

Biosecurity New Zealand

Tiakitanga Pūtaiao Aotearoa

Sea spurge – a serious threat to our coasts

What are we doing and how do we prevent its spread?

Ministry for Primary Industries
Manatū Ahu Matua



Sea spurge

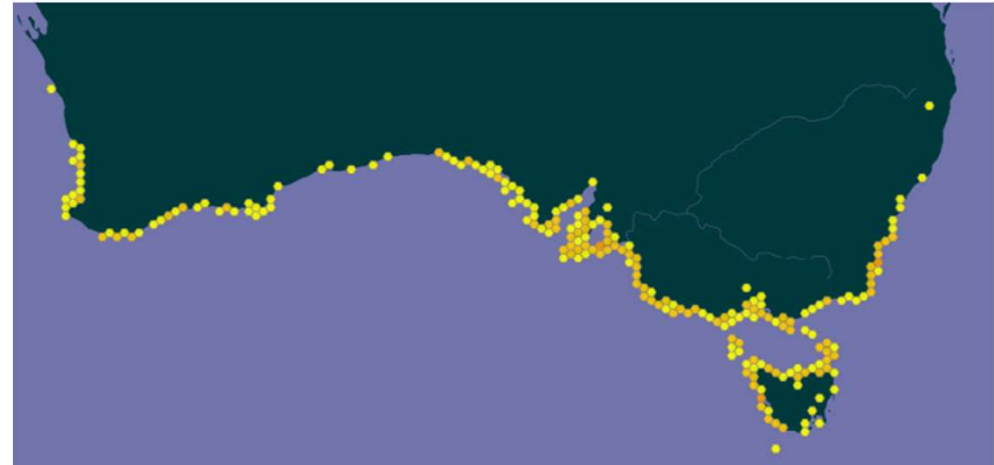
Euphorbia paralias

- Long-lived herbaceous plant
- Originally from the Mediterranean
- Suitable habitats include dunes, rocky shores, estuaries, grassland
- Many stems with tightly packed leaves
- Green flowers at end of stems
- Dispersal via explosive seed pods, wind, and ocean currents



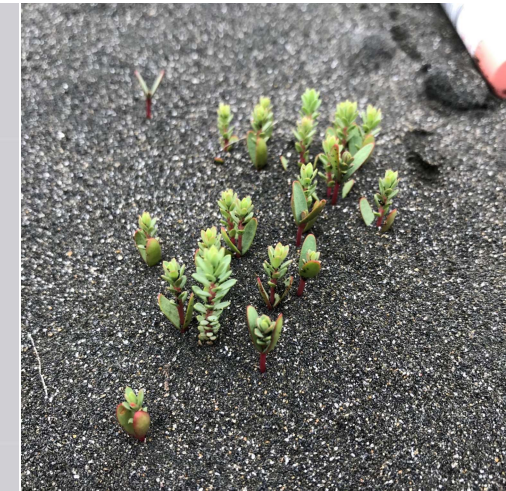
How invasive is it?

- Fast coloniser forming monocultures of over 150,000 stems per hectare
- Each plant can produce over 5,000 seeds a year
- Seeds can remain dormant for ~10 years before germinating
- Initially detected in Australia in the 1920s, now found across most of the southern coastline



Sea spurge in New Zealand

- Unwanted organism, first detected at Aotea in Waikato in 2012
- Likely floated across from Australia
- 23 known sites, 18 since July 2021
- Sexual maturity <4 months old, seeds germinate year round
- Often along the foredunes and can grow underneath other plants



Risks to New Zealand

- Toxic sap is harmful to human and animal health
- Damages coastal ecosystems and transforms landscapes
- Outcompetes native species such as our native spurge (*Euphorbia glauca*)
- Impacts on cultural and recreational use of our coastlines



The sea spurge programme

- Until 2021 sea spurge was managed as several eradication responses
- BNZ established a long-term programme to provide co-ordination, resources, and develop a long-term strategy
- The vision is that “Aotearoa New Zealand is free from sea spurge, (*Euphorbia paralias*).”
- Supports collaboration between BNZ, DOC, Regional Councils and Iwi.
- Objective is to eliminate known sea spurge infestations – zero density
- Can achieve this through effective control & early detection



The sea spurge programme

- Developing a network of groups who can search for sea spurge in their local area, which includes working closely with whānau, hapū, and iwi
- Allows us to cover more ground and find more sea spurge sites
- To date, our focus has been the Lower North Island, but we aim to expand this nationwide
- Any sea spurge found is first reported through to BNZ and then followed up by DOC or the regional council.



Site management

- Each site has all plants counted and controlled every 4 months
- Annual 15km search either side
- Wider searching as resources permit
- Plants removed by BNZ/DOC/ Regional Council staff
- Visited until 10 years with no plants
- Aotea site now 5 years plant free



Control methods

- Plants usually removed by hand
- Spraying can be used when manual removal is impractical
- Sand removal to reduce the seedbank
- Zero density in New Zealand is possible
- The earlier we find it the better



What you can do

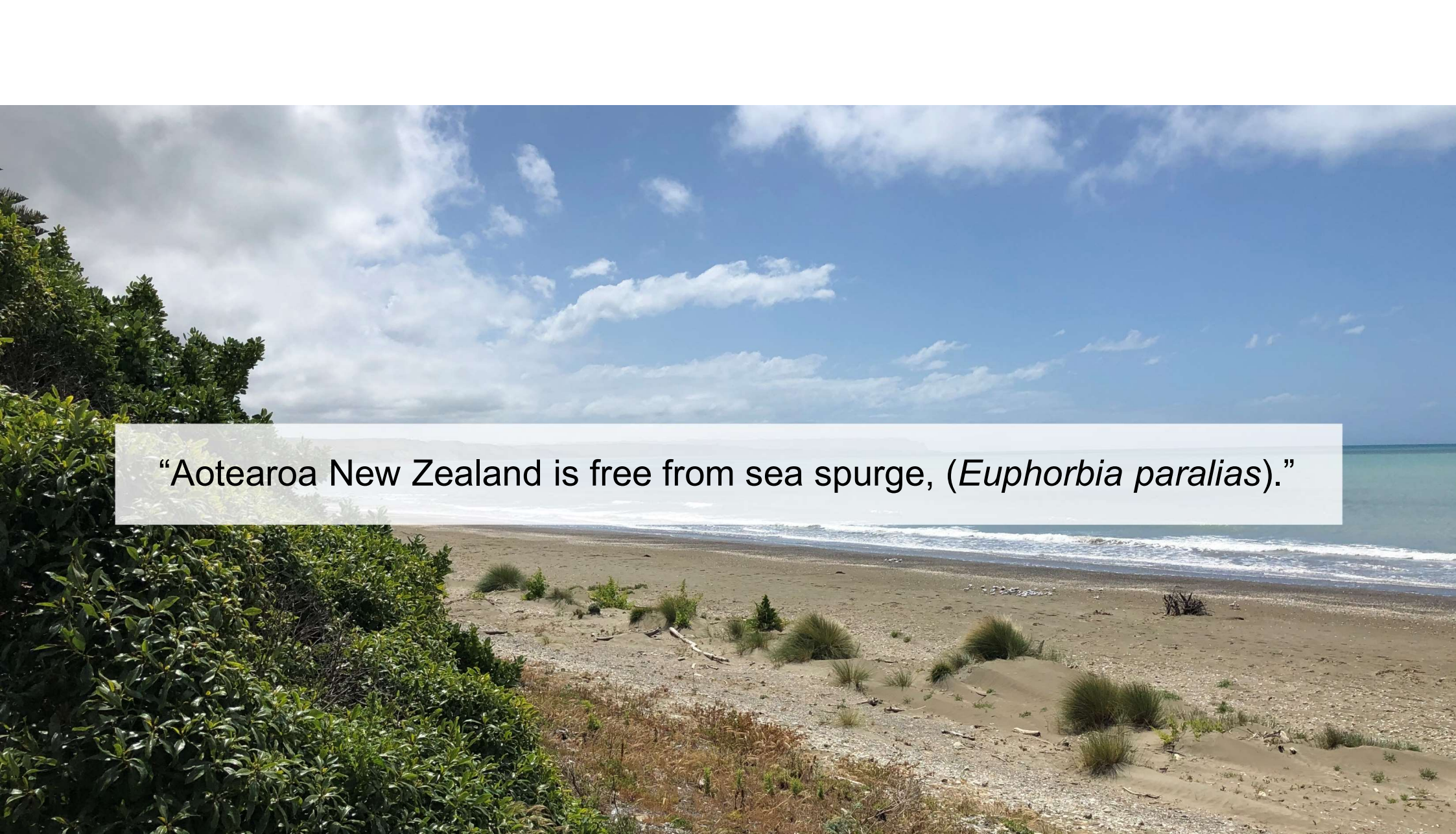
- Keep an eye out for sea spurge
- People passionate about our coasts are most likely to spot sea spurge
- If you see sea spurge, take photos of
 - The whole plant
 - Leaves and stems
 - Flowers (if present)
- Record the location, using GPS coordinates if possible



What you can do

- Call the MPI hotline (0800 80 99 66)
- Do not remove the plants
 - Toxic sap
 - Similar native species
 - Unwanted organism
- A5 guide developed with images and information to help identify sea spurge
- Tell people about sea spurge





“Aotearoa New Zealand is free from sea spurge, (*Euphorbia paralias*).”



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**Department of
Conservation**
Te Papa Atawhai



Planned research

- Determining relationships between NZ sea spurge populations and their connection with Australian populations
 - Is each site a new incursion from Australia or is there spread within NZ?
- Identification and prioritisation of high-risk coastline
 - Which areas of coastline are at the highest risk of sea spurge?
 - Are there areas sea spurge can't reach or establish?
 - Where should we be searching most often?

