Environment Canterbury:

Biosecurity Programme Update

REGIONAL UPDATE – MAY 2022

BIOSECURITY ACT REVIEW – UPDATE

The Ministry for Primary Industries (MPI) has advised the Biosecurity Act review discussion document has been finalised, MPI will be seeking public feedback. This is now likely to occur in late 2022.

FERAL ANIMAL MANGAGEMENT

Department of Conservation is developing an implementation strategy for feral ungulates in collaboration with other stakeholders. Once this is completed Environment Canterbury will organise community meetings to discuss local feral ungulate issues and what approaches the community can use to resolve these. The focus will be on high value native biodiversity sites.

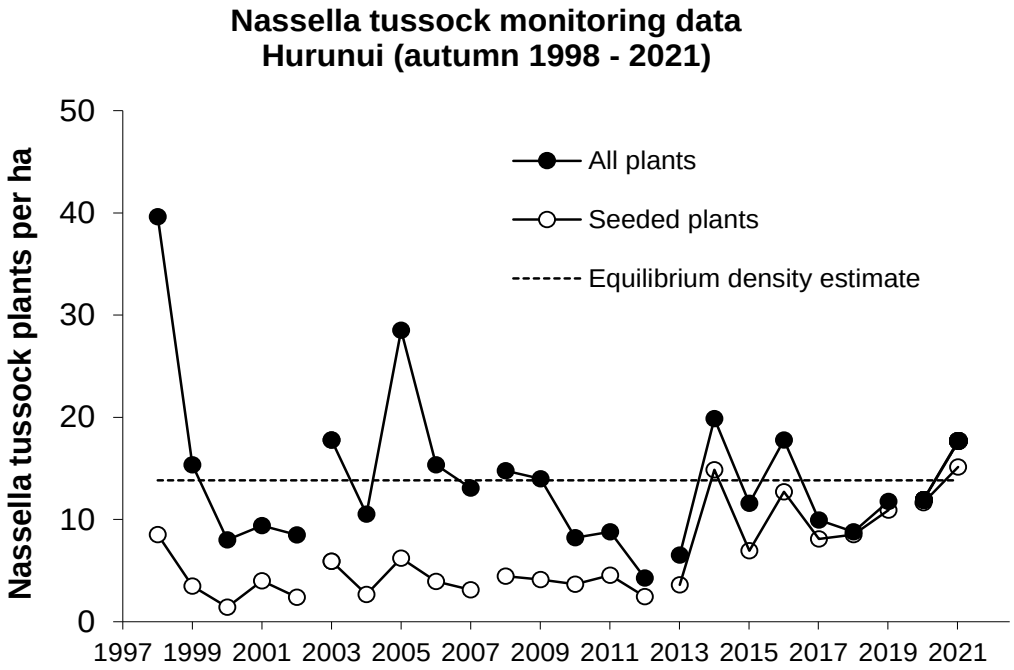
NASSELLA TUSSOCK – NEW INFESTATIONS

Environment Canterbury Biosecurity staff are working closely with the owner of an 800-hectare property near Duntroon to plan control of Nassella tussock. Staff visited the site recently with AgResearch Scientists Graeme Bourdot and Shona Lamoureaux, and Tony Benny from Upside Down Productions Limited, see photo below.

Photo: Walking through a property heavily infested with Nassella tussock

NASSELLA TUSSOCK POPULATION TREND MONITORING

Nassella tussock population density monitoring results for 2021 in the Hurunui District (below) indicate a potential increase in overall numbers is occurring. This aligns with recent comments from some land occupiers in the district. The next population monitoring programme for Nassella tussock will be implemented in Autumn 2023. There are >1450 properties with a history of Nassella tussock in Canterbury, of which 890 properties are known to occur in the Hurunui District.



The average number of plants per hectare in the Hurunui District in 2021 (in Autumn after control and inspections) on affected properties is estimated at 17 plants/hectare. The remainder of Canterbury is estimated at 3.7 plants/hectare. The average density (equilibrium) since 1997 for Nassella tussock is approximately 13 – 14 plants/hectare.

Most properties have very low numbers/densities of Nassella tussock. Approximately 170 properties are thought to have consistently more than 1000 plants. These properties are estimated to have between 30 – 70 plants/ha on average (after control efforts) which equates to 3.4 million plants.

An estimated average 86.5% of plants missed (on 170 properties) during control seeded, releasing an estimated 19 billion seeds.

Nassella tussock seed is spread by machinery, vehicles, crops, stock, people, and wind.

Planning the 2022 – 2023 Nassella tussock programme across Canterbury is also underway. This programme consists of several components' education, surveillance, and inspections to ensure satisfactory control has been undertaken by land occupiers.

SPACE INVADERS - FEEDBACK

Environment Canterbury has provided feedback to Parliament's Environment Committee and the Primary Production Committee on the Report produced by the Parliamentary Commissioner for the Environment, Te Kaitiaki Taiao a Te Whare Pāremata: Space invaders: A review of how New Zealand manages weeds that threaten native ecosystems.

Environment Canterbury support the main theme of the recommendations, that the system needs to be strengthened to better manage weeds that threaten native ecosystems. Our submission on the report

FOCUS ON FUTURE – INVASIVE ORGANISMS (by Morgan Shields)

An extensive list of 1033 invasive species that are present in New Zealand has been collated. These species have been suggested as causing or potentially causing negative impacts in Canterbury now or in the future. The species recorded can be further categorised as follows; plants (873), insects (50), mammals (31), birds (15), fish (11) and other organisms (68) across terrestrial, aquatic, and marine ecosystems.

The list includes declared pests as well as species that are currently not known to exist in Canterbury. Additional species will likely be added in the future.

A ranking system is being developed based on existing invasive species models to determine what species will be considered for further investigation. Following this process, a substantially shorter list of species will undergo further investigation with expert advice from an external Technical Advisory Group. Some of these species will be prioritised in the future for council to consider adding to the Canterbury Regional Pest Management Plan (2018-2038).

The Biosecurity team at Environment Canterbury has begun discussions with MPI, most notably Michael Ormsby, Manager - Plant Risk Analysis, to provide Environment Canterbury with risk assessment tools and processes that can be adapted for the Canterbury region. This looks promising and while it will take time to implement, risk assessment capabilities will be substantially improved.

Plant Sales.

Environment Canterbury Biosecurity is about to undertake inspections of wholesale and retail nurseries across Canterbury for pest plants identified in the National Plant Pest Accord and Canterbury Regional Pest Management Plan (2018–2038). A plant educator has been employed to aid Environment Canterbury in this endeavour.

The plant sales surveillance programme will expand in the new financial year to include inspections of community markets, fetes, roadside stalls and online plant sales with guidance from MPI.

NEW ZEALAND BIOSECURITY INSTITUTE - NATIONAL EDUCATION AND TRAINING SEMINAR

The annual National Education and Training Seminar (NETS) organised by the New Zealand Biosecurity Institute (NZBI), is being hosted at the Christchurch Town Hall, from 3 - 5 August 2022. Each year NETS is attended by people from all facets of the field of Biosecurity and features workshops and presentations on many different aspects of invasive species management.

This three-day seminar provides a multi-sectoral and multi-agency forum for discussion and debate on how we can collectively minimise the risk of biosecurity threats to New Zealand. NETS2022 is expected to attract up to 250 delegates from across New Zealand.

Speakers have a range of backgrounds and areas of expertise, from international and national experts to people working at the coalface. The theme for NETS2022 is “Changing Landscapes”.

NETS has been delayed for two years due to the impacts of Covid 19. Check out the promo video (made in 2020) for the conference:

Registration details will be available on the NZBI website soon.

EDUCATIONAL ACTIVITIES – IN BRIEF

A new online tool is being created to allow the public to better engage with Environment Canterbury regarding organism observations. This will capture trends in public reporting enabling map education resources to be more targeted towards community needs.

The pest awareness advertising plan for autumn is being rolled out with the objective of increasing stakeholder engagement with our awareness programme, with a vision to increase the reach of our notices to newly identified groups.

The project aimed at getting roadside signs installed at various locations across Canterbury is progressing. These signs have been designed and are awaiting final proofing.

Adverts raising awareness about specific pests were shared with the community with particular focus on the rural community - Yellow Bristle Grass was promoted in the Canterbury Farming Magazine. Goats were promoted in the Akaroa Mail.

A request was put out to the Biosecurity Advisory Groups, requesting names and contacts for community groups (conservation, gardening, etc) operating in their areas to whom we could direct pest awareness material. This was well received with a number of groups being identified and shared with us.

GORSE AND BROOM – CHANGE PROPOSAL

To increase the effectiveness of the compliance inspection programme for gorse and broom, a change from the current two zone approach (Zone 1: Hill and High Country with internal and boundary rules, and Zone 2: Canterbury Plains) to a three-zone approach is being proposed.

Under the recommended approach, the current hill and high-country zone will be split into two. The first zoning will include large scale areas consisting of multiple productive properties which are clear or almost clear of gorse and broom. Inspections will be undertaken to ensure these remain free.

The second zoning would include areas with omnipresent gorse and broom at various stages of infestation and containing large infestations of gorse and broom. Inspections will be undertaken to ensure boundaries are clear and advice provided for effective management of internal infestations.

NATIONAL WILDING CONIFER CONTROL PROGRAMME

- Sixteen active management units within Canterbury, fifteen of which are primarily Crown-funded including one community project on Banks Peninsula.
- Crown funding for the current financial year is approximately $13.2 million; other significant contributors include Environment Canterbury, New Zealand Defence Force, Land Information New Zealand and landowners.
- Approximately $11.2 million has been invoiced for work to date across Canterbury. Two management units are complete for this financial year and all others are tracking well for completion by mid-late June.
- Three volunteer days were completed this year with great engagement and feedback received. We are also actively working alongside three Trusts involved in wilding conifer control.
- Approximately 185 individuals have been employed for the programme this financial year.

NATIONAL WALLABY ERADICATION PROGRAMME

- On foot search teams are working in the Ben Ohau range, checking the heavily wilding tree-covered areas and mapping any wallaby sign. Once completed we will meet with landowners to plan a bait operation to target any wallaby groups or individuals found.
- Ground teams are engaged in search and destroy work within the Mackenzie, Two Thumb, Te Manahuna Aoraki, Kirkliston and South Waitaki management units.
- The Tekapo, Pukaki, lower Ohau River systems are ground shot four times per year; next round is scheduled for mid-June.
- Day time thermal helicopter search and destroy operations completed work over three weeks in several management units.

- Wallaby ear tissue samples collected over the entire wallaby range this month; Eco Gene will be analysing these samples (all regional councils involved in the National Wallaby Eradication Programme are taking part) to try to determine if unique DNA signatures exist from geographic areas. This may aid in determining passive wallaby pathways and/or areas of human relocated releases. Environment Canterbury will provide around 80 samples in a geographic spread within the feral range.
- All wallaby faecal transects completed and data sent to Manaaki Whenua for biometrician analysis and reporting, completion due May 2022.

Report prepared by:

Laurence Smith
Principal Advisor - Biosecurity

Scroll down to see local area update

Southern Area Update May 2022

RECENT OPERATIONS

The Southern Biosecurity Team have been busy with a range of different projects through the last few months, including African Love Grass, Nassella Tussock, Feral Rabbit, Darwin's Barberry and Yellow Water Lily. This work involves a mixture of organising contractors to undertake control work, managing budgets and physical surveillance and control of pests.

The focus of the next quarter will be continuing our surveillance programme, searching for both Nassella Tussock and African Love Grass, inspecting rabbit prone properties as control operations are completed, and carrying out some gorse and broom inspections.

We are excited to welcome a new Team Leader and new Biosecurity Officer both starting on 30th May. This will bring our Southern Team back up to a full compliment.

AFRICAN LOVE GRASS

African Love Grass is a vigorous, clump-forming, perennial grass up to 1.5 metres tall. It has fibrous roots, growing up to 50 centimetres deep. The flower heads (panicles) are pyramid-shaped with small, white flowers. Its blackish, olive-purple seeds are attached to arching stems over 1 metre long. For more information see the following Link.

African Love Grass is present on 6 properties with the main site near Omarama and plants frequently being found and controlled on Kurow Island.

During a Weed Risk Assessment carried out across 30 different species, Ag Research identified African Love Grass one of the main risks to Canterbury. A new site has been found recently on a North Canterbury roadside.

Contractors were engaged to grub out plants at the end of April with around 650 plants controlled.

Biosecurity officers plan to carry out surveillance on properties adjacent to known sites and check whether this pest is continuing to spread.

NASSELLA TUSSOCK

Since the discovery of the large Nassella Tussock site on a property south of Duntroon, our team have been putting a lot of effort into searching the surrounding properties to see if there has been any spread of plants.

To date only one plant has been found on a neighbouring property.

Raising community awareness has been a big focus, as Nassella has generally been seen as a “North Canterbury issue” and a lot of land occupiers are not aware it can grow in South Canterbury.

We are encouraging the community to report any potential sightings so our biosecurity team can investigate. Our team aims to continue our surveillance in this area over the next few months.

FERAL RABBITS

Rabbit populations in the Mackenzie Basin have slightly decreased from the previous year according to our Rabbit Night Count Trend Monitoring. This could possibly be due to the wet season and extra growth we have had.

Biosecurity officers have completed our compliance inspections. Properties with high rabbit numbers are currently submitting control plan submission forms, outlining their control methods and timeframes for this winter. Post control inspections will occur after these operations to confirm whether these have been successful.

There have been reports of high rabbit numbers in the Tekapo township as well as Lake Alexandrina Huts (both Eastern and Southern Huts). We are currently in consultation with Mackenzie District Council around this issue and are coming up with a solution to control these populations.

YELLOW WATER LILY

Yellow Water Lily is an aquatic plant growing from large, long, spongy rhizomes (up to 10 centimetres thick) with large oval, heart-shaped, waxy, floating thin, lettuce-like submerged leaves. For more information see the following Link.

Our only site in a stream just on the outskirts of Pleasant Point is also the only known occurrence of Yellow Water Lily in New Zealand. The infestation stretches along 3.3km of the stream.

We have recently engaged contractors to spray the Yellow Water Lily with Diquat which has appeared to knock the plant back more significantly than previous control efforts. We will continue to monitor this site and investigate methods to permanently eradicate this pest.

Report prepared by:

James Spence
Acting Team Leader - Biosecurity