

Bushy Point Restoration Project

Annual Report 2021/22
(1 April 2021 – 31 March 2022)



2021/2022 - Summary of Progress

This report details the progress made on the Bushy Point Restoration Project. The Project is the flagship project of the Otatara Landcare Group (OLG) – www.otataralandcare.org.nz.

The report also contains some wider OLG information where relevant.

- **Covid-19 again affected public events this year, and the public planting event planned for 11 September 2021 was cancelled due to lockdown. However, under Barry Smith's planning and guidance, small groups of committee and other OLG members planted the 1000 plants at times that suited them.**
- **Planted 1000 locally grown native plants and covered with combi-guards for rabbit control.**
- **Maintained the previous 21 years plantings**
- **Managed major pest control operation (6km of trap network for possums, mustelids and rats over 90 hectares) with volunteers every 2 weeks.**
- **Major work on entrance track and adding a new picnic area near the pond and maintenance of the public walkway**
- **Continued weed control (particularly gorse)**
- **Continued grazing horses and baleage management**

1. Aim of the Bushy Point Restoration Project

The aim of the Bushy Point Restoration Project is to restore a 14 hectare area of rough exotic pasture between two remnants of nationally significant native totara forest to provide a habitat linkage for native birds and to enhance existing forest remnants and other ecosystems. Also, to raise public awareness of the importance of native forest remnants and to provide a practical long term ecological project for residents of Otatara and Otatara and Invercargill schoolchildren to be involved in.

The project is progressively turning the area of exotic grasses into a functioning, self-sustaining native ecosystem with features and educational opportunities that can be enjoyed by the public of Otatara and Invercargill for the future.

The project is managed by the Committee of the Otatara Landcare Group, an Incorporated Society established in 1999.

The Mission Statement of the Otatara Landcare Group is:

- **To focus attention of Otatara residents and others on the natural features and ecological values of the Otatara environment, especially native forest and wetland flora and fauna.**
- **To promote and, where possible, facilitate the protection, restoration and creation of such features in the interests of scientific appreciation and intrinsic worth and to encourage community appreciation of these values.**

2. Administration

- Annual Report completed for 2020/21 including compilation of trapping statistics
- Annual accounts separate Bushy Point income and expenditure. Audited accounts to 31 March 2021 presented to the OLG AGM on 19 May 2021.
- Corresponded with DOC over Community Conservation 3 year grant
- Updated OLG website to add Pestbusters to OLG Website content and updated publications and news and events.

3. Caretaker

- Caretaker Barry Smith spent 418.6 hours working at Bushy Point during the year, an increase from previous year.
- Main jobs included: plant area maintenance, releasing and weed control, tree planting, supervising baleage and fertiliser application, track maintenance, preparation for planting – positioning plants, track preparation, and planning activity for public planting day 12 September 2021 (subsequently cancelled). Planning and organising for school visits.
- Liaison with landowners, grazers, Invercargill Rifle Range, DOC, Local Authorities, schools and report writing.
- Caretaker Barry has been a key figure in ensuring the new initiatives have been successful and key ongoing management tasks and liaison is undertaken.
- Main user of the Mulcher Mower machine for track work, weed control and maintenance of Living Legends year 2 planting area.
- Major track work at Bryson Road entrance to Bushy Point, removal of fencing from Totara Block and using fenceposts for new picnic area near the pond.
- Health and Safety continues to be a focus with Bushy Point being looked at in different ways to try and determine differing H&S issues. The hours spent this year reflect the hours specifically looking and fixing H&S issues. Health and safety is always a consideration when other groups are in doing voluntary work, in

these instances the H&S time is included in the project associated with the groups visits.

4. Restoration

- Plant maintenance and weed control continued.
- The planned 12 September 2021 major planting event was cancelled due to Covid 19. However over the next month all plants were planted by volunteers in small groups. Grand total of 32,686 plants have been planted at Bushy Point since the year 2000.
- Preparation spot spraying of Living Legends 2021 area by Barry and release spraying of the previous years' plants.
- Growing of 1200 Living Legends plants by Linda and Ray Jackson at the Community Nursery
- Combi-guard plant covers bought and used to cover plants for rabbit control.
- Five Minute Bird Surveys by Kiri Pullen undertaken annually, funded by ES
- Rat and Mustelid monitoring continued at Bushy Point by ES.
- In February 2022 a weekly weeding session was held organised by Douglas Black.

5. Animal Pest Control and Monitoring

Intensive pest control operation continues, taking in the whole of Bushy Point area (90 hectares). The rat, mustelid and possum control at Bushy Point is aimed at protecting the nesting fernbirds, kereru, tui and bellbirds as well as other birds, lizards and insects and plants.

- Maintained 8 trap lines through Bushy Point covering over 6 kilometres of track, containing - 90 rat bait stations, 49 possum traps, and 14 stoat traps. Bait stations are set at 50 metre intervals along each track.
- Approximately 320 voluntary hours spent on pest control in 2021/22 by Ian Gamble, Sally and Gordon Duston, Frith van Lier, Brian Rance, Becky Goodsell.
- Trap lines continue to be serviced on average every second week by volunteers, with results since start of trapping in 2007 as shown below. Although possums have been markedly reduced, stoats continually reinvade and rat poison continues to be taken.
- In addition, an extension to trapping along the estuary edge called the buffer project was established and maintained.

Possums caught at Bushy Point by calendar year were as follows (note that the 2022 figures are only up to March 2022).

Possum Count of Catch	Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Total	99	74	26	17	17	10	6	12	13	9

Possum Count of Catch	Year						2022 (to March)	Grand Total
	2017	2018	2019	2020	2021			
Total	10	9	18	13	15	4	352	

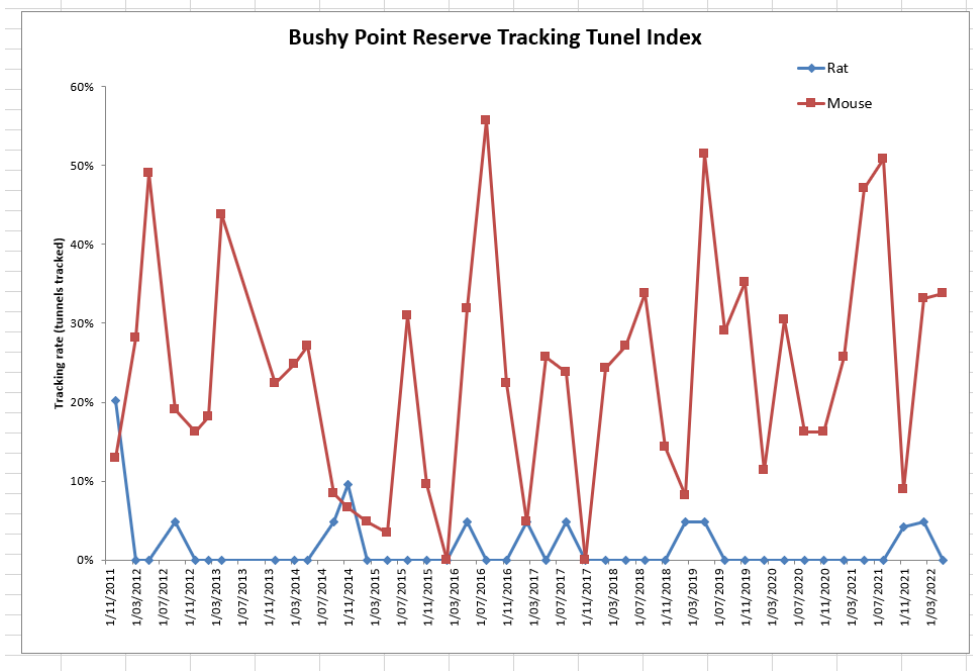
Mustelids caught by calendar year were as follows (note 2021 up to March 2021):

Count of Catch	Year									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Ferret					1					5
Stoat Adult (F)	1	1	5	2	2	1	4	1	3	
Stoat Adult (M)	2	3	2		3	1	6			
Stoat Juvenile (F)								2		
Stoat Unknown	10	9	11	8	1	9	6	4	11	7
Weasel	1	3		1	1	1	2		1	
Grand Total	14	16	18	11	8	12	18	7	15	12

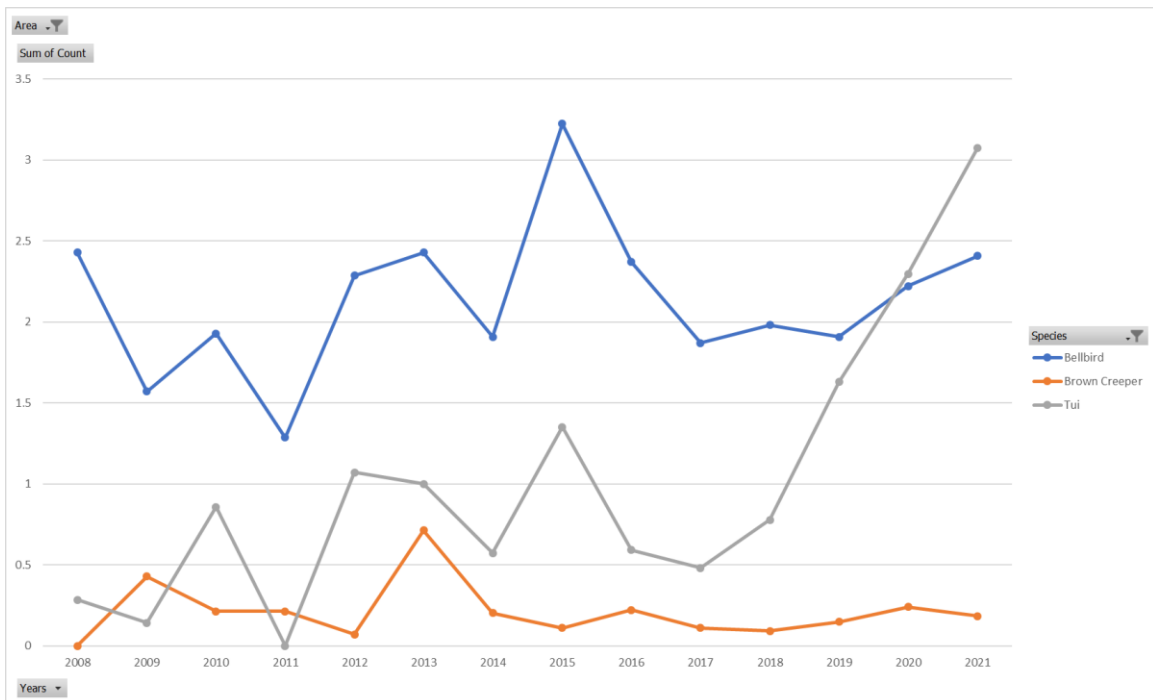
Count of Catch	Year						2022 to March	Grand Total
	2017	2018	2019	2020	2021			
Ferret	5	1	1					13
Stoat Adult (F)	1	4						27
Stoat Adult (M)	1	1	2		1			22
Stoat Juvenile (F)								2
Stoat Unknown	10	6	4	2	2	1		101
Weasel	3	1		4				18
Grand Total	20	13	9	6	3	1		183

- Trapping results are also recorded on the Trap NZ website. Statistics and maps can now use 15 years of data to establish trends in trap catch at Bushy Point. Information on trapping is collected in the form of spreadsheets and this information is available for further analysis.
- Lizard artificial covers, weta motels and seedfall traps are still in place but monitoring by Environment Southland has ceased.

- Bird count stations have been set up and are monitored by Kiri Pullen for Environment Southland every November. These counts are done in association with counts at Mores Reserve, Bluff Hill, and Omaui Reserve.
- Rat, mouse and stoat monitoring by Environment Southland continued with the results below.



BUSHY POINT BIRD MONITORING 2006-2022



Thanks to Becky Goodsell, Anna Harris, Raoul Thomas and Ali Meade of Environment Southland for ongoing support and advice with pest control in 2021/22.

Wider Otatara Pest Control – Otatara Pestbusters

Otatara Pestbusters (which encourages pest control on private land by their owners), was continued throughout 2021/22. This project (a sub-group of the Otatara Landcare Group) now run by Dallas Bradley has nearly 300 members, most doing pest control. The project builds on the 90 hectares of control at Bushy Point and has been supported by Environment Southland funding which has enabled the group to supply traps and bait to property owners at a subsidised price. Each person actively engaged in pest control receives a letterbox sign and regular newsletters.

Since 2013/14 Invercargill City Council Reserves at Otatara have been brought into Pestbusters and traps are being serviced by volunteers in those locations.

In 2012 negotiations began to include Otatara South Scenic Reserve into intensive pest control. Department of Conservation funding ensured that this reserve has been intensively trapped for possums, stoats and rats since 2015/16. Thanks go to local resident Peter Simpson for spearheading the pest control in Otatara South Scenic Reserve and now Chris Bowen and Colin Lawrence supported by Pestbusters.

6. Weed Control

- Gorse, broom and blackberry control continued, particularly at the Bryson Road entrance to Bushy Point
- Hand weeding of plants by volunteers in February 22 – organised by Douglas Black.
- Spot spraying of areas in preparation for Living Legends 2021 planting – by Barry Smith.
- The mulcher mower utilised for gorse control in the plantation area
- The OLG ran the annual Chilean Flame Creeper removal evening at Bowman Bush on 27 January 2022.

7. Infrastructure

- Bushy Point Track mowed as required, track improvements made.
- Equipment shed, and tractor shed
- Track around pond maintained.
- Posts and track markers for self-guided activity trail
- Posts for new track alignment and interpretation
- The mulcher mower utilised for trackwork
- New picnic area constructed near pond
- Muddy part of the track beyond the pond improved by sand (but more work needed)

8. Interpretation and public access

- The Bushy Point walkway continues to be used by individuals and groups.
- Five Interpretation Signs maintained on-site
- Doggy do bags provided at the entrance to the Bushy Point Track.
- Geocaches including a multi geocache were placed in Bushy Point in 2015

General Information and Advocacy

- Otatara Pigeon Post Newsletter published and delivered to all Otatara residents March 21, July 21, Nov 21, March 22 – hard copies delivered thanks to ICC funding and digital versions on website at <https://www.otataralandcare.org.nz/publications/>
- OLG website updated regularly with events, and includes a “Pestbusters” section

9. Volunteers and Public Involvement

- Covid again affected public planting events. The planned public planting day for September 21 was cancelled. More informal involvement was welcomed and the walkway is regularly used by walkers.
- Number of hours for the year – 1081.1 hours (over 17834 hours in total for the project).
- School visits – Two major school events occurred – 150 students from Southland Girls High School in April 21 and Otatara School in September 21.
- An Orienteering event was held in August 2021 – 100 attended
- 8 Pest lines (over a 90 hectare area) maintained every 2 weeks by a group of dedicated volunteers.
- Douglas and Kathy held weekly evening weeding sessions in February.

10. Grazing/pasture management

- Horse grazing has continued in 2021/22.
- No sheep grazing, but baleage taken off.

11. Funding

- A successful application for funding for three years for Bushy Point, Otatara South and Pestbusters was made to Department of Conservation in 17/03/2020. Annual Reporting to DOC is required.

12. Expenditure and Income

- General expenditure for Bushy Point 2021/22 was \$26868
- Public Liability Insurance was \$620
- Pest Control Expenses were low at \$354 mainly because DOC Southland gifted all the poison (pindone) for the year.
- Total grazing and baleage income for Bushy Point 2021/22 was \$953

13. Key Tasks for 2021/22

- Preparation for Planting Event 12 September 2022
- Release spraying previous plantings
- Preparation spraying for 2022 plantings
- Weed control, as required, for previous 21 years of plantings
- Continued track maintenance – look at solution to muddy sections
- Continue to work with schools at Bushy Point, in particular Southland Girls High School, Otatara School, James Hargest and other schools for Living Legends School planting.
- Weed control particularly gorse paddock, broom on boundaries and releasing of planted plants
- Maintain with volunteers all pest lines every 2 weeks from spring.
- Continue work to extend pest control over wider Otatara area particularly new estuary edge area
- Investigate using self-setting rat traps in place of poison at Bushy Point
- Continue to support the Otatara Pestbusters initiative
- Represent the OLG on the New River Estuary Forum
- Support work at Oreti Totara Dune Forest (a number of our committee members also on that Trust – Maurice, Dallas, Brian, Chris and Cathy).

14. Acknowledgements

Thanks to the Department of Conservation, Environment Southland, Invercargill City Council, surrounding landowners and volunteers for their efforts in making 2021/22 another very busy and successful year for the Bushy Point Restoration Project.

Richard Johnson, Chair OLG – August 2022

Bushy Point Habitat Restoration Project

Twenty-third Annual Report – April 1st 2021 ~ 31st March 2022

Statistical Information:
Brackets)

(Last Year's Figures in

- Number of Trees Planted 2021 ~ 22 year: 1428 (1070)

The increase number of trees planted is reflected in visits by three groups, No10 school holiday programme, Otatara School visit and Southland Girls' High School Year 7 visit in 2021. These visits did not occur in 2020 due to Covid. As a pre-warning, hours for 2022 ~ 23 may be down also as there was no visit from SGHS again this current year but it is possible other groups may fill part of the gap

- Total Trees Planted: 33,114 (31,686)
- Hours Input 2021 ~ 222 year: 1083.1 (850.7)

Much of the increase in hours is represented three groups, No10 school holiday programme, Otatara School and Southland Girls' High School Year 7.

- Hours Planting and Preparation: 318.1 Hrs (280.7 Hrs)

A few more hours were required for preparation work this year due to the large amounts of blackberry, muehlenbeckia and other weeds present in the area we were to plant in.

- Plant Area Maintenance: 113.2 Hrs (120.9 Hrs)
- Total Hours Inputted: 17,834.9 (16,753.8)
- Total Additional Area Planted: 0 (infill planting) (0 (infill))
- Total Area Planted: 6.7 Ha (6.7 Ha)
- Average Age of plantings: 11 yrs (10.5 yrs)
- Carbon Storage Rate: Tonnes/Ha 2021 ~ 22: 108^{Note 1} (107.5)^{Note 1}
- Additional Carbon Stored (T) 2021 ~ 22: 3.35^{Note 1} (3.35)^{Note 1}
- Carbon Emitted (T) 2021 ~ 2022: 0.650^{Note 2} (0.492)^{Note 2}
- Total Carbon Stored to Date (Tonnes): 723.6 (720.25)
- Estimated Carbon Emitted to date: 20 T Max

Note 1: Figures based on:

Ministry for Primary Industries "Carbon Look-up Tables" for Forestry in the emissions trading Scheme - July 2017

Note 2: As Carbon Footprint was a relatively recent thought to add to the report the figures are mostly based on Mower Usage (8.085 Kg / Hr) and best guess for the total number of vehicle miles travelled and averaged on fuel consumption. The 2022 ~ 23 year will be more accurate based on a better tracking of vehicle usage.

- Pest Control: 319.8 Hrs (312 Hrs)

Target species include possum, Rats, Mustelids and rabbits by our team of Ian Gamble, Frith Van Lier, Becky Goodsill, Brian Rance and Gordon Duston. Whilst any of these people are away others have been known to step in and assist.

- Pathway management: 153.6 Hrs (61.7 Hrs)

The additional hours are accounted for by the approximately 85M of track hardened near the entranceway. As well a second picnic area / lookout has been added to the north side of the pond.

- Weeds Spray Application 1335 Ltrs (778.2Ltrs)

Much of the increase was due to the planting season in preparation of the area we needed planting and because we never had a large planting day a number of the plants didn't get Combiguards placed around them so more spraying was required to keep the weeds down.

- Bushy Point Management and report Writing:34.5 Hrs (30.7Hrs)

This has remained relatively consistent. The Management of the Bushy Point area involves 3 ~ 4 walk arounds a year by anyone on the committee who is available and wishes to have a look finalising and focusing on the work that needs done and, in particular, where our planting will occur and when. Report writing is maintaining the time sheets and writing reports for monthly and annual meetings.

- Machinery Hours: (Massport Crossjet) 78.6 Hrs (45.5 Hrs)
- Maintenance Hours: 36.7 Hrs (10.7 Hrs)

The increase in hours is quite significant with the increase representing 14.3 hrs of work for the Native forest restoration Trust maintaining tracks in the Oreti Totara Dunes Forest and also for carting the gravels for the construction of the new track near the entranceway.

The extra maintenance time was the result of 3 items. Firstly the oil seal at the top of the transmission (Gear box) needed replacing which necessitated the removal of the complete drive train, a job taking several hours for a part costing a few dollars. Secondly some of the deck supports seized and broke meaning a trip to an engineering shop in town to get fixed. Thirdly, a repair by Stihl for the replacement of head gaskets wasn't completed properly and a visit to another place to see if they could tune the engine properly is where they found the initial problems of incorrect valve clearances, loose bolts etc.

- Health and Safety: 3.9 Hrs (13 hrs)

This reduced hours does not mean we take Health and Safety less seriously, it is just that there wasn't the same amount of remedial work required on our seats and picnic tables this year and there were no trees which posed a falling risk to those walking on our track system..

Barry Smith

OLG Caretaker – Bushy Point

Barry Smith

Barry Smith

Interpretation Signs



Bushy Point Project

GROWING FORESTS AND COMMUNITIES

ARE YOU ON HERE?
Let us know!

You can help! Find out how at www.otataralandcare.org.nz

Otago Landcare Group

BUSHY POINT BEFORE & AFTER

It was the year 2000 when Otago Landcare Group volunteers started planting at Bushy Point.

In 2019 we shall celebrate the milestone of 30,000 native plants!

Our website explains how you can help: otataralandcare.org.nz

Otago Landcare Group

Planting 2021



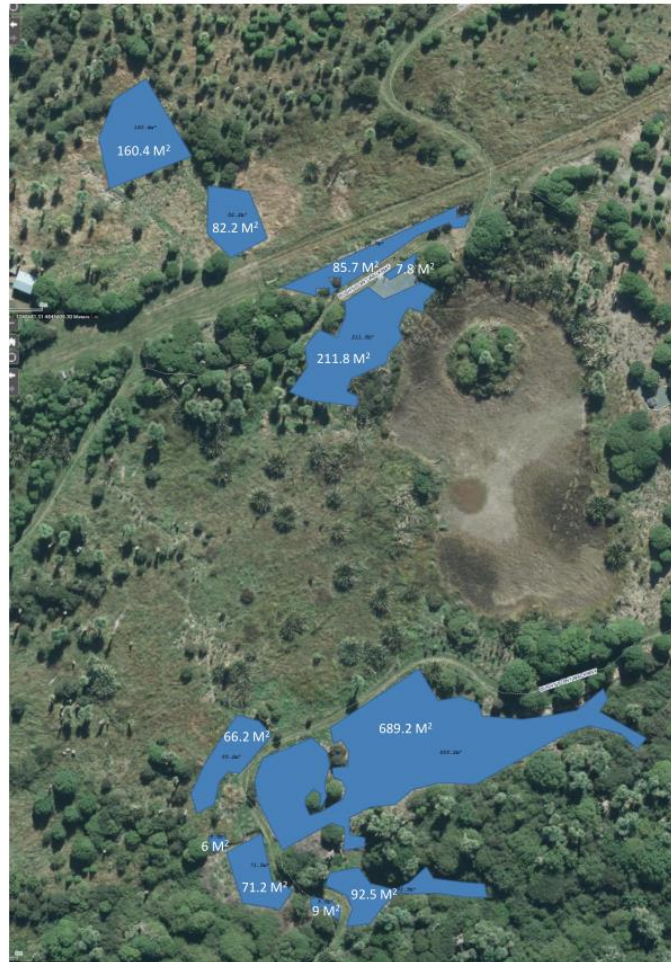
Bushy Point Areas Planted 2020 ~ 21 Planting season

Total Area Planted - Planting Day - 874.5 M²



Bushy Point Plantings 2021 ~ 22

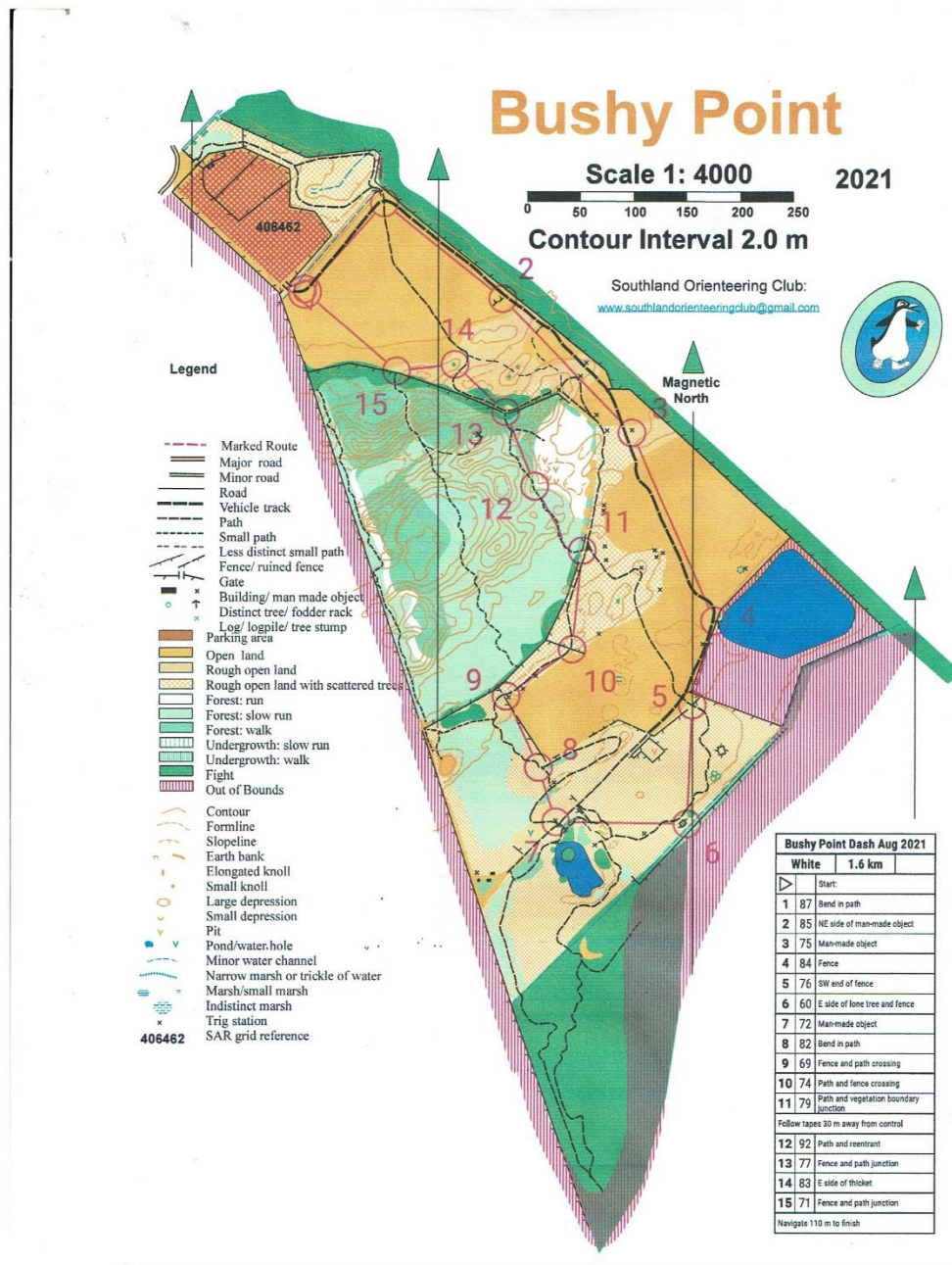
Total Area Planted: 1482 M² - Infill Planting



School Visits 2021/22

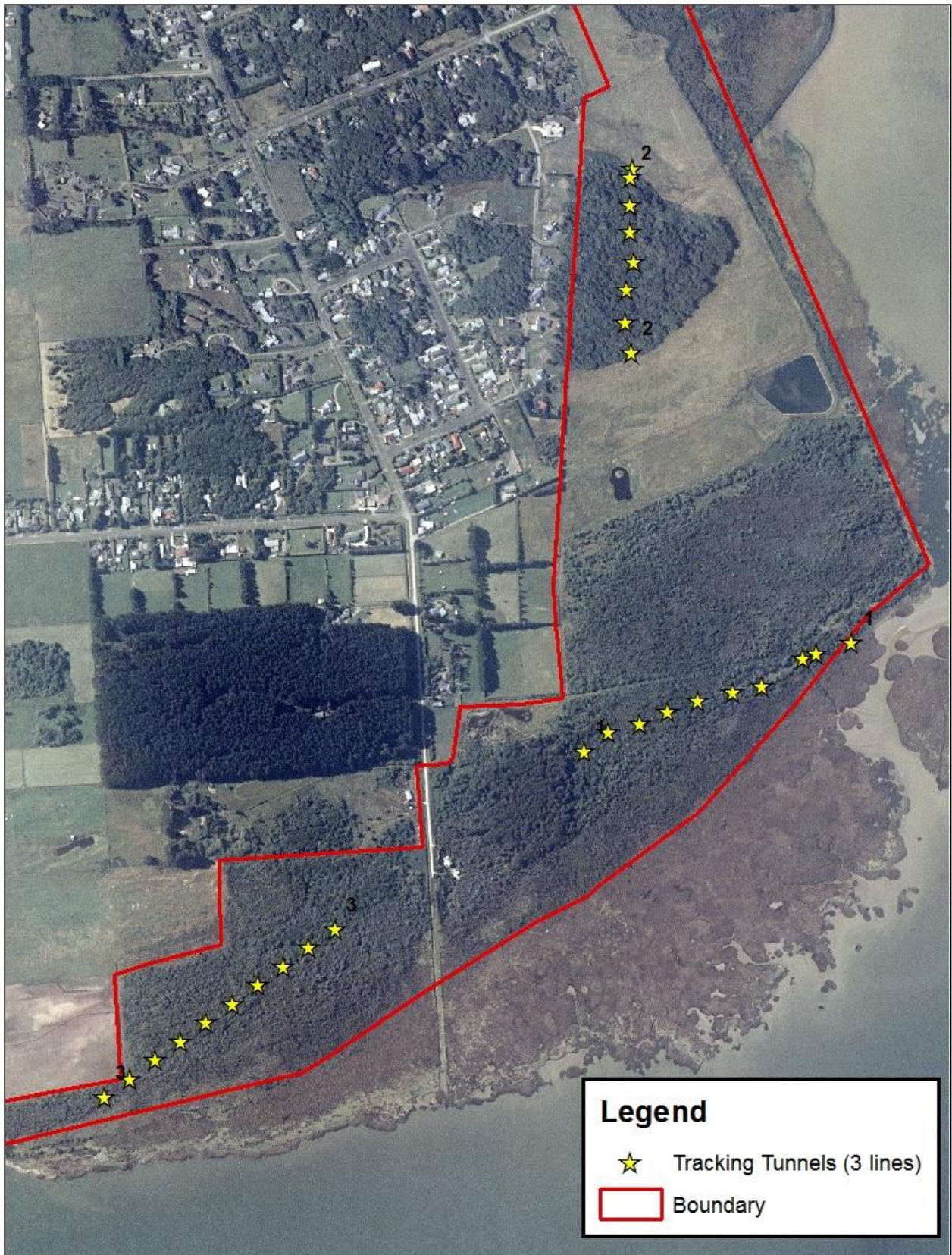


Orienteering Event – August 2021



Forty-four groups, representing approximately 100 individuals and dogs braved a rather chilly day at Bushy Point which featured one of our Winter Dash series. These events are planned by people new to planning and targeting the newer orienteer so that they may get a good grasp of the basic skills of the sport. But people of all abilities are welcome to join in. Many family groups were involved which seems to be the trend with the Southland Orienteering Club. Lollies were 'planted' at spots where children were expected to 'wilt' and free hot chocolate was slurped up with great enthusiasm – **Sally Duston**

Rodent Monitoring lines at Bushy Point



Bushy Point/Otatara Rodent Tracking Tunnel Monitoring

Date: 05 November 2012



1:7,500

Cadastral information derived from Land Information New Zealand. CROWN COPYRIGHT RESERVED. Aerial Photography dated 5/2/2007 to 14/03/2008. Copyright Terra Link International Limited

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Map of Bird Count Locations at Bushy Point 2017/2022

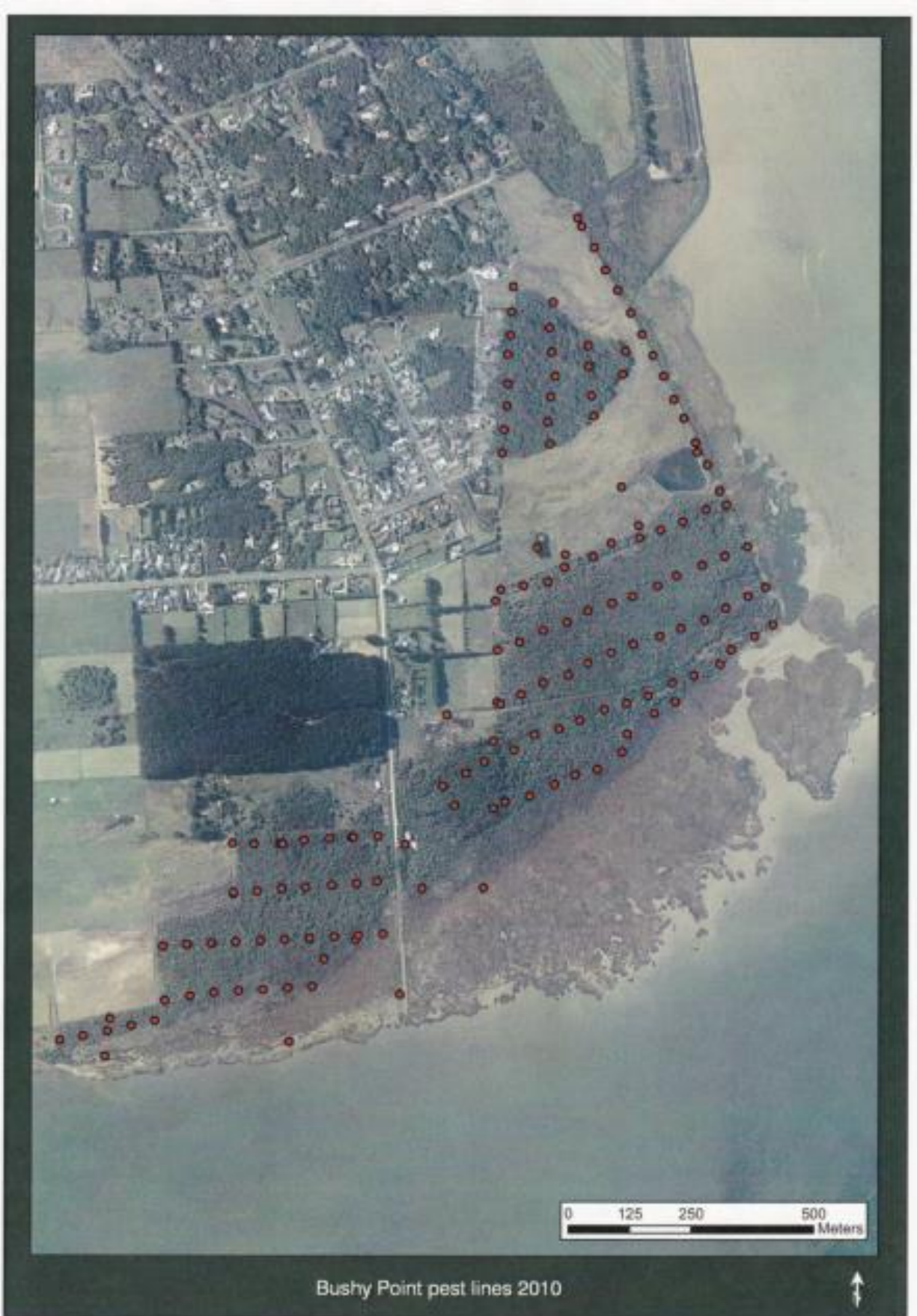


Bushy Point Otatara
5 min bird count stations
Date: 29 October 2014



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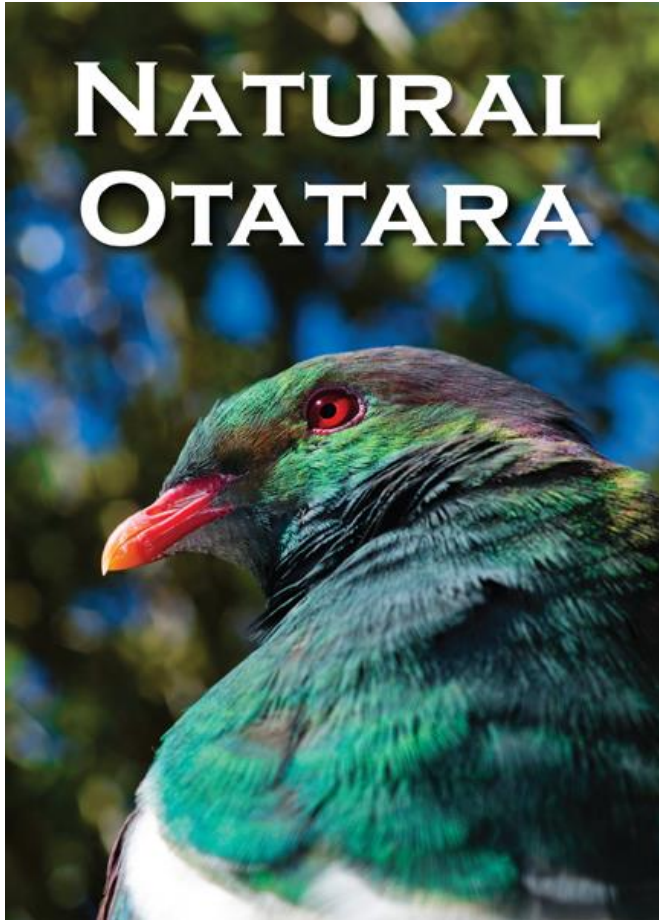
Bushy Point Pest Control 2007-2022



Bushy Point Tracks and Infrastructure improvements 2021



General Advocacy - Natural Otatara Booklet, Kereru Road Signs, Otatara Pestbusters, Otatara Pigeon Post Newsletter



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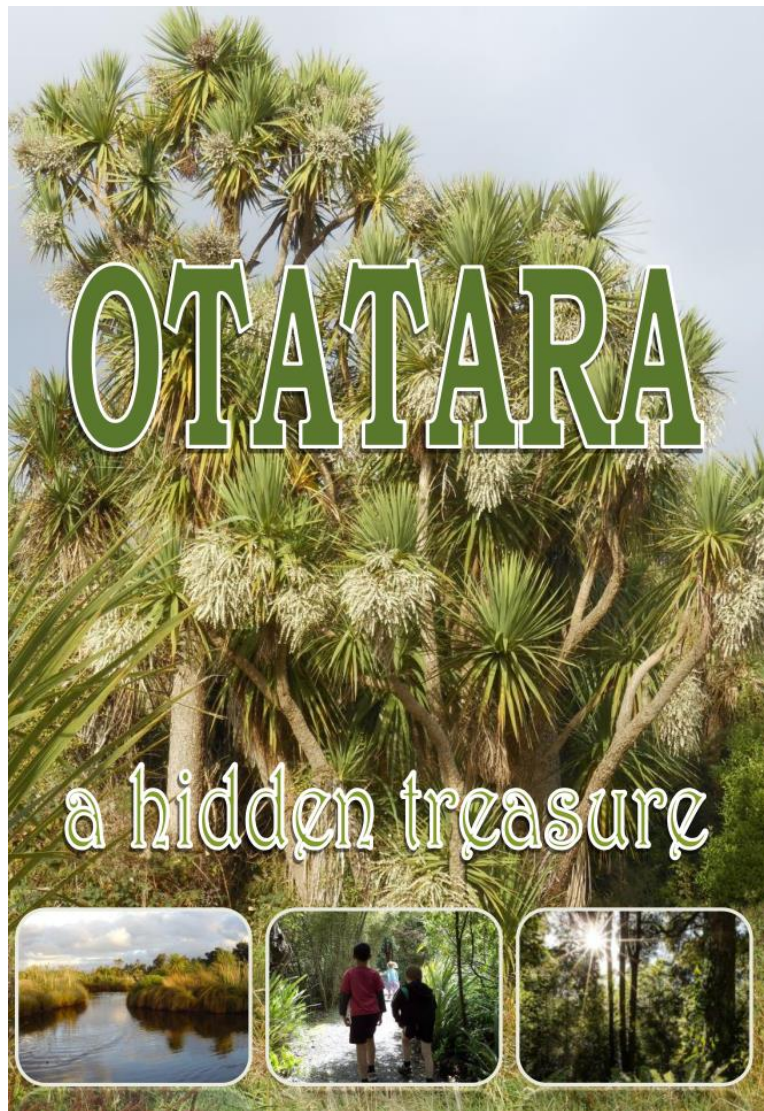
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The full colour version of this publication is available on www.otataralandcare.org.nz under 'publications'.



Otatara School plants out the pump track
 Otatara School pupils planted an astonishing 1 400 native plants in one day in May, to beautify the new Gostelow Park pump track. The plants were provided by the Invercargill City Council's Parks and Reserves department. From left, Liam Shannon, Elise Charlton, Freya Gilmour, Caleb Ward, Aliana Taylor, Sophie Harvey, Grace Nyhof and Lucy Aurik learn about plants from Nancy Zhao and Shona Tomlins. Photograph courtesy *The Southland Express*. Turn to page 3 for more on the school's ecological programmes.





<https://www.otataralandcare.org.nz/publications/>