dreamed of planting a native forest in their 16-hectare, weed-infested gully. Their dream, in 1995, was to surround it with a pest-proof fence to create a sanctuary for native wildlife. That required a sturdy fence, which was practical and economical to build, and capable of keeping out rats, mice, stoats, ferrets, cats, rabbits and possums.

That was a tall order, but David and his enthusiastic team set about designing a fence that could be added to an existing farm fence. Environment Waikato and Ministry for the Environment assisted financially with the months of experimentation.



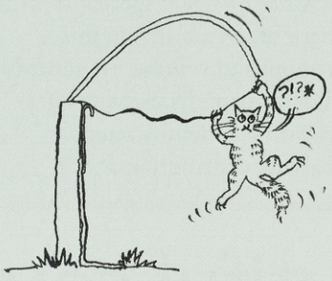
ANN GRAEME

David Wallace and Juliette Chambelain beside their Xcluder Fence.

The challenge was to build. a fence which could cope with all the different pests. An enclosure was created which could incorporate different fence designs. One by one, different pest species were confined in the enclosure and a video camera recorded the success or failure of their attempts to escape. Scientists from the Animal Behaviour Unit at AgResearch studied their reactions. Cats proved to be the supreme Houdinis and the camera revealed some surprises and useful results.

'Cats,' says David, 'are not deterred by electricity. It just galvanises them into action!'

So electric fences were eliminated from the search for the perfect fence. So too were out-riggers, which cats and possums negotiated with ease. The final design, called Xcluder, was sturdy, practical, economical and baffled all the pests.




TIM GALLOWAY

Flexible netting excludes cats.

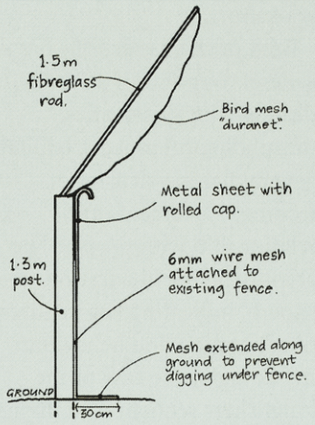
Flexible netting is required specifically to deter cats. If a cat climbs or leaps at the netting, this portion sags down, leaving the cat dangling until it gives up and falls off.

Having proved the fence design, in 1999 a fence of 2.3 kilometres was built around a growing forest.

In the intervening years, the gully had been transformed. The pines and invasive Tasmanian blackwoods were harvested, the stumps poisoned and the gorse and blackberry sprayed, slashed and burned. Pest control began. In 1996, the first of 45,000 native trees were planted.

The fence was completed in November 1999, the last pests were eliminated and monitoring shows that no pests have got in since. The young forest is now free of mammalian pests . . . even the mouse!

'Already, bush weta are thriving,' says Juliette, ' Their faeces look like mouse droppings and really had us worried until they were identified!'



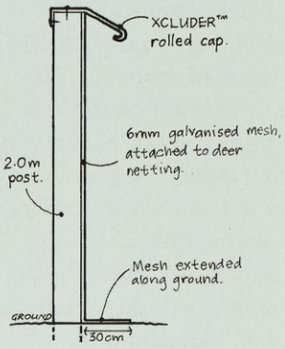

TIM GALLOWAY

Pest fence attaches to a standard farm fence.

Birds are coming too. The first tui has arrived and grey warblers, fantails, waxeyes, shining cuckoos, moreporks and kingfishers sing and chirp — and multiply — with no rats to steal their eggs, or stoats and cats to kill them. Soon threatened species will join them, first kiwi and brown teal, then perhaps North Island robins and weka, bellbirds, skinks, geckos, Archey's frog — even tuatara!

Meanwhile, David and Juliette bask in the bird song and the outlook over their forested gully.

Costing between $70 and $90 a metre to build, their patented Xcluder standard design is based on a standard farm fence. A second version, the Xcluder Deer fence, is based on a two-metre-high deer fence. With the extra height, combined with the rolled-top capping, it can defeat all the invading pests without the need for a floppy extension. Both versions of fence are now being used by farmers, conservationists and the Department of Conservation in projects from Northland to the Chatham Islands.




TIM GALLOWAY

Alternative version also excludes deer.

Now, David and Juliette have even bigger dreams. From their home near the Waikato River they can see Maungatautari, a forested mountain rising like an island from the sea of the Waikato grassland.

'We can fence Maungatautari,' says David. 'It's 3500 hectares of forest. That's big, but it's feasible.'

They have already made a start. With the support of the community they set up a trust to raise the finance and administer the project. A brochure explains their goals, lays out the vision: 'to remove forever, introduced mammalian pests and predators from Maungatautari and restore to the forest a healthy diversity of indigenous plants and animals, not seen in our lifetime.' Strategies are being planned to woo investors. Maungatautari could rival Tiritiri Matangi and become the conservation and tourist Mecca of the Waikato, they say.

This is a giant project but, with the vision of people like David and Juliette, a New Zealand forest awash with bird song could be restored to the Waikato. We wish them every success.

**— ANN GRAEME**