# Maketu Ongatoro Wetland Society Inc.

Dotterel Point Pukehina - Biodiversity Management Plan
Annual Report 2014/15

Overview

This is the first annual report for the Dotterel Point BMP. While the project has been running for two years previously, the past year is the first where we have had a formal funding and works programme in place. This has provided us with sufficient funding to do more than the basics, additional funding from the DOC Rena Recovery programme did enable us to do animal pest control work. Our main focus has been in two areas – removing alien pest species, both animals and plants, and maintaining the semi-permanent fence around the dotterel breeding area at the distal end of the spit. We have also started the monitoring of reptiles, invertebrates and plants, but it is early days and so there are few significant results available in these areas.

The Fence

First erected in 2012, this has been hugely effective and in general respected by the general public. We have had to move it several times, especially after Cyclone Pam laid waste to about half of it, however it is all tied together and relatively easy to relocate. Last year the spit eroded significantly on the inside, this year it is the tip that has gone, however the fence is flexible and takes a lot of punishment. We have only had one broken post and have had to abandoned another as it has disappeared under the accumulating sand.

Newly erected fence - September 2012


The fence post Pam - note the flock of banded dotterel.

The dotterel and oystercatcher have been generally well behaved and nested inside the fence, and the rate of accumulation of sand is impressive with over two metres accumulating in places. Pam did some damage but simply washed through in four places, leaving five healthy islands covered with spinifex and pingao, which we will look to assist in joining up. We also installed a section of the same fencing at the end of the old dune, leaving a two metre walkway between it and the main fenced area. We would love the quad bikes to stop using this route as the only damage done to the fence appears to have been done by quad-bike fanatics.

Biodiversity Monitoring - Birds

Two species of native shorebird nest on Dotterel Point, the New Zealand dotterel and the variable oystercatcher. Prior to the wreck of MV Rena in 2011, there were around four pairs of dotterel nesting here. Our current monitoring indicates seven or eight pairs, many of which have moved here post-Rena, possibly due to the improved nesting habitat and lack of disturbance resulting from the erection of the semi-permanent fence around the nesting area. We know that they have moved in post-Rena as many have coloured bands indicating that they were not here in 2011.

This past year we recorded an average of 15 birds on each visit, up slightly on the 14.5 birds recorded in 2013/14 and 14.3 in 2012/13. We estimate that five chicks fledged during the year. Variable oystercatchers have also increased from an average of 13 in 2012/13 to 16.3 in 2013/14 and to 20 last year, with an estimated 8 chicks fledging. These figures are encouraging as it does indicate that the work we are doing has had a beneficial impact on the populations of both species.

Ecological Baseline  Monitoring - Reptiles

This programme was run by our Scientific Officer, Moniqua Nelson-Tunley. The survey was conducted using two grids of pitfall traps. In September 2014 26 skink were caught with one individual being recaptured. In February 2015, 32 skink were captured, with three being recaptured.  Moniqua is working to see how many individuals were captured in both surveys. The numbers counted show a large and healthy population of shore skink.  The grids were both in the main dune area, not in the regenerating dune at the distal end.

Invertebrates

The initial survey took place March 18th and April 1st 2015 with 30 pitfall traps located in three transects, foredune, mid-dune and back-dune. We do not yet haven the results of this survey, but it is intended to repeat it at different times to build a picture of the invertebrate community at Dotterel Point.

Vegetation.

Three Reconnaissance RECCE plots were established between January 30th and February 2nd 2015. One is in the new dune area at the distal end, the other two on the established dune. Survey results are not yet available but will be included in the 2015/16 annual report.

Pest Animals

This was the third year of pest control on Dotterel Point funded though the Rena Recovery fund. We set out an array of DOC 2090 traps in early August, along with tracking tunnels and removed them in mid-February 2015. During that time we caught a total of 1 rat and three young rabbits. This is the biggest haul in three years and suggests that there are few pest animals around.

Rabbit control was done by a contractor for Coastcare and was not very successful as evidence of rabbit was seen within a month of the control exercise. We have advised Coastcare that we will handle all future rabbit control operations.

Pest Plants.

We dealt with a small number of blackwood trees in the back dune area. These were cut, their stumps painted with glyphosate and the dead material left for the muehlenbeckia to cover. The last patch of marram was also dealt with, though this is always likely to recur and will remain on our radar.  The main focus of  pest plant eradication was on the invasive grasses, sea couch, kikuyu and tall fescue. The sea couch has appeared very rapidly and appears to have spread all around the harbour. We have dealt with most of it west of the Surf Club, but will look to control it to the east as far as the boat ramp. It will need regular ongoing treatment as there is a seed bank. The tall fescue and kikuyu are a problem close to the Surf Club. Our initial treatment was successful, but will require a follow-up.  One negative impact of the removal of these grasses is the appearance of oxalis *Oxalis pes caprae*. This is not an easy plant to control and looks to need a scorched earth policy. We are looking at various options for dealing with it and will provide more information in the next annual report.

Other plants of concern are tree lupin, velvet groundsel and ice plant. We are on top of the first two, though they will require ongoing control via physical removal. The third, iceplant is a major problem. We have built two 'compost bins' close to the surf Club for their disposal. They are over half full right now but will be kept topped up as we gradually remove this very destructive pest plant.

Plantings

This was done with 2 working bees. The main focus was on the middle of the established dune, filling in gaps, and in the fenced area where we have been trying to join up the larger areas of developing dune. We experimented with a low, largely buried fence, this was quite successful in helping to build sand, but was seriously damaged by Cyclone Pam. We have replaced it with a revised design which has a gap in the middle, allowing water to pass through. We will also try planting spinifex close to the southern edge of the fence where any wash-through will have less force. We are though fully aware that if a large enough storm comes along, the whole lot could be washed away.

Working Bee - June 2015

The really encouraging aspect of the plantings is that the whole area at the end of the old dune is gradually being raised. Pam had no impact on this area, whereas 3 years ago it was washed over. It is impressive to see how effective pingao and especially spinifex are at anchoring blown sand.

Signage

We erected a new Dotterel sign  in October 2014, this was funded by DOC and is based on a design used on the west coast. It is impressive and attracts a lot of attention. The cut out area is corten steel which rusts a little but does not corrode seriously.


Summary

This first year has been very encouraging, for while we have had a couple of setbacks and a small amount of vandalism on the fence, none of the problems are insurmountable, and we will be able to build on the successes. In the coming year we will focus on maintaining the fence around the dotterel breeding area and helping the dune to build. On the pest front we will need to continue to control rabbits as they will tend to move into the area as their population expands further up the spit.  The key plant species to defeat are the iceplant and sea couch grass.

Julian Fitter
Maketu - 30 July 2015