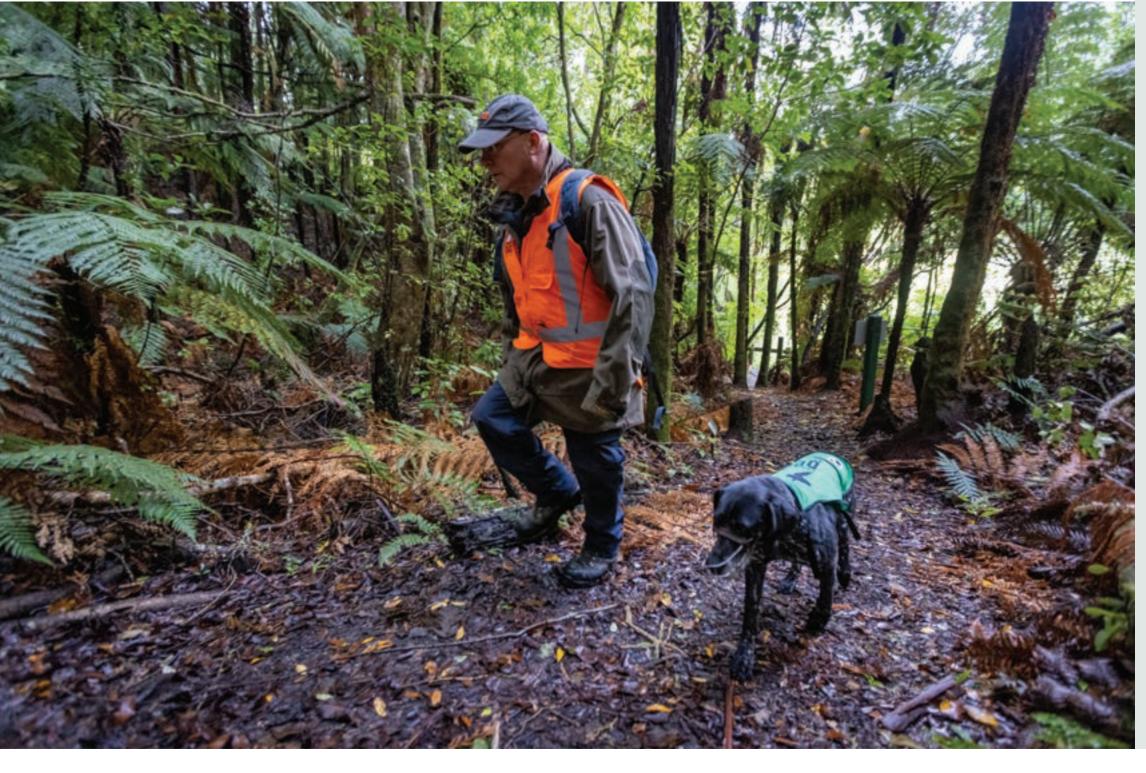


# **Bay of Plenty Regional Pest Management Plan 2020–2030** Operational Plan Annual Report 2023/2024

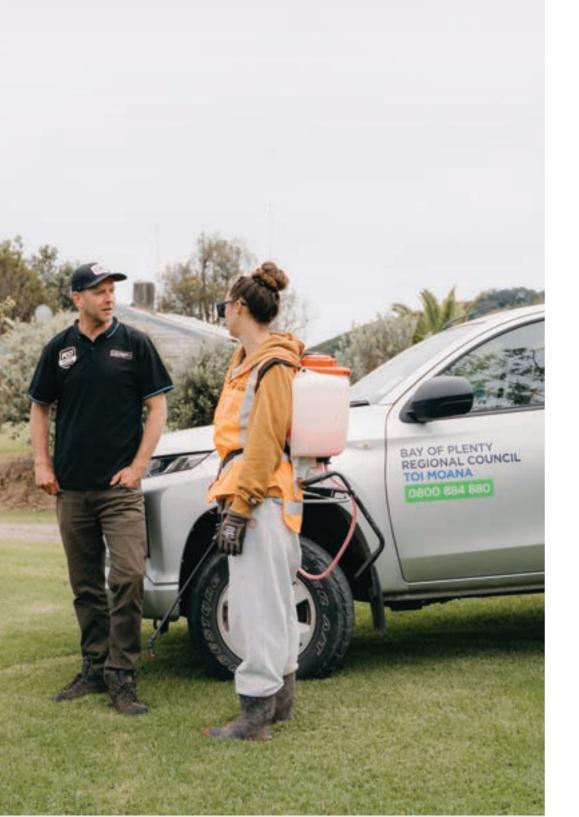
Prepared by Romany Prevette-Stanaway - Biosecurity Dive Technician



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# Te timatatanga Introduction

This report summarises operational work completed throughout the 2023/2024 financial year to implement the Bay of Plenty Regional Pest Management Plan 2020-2030 (RPMP Operational Plan 2023/2024).

Council uses two key systems to manage and report plant and marine pest work, GeoPest and the Marine Vessel Portal. Both systems are relatively new and the collection of baseline data is still on progress.

**GeoPest** – the spatially driven data collection, storage and reporting tool developed by council, has allowed much more accurate reporting of presence and distribution for many species. Accuracy of progress against RPMP Objectives and Outcomes will continue to build over time as the tracking of operational and inspection results.

**Marine Vessel Portal (MVP)** – The MVP is a Marine Biosecurity data management tool that has been developed by a group of Regional Councils to assist with managing biosecurity risks associated with inter-regional vessel movements. It is designed to be used by Regional Councils and other government organisations, contractors, community groups and the public. The MVP is used to record vessel hull inspections, benthic and structure dive surveillance, and marine pest mapping.

# 2023/2024 key statistics

issued

2,851 **91** species **18 species Boat Hulls Exclusion pest** with sub-regional splits covered by the RPMP Checked detected **Pest categories:** 1,640 **Exclusion** public enduiries received **RPMP** pests found 2 **Eradication** 3.774 **Progressive** - 51 containment property 2,564 inspections rule 7 self-Sustained completed control certification 117,040 forms website page visits completed 68 **Advisory Total area inspected** for **RPMP** pests 108,409 ha **Programme compliance** 90% 2021/22 40% 60% of programmes Inspection Notice 51% 2022/23 49% **Compliance Level** on track (101 of 112) of Directions 2023/24 56% 44%

6% change in on track programmes compared to 2022/23)

Compliant

Non-compliant

## ALL BOAT RAMP USERS MUST SELF-CERTIFY BEFORE LAUNCHING

## You must ensure that

 Your vessel or craft (including trailers) are free from freshwater pest fish and freshwate pest plants, including fragments.
 Any water on the vessel (including baller bilge, and water in the anchor bay) was drained before launch.

#### SELF-CERTIFY NOW

Scan this QR code



II in the form at perc-govt.nz/ccd-self-cert te the paper i display on your

Warranted officers under the undertake regular compliance to that the rules are being followed that the rules are for full details of

Go to boprc.govt.nz for full details of no-

# Part 1: Programme reporting

# Long Term Plan Community Outcomes and Priorities

Biosecurity sits under 'a healthy environment'.

He taiao ora **A healthy** environment

### LEVEL OF SERVICE STATEMENT:

Deliver effective pest management

	Result 2021/22	Result 2022/23	Goal 2023/24	Result 2023/24	Goal 2024/25	Goal 25/26 onwards
The percentage of RPMP programmes on track	96%	96%	85%	90%	85%	85%
Proportion of wallaby satellite populations (outside of progressive containment area) where wallabies no longer detected*	TBC	80%	71%	57%	90%	100%
Reduction in wallaby progressive containment area	FY 24/25 target	FY 24/25 target	FY 24/25 target	N/A	7.5%	7.5%

\*New measure

Long Term Plan Community Outcome: He taiao ora – A healthy environment					
LTP priorities	<b>RPMP Strategic Direction</b>	Deliverables			
	1. Prevent pests from entering and establishing in the Bay of Plenty.	Significant investment in New to Region surveillance, 41 pests in Exclusion or Eradication categories, Undertaking marine biosecurity work for other Councils.			
4. Sub-regional/regional view		18 species with sub-regional category classifications.			
6. Partnerships with Māori	4. Work in partnership with other parties that have pest management responsibilities and interests.	Supporting hapū to undertake operational work including TALT, Ngāti Rangitihi, Matakana Island, Te Whānau Apanui. Looking for better alignment and opportunity with Raukūmara Pae Maunga project.			
7. Making best use of our resources	2. Manage pests when it is practical and cost effective to do so, using Council's regulatory and/or operational roles.	Cost Benefit Analysis used to develop RPMP, use of Biosecurity Act powers (inspections, formal inspections, Notice of Directions). Development of Strategic control areas for Woolly nightshade and Wild ginger in Sustained control areas.			
8. Community participation and constructive relationships	3. Support the efforts of landowners/occupiers and communities to manage established pests and prevent pest spread.	68 Advisory pests - control advice through Pesthub and user guide, development of 'Woolly Wipeout' campaign. Provide advice and support to community groups. Provide presentations to interested groups. 'How-to' videos developed.			
	4. Work in partnership with other parties that have pest management responsibilities and interests.	Working in partnership with KVH, MPI (Pines, wallabies, KDB, NIPR), TMBC, DOC (Tarawera, Feral Goats), Ngā Whenua Rāhui (goats), Science providers (NIWA, AgResearch, Plant and Food Research, Landcare Research), National Pest Plant Accord, National Biocontrol Collective, Biosecurity working Group and many more.			

#### CASE STUDY



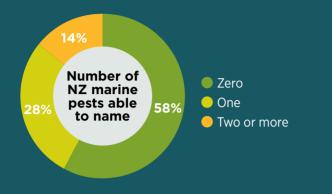
# Marine Education

Increasing knowledge of those active in the moana of marine pests is vital to early detection of marine pests and subsequently preventing further spread.

Public understanding of what marine pests to look out for, how to identify them and what action to take are a key focus both locally and nationally with the ever-increasing threat of marine pests reaching our borders.

For the first time a summer Marine Biosecurity ambassador project employed a student to engage with the public, local hapū, recreational boaters/fishers, dive clubs, fishing clubs, yacht clubs, marinas, boating stores, universities, polytechnics and schools. Delivering simple and effective biosecurity messages involved a multifaceted approach. Informative flyers, presentations, merchandise, video and social media were all part of the education strategy.

The current level of awareness of marine pests was gauged via a faceto-face survey at boat ramps and marinas across the Bay. The results suggest that the existing level of marine biosecurity understanding is low. While 82% of survey respondents think that marine pests are a problem in Aotearoa, 56% of respondents can't name any marine pests and 28% can name only one.



The marine biosecurity advocacy student is estimated to have engaged with 1,000 people over the summer. Toi Moana's website saw a 120% increase in visits to the marine pest section compared to last year and there was good engagement in marine pest videos on social media, with one Mediterranean Fanworm video reaching 58,200 plays.

With education and advocacy ongoing, it is expected that more people will become marine Biosecurity aware and motivated to do what's needed to stop the spread of marine pests.



Matatā Lagoon education day





# Part 2: RPMP Programme reporting

This section provides an overview of activities completed for each pest programme. It also provides a current status for each programme relating to progress against management objectives. Status ratings of the programmes are provided in the table below and are measured against the objectives of the RPMP.

#### Status Description

Pest programme is considered on-track to meet RPMP pest programme management objectives.

Pest programme is considered at risk of not meeting RPMP pest programme management objectives or will not meet some of the management objectives.

Pest programme will not meet RPMP pest programme management objectives.

# **Exclusion**

Exclusion pests are pests that are not currently in the region, or for sub-regional splits, not in parts of the region. The goal of the programme is to prevent their establishment.

RPMP classification	Exclusion
Objective	Over the duration of the RPMP, prevent the establishment of Exclusion pests in the Bay of Plenty region, to avoid adverse effects on production, environmental and public values.
Outcome	No pests in the Exclusion programme are established in the region.

Council has a lead role in managing Exclusion pests through advocacy and education, inspection, and service delivery.

Surveillance for Exclusion pests is done by various operational activities, including:

- Dive surveillance for marine pests.
- eDNA sampling to determine pest presence.
- Ornamental Pond surveillance.
- As part of the New to Region Surveillance programme.
- During normal RPMP surveillance work.

During 2023/24, one exclusion pest was detected through eDNA sampling at Matatā lagoon. Eradication of this pest is unlikely.

#### **Key highlights**

Number of species in category	20
Number of Exclusion pest sites discovered	1
Percentage of programmes on track	95%

Plants	Status	Infestations discovered	Surveillance effort
Alligator weed*	•	0	
Batwinged passionflower	•	0	
Chilean flame creeper	•	0	Conturadin
Chilean needle grass	•	0	Captured in New to Region
Darwin's barberry*		0	programme and
Field horsetail	•	0	all other RPMP surveillance
Italian buckthorn*		0	Surveillance
Kauri dieback <sup>#</sup>	•	0	
Marshwort	•	0	

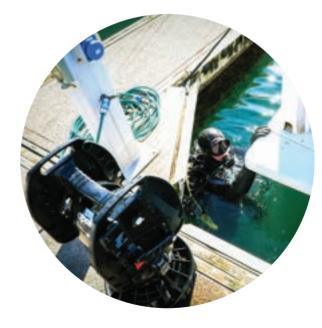
Marine	Status	Infestations discovered	Surveillance effort
Australian droplet tunicate	•	0	189 (ha) Benthic 44,502 (m) Pontoon length
Pyura	•	0	2,732Piles checked1152Dive hours

Freshwater fish	Status	Infestations discovered	Surveillance effort
Brown bullhead catfish*		0	
Koi carp*		0	187 (combined
Perch*	٠	0	with eDNA and other pest fish
Rudd*	•	1	surveillance)
Tench*		0	

Freshwater plants	Status	Dive surveillance hours	Surveillance area
Egeria*			
Elodea*	•	570	1075 h -
Hornwort*	•	576	1075 ha
Lagarosiphon*			

\* sub-regional split <sup>#</sup> part of national programme

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With the development of the MVP, pontoon lengths and piles that have been inspected for marine pests can be accurately reported.

#### CASE STUDY

# Kauri Protection Programme

The Bay of Plenty region remains the only region, where Kauri (*Agathis australis*) naturally grow, that remains free from Kauri dieback disease (*Phytophera agathidicida*), now known as PA. PA, is a soil-borne pathogen that is both incurable and fatal to kauri trees, often transferred by movement of infected soil.

In July 2023, a provisional positive result of PA was detected at the entrance of the Kaimai Mamaku Park at the top of Wharawhara Road near Katikati. A Rāhui was placed, and all surrounding tracks were closed. Subsequent tests did not detect the pathogen therefore the PA free status of the region was reinstated. While this was a good outcome, it was a timely reminder that vigilance is required to protect this taonga species.

During 2023/24, several protection projects were undertaken to further protect kauri and minimize the risk of PA being spread. Funding was provided by Tiakina Kauri to support the National Pest Management Plan for PA and involved a number of partners including mana whenua, private landowners, Department of Conservation and Western Bay of Plenty District Council (WBOPDC).

Projects funded this year included:

- Track upgrades and rerouting at Sapphire Springs to mitigate the potential spread of PA.
- Mulching under planted kauri within WBOPDC reserves to prevent contact with kauri root systems within the drip zone.
- Fencing upgrades on private land to prevent domestic and feral animals moving potentially infected soil particles (attached to hooves) between public conservation land and private land.
- The testing of 'sick' looking kauri trees to prove the absence of PA.

Council will be seeking further funding from Tiakina Kauri in 2024/25 to build on the fencing project and also looking for other protection projects to support the PA free status of the region into the future.





# **Emerging Threats**

There are two key emerging threats which have been found on the border of the Bay of Plenty region. Exotic Caulerpa seaweed has quickly established in the top of the North Island and Corbicula (Exotic Freshwater clam) was first discovered in the Waikato River in 2023.

### **Exotic Caulerpa**

Exotic Caulerpa also known as 'the killer algae', can spread very quickly. Small fragments can travel with currents to establish new infestations and can also be spread unknowingly by vessel movement if caught in anchors, chain or equipment.

First found at Aotea/Great Barrier Island in 2021 Exotic caulerpa has now been found at numerous sites around the top of the North Island and the closest infestation is only 45 nautical miles (83km) away from Tūhua /Mayor Island.

In the last year Council's Biosecurity dive team has assisted Biosecurity New Zealand; Northland, Auckland and Waikato Regional Councils with delimiting surveillance and small-scale control trials of Exotic Caulerpa. Within the region the team have increased their offshore surveillance and eDNA sampling is being used regularly to assess the presence/absence of pests in the region.



Exotic Caulerpa



Marine eDNA sampling

## **Corbicula (Gold clam)**

Corbicula (gold clam) is globally recognised as a highly invasive species, producing up to 70,000 juveniles a year. They can clog water-based infrastructure, such as electricity generation plants, while crowding out native freshwater species. Overseas, gold clam has proven very difficult to control and eradication has never been achieved.



Gold clam were first found near Lake Karapiro in early May 2023. Since then, they have been found at several sites along the Waikato River. Human activity presents a significant risk of spread to other waterbodies as juveniles are able to hide in bilge or ballast water, sand traps in jet boats, or engine heat exchangers. Small adults can also be transported on wet clothing.

To reduce the risk of corbicula from spreading to the Bay of Plenty, a controlled area notice (CAN) was declared by Biosecurity New Zealand for the Rotorua Te Arawa Lakes by Biosecurity New Zealand. This notice requires boat owners/operators who have been on the Waikato River in the previous 30 days to clean their boat at a designated wash station. Lake Ōkataina has additional protections, with controlled access requirement for every vessel using the lake to be cleaned prior to entry.

Rule 7 of the RPMP requires public boat ramp users to certify that their boat is free from freshwater pest fish and plants and fill out a self-certification form. Over the last year Council has worked with Te Arawa Lakes Trust to increase inspections of boats and trailers using boat ramps, monitoring compliance with Rule 7 and educate the public of the threat of gold clam.

# **Eradication**

Eradication pests are pests that have recently arrived, or are currently in the region, generally these pest are low incidence. The goal of the programme is to Eradicate them during the life of the RPMP.

RPMP classification	Eradication
Objective	Over the duration of the RPMP, eradicate pests in the Bay of Plenty region and eliminate the adverse effects they have on production, environmental and public values.
Outcome	All known or new pest infestations are controlled to zero density within the duration of this RPMP.

Council has a lead role in the management of these pest through proactive surveillance, advocacy, education, monitoring and service delivery.

Comprehensive programmes of work, in particular proactive surveillance, are developed for all Eradication pests.

These programmes are high priority and by using surveillance as a key tool with the aim of finding new infestations early, helps to make control more achievable and prevents their long-term establishment in the region. This goes on to have huge benefits to the regions social, economic, cultural and environmental values.

Most programmes (90%) are considered to be on track. Six of the 21 species are not considered to be present in the region currently. No hornwort was found in lakes where it is not known to be present and the eradication catchments; Lake Ōkataina and Lake Ōkareka were free of hornwort during this surveillance round which is a great result. Seven of the 15 pest plant species had a reduction in pest plant cover, and four remained at zero density. Of the plant species where pest plant cover increased, it was small (less than 1,500m<sup>2</sup> across the region).

#### **Key highlights**

Number of species in category		
Number of properties (excluding feral goats and wallabies)		
Number of inspections		
Area searched	48,5	5 <b>7 h</b> a
% of programmes on-track	(19 of 21)	90%

Challenges remain with some programmes. The eradication of known satellite populations of wallaby is progressing slowly, with four populations now eliminated or functionally extinct (i.e. single wallaby remaining). Two new infestations of Sagittaria were found which has significantly increased the pest plant cover for the region. This species if found early can be eradicated effectively with current control methods.



Successful long term eradication can be supported by community education to quickly identify any new finds.

Pongakawa School wetland surveillance included education on how to identify pest species and what action to take.

#### **Plants**

	Status	Sites being managed	Inspections	Area searched (ha)	Pest cover (m <sup>2</sup> ) - 2023/24	Pest cover change from 2022/23 (m²)
Alligator weed*	٠	9	188	1,807	260.80	-454.66
Coast tea tree	•	3	0	0	82	-93.00
Creeping gloxinia	•	8	24	299	1054.14	377.38
Horse nettle	•	4	8	28	1	-6.00
Kudzu vine	•	3	4	7	25	25.00
Lantana*	•	9	10	5	8	-4.00
Nassella tussock	•	1	1	13	0	-4.00
Noogoora bur	•	15	53	1,594	16.37	-446.19
Purple loosestrife	•	1	72	67	0	0.00
Sagittaria	•	19	93	158	1048.7	852.68
Senegal tea	•	22	81	191	23	-46.00
Sporobolus (formerly known as Spartina)	•	22	7	20	441.2	154.00
Stout bamboo grass	•	2	6	47	2	1.00
Water poppy	•	1	71	63	0	0.00
White edged nightshade	•	4	0	0	0	0.00
		123	618	4,299	2,962	356.02

\* sub-regional split

#### **Animals**

Feral Goats*	
Programme status	•
No. of inspections	0
Hunter days complete	0

No ground hunting was undertaken in the eradication zone due to the application of 1080 across ~120,000 hectares of forest in the Raukumara Ranges and some surrounding private land by the Raukumara Pae Maunga Restoration Project. Much of this year's effort (123 hunter days) focused on the buffer area where the progressive containment zone meets the eradication zone to reduce the risk of reinvasion.

Rooks	
Programme status	•
Sites with rooks present	0
Unconfirmed sightings	3
Birds found	0

Wallabies*#	
Programme status	•
Area searched (ha)	43,850
Dog surveillance (km)	4,230
Cameras deployed	572
Wallabies controlled	4

\* sub-regional split

<sup>#</sup> part of national programme

#### **Freshwater fish**

Perch*	
Status	•
Eradication sites being managed	0
Fish found	0
Inspections	187 (combined with eDNA and other pest fish surveillance)

Koi carp*	
Status	•
Eradication sites being managed	0
Fish found	0
Inspections	187 (combined with eDNA and other pest fish surveillance)

#### **Freshwater plants**

Hornwort*	
Status	•
Dive surveillance hours	256
Surveillance area (ha)	408
Pest cover (ha)	0
Area controlled (ha)	0

# Parma wallaby species discovered

Results of a genetics study carried out for the Tipu Matoro National Wallaby Eradication Programme, confirmed the presence of parma wallaby (*Notamacropus parma*) amongst what has always been thought to be an exlusive dama (*N. eugenii*) population.

In 2023 genetics research conducted by Manaaki Whenua Landcare Research, which aimed to examine genetic variation, revealed that of 173 samples collected from within the region, three samples were parma and two were dama/parma hybrids.

Parma wallabies went largely undetected because they are solitary and are visually very like dama wallabies. Dama wallabies congregate in groups and tend to feed on pasture and grassy clearings at night while parma wallabies stay within dense scrub and forest, a trait that makes them much less conspicuous and coincidentally less vulnerable to night shooting.

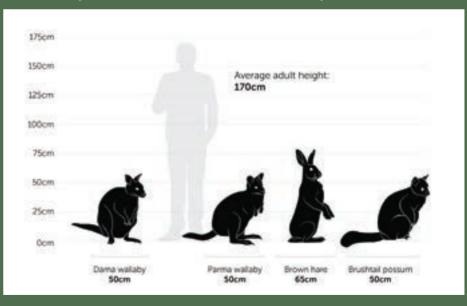
The discovery doesn't change the programme's overall strategy to eradicate all wallabies from Aotearoa, it may result in further research to ensure operational tactics and control methods are effective for both species.





Dama wallaby

Parma wallaby



# **Progressive containment**

Progressive containment pests that are pests that are established in the region where we want to reduce their impacts by reducing their distribution and plant cover.

RPMP classification	Progressive containment
Objective	Over the duration of this RPMP, reduce the impacts to production, environmental and public values by containing, and where practicable, reducing the geographic distribution of pests in the Bay of Plenty region.
Outcome	<ul><li>Reduction in extent and density of these pests.</li><li>Areas that are clear of these pests will remain so.</li></ul>

Within the Progressive Containment category, pests are managed through either a Service Delivery programme or a Compliance programme.

For service delivery species, Council takes the lead role for all activities including control. These pests are deemed high risk, but it is unreasonable to expect landowners to control them, as they require specialised equipment or qualifications to successfully control them. Compliance species are the responsibility of landowners who are required to control them; Council inspects properties to ensure landowners are meeting their obligations.

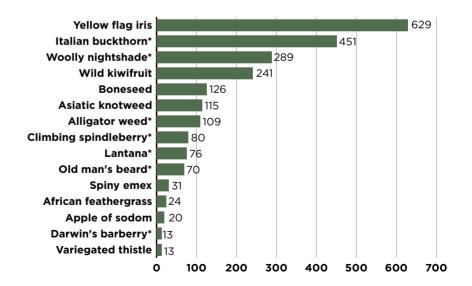
In 2023/24, 69% of Progressive Containment species are considered on-track with infestations decreasing across the region. Four species have moved from being considered on-track to at risk, due to either infestations increasing over the last 12 months, or increased surveillance efforts detecting previously unknown sites.

While in the short term this results in an increase in the number of sites detecting and controlling these sites is crucial to the long-term success of the programme.

#### **Key highlights - service delivery**

Number of species in category	13
Number of properties (plants only)	593
Number of inspections (plants only)	563
% of programmes on-track (9 of 13)	69%

# Progressive containment (compliance) - number of inspections



## **PROGRESSIVE CONTAINMENT - SERVICE DELIVERY**

#### **Plants**

	African feathergrass	Alligator weed*	Asiatic knotweed	Spiny emex	Yellow flag iris	Total
Status	•	•	•	٠	•	
Sites (properties)	81	85	168	14	245	593
Inspections	24	109	115	31	629	908
Area searched (ha)	203	1848	426	399	586	3462
Pest cover 2023/24 (m <sup>2</sup> )	154	10,760.0	535.0	73	758.5	12,280.50
Pest cover change from 2022/23	77	-4,543.7	96.6	-26	-100	-4,496

### Animals

Feral Goats*	
Status	•
Hunter days complete	255.5
Area hunted (ha)	37,561
Controlled	745

Wallabies*#	
Status	•
Area searched (ha)	45.3
Dog surveillance (km)	2.3
Cameras deployed	306
Wallabies controlled	527

\* sub-regional split

<sup>#</sup> part of national programme

#### Marine

	Asian paddle crab	Clubbed tunicate	Mediterranean fanworm
Status	•	•	•
Number of inspections or nets set	1,059	2,959	
Number of infestations controlled 2023/24	325	0	10
Number of infestations compared to 2022/23	135	-2	-3

### **Freshwater fish**

	Brown bullhead catfish*	Rudd*	Tench*
Status	•	•	
Inspections or nets set	2,280 nets	187 (combined inspections & eDNA	
Pests controlled	5,999	0	
CPUE 2022/23	4.87	0	
CPUE 2023/24	2.63	0	
Difference in CPUE	-2.24	N	/A

CPUE = Catch Per Unit

## **PROGRESSIVE CONTAINMENT - COMPLIANCE**

## **Freshwater plants**

	Status	Dive surveillance hours	Surveillance area (ha)	Area controlled (ha)
Egeria*	•	128	428	93.9
Hornwort*	•	32	85	93.9
Lagarosiphon*	•	480	948	105.6

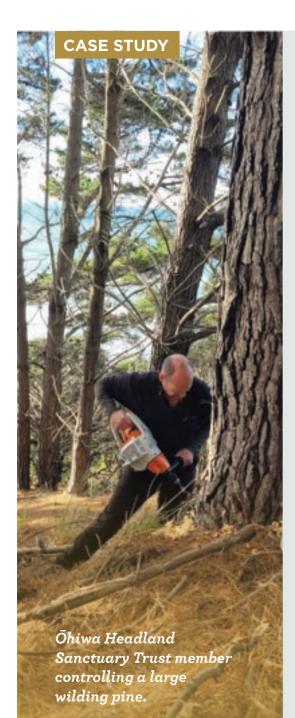
#### Key highlights - compliance

Number of species in category	14
Number of properties (plants only)	3,865
Number of inspections (plants only)	1,379
Area searched	15,575 ha
% of programmes on-track (10 of 14)	71%

Plants	Status	Sites (properties)	Inspections	Area searched (ha)	Pest cover 2023/24 (m²)	Pest cover change from 2022/23 (m <sup>2</sup> )
Apple of sodom	•	16	20	387	899.5	672.7
Boneseed	•	174	126	89	1,899.78	-83.1
Climbing spindleberry*	•	76	80	6,365	4,687.01	118.0
Darwin's barberry*	•	23	13	10	15,273.46	2,217.6
Italian buckthorn*	•	994	451	377	48,252.55	-1,100.3
Lantana*	•	193	76	165	14,333.69	9,557.4
Old man's beard*	•	120	70	263	9,848.55	-450.3
Variegated thistle	•	14	13	520	7	7.0
Wild kiwifruit	•	870	241	2,046	304,489.41	26,598.9
Wilding pines <sup>#</sup>	•	See page 22				
Woolly nightshade*	•	1,385	289	2,100	240,876.94	-4,156.0
		3,865	1,379	12,322	640,567	33,382.0

\* sub-regional split

<sup>#</sup> part of national programme



# Wilding pine management in the Bay of Plenty

Wilding pine control continued across the Bay of Plenty in 2023/24. Supported by funding from the National Wilding Conifer Programme (NWCCP) and BOPRC Biodiversity programme, 6,500 hectares were cleared of wilding pines. This included harvesting one of the densest infestations of Pinus contorta in the region in the Otangimoana Conservation Area in the upper Rangitāiki area.

The NWCCP is a collaborative programme, managed by Biosecurity New Zealand (BNZ), and includes Councils, DOC and various Community Groups and mana whenua partners. In addition to the national programme, Council have continued to support the wilding pine control work at Mount Tarawera, in the East Coast area, and the Ōhiwa Headland.

Area	Project Type	Land cleared of wilding pines (ha)	BOPRC funding	External funding	Total funding
Upper Rangitāiki	National Wilding Conifer Control Programme	5,696 ha	\$35,000	\$234,500	\$269,500
Upper Rangitāiki	Biodiversity – Rangitāiki Frost Flats protection	464 ha	\$200,000*	0	\$200,000
Mount Tarawera	RPMP – Iwi led programme	126 ha	\$35,000	0	\$35,000
Mount Tarawera	RPMP – DOC support	214 ha	\$49,000	0	\$49,000
East Coast	RPMP – Iwi led programme	120 ha (674 trees)	\$60,000	0	\$60,000
Ōhiwa	RPMP – Community led programme	0.06 ha (54 trees)	\$10,000	0	\$10,000
	Totals	6,619 ha	\$389,000	\$234,500	\$623,500

\* Funded by the BOPRC Biodiversity Programme

Wilding pines <sup>#</sup>		
Programme status		•
Number of properties that	22/23	14
received control	23/24	6
Area that received control (ba)	22/23	15,612 ha
Area that received control (ha)	23/24	1,792 ha
Pest Plant Cover (m <sup>2</sup> )	22/23	2,894,828
	23/24	3,297,111



This wilding pine site on DOC land at Otangimoana in the upper Rangitāiki had previously been one of the densest Pinus contorta sites in the region. 40ha was successfully harvested at this site with the sale of some logs helping to offset the costs of the control work.

## Harvesting Wilding Pines for Commercial Sale

Wilding pine control on the upper Rangitaiki plains has been undertaken for several years to protect the endangered frost flats.

PF Olsen approached Regional Council with a proposal to harvest c. 50 ha of dense contorta that had previously been frost flat.

It was treated as a production harvest and wood was sold to various markets to recover as much of the cost as possible.

- 5,200 tons of logs were exported
- 843 tons sold as firewood
- 63 tons for wood burner pellets.

A full cost recovery was not achieved but c. 46 ha were harvested at a cost of c. \$1,000/ha, which is well below control costs for wilding infestations of this density.

Harvesting is still considered a viable option for around 900 ha of wilding pines within Otangimoana Conservation Area.



Aerial view of pre- and post-harvest

# **Sustained control**

Sustained Control pests are pests that are well established in the region, Councils role is largely focussed on reducing the impacts across boundaries. Council also has a role in managing these pests in 'strategic areas' where the investment will support biodiversity and/or cultural outcomes.

RPMP classification	Sustained control
Objective	Over the duration of this RPMP, reduce the impacts to production, environmental and public values by controlling Sustained Control pests in the Bay of Plenty, and preventing unreasonable impacts from these pests spreading across property boundaries where neighbouring occupiers are actively managing the pest.
Outcome	<ul> <li>Impacts of these pests are managed to an acceptable level.</li> <li>The spread of these pests across boundaries are managed.</li> <li>Strategic investment in areas where it will support meaningful outcomes.</li> </ul>

Sustained Control pests are largely managed in response to a complaint from a compliant adjoining landowner, who wants to prevent the spread of the pest from neighbouring properties to their property. In these cases Council will work with the non-compliant landowners to minimise the risk of inter property spread, using Biosecurity Act powers where necessary.

Council also have the option to require occupiers to control Sustained Control pests and does this when it is part of a strategic programme of work or collaborative programme.

#### **Key highlights**

Number of species in category	41
Programmes in category	36
% of programmes on-track	100%

Examples of strategic or collaborative programmes include:

- The management of Wild ginger and Woolly nightshade around the East Coast utilising iwi contractors working in the Te Whanau Apanui rohe.
- The control of Wild ginger along the Kaimai Mamaku Forest Park buffer to prevent invasion into the Forest Park.
- The strategic management of Woolly nightshade at a number of sites to prevent further expansion of the pest range.
- The management of Rule 5a species in the area surrounding Ōhope Scenic Reserve to support the efforts of local community groups.

The table provided shows operational effort undertaken on Sustained Control pests is 2023/24.

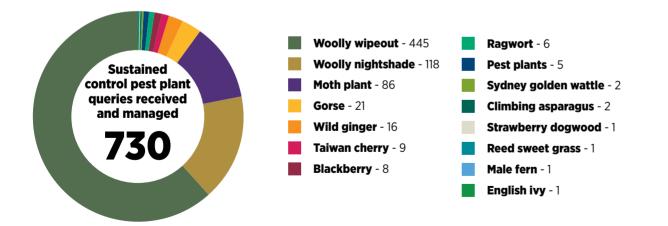
Plants	Status	Number of properties	Number of inspections	Area searched (ha)	Number of notice of directions to control
Climbing spindleberry	•	169	29	336	1
Lantana	•	134	220	146	0
Old man's beard	•	1	69	15.65	0
Wild ginger	•	1787	323	388.77	0
Woolly nightshade	•	1905	238	716.36	1
Wilding conifers SC	•		See pa	age 22	

#### **Freshwater Plants**

Elodea	
Status	•
Dive surveillance hours	480
Surveillance area (ha)	948
Area controlled (ha)	105.6

#### Managed on report by public

African club moss, Banana passionfruit, Cape ivy, Cathedral bells, Chilean rhubarb, Chinese windmill palm, Chocolate vine, Coastal banksia, Cotoneaster, English ivy, Himalayan fairy grass, Male fern, Mile-a-minute, Mistflower, Monkey apple, Moth plant, Palm grass, Periwinkle, Phoenix palm (self-propagated), Ragwort, Reed sweet grass, Rough horsetail, Royal fern, Strawberry dogwood, Sydney golden wattle, Taiwan cherry, Wilding conifers.



# Working with our Communities

Working with communities to achieve biosecurity outcomes is a key part of the biosecurity programme. In 2023/2024, Council's partnerships with Community-Led programmes continued to deliver great results across the Bay of Plenty region.

AND REAL PROPERTY AND ADDRESS OF TAXABLE PARTY.		COLUMN AND A	and the second se
N THE AT	Number of sites (properties)	Area searched (ha)	Infestations controlled 2023/24 (m <sup>2</sup> )
Apple of sodom	7	316	674
Horse nettle	1	25	1
Lantana	3	1.04	71
Variegated thistle	14	520	8.00
Wild ginger	155	79	11,532
Wilding pines	6	9.48	8,088
Woolly nightshade	88	33.87	5,028
Wild kiwifruit	5	0.21	8
TOTAL	181	985	25,410
The Contract of the State of the	STATE SHOULD BE	States and the second states and	

Fig 1: Species managed by the East Coast programme in 2023/24

# East Coast pest plant programme – 2023/24

On the East Coast, Council continued to collaborate with iwi contractors and landowners to control a range of pest plants that are present within the Te Whānau ā Apanui rohe. In 2023-2024, the programme worked with landowners across 97 properties.

The focus was on intense management of less common pest plants within the rohe. With ongoing effort, some of these species could potentially be eradicated from the East Coast. These pests include variegated thistle, apple of sodom, lantana, wild kiwifruit and horse nettle.

Control of more widespread species such as wild ginger and woolly nightshade continued to be supported and included supplying control kits through the wipeout woolly nightshade campaign.

Horse riding is a big part of life on the East Coast, and this skill was able to be used in carrying out surveillance for variegated thistle across some large areas.

#### **Apple of Sodom**



*Above:* An apple of Sodom plant on the East Coast with its distinctive purple flowers and melonlike seeds.

#### Right: Local contractors collected the seeds from all the Apple of Sodom plants controlled this year, resulting in 20 sacks weighing 10-20kg each – a huge effort that will reduce the number of plants in the future.



#### Wild ginger



Before



Before



After

#### CASE STUDY

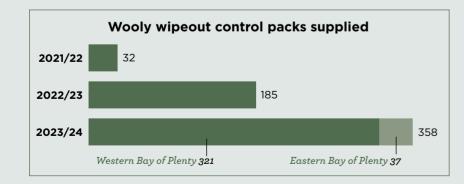
# Public support for pest plant management

## **Woolly wipeout**

The biosecurity team has run a successful woolly nightshade wipeout campaign over the past three years. The objective is to educate and encourage landowners and occupiers to understand the RPMP rules, to provide advice on successful control.

Starter kits including nitrile gloves, a folding saw, herbicide gel and an information flyer on how to control woolly nightshade are provided. The team delivering the kits visited the properties to verify the presence of the pest and demonstrated the methods of control.

The woolly wipeout campaign in 2023-24 has been particularly popular.



Demand in 2023-2024 was significantly higher than previous years to the point where it was a real challenge to keep up!

Alongside the increase in number of properties, the team has looked to improve the of this service. By incorporating site visits with the provision of a 'woolly wipeout' kit the team are able to identify other pest issues on the property and advise on control methods. Technical advice for a wider range of other pests was delivered at the same time, control demonstrations provided and detailed mapping of the pest plants populations present becoming core part of the service.



#### **Outcomes achieved:**



Improved community understanding on pest plant identification, RPMP rules and pest plant control



Increased and more effective control by landowners

Less woolly nightshade coverage, reducing the impact of woolly nightshade in the region



Bay of Plenty Regional Council January 22 - (3)

Do you live in a Woolly Nightshade hotspot and have mature plants on your property? Help us wipeout this noxious pest plant and get your hands on one of these free control packs! Our team will:

\*\*\*

Demonstrate how to manage it. Supply your 'wipeout' control pack.

Suppry your wipeout control paor

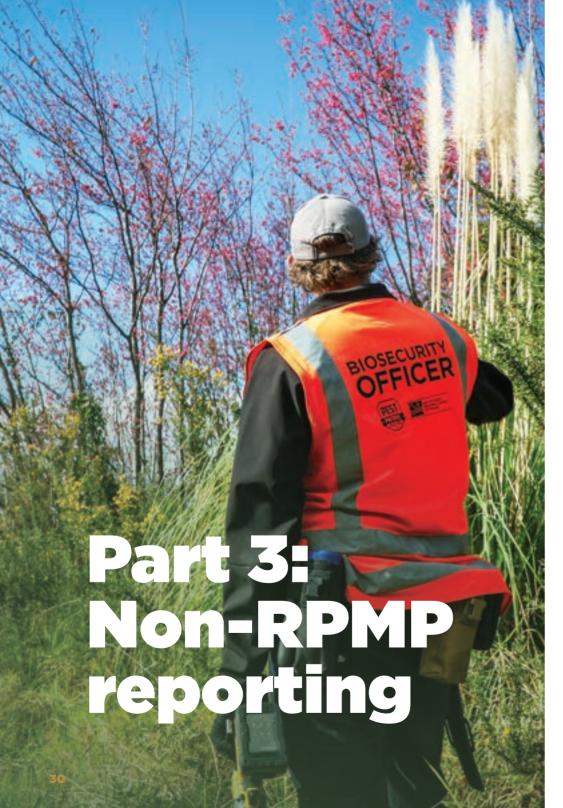
Come up with a plan to help keep your property Woolly nightshade free! Call us on 0800 884 880 or fill in an enquiry form online at www.bopic.govt.nt/contact-us and quote 'woolly wipeout' and one of our team will be in touch!.





Facebook posts supporting Wipeout woolly nightshade





## **Advisory pest species**

Advisory pest					
Objective	Support the efforts of landowners/occupiers and communities to manage established pests and prevent pest spread.				

There are 68 advisory species that sit outside of the RPMP but that Council supports through education and advice.

# **Regional Pest Management User Guide**

The user guide was updated to reflect the minor amendments made to the RPMP in May 2023. Subsequently 400 copies of the user guide have been printed and distributed in the last year to care groups, partner agency contacts, contractors, and the public.



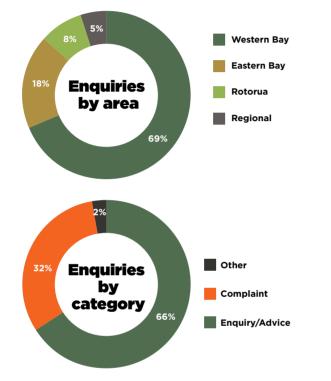
# Website Pesthub – providing advice on controlling pests

In 2023/24 the Pesthub section of Council's website which provides key information on pests contained within the RPMP had 102,133 page views which is a 12% increase on the prior year. The growth in visits can be attributed to a greater number of people accessing 'self-help' control information.

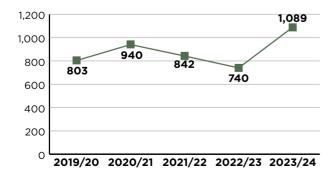


## Public enquiries 2023/24

## 1,089 total

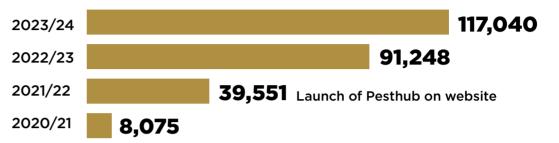


#### **Enquiries by year**



## Website

#### Total website views

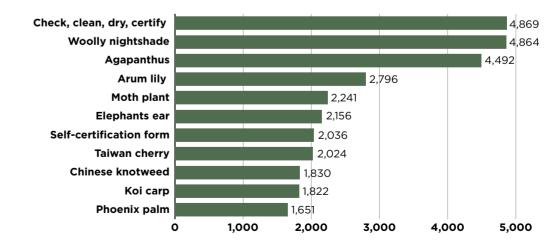


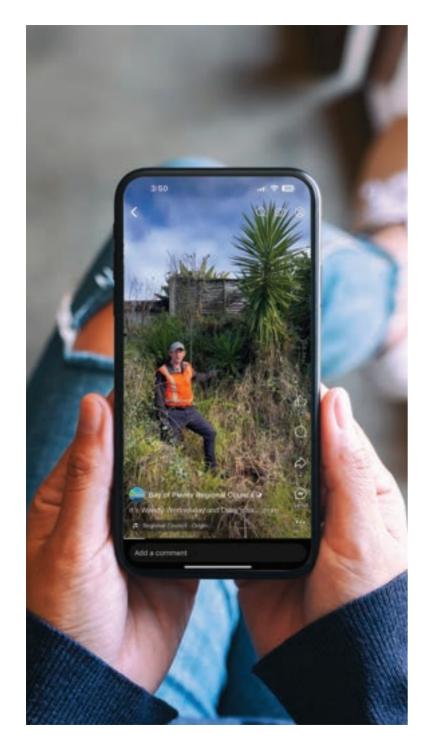
Website page views increased by 30.5%, primarily driven by increased visitors to pest plant and species pages.

Pest plants page views jumped from 58,501 to 72,672 (+24%), highlighting the value that Pesthub provides as a self-help tool for the public to identify, control, and be aware of the relevant rules for the pests listed in the RPMP.

There was an uplift in page visits relating to aquatic and marine pests, reflecting an increased interest in pests such as Caulerpa and Cobicula. There were 2,036 visits to the Check, clean, dry self-certification form page.

#### Top individual website page views 2023/24





## **Communications activity summary**

Communications remains a high priority for building awareness of biosecurity issues, providing education and supporting compliance.

Key communications highlights include:

## **Building the social media profile of Biosecurity**

# **88** published posts in 2023-2024

## compared to 55 the previous year.

Biosecurity posts get very high engagement from people on social media – often out-performing council benchmarks for reach and engagement.

## Top three posts for the year:



Fanworm video, Nov 2023 - 406,359 plays

2 \

Wallaby impacts on forestry and farming, 16 Jan 2024 - reach 86,805

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Woolly wipeout kit post, 9 Jan - reach 59,817

### **Fanworm on Facebook**

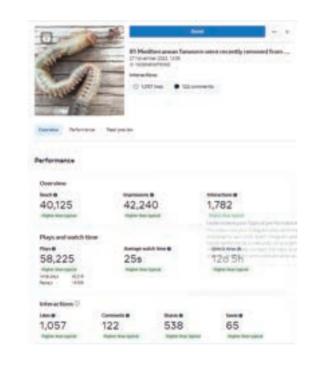
Following the discovery of 81 Mediterranean fanworm (*Sabella spallanzanii*) on the sea floor in Pilot Bay, a short video to accompany a media release was recorded and posted on Facebook and Instagram.

Numerous regional news stories and an interview with Whakaata Māori resulted

81 Mediterranean fanworm were recently removed from Pilot Ba	58.2K	40.1K	1.1K	122
bayofplentyregionalcouncil	Plays	Reach	Likes	Comments
Check it out! 81 Mediterranean fanworm were recently removed Bay of Plenty Regional Council	406.4K Plays	234.5K Reach		





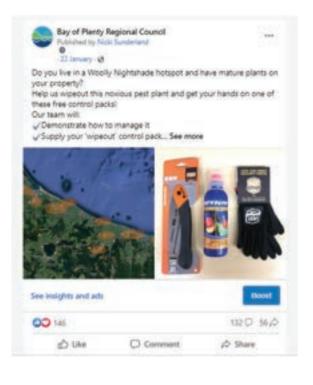




# Woolly wipeout communications support

A targeted advertising campaign including local newspapers and social media was implemented over the summer period to support the third year of woolly wipeout activity. Total reach for the nine posts was 172,628.

One Facebook post ran so well it had to be turned off to avoid overwhelming the available supply of kits and availability of staff. The post reach was 48,687 and resulted in 342 clicks to receive a kit (gloves, saw, herbicide)

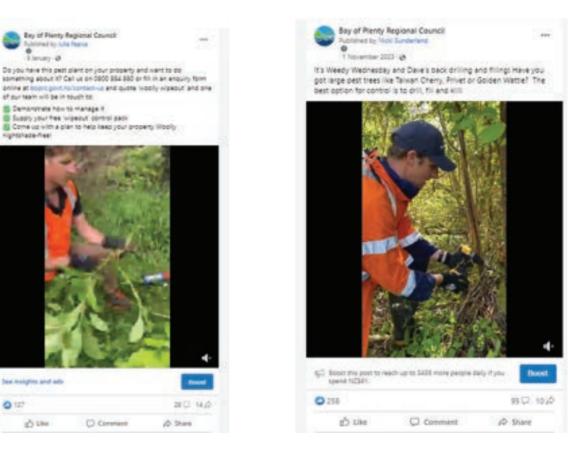


## Weedy Wednesday

A range of Weedy Wednesday posts were published over the summer period using Biosecurity Officer Dave Grimmer as the frontman for providing advocacy on how to identify and control Sustained and Advisory pest weeds.

The videos proved to be highly popular with lots of engagement and comments from Facebook followers.

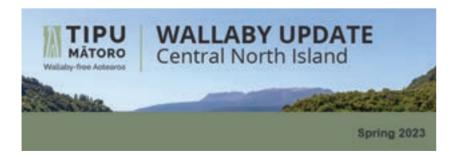
In total the 13 posts resulted in a reach of 195,982 people.



## Where's wallaby?

Regional Council continues to support the Tipu Mātoro National Wallaby Eradication Programme both operationally and as the lead for regional communications. National and regional media interest continues keep public awareness high and the number of reported sightings continues to grow year on year.

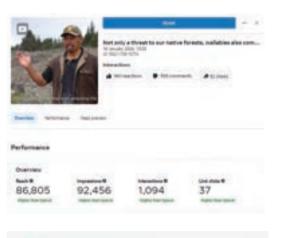


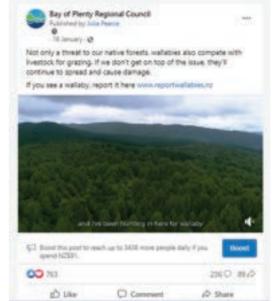




NZ Hunting, Fishing and 4x4 Expo, Rotorua August 2023







#### Check, clean, dry, certify summer campaign

The annual Check, Clean, Dry, Certify summer campaign which runs from December to April includes a mix of print, radio, social media and digital advertising. This year the normal messaging of encouraging self-certification was amended and unweighted to include promotion of the threat of Corbicula (gold clam) and the Controlled Area Notices (CAN) put in place by Biosecurity New Zealand.

#### Be a waterway hero this summer – Check, Clean, Dry, Certify

**AUKATIA TE HORA** 

**STOP THE SPREAD** 

If you're heading out on the Rotorua Te Arawa Lakes this Labour weekend, you must certify that your vessel (boat, jet ski) and trailer are free from freshwater pest fish and pest weeds.

To make things faster and easier, boat ramp users can now self-certly online either by using the QR code found at each boat ramp or by completing the online form on the Bay of Plenty Regional Council website. The paper forms at the boat ramps will still be available, and skippers should complete the form, sign it and display it on skippers should complete the form, sign it and display it on the state of the state of the form sign it and display it on the state of the state



ew guidance on how to Check, Clean, Dry has been developed to ensure t the clam, as well as other invasive freshwater pests do not spread. Lake rs are asked to make themselves familiar with the new advice and follow it stilly.

#### CHECK

Remove plant material and drain all wa

#### CLEAN

Washdown your geer, vehicle, watercraft, and trailer with tap-water onto beside the waterway or at home and not into a stormwater drain system For absorbent materials, like life jackets, that have been in contact with water (including carpet on trailers) use on of the recommended treatments

#### **DRY**

Now gear to dry to touch, inside and out, then leave or at least 48 hours (2 days). In a sinside the watercraft where water has wooled and then leave to dry for at least 48 hours

#### Do your bit to protect the lakes and rivers that you love. Check, Clean, Dry and Certify every time that you move between waterways to stop the spread of pests before they enter our waterways. To then our new with wave hour and to Check-Clean-dir.

HELPS STOP Freshwater gold clam The freshwater pipes and may overrun native species. First found in species of the operation of the o

rapidly, it can clog water pipes and may overrun native species. First found in the Waikato River in May 2023, it is an unwanted organism under the Bioscurity Act. To stop gold clam from spreading to the Rotorua Te Arawa Lakes we need you and any visitors that you have coming this summer - particularly from the Waikato - to do their bit and follow the rules.

#### What are the rules?

Biosecurity rules are in place to stop the spread of the clam through a mechanism under the Biosecurity Act called a Controlled Area Notice (CAN). Two CANs are in force – one for the Waikato River and another for the Rotorua Te Arawa lakes, with additional rules for Lake Öktaaina.

#### All Waikato River users

A CAN with specific rules for Waikato river users applies to the Waikato River from the Whakamaru Dam to the river mouth at Port Waikato this includes Lake Karapiro. This will be in place until further notice.

#### Waikato CAN requirements

 River users that have been in the controlled stretch of the river must follow Check-Clean-Dry requirements for any craft, gear (such as fishing and other equipment used to gather kai) and equipment (including water skis, wakeboards, and inflatable pool toys).

 All wake boats that have been in the controlled stretch of the river must not be used in any other waterways, including parts of the river outside the controlled area. Wake boats are any craft with an internal tank or bladder that cannot be completely drained.

#### For Rotorua Te Arawa lakes

Any boat that has been in the Waikato River in the last 30 days must be cleaned at a designated wash station before entering the water. This is in addition to the Check-Clean-Dry-Certify rules on the back of this flyer.

#### For Lake Ökataina

<u>All boats</u> must be cleaned at the designated wash station in Rotorua before entering the lake. This is in addition to the Check-Clean-Dry-Certify requirements.

## LAKE ROTORUA Supplar Point Tre WASH

Wash station

The ways a format in the ways station at:

#### The Wash Place, 338 Te Ngae Road, Rotorua

At the wash station, boaties will need to: • Wash down their boat and trailer, and drain any remaining water

 Scan the QR code shown on the signs and complete the online form to prove they've completed the wash-down.
 The Wash Place is a commercial facility and there will be

a cost for washing your boat and trailer. You can pay with cards or coins. The station is open 24/7 and instructions about how to complete the wash are provided.

.....

To find out more on the latest rules and gold clam status go to www.biosecurity.govt.nz/clam

# AUKATIA TE HORA STOP THE SPREAD CHECK CLEAN DRY CERTIFY

All boat ramp users must follow the Check-Clean-Dry-Certify procedures to prevent the spread of the freshwater gold clam and other invasive freshwater species.

#### Check

 Remove anything visible including clams, weed or mud. Drain all lake or river water.

#### Clean

- Wash down your gear and craft with tap-water onto grass, beside the river or lake where the gear was used, or at home – not into a stormwater drain system. This will flush off clams that can be too small to be seen.
- For gear made of absorbent materials (e.g. clothing, wetsuit, waders, booties), which stay wet longer, treat with one of the following: (1) soak in hot tapwater (S5<sup>4</sup>C) for at least 5 minutes, or (2) soak in 10 percent (1 in 10) household bleach and water mix for an hour, or (3) freeze until solid.
- Treat residual water that occurs when on-board bladders or tanks have been pumped. Any wake boat that has been in the controlled area of the Waikato River cannot be used in Bay of Plenty waterways.

#### Dry

- Allow gear to dry to touch, inside and out, then leave it to dry for at least 48 hours (2 days) before using again.
- Dry areas inside the watercraft where water has pooled, for example with an old towel, and then leave the craft to dry for at least 48 hours (2 days). The hull of a watercraft will dry when towed.

#### Certify

- Complete a self-certification form before launching. The self-certification form must either be submitted electronically or displayed in the vehicle and left at the boat ramo where the boat was launched.
- Self-certification stations are located at boat ramps, with paper forms available to fill out manually or QR codes to complete the process online.
- Electronic submissions can be completed here: boprc.govt.nz/ccd-self-cer







#### National Interest Pest programmes in the region managed by other agencies

Council supports a number of programmes that manage pests not included in the RPMP. These programmes are outlined below:

Velvetleaf	
No of sites	1
No of sites discovered in 2023/24	0
No of sites at zero density	1

In 2026 contaminated fodderbeet seed resulted in a significant national incursion of Velvetleaf throughout New Zealand, with one site being detected in the Bay of Plenty.

The only site in the region, near Pongakawa, has been at zero density since 2019. Velvetleaf seeds can last for 50 years, the site will need to remain at zero density until 2030 before it can be declared eradicated.

#### National Interest Pest Response (NIPR) programme

Nine harmful pest plant species are managed under the NIPR programme, which is managed by Biosecurity New Zealand. These pests are not well established in New Zealand, and they could have devastating impacts on the economy, environment as well as social and cultural values.

There are three NIPR pests being managed in the Bay of Plenty:

	Cape tulip	Salvinia	Water hyacinth
Bay of Plenty sites	2	1	2
New Zealand sites	30	25	95

**Cape Tulip** – No plants have been found at one site since 2021, the second site had 17 plants controlled in 2023/24.

**Salvinia** – Three sites within the region were declared eradicated in 2023/24. The one active site, at Waihī Beach, has not had plants detected for two month. The site will need to be monitored for two years, with no plants found, before being declared eradicated.

**Water hyacinth** – Two sites are being monitored, no plants have been found for five years. Due to seed life, sites will need to be monitored for 20 years before being declared eradicated.

#### **National Pest Plant accord (NPPA)**

The NPPA is an agreement between Biosecurity New Zealnd, Department of Conservation, regional and unitary councils, and New Zealand Plant Producers Incorporated to prevent the sale and/or distribution of a specified list of pest plants where casual or formal trade is a potentially significant cause of spread for the species.

Council supports the programme by undertaking surveillance at 'points of sale' including nurseries, stores, markets, roadside stalls and more recently florists. Checks for the illegal sale of RPMP listed plant pests are also carried out in conjunction with this work. During the year, a number of NPPA plants were found for sale, in some instances it was pampas grass being used by florists for floral arrangements. In all cases the plants were removed and destroyed.

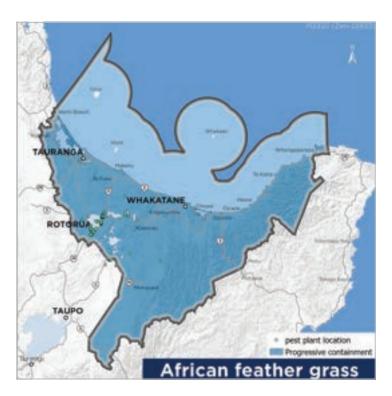
Number of inspections in 2023/24	139
Number times NPPA plants were found for sale	3
Number of RPMP plants found for sale	10

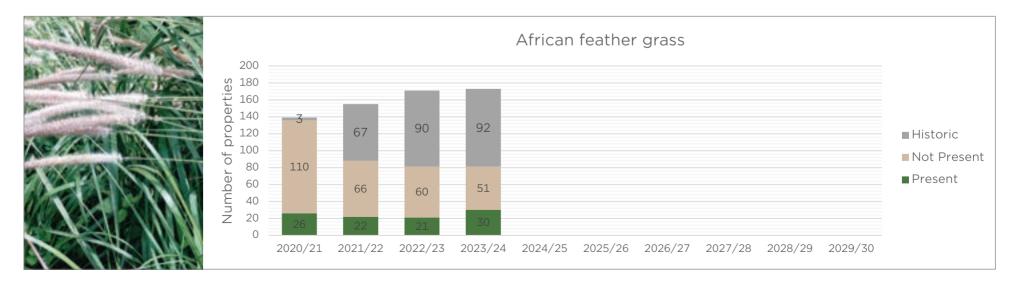
The decrease in the number of RPMP plants found can be attributed to the education from past years around the Sustained control Rule 5A species. Of the 10 instances where RPMP species were found, 5 were either Coastal banksia *(Banksia integrifolia)* or Chinese windmill palm (*Trachycarpus fortunei*). Along with 2 Taiwan cherry that where found. A change in education around Rule 5A species through posters and educational events will occur in 2024/25 to support past efforts.



Cenchrus macrourus

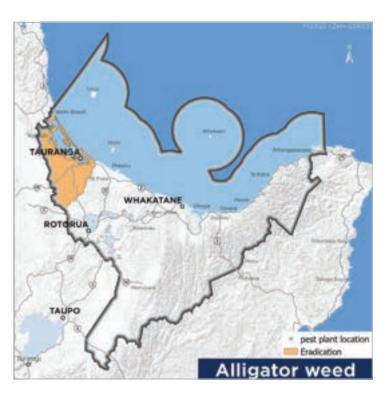
RPMP classification	Catchments	Programme status
Progressive containment	Region	•
_		
Programme summary	Results	
Number of inspections completed	24 inspections completed	
Number of properties plant is managed	81 properties	
Plant cover	154 m <sup>2</sup>	
Comments	<ul> <li>Plant cover of this pest increasing year with new seedlings detect have been controlled in the paremaining in the soil.</li> </ul>	ted around sites that
2023/2024 expenditure	\$802.35	

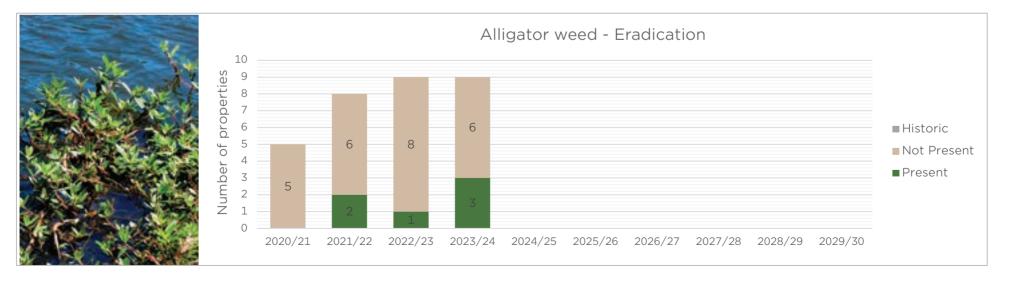




### Aligator weed Alternanthera philoxeroides

RPMP classification	Catch	nents	Programme status
Eradication	Taurar	nga Harbour.	٠
Programme summary		Results	
Number of inspections completed	I	188 inspections completed	
Number of properties plant is mar	naged	9 properties	
Plant cover		260.8 m <sup>2</sup>	
Comments		<ul> <li>A single plant was detected at one site that had been at zero density for the last five years.</li> <li>Plant only active at 3 sites, and only small infestations where found at each site.</li> </ul>	
2023/2024 expenditure		\$42,840.07	

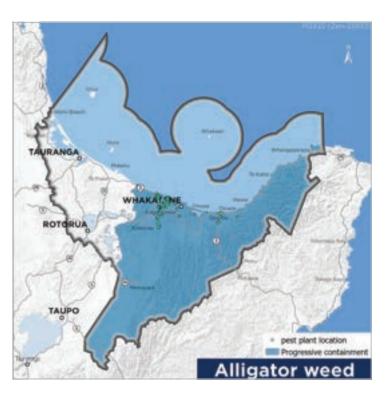


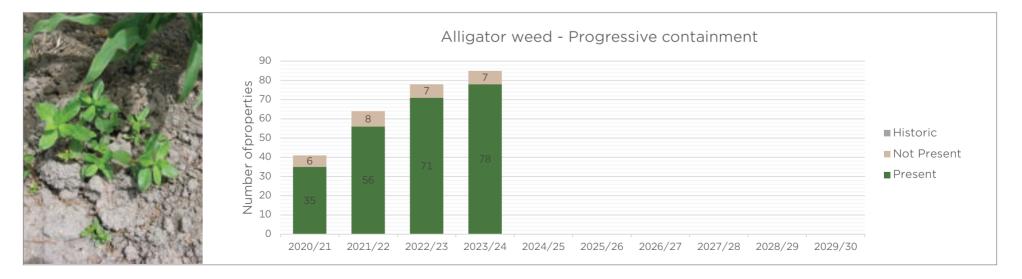


### Alligator weed Alternanthera philoxeroides

RPMP classification	Catchments	Programme status
Progressive containment	Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast.	•

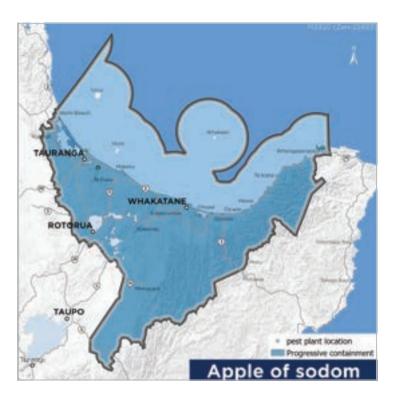
Programme summary	Results
Number of inspections completed	109 inspections completed
Number of properties plant is managed	85 properties
Plant cover	10,760.0 m <sup>2</sup>
Comments	<ul> <li>Pest plant cover reduced through the year, however slight increase in number of sites due to small fragments post control.</li> </ul>
	<ul> <li>New control methodology trialled in drain system, research shows it will be very effective at control.</li> </ul>
2023/2024 expenditure	\$129,344.89

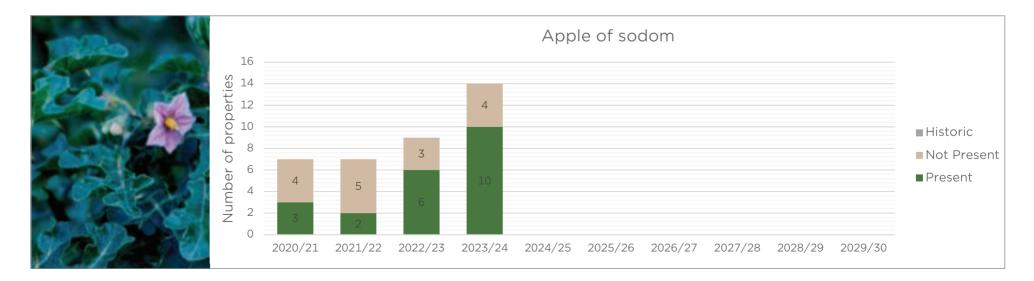




# Apple of Sodom Solanum linnaeanum

RPMP classification	Catchments Prog	gramme status
Progressive containment	Region	٠
Programme summary	Results	
Number of inspections completed	20 inspections completed	
Number of properties plant is managed	16 properties	
Plant cover	899.5 m <sup>2</sup>	
Comments	Only small number of plants found in the v     of Plenty.	Western Bay
	<ul> <li>Increased pest plant cover around East Ca increased surveillance effort.</li> </ul>	ipe due to
2023/2024 expenditure	\$35,800.48	





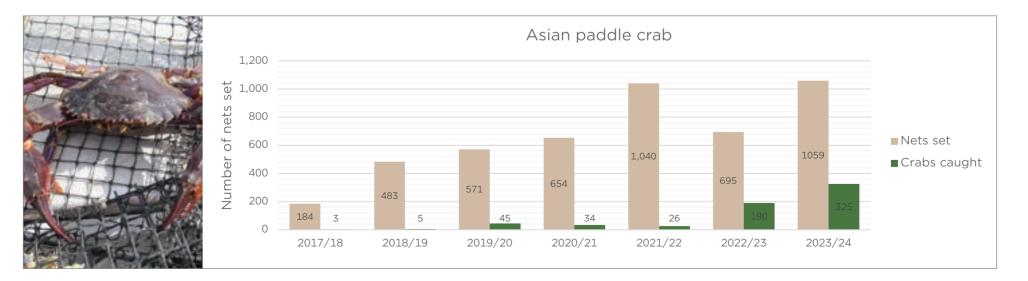
# Asian paddle crab

Charybdis japonica

RPMP classification	Catchments	Programme status
Progressive containment	Region	•

Programme summary	Results
Number of traps set	1,059
Number of crabs caught	325
Comments	<ul> <li>Collaborative programme with Manaaki te Awanui to trap crabs.</li> <li>Significant increase in number of crabs caught compared to previous year.</li> <li>Appear to be well established at known sites.</li> <li>Crab numbers have increased significantly in Ōhiwa Harbour – 173 crabs caught.</li> </ul>
2023/2024 expenditure	\$112,332.00

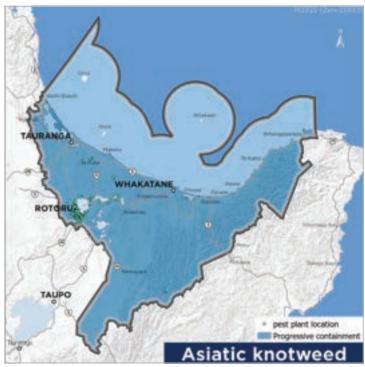


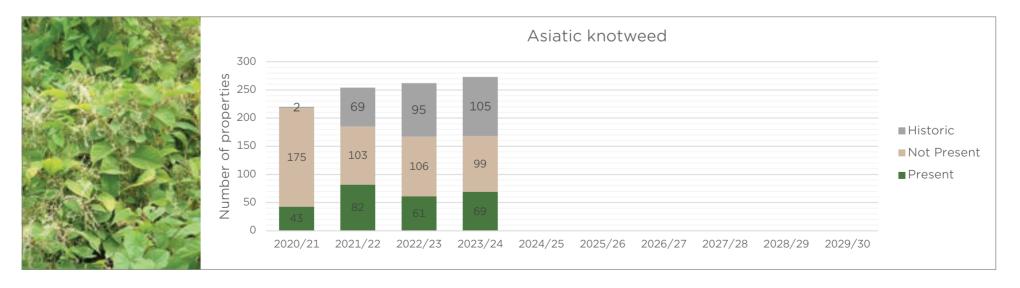


# **Asiatic knotweed**

Fallopia japonica

RPMP classification	Programm Catchments status
Progressive containment	Region
Programme summary	Results
Number of inspections completed	115
Number of properties plant is managed	168
Plant cover	535 m <sup>2</sup>
Comments	<ul> <li>Challenges remain with the tenacious nature of the plant and it's very deep rhizomes.</li> </ul>
	• Small increase in pest plant cover due to new sites being found around streams and drains.
	<ul> <li>Large sites controlled should lead to reduction in pest plant cover next year.</li> </ul>
2023/2024 expenditure	\$22,914.43

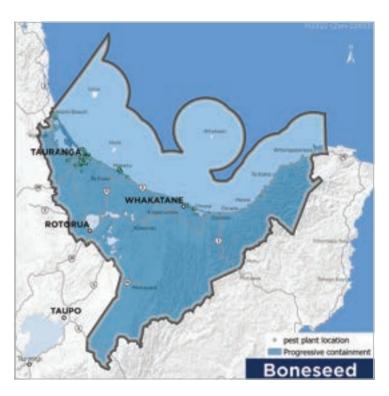


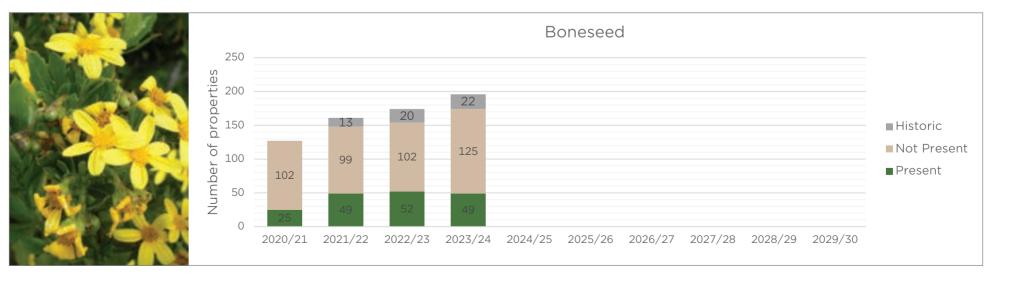


### Boneseed

 $Osteospermum\ moniliferum$ 

RPMP classification	Prog Catchments stat	gramme us
Progressive containment	Region	•
Programme summary	Results	
Number of inspections completed	126	
Number of properties plant is managed	174 properties	
Plant cover	1,899.78 m <sup>2</sup>	
Comments	<ul> <li>Continued delimiting surveillance to narrow in on c infestation areas.</li> </ul>	core
	Control work completed on Maketu coastal cliffs.	
2023/2024 expenditure	\$22,352.20	



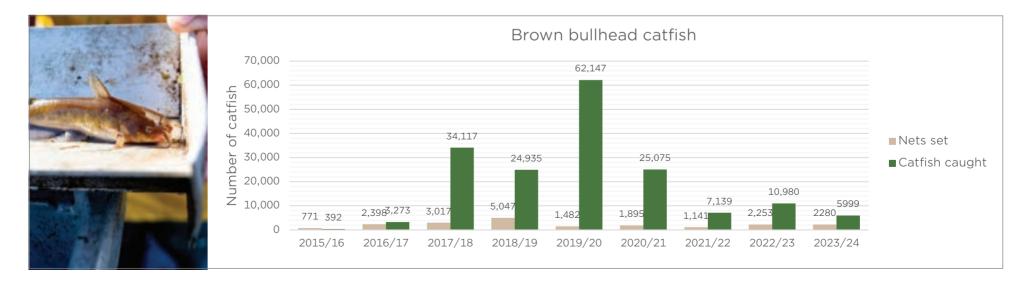


### **Brown bullhead catfish**

#### Ameiurus nebulosus

RPMP classification	Catchments	Programme status
Progressive containment	Lake Rotorua, Lake Rotoiti and the Kaituna River catchment	
Programme summary	Results	
Number of nets set	2,280	
Number of catfish caught	5,999	
Comments	<ul> <li>Wider netting surveillance carried out in Lake Ōkataina and Lake Tarawera with no catfish caught.</li> <li>Capture rates from netting efforts continue to decrease.</li> <li>Highest densities of catfish observed in the western end of Lake Rotoiti, while larger catfish caught in Lake Rotorua.</li> </ul>	
2023/2024 expenditure	\$111,065.58	



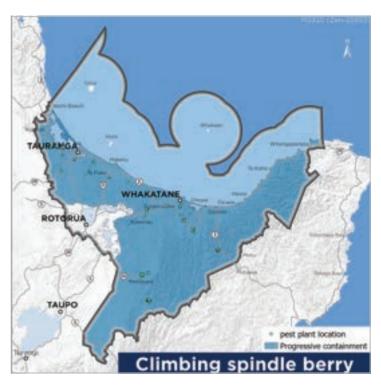


# **Climbing spindle berry**

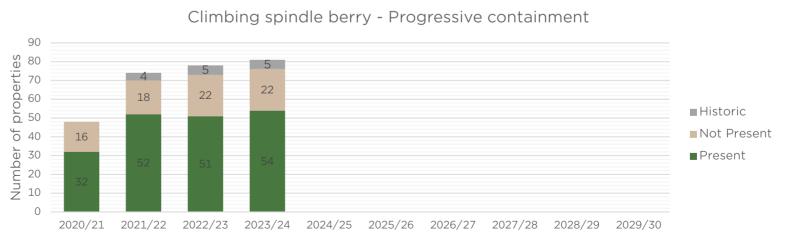
Celastrus orbiculatus

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour, Kaituna, Maketū and Pongakawa, Tarawera, Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast.	٠

Programme summary	Results
Number of inspections completed	80 inspections completed
Number of properties plant is managed	76 properties
Plant cover	4687.01 m <sup>2</sup>
Comments	<ul> <li>Pest plant cover continues to reduce in the Western Bay of Plenty.</li> <li>Scattered infestations in the Eastern Bay of Plenty with a couple of challenging sites remaining.</li> </ul>
2023/2024 expenditure	\$17,554.63





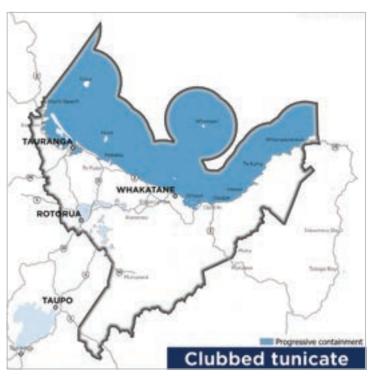


### **Clubbed tunicate**

Styela clava

RPMP classification	Catchments	Programme status
Progressive containment	Region	٠

Programme summary	Results
Number of inspections completed	2,959
Number of sites where clubbed tunicate was detected in region	0 sites
Comments	• No infestations found over the year on the benthic, resident vessel hulls and structure. The only Styela found over the last 4 years have been on vessels coming in from out of region during hull inspections.
2023/2024 expenditure	See Marine biosecurity expenditure table

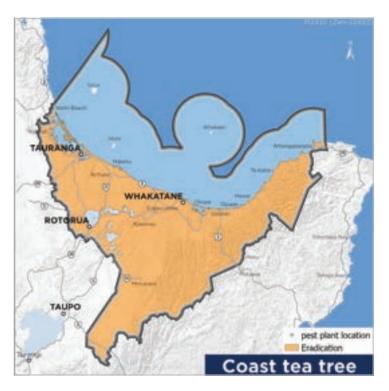


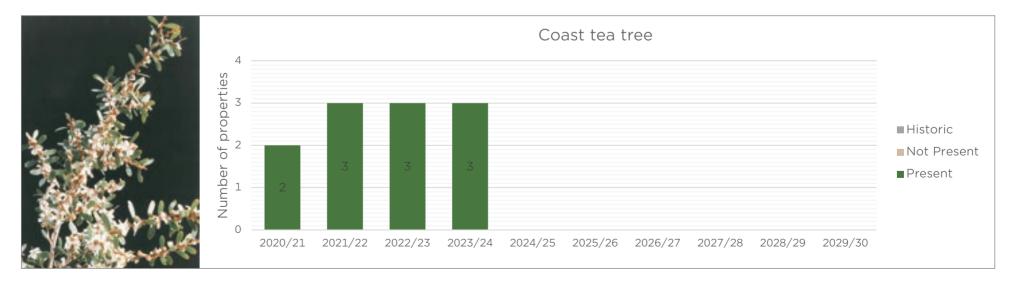


### Coast tea tree

Leptospermum laevigatum

RPMP classification	Catchments	Programme status
Eradication	Region	٠
Programme summary	Results	
Number of inspections completed	0 inspections completed	
Number of properties plant is managed	3 properties	
Plant cover	82 m <sup>2</sup>	
Comments	• Control work undertaken June 2024. Deferred due to landowner complications and access difficultes as result of a large fire in forest area in Dec 2023/Jan 2024.	
2023/2024 expenditure	\$15,105.16	

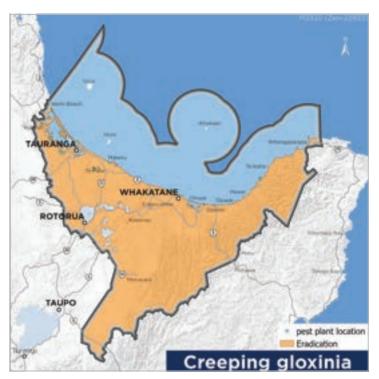


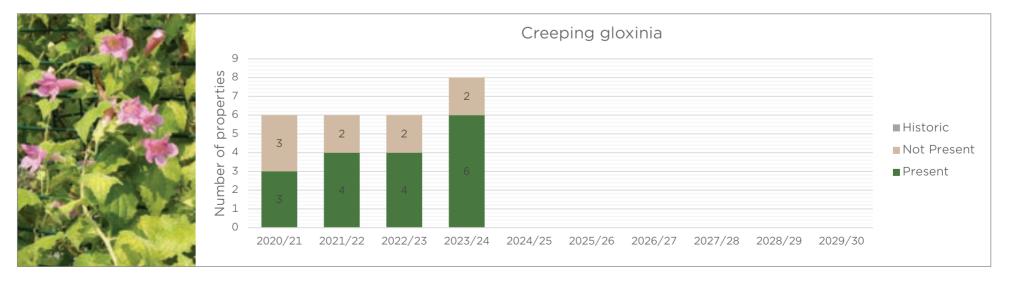


# **Creeping gloxinia**

Lophospermum erubescens

RPMP classification	Catchments	Programme status
Eradication	Region	٠
Programme summary	Results	
Number of inspections completed	24 inspections completed	
Number of properties plant is managed	8 properties	
Plant cover	1054.14 m <sup>2</sup>	
Comments	<ul> <li>Two sites remain challenging to manage, with ongoing work to mitigate challenges and allow effective control.</li> <li>One new site and one current which was previously zero</li> </ul>	
2023/2024 expenditure	picked up in monitoring and managed. \$39,665.07	

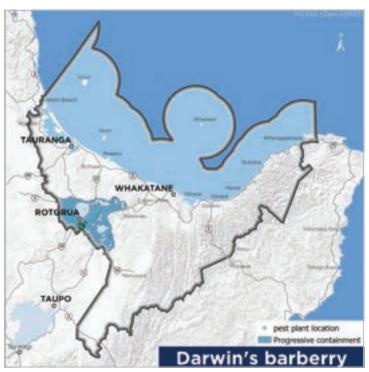


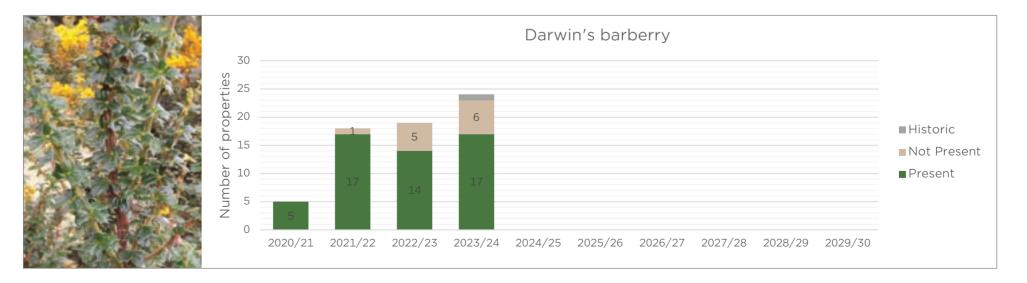


### **Darwin's barberry**

Berberis darwinii

RPMP classification	Catchments Programme status	
Progressive containment	Rotorua Lakes O	
Programme summary	Results	
Number of inspections completed	13 inspections completed	
Number of properties plant is managed	23 properties	
Plant cover	15,273.46 m <sup>2</sup>	
Comments	<ul> <li>Majority of pest plant cover (15,000) remains on one property and landowners will be increasing control efforts in coming years.</li> <li>Population still very isolated and increased effort should show reduction in coming years.</li> </ul>	
2023/2024 expenditure	\$10,290.68	

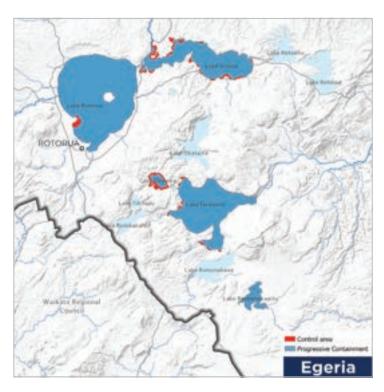




### **Egeria** Egeria densa

RPMP classification	Catchments	Programme status
Progressive containment	Lake Rotorua, Lake Rotoiti, Lake Ōkāreka, Lake Tarawera, Lake Rotomahana, Lake Rerewhakaaitu	•

Programme summary	Results
Surveillance and monitoring effort	128 hours
Number of Rotorua Lakes plant is present	6 of 12 lakes
Amount of lakebed sprayed	93.9 ha
Comments	<ul> <li>No infestations found in lakes where it is not known to be present.</li> <li>Spraying undertaken at key strategic sites.</li> </ul>
2023/2024 expenditure	See Freshwater aquatic plant expenditure table





# Feral goats

RPMP classification	Catchments	Programme status
Eradication	East of the Motu River	•
Progressive containment	West of the Motu River	•

#### **Eradication:**

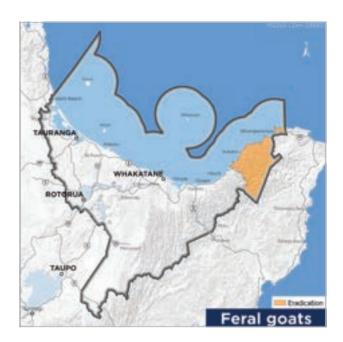
Programme summary	Results
Area hunted (approximation)	0 ha
Number of goats controlled	0 goats
2023/2024 expenditure	\$0

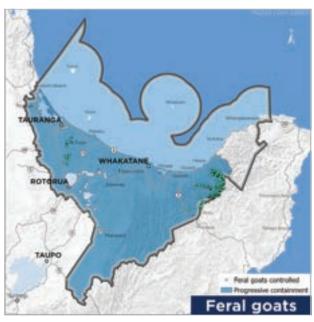
#### **Progressive containment:**

Programme summary	Results
Area hunted (approximation)	37,561 ha
Number of goats controlled	745 goats
2023/2024 expenditure	\$281,636.00

#### Comments:

No ground hunting was undertaken in the eradication zone due to the application of 1080 across ~120,000 hectares of forest in the Raukumara Ranges and some surrounding private land by the Raukumara Pae Maunga Restoration Project. Much of this years effort (123 hunter days) focused on the buffer area where the progressive containment zone meets the eradication zone to reduce the risk of reinvasion.





### Hornwort Ceratophyllum demersum

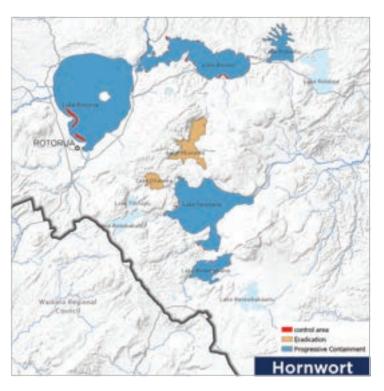
RPMP classification	Catchments	Programme status
Eradication	Lake Ōkataina, Lake Ōkāreka	
Progressive containment	Lake Rotorua, Lake Rotoiti, Lake Rotoehu, Lake Tarawera, Lake Rotomahana	•

#### **Eradication:**

Programme summary	Results
Surveillance and monitoring effort	408 ha
Number of Rotorua Lakes plant is present	1 of 2 lakes
Amount of lakebed sprayed	0 ha
Comments	<ul> <li>No hornwort found in Lake Ōkataina and Lake Ōkāreka during surveillance.</li> <li>Spraying undertaken at key strategic sites.</li> </ul>
2023/2024 expenditure	See Freshwater aquatic plant expenditure table

#### Progressive containment:

Programme summary	Results
Surveillance and monitoring effort	85 ha
Number of Rotorua Lakes plant is present	5 of 10 lakes
Amount of lakebed sprayed	93.9 ha
Comments	Spraying undertaken at key strategic sites.
2023/2024 expenditure	See Freshwater aquatic plant expenditure table



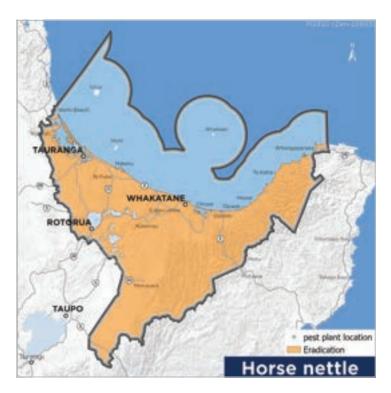


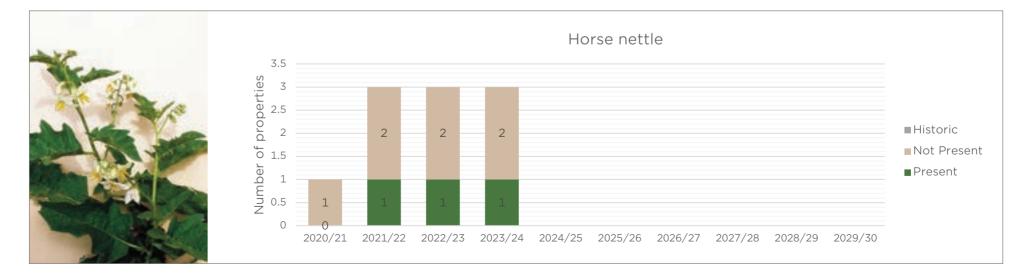
### Horse nettle

Solanum carolinense

RPMP classification	Catchments	Programme status
Eradication	Region	•

Programme summary	Results
Number of inspections completed	8 inspections completed
Number of properties plant is managed	4 properties
Plant cover	1.0 m <sup>2</sup>
Comments	<ul> <li>No infestations found at the Western Bay of Plenty site in 2023/24.</li> <li>Only one plant found at the East Cape site that is being intensively managed.</li> </ul>
2023/2024 expenditure	\$5,661.65





# Italian buckthorn

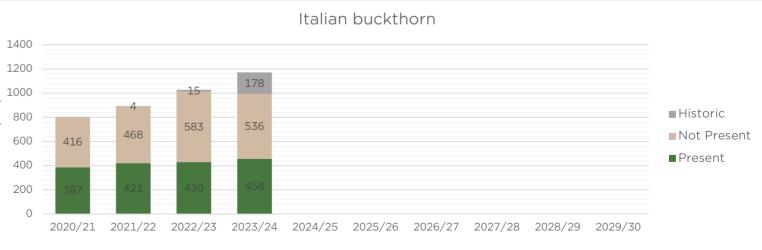
Rhamnus alaternus

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour, Kaituna, Maketū and Pongakawa	

Programme summary	Results
Number of inspections completed	451 inspections completed
Number of properties plant is managed	994 properties
Plant cover	48,252.55 m <sup>2</sup>
	<ul> <li>Large surveillance programme continued in Western Bay of Plenty.</li> </ul>
Comments	<ul> <li>Plants found mainly in urban area though additional delimiting work undertaken.</li> </ul>
	<ul> <li>Slight reduction in pest plant cover compared to 2022/23.</li> </ul>
2023/2024 expenditure	\$25,805.80









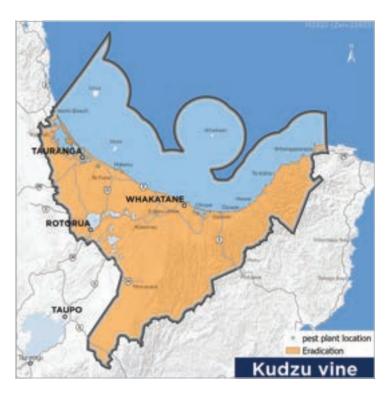
RPMP classification	Catchments	Programme status
Eradication	Tauranga Harbo	ur 🔴
Programme summary		Results
Number of inspections com	oleted	187 (combined with eDNA and other pest fish surveillance)
Number of sites where fish is	s present	O sites
Number of fish caught		0 fish
Comments		<ul> <li>Not known to be present in the region.</li> <li>Surveillance will be continued through a combination of eDNA, netting and visual inspections.</li> </ul>
2023/2024 expenditure		See Freshwater aquatic plant expenditure table

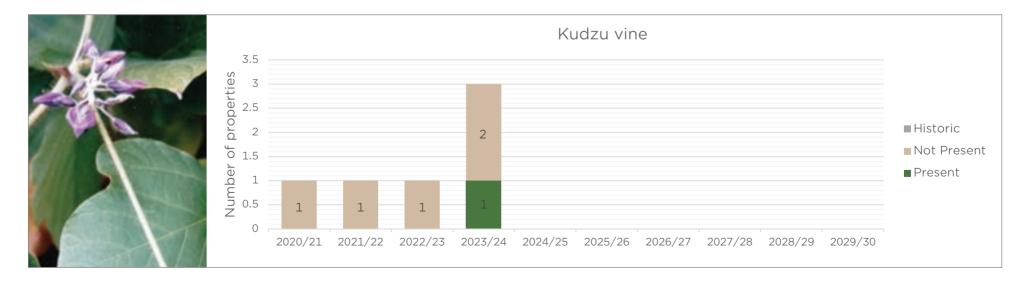


# Kudzu vine

Pueraria montana var.

RPMP classification	Catchments	Programme status
Eradication	Region	٠
Programme summary	Results	
Number of inspections completed	4 inspections completed	
Number of properties plant is managed	3 properties	
Plant cover	25 m <sup>2</sup>	
Comments	<ul> <li>Increase from 1 property to 3 is a data update, we have been monitoring 3 properties for many years.</li> <li>One site plant reactivated this year after 9 years of dormancy, which reiterates need to continue monitoring this plant long term.</li> </ul>	
2023/2024 expenditure	\$3,472.30	

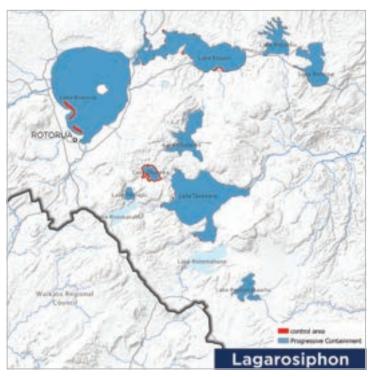




# Lagarosiphon major

RPMP classification	Catchments	Programme status
Progressive containment	Lake Rotorua, Lake Rotoiti, Lake Rotoehu, Lake Rotomā, Lake Ōkataina, Lake Ōkāreka, Lake Tikitapu, Lake Tarawera, Lake Rerewhakaaitu	•

Programme summary	Results
Surveillance and monitoring effort	480 hours
Number of Rotorua Lakes plant is present	9 of 12 lakes
Amount of lakebed sprayed	105.6 ha
Comments	<ul> <li>No Lagarosiphon found in lakes where it is not known to be present.</li> <li>Spraying undertaken at strategic sites.</li> </ul>
2023/2024 expenditure	See Freshwater aquatic plant expenditure table

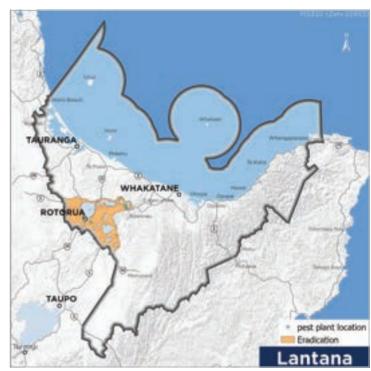


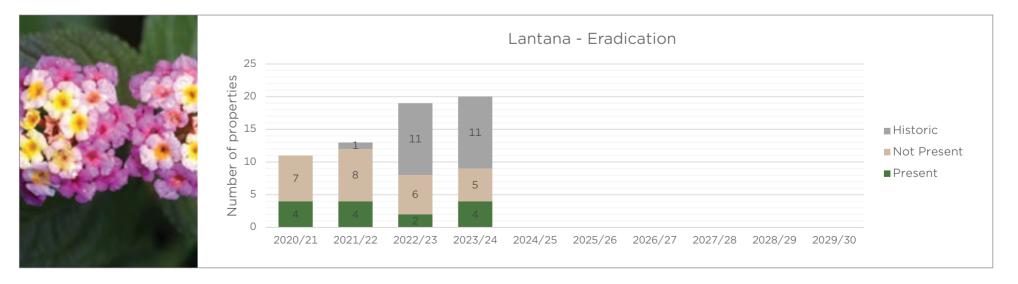


### Lantana Lantana camara

RPMP classification	Catchments	Programme status
Eradication	Rotorua Lakes	•

Programme summary	Results	
Number of inspections completed	10 inspections completed	
Number of properties plant is managed	9 properties	
Plant cover	8.0 m <sup>2</sup>	
Comments	<ul> <li>Population still very contained and all plants found were controlled.</li> <li>One outlier site found and controlled, plant was planted by landowner.</li> </ul>	
2023/2024 expenditure	\$861.39	

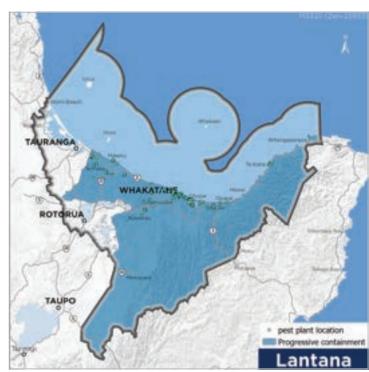




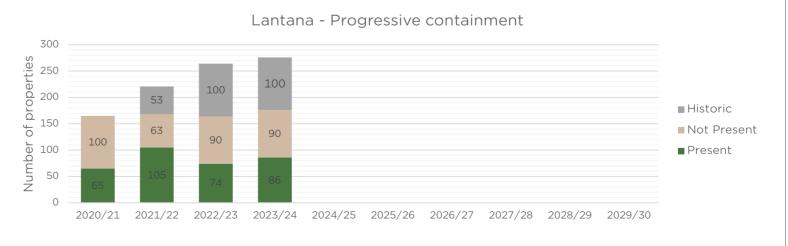
### Lantana Lantana camara

RPMP classification	Catchments	Programme status
Progressive containment	Kaituna, Maketū and Pongakawa, Tarawera, Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast	•

Programme summary	Results
Number of inspections completed	76 inspections completed
Number of properties plant is managed	193 properties
Plant cover	14,333.69 m <sup>2</sup>
Comments	<ul> <li>Known sites are decreasing in pest plant cover and most only have small numbers of plants.</li> <li>Two new sites found in Pongakawa catchment that have increased pest plant cover significantly.</li> </ul>
2023/2024 expenditure	\$22,620.27





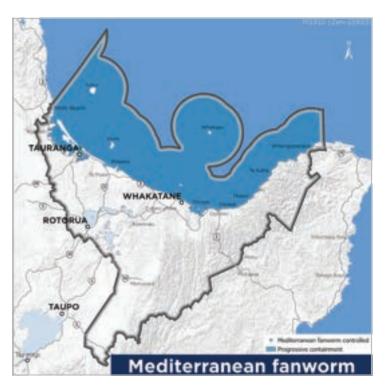


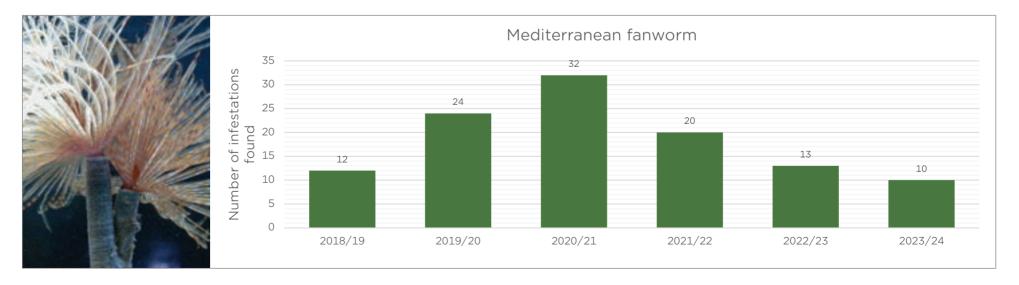
### Mediterranean fanworm

Sabella spallanzanii

RPMP classification	Catchments	Programme status
Progressive containment	Region	•

Programme summary	Results
Number of inspections completed	2,959
Number of sites where fanworm was detected in region	10 sites
Comments	<ul> <li>Although infestation numbers are down from last year, we had one significant infestation in Pilot Bay where 94 fanworm were removed from the benthic that showed indications of being scraped from a vessel. Two of these sites were vessels with Sabella found on their hulls, both of which were hauled out and cleaned.</li> </ul>
2023/2024 expenditure	See Marine biosecurity expenditure table

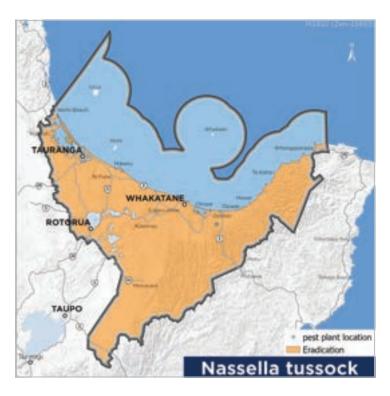


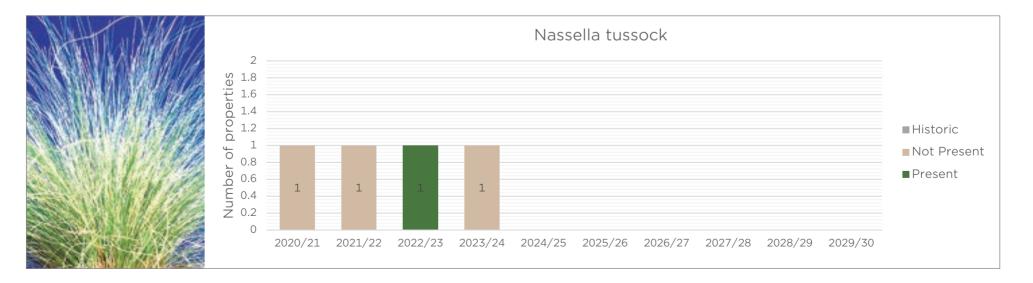


### Nassella tussock

Nassella trichotoma

RPMP classification	Catchments	Programme status
Eradication	Region	
Programme summary	Results	
Number of inspections completed	1 inspection completed	
Number of properties plant is managed	1 property	
Plant cover	0 m <sup>2</sup>	
Comments	<ul> <li>No plants found at the only active site in Bay located in the Opotiki area.</li> </ul>	of Plenty
2023/2024 expenditure	\$517.32	



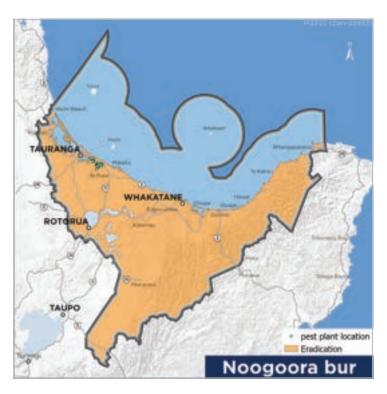


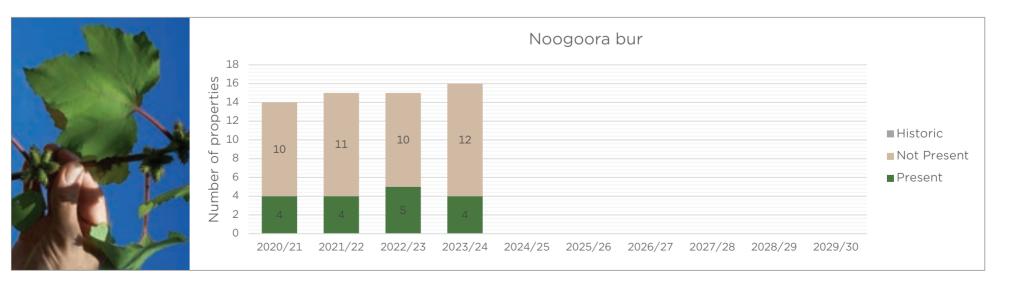
# Noogoora bur

Xanthium strumarium

RPMP classification	Catchments	Programme status
Eradication	Region	•

Programme summary	Results
Number of inspections completed	53 inspections completed
Number of properties plant is managed	15 properties
Plant cover	16.37 m <sup>2</sup>
Comments	<ul> <li>Reduction in pest plant cover reflects refinement of inspection data.</li> <li>Number of plants found and controlled is up slightly.</li> <li>One site reactivated after 5 years of no plants, seed life in soil is at least 6 years.</li> </ul>
2023/2024 expenditure	\$165,127.14

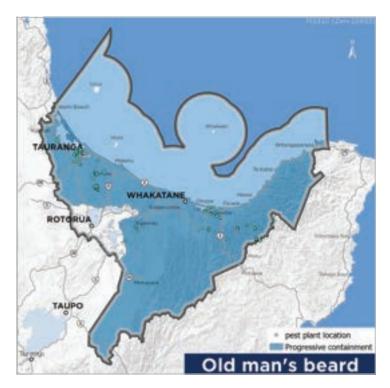




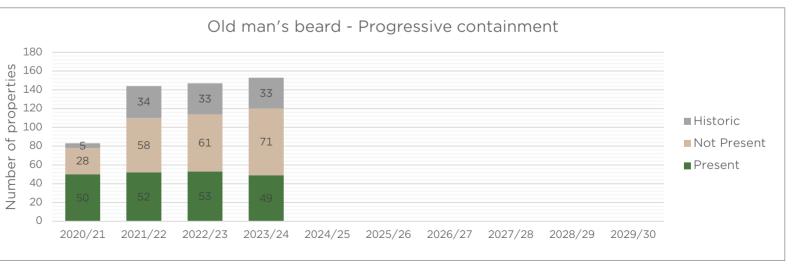
### Old man's beard Clematis vitalba

RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour, Kaituna, Maketū and Pongakawa, Tarawera, Rangitāiki, Whakatāne and Tauranga, Ōhiwa Harbour and Waiōtahe, Waioeka and Otara, East Coast.	٠

Programme summary	Results
Number of inspections completed	70 inspections completed
Number of properties plant is managed	120 properties
Plant cover	9,848.55 m <sup>2</sup>
Comments	<ul> <li>Scattered infestations throughout the region.</li> <li>Slight decrease in pest plant cover compared to 2022/23.</li> </ul>
2023/2024 expenditure	\$22,219.88









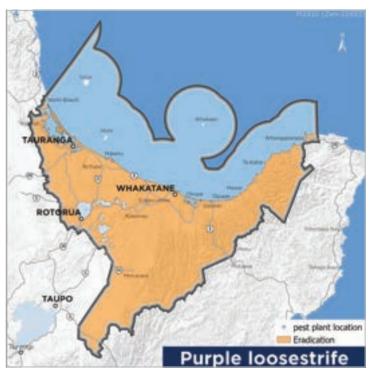
RPMP classification	Catchments		Programme status
Eradication	Tauranga Harbour, Kaituna, Maketū and Pongakawa		٠
<b>B</b>		P It.	
Programme summary		Results	
Number of inspections completed		187 (combined with eDNA and other pest fish su	rveillance)
Number of sites where fish is present		0 sites	
Number of fish caught		0 fish	
Comments		<ul><li>No other sites known in the region.</li><li>No fish have been caught since 2017 during fir</li></ul>	st detection.
2023/2024 expenditure		See Freshwater fish expenditure table	

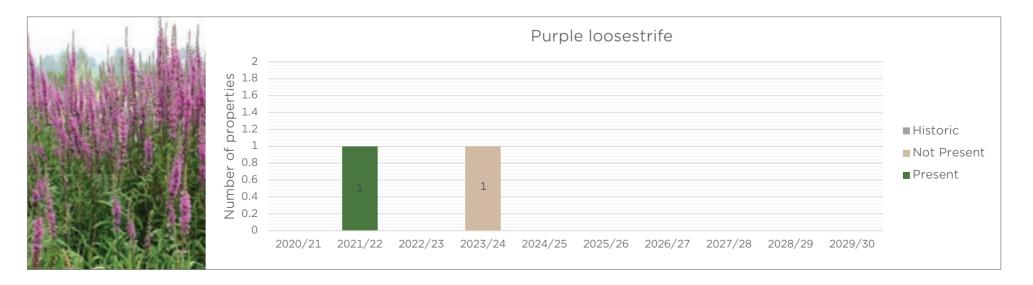


### **Purple loosestrife**

Lythrum salicaria

RPMP classification	Programm Catchments status	
Eradication	Region	
Programme summary	Results	
Number of inspections completed	72 inspection completed	
Number of properties plant is managed	1 property	
Plant cover	0 m <sup>2</sup>	
Comments	<ul> <li>One known site in Bay of Plenty, recorded zero density for this financial year.</li> <li>Wider surveillance included in the ornamental pond program with no new sites of purple loosestrife found.</li> </ul>	
2023/2024 expenditure	\$1,516.41	







RPMP classification	Catchments	Programme status
Eradication	Region	۲
Programme summary	Results	
Number of sightings received	3 unconfirmed sightings	
Number of control operations	0 control operations	
Comments	<ul> <li>No known breeding population</li> <li>Sightings received from the pand Pāpāmoa – these were boone sighting was made by a Boone sighting was made by a Boone sighting was made by a Boone sighting however no nests the lone rook has not been sighting boone sighting was not been sighting boone sighting was not been sighting boone sightin</li></ul>	oublic were in Katikati oth unconfirmed, Biosecurity Officer at s have been found and
2023/2024 expenditure	\$1,812	





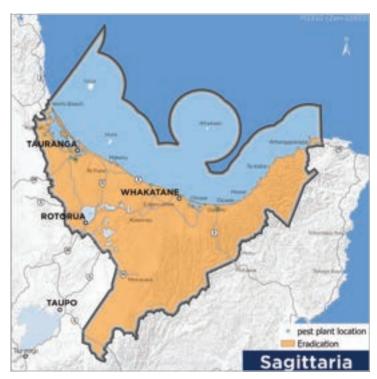
RPMP classification	Catchmen	ts	Programme status
Progressive containment	Tauranga	Harbour	
Programme summary		Results	
Number of inspections comp	oleted	187 (combined inspections & eDNA)	
Number of sites where fish is	present	1 site	
Number of fish caught		0 fish	
Comments		<ul> <li>New incursion detected in Te Awa o Te Atua - Matataa Lagoon in April 2024 and confirmed in May 2024 using eDNA technology. Only known incursion outside of Lake McLaren.</li> <li>There has been no capture of rudd to date, with control efforts scheduled to take place in September 2024.</li> </ul>	
2023/2024 expenditure		See Freshwater fish expenditure table	



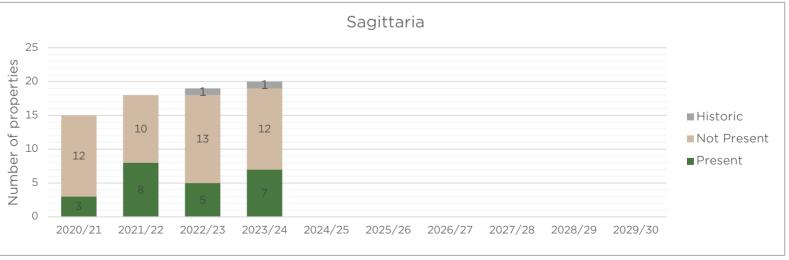
### Sagittaria

Sagittaria platyphylla / Sagittaria montevidensis

RPMP classification	Programm Catchments status
Eradication	Region
	Desults
Programme summary	Results
Number of inspections completed	93 inspections completed
Number of properties plant is managed	19 properties
Plant cover	1,048.7 m <sup>2</sup>
Comments	<ul> <li>Two new infestations found during this financial year, this has significantly increased the pest plant cover for the region.</li> <li>Wider surveillance included in the ornamental pond program.</li> <li>This species, if found early, can be eradicated effectively with current control tools.</li> </ul>
2023/2024 expenditure	\$9,646.51





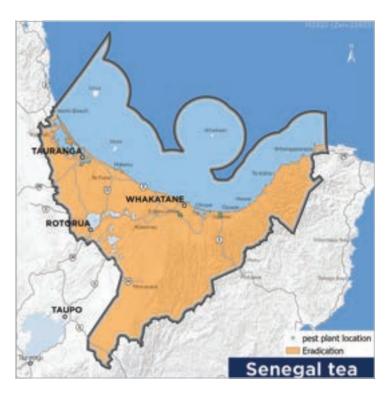


### Senegal tea

Gymnocoronis spilanthoides

RPMP classification	Catchments	Programme status
Eradication	Region	•

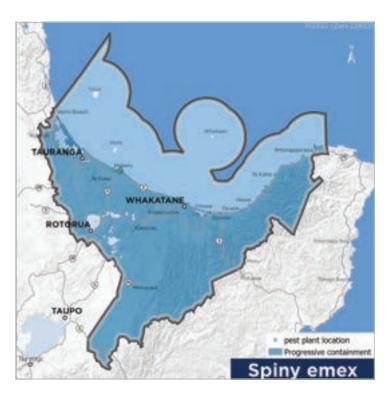
Programme summary	Results
Number of inspections completed	81 inspections completed
Number of properties plant is managed	22 properties
Plant cover	23 m <sup>2</sup>
Comments	<ul> <li>Reduction of pest plant cover recorded for this financial year.</li> <li>No new sites found through the wider surveillance of the Ornamental pond program.</li> <li>This program is on track for eradication by 2030.</li> </ul>
2023/2024 expenditure	\$7,228.92

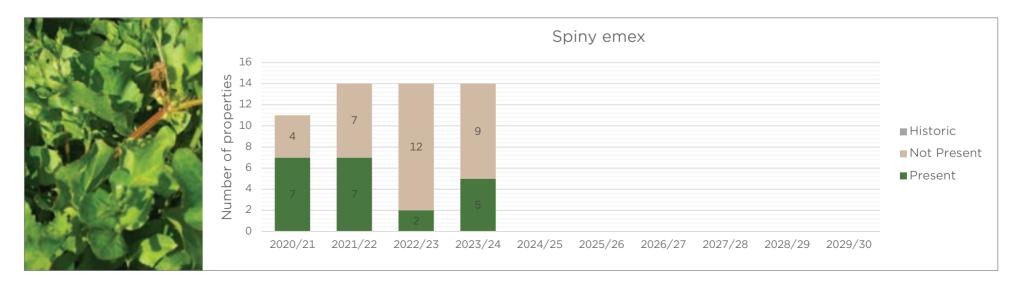




### Spiny emex Rumex hypogaeus

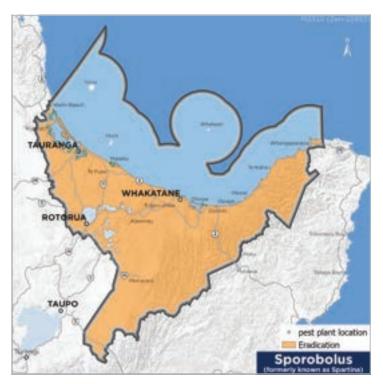
RPMP classification	Catchments	Programme status
Progressive containment	Region	٠
Programme summary	Results	
Number of inspections completed	31 inspections completed	
Number of properties plant is managed	14 properties	
Plant cover	73 m <sup>2</sup>	
Comments	<ul> <li>Population contained to Maketu area.</li> <li>Plant cover continues to decline, programme tracking well.</li> </ul>	
2023/2024 expenditure	\$5,303.33	

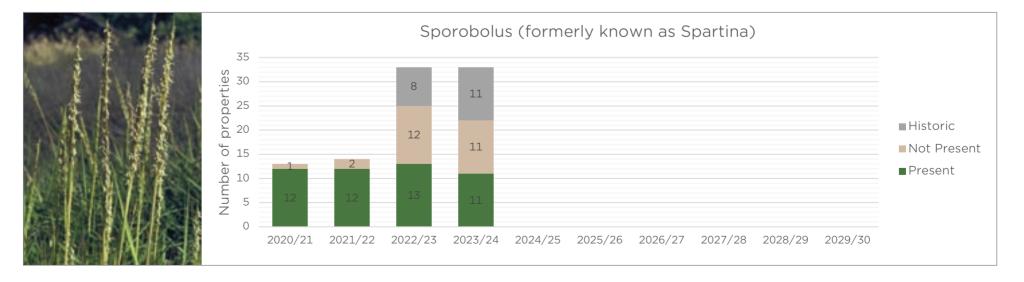




# **Sporobolus** (formerly known as Spartina) Sporobolus anglicus, S. alterniflorus and S. x townsendii.

RPMP classification	Program Catchments status	nme
Eradication	Region	
Programme summary	Results	
Number of inspections completed	7 inspections completed	
Number of properties plant is managed	22 properties	
Plant cover	441.2 m <sup>2</sup>	
Comments	<ul> <li>Increase in number of sites and pest plant cover due to BOPRC taking over the Tauranga harbour sites from DOC.</li> <li>Even with the inclusion of the Tauranga sites, control efforts are yielding a positive trend towards eradication.</li> </ul>	
2023/2024 expenditure	\$39,586.33	

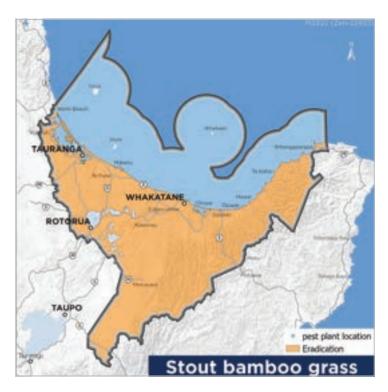


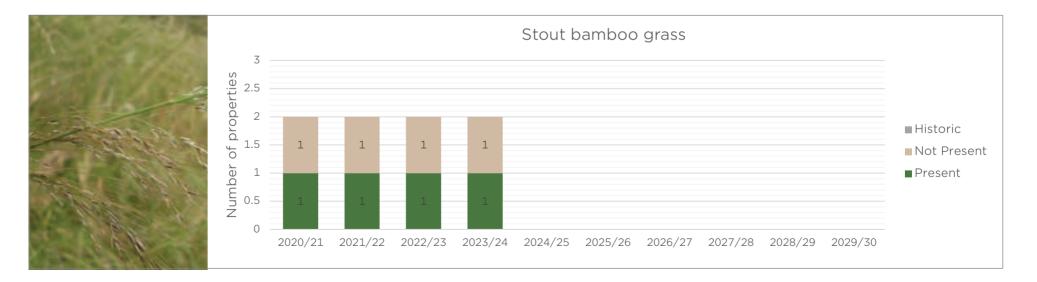


### Stout bamboo grass

Austrostipa ramosissima

RPMP classification	Catchments Programme status	
Eradication	Region	
Programme summary	Results	
Number of inspections completed	6 inspections completed	
Number of properties plant is managed	2 properties	
Plant cover	2 m <sup>2</sup>	
Comments	<ul> <li>Only two sites currently in the region. PPC remains same</li> <li>Pest plant cover remains very low.</li> </ul>	
2023/2024 expenditure	\$708.26	







RPMP classification	Catchments	Programme status
Progressive containment	Tauranga Harbour	

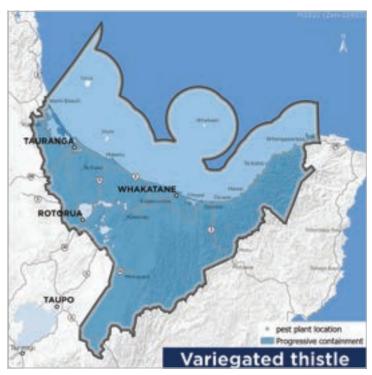
Programme summary	Results
Number of inspections completed	187 (combined inspections & eDNA)
Number of sites where fish is present	O sites
Number of fish caught	0 fish
Comments	<ul> <li>Present in Lake McLaren.</li> <li>Effort focussed on surveillance outside of known sites.</li> </ul>
2023/2024 expenditure	See Freshwater fish expenditure table

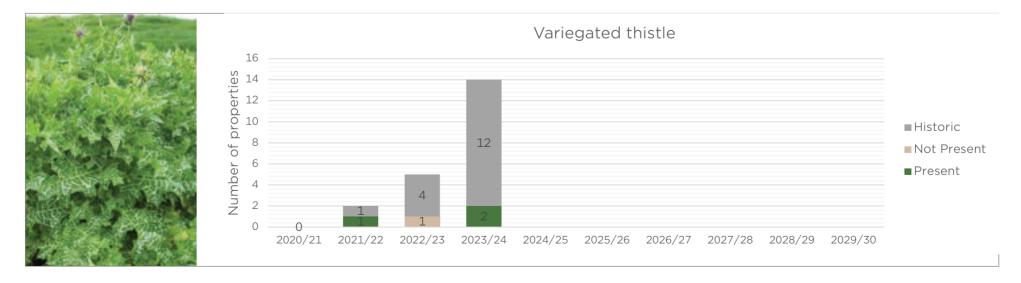


### **Variegated thistle**

Silybum marianum

RPMP classification	Programme Catchments status	
Progressive containment	Region	
Programme summary	Results	
Number of inspections completed	13 inspection completed	
Number of properties plant is managed	14 properties	
Plant cover	7 m <sup>2</sup>	
Comments	<ul> <li>One active site at East Cape had a decrease in number of plants found.</li> <li>13 historic sites re-checked in East Cape area including 2 large stations, one historic site was re-classified following detection of the pest, taking total active sites to 2.</li> </ul>	
2023/2024 expenditure	\$9,195.62	

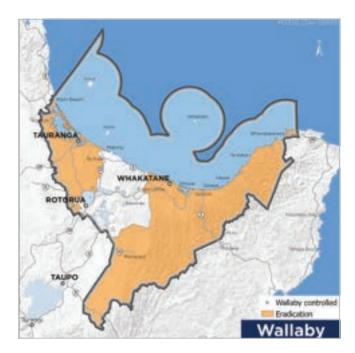


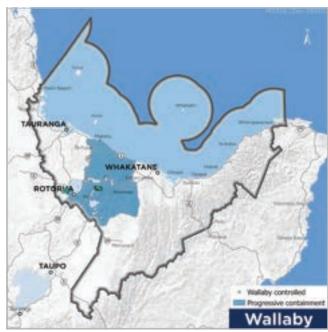


### Wallaby Macropus eugenii

RPMP classification	Catchments	Programme status
Eradication	Outside the Containment zone	•
Progressive containment	Inside Containment zone	

Programme	Results	
summary	Eradication	Progressive containment
Area surveillance was undertaken	43,850 ha	45.3 ha
Area covered by dog surveillance	4,230 km	2.3 km
Number of cameras deployed	572	306
Number of wallabies controlled	4	527
Comments		
2023/2024 expenditure	<b>\$1,610,000</b> (combined)	
2023/2024 revenue	<b>\$1,210,000</b> (combined)	

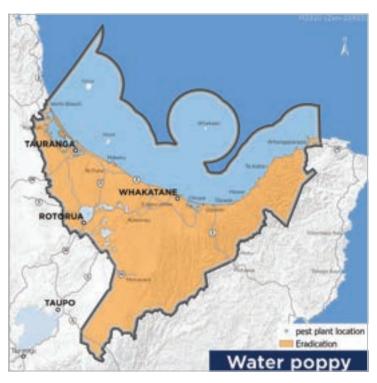


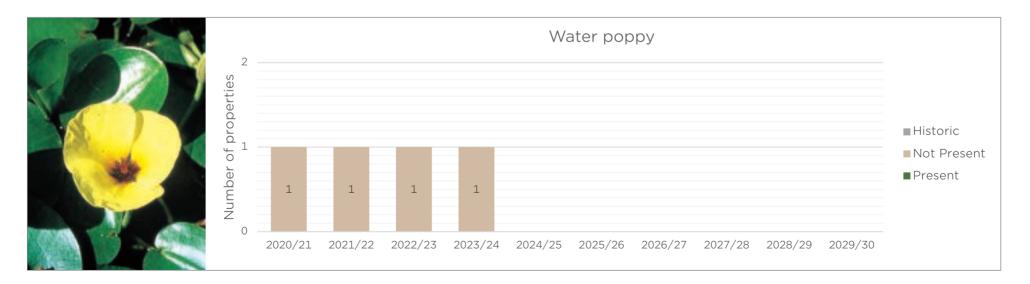


## Water poppy

Hydrocleys nymphoides

RPMP classification	Programme Catchments status	
Eradication	Region	
Programme summary	Results	
Number of inspections completed	71 inspections completed	
Number of properties plant is managed	1 property	
Plant cover	0 m <sup>2</sup>	
Comments	<ul> <li>One known site for the region, no plants found this year.</li> <li>No new sites found through the wider surveillance of the Ornamental pond program.</li> <li>Program is on track for eradication.</li> </ul>	
2023/2024 expenditure	\$627.48	

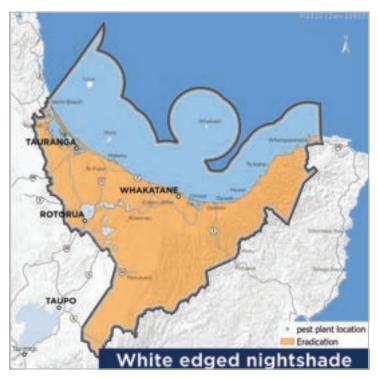


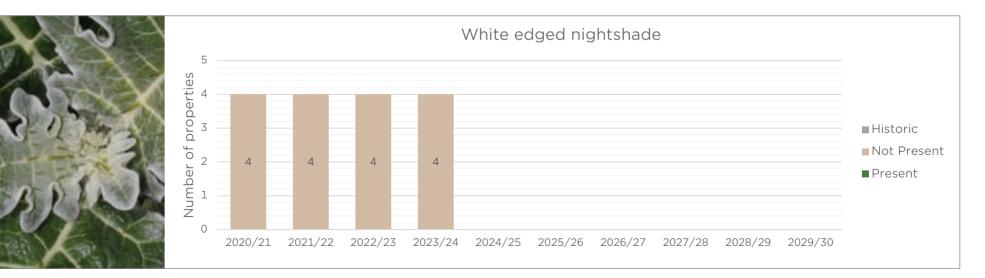


### White edged nightshade

Solanum marginatum

RPMP classification	Program Catchments status	
Eradication	Region	
Programme summary	Results	
Number of inspections completed	0 inspections completed	
Number of properties plant is managed	4 properties	
Plant cover	0 m <sup>2</sup>	
Comments	<ul> <li>All sites on Matakana Island and no plants have been found for 10 years.</li> <li>Inspection only undertaken 3 yearly and planned final inspection December 2024 to confirm eradication complete.</li> </ul>	
2023/2024 expenditure	\$52.29	

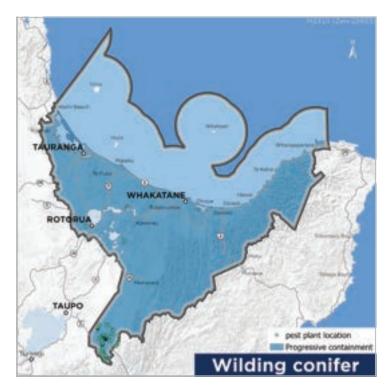




# Wilding conifers Pinus, Pseudotsuga and Larix spp.

RPMP classification	Catchments	Programme status
Progressive containment	Region – Dwarf mountain pine, European Iarch, Lodgepole pine, Mountain pine, Scots pine	٠

Programme summary	Results
Number of properties that received control	6 properties
Area that received control	1792 ha
Comments	<ul> <li>See case study for more detail on National Programme.</li> <li>Iwi-led work continued at Mount Tarawera supported by BOPRC.</li> <li>Surveillance and control done by iwi at East Cape with support from BOPRC.</li> </ul>
2023/2024 expenditure	\$163,615.13

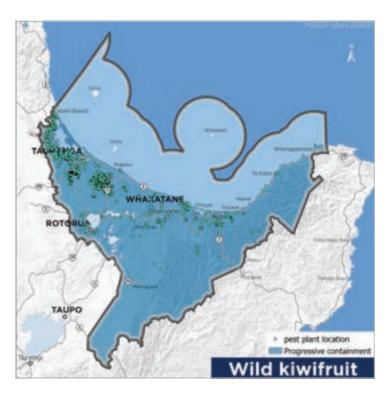




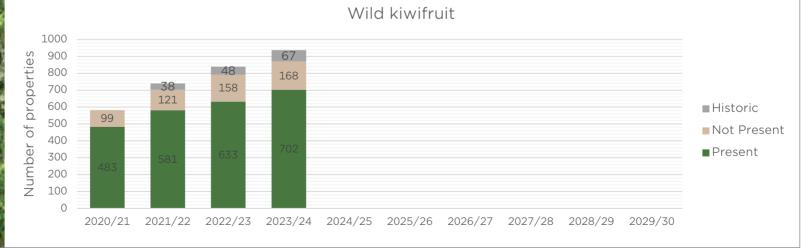
### Wild kiwifruit

#### Actinidia spp

RPMP classification	Catchments	Programme status
Progressive containment	Region	•
Programme summary	Results	
Number of inspections completed	241 inspections completed	
Number of properties plant is managed	870 properties	
Plant cover	304,489.41 m <sup>2</sup>	
Comments	<ul> <li>Continuation of Collaborative programme with Kiwfruit Vine Health (KVH).</li> <li>Control undertaken on 91 properties with an increase of vines controlled to 14,961.</li> <li>Slight increase in PPC compared to 2022/23 but consistent with more properties being managed.</li> <li>Seed source from production orchards will continue to be in issue into the future.</li> </ul>	
2023/2024 expenditure	\$176,813.25	
2023/2024 revenue	\$75,000	

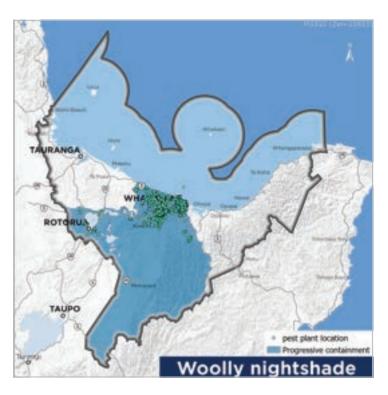






### Woolly nightshade Solanum mauritianum

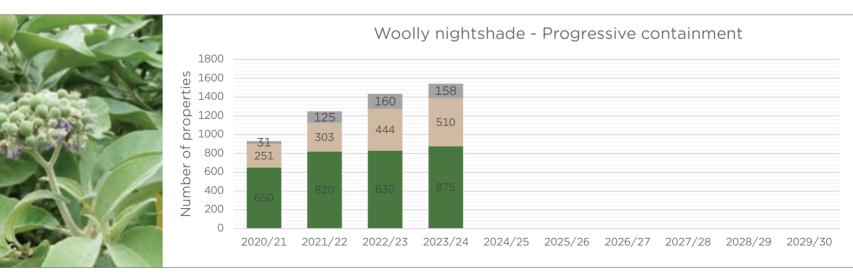
RPMP classification	Catchments		rogramme atus
Progressive containment	Rotorua Lakes, Tarawera, Rangitāiki, Whakatāne en da Tauranga.		•
Programme summary		Results	
Number of inspections co	mpleted	289 inspections completed	
Number of properties plant is managed		1,385 properties	
Plant cover		240,876.94 m <sup>2</sup>	
Comments		<ul> <li>On track in priority areas where targeted work is occurring.</li> <li>Data deficient outside of these areas due to resol constraints.</li> <li>Additional resources planned for 2024-25 year to effort toward RPMP objective.</li> </ul>	
2023/2024 expenditure		\$163,269.67	



■Historic

■ Present

Not Present

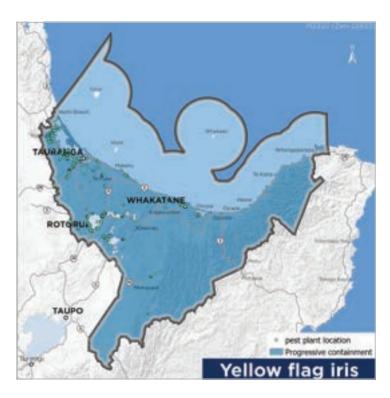


### Yellow flag iris

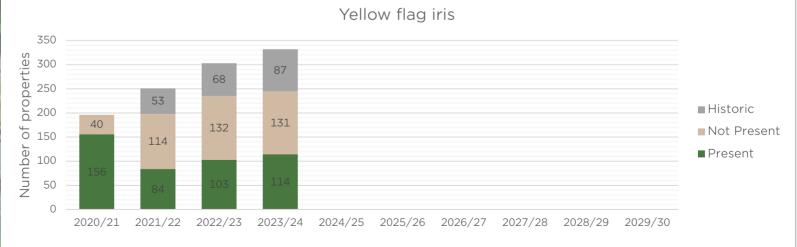
Iris pseudacorus

RPMP classification	Catchments	Programme status
Progressive containment	Region	•

Programme summary	Results
Number of inspections completed	629 inspections completed
Number of properties plant is managed	245 properties
Plant cover	758.5 m <sup>2</sup>
Comments	<ul> <li>New sites found this financial year mostly in Eastern Bay of Plenty, via delimiting of existing sites.</li> <li>Overall decrease in pest plant cover even with new infestations found, shows reduction in existing large infestations.</li> <li>No new sites found through the wider surveillance of the Ornamental pond program.</li> </ul>
2023/2024 expenditure	\$49,244.48







### **Expenditure tables**

Surveillance and control for aquatic pests, whether it be freshwater or marine, is often achieved as an activity looking for a number of pest species (diving surveys, eDNA, spraying operations).

The National Wilding Conifer Programme manages a number of pine species. Often wilding stands are made up of a number of species therefore control operations are often undertaken in mixed stands. During surveillance operations, all species of wild pine are recorded.

In these cases expenditure is reported by operational activity rather than by individual species.

#### **Freshwater fish**

Expenditure for pest fish (excluding brown bullhead catfish) was completed via targeted surveillance, eDNA sampling and ornamental pond surveillance, and is summarised below:

Programme summary	Results
Species managed	• Koi carp
	• Perch
	• Rudd
	• Tench
2023/2024 Expenditure:	\$58,087

#### **Freshwater aquatic plants**

Expenditure for freshwater aquatic plant species managed via weed cordons, dive surveillance, eDNA sampling and herbicide control is summarised in the table below:

Programme summary	Results
Species managed	• Egeria densa • Elodea canadensis
	• Hornwort • <i>Lagarisophon major</i>
2023/2024 Expenditure:	\$184,708.44

#### **Marine biosecurity**

Expenditure for marine species managed via dive surveillance and control is summarised in the table below:

Programme summary	Results
Species managed	<ul> <li>Australasian droplet tunicate</li> <li>Clubbed tunicate</li> <li>Mediterranean fanworm</li> <li>Pyura</li> </ul>
2023/2024 Expenditure:	\$311,402

\* does not include Asian paddle crab which is managed via trapping

\* includes expenditure for managing RPMP species in BOP region only, does not include support for other regions.





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