

MULCAHY PLANNING AND 410 Nelson PROPERTY email SERVICES

410 Nelson Road Mt Nelson TAS 7007 email: jimsplanning@outlook.com Mobile: 0424 505 184

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DENNES POINT – BARNES BAY WEED MAPPING

Introduction

This weed mapping exercise for the area between Dennes Point and Barnes Bay has been undertaken as a voluntary contribution to the North Bruny Land and Coastcare Group to assist in a process of community engagement and education about environmental weeds, and to guide onground weed management activities.

The mapping is not the result of a comprehensive survey and should be treated as a preliminary exercise to be built upon as more data is collected over time. The data used in the mapping emerges from my observations and weed control activities at Dennes Point over the past twenty years, mapping from roads and beaches over the past month using phone-based GPS, and analysis of aerial photography. As a result, the data is limited in extent – largely limited by the time, distance and opportunity available for morning dog walks and Sunday drives!

The area covered by the mapping is from Dennes Point to Barnes Bay, with the most detail available between Dennes Point and Bligh Point, being the limit of my own weed control activities. It is important to note that this limited scope excludes some significant weed infestations of relevance to the North Bruny Land and Coastcare Group (eg spanish heath at Apollo Bay).

The data is also limited to some extent by the opportunity to access private properties. Thankfully, from time to time I have been granted permission by past or current owners of some of the larger properties in the Dennes Point area to access those properties and to undertake boneseed / ragwort control. It is also helpful to the cause that some larger infestations can be seen from the road and that the gardens of most residential properties at Dennes Point can be seen from the road and / or the beach.

Jim Mulcahy (BSc, GradDipEnvSt, BFP 159) jim.mulcahy@outlook.com 0424 505 184

Weed Species

There is a short list of exotic plant species at Dennes Point which are listed as pest species / declared weeds under the *Biosecurity Regulations 2022* (formerly listed as declared weeds under the *Weed Management Act 1999*), most of which are also recognised at a national level as Weeds of National Significance (WoNS):

- blackberry listed pest species and WoNS,
- boneseed listed pest species and WoNS,
- boxthorn listed pest species and WoNS,
- english broom listed pest species and WoNS,
- gorse listed pest species and WoNS,
- exotic heaths other than spanish heath listed pest species,
- montpellier broom listed pest species and WoNS,
- pattersons curse listed pest species and WoNS,
- ragwort listed pest species and WoNS, and
- spanish heath listed pest species and WoNS.

These species are listed because they are threats to agriculture (eg ragwort and Patterson's curse) and / or because they are invasive environmental weeds (eg spanish heath and boneseed). For this exercise I have mapped all listed species.

There is a much longer long list of exotic plant species on North Bruny which are recognised as having the potential to be invasive environmental weeds in some situations or circumstances. For some of these species I have chosen either not to map them or only to map their distribution where they intersect with healthy native vegetation.

Priorities

Prioritisation for weed control action is a subjective exercise. Government and most others naturally prioritise listed weeds and WoNS, but these are not necessarily going to be the species of most concern at a local level.

Not wishing to pre-empt broader discussions within the group and the community, I have generally not suggested priorities for action as part of this mapping exercise, but I will note a few relevant considerations in deciding on priorities:

- there is a legal obligation for landowners to control listed pest species, so arguably infestations of these species are better dealt with through education and regulatory processes than voluntary weed control works,
- some listed pest species are of concern mainly because of the threat they pose to agriculture, and they may not be a priority for community action if they are not invasive environmental weeds (or not very invasive),

- priorities will be influenced by the focus of the group (eg the group may choose to focus on education and supporting the existing priorities of Council rather than conducting on-ground weed control works and prioritising based on those works),
- priorities will probably be influenced by opportunity (eg it is easier to gain funding to control listed species or WoNS, and it may not be practical or possible to access some weed infestations),
- priorities will be influenced by available resources (eg voluntary community effort is better suited to some weeds and the control methods required for those weeds),
- priorities will be influenced by the nature of infestations and management objectives (eg for established infestations of any scale the management objective is probably containment, while for less established weed species the objective may be eradication and preventing reintroduction).

Some brief notes are provided below on recognised environmental weed species that occur on Dennes Point and how they have been dealt with in this mapping exercise.

Agapanthus (Agapanthus craecox)

Agapanthus is widespread in gardens around Dennes Point and is valued by residents because it is extremely hardy, stabilises steep banks and has attractive flowers. For this mapping exercise I have only mapped agapanthus where I have recorded it visibly invading healthy native vegetation.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging. Advice should also encourage the heading of flowering stems before seeds set to minimise the risk of spread.

Banana passionfruit (Passiflora mollisima)

Banana passionfruit has been recorded from the gully at the southern end of 11 Victoria Avenue and northwest of Top Lagoon on Woodlands. For this exercise the approximate location of all known individuals has been mapped.

New occurrences of banana passionfruit can some occur at distance from existing mature plants due to birds eating fruit and defecating seed elsewhere, with gullies being the highest risk areas.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Blackberry (Rubus fruticosus aggregate)

Blackberry is a listed pest species and a WoNS. It is relatively uncommon at Dennes Point and for this exercise it has only been mapped where a few larger infestations have been observed. There are some larger infestations north of Quarantine Bay at Killora, with the largest in the lower reaches of Graveyard Creek.

Bluebell creeper (Billardiera heterophylla)

A few bluebell creeper bushes have been recorded from road verges along Cox Drive and at Rat Bay. This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Blue butterfly bush (Psoralea pinnata)

Two blue butterfly bushes have been recorded in the front yards of residential properties at 191 and 195 Nebraska Road (191 Nebraska Road also has *Erica* species in the front yard, which have only been mapped from the road).

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Boneseed (Chrysanthemoides monilifera)

Boneseed is a listed pest species and a WoNS. It is common and widespread at Dennes Point, although mature plants are now relatively uncommon dues to control efforts over the last twenty years. Seeds remain viable in the soil for long periods of time (at least 20 years going on the evidence of my own control work at Dennes Point), which means a long-term commitment to follow-up work.

In the early 2000s Landcare Tasmania funded control efforts aimed at eradicating the species from Bruny Island. At that time, Dennes Point was the only known location and the species is still largely restricted to Dennes Point, but I have recently observed plants in the dunes north of Sadgrove Point at Great Bay and along the roadside at Barnes Bay.

For this exercise I have mapped:

- areas subject to control effort which require follow-up to control new seedlings,
- areas of existing uncontrolled infestations, and
- individual mature plants which remain uncontrolled.

One of the larger boneseed infestations is on the Owens' property at 37 Nebraska Road, but this will be controlled as part of the Weed Management Plan associated with the subdivision permit.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Boxthorn (Lycium ferocissimum)

Boxthorn is a listed pest species and a WoNS. There is an infestation of boxthorn on the cliffs in the Cape de la Sortie Conservation Area north of Woodlands. Surprisingly, only a few scattered individuals have been recorded elsewhere around Dennes Point. The approximate area of the larger infestation has been mapped along with all known individuals.

New occurrences of boxthorn can occur at some distance from existing mature plants due to birds eating berries and defecating seed elsewhere, but there appears to be little spread occurring at Dennes Point.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Briar rose (Rosa rubiginosa)

Briar rose is widespread on the Council land at the end of Dennes Point, as well as the adjoining Cape de la Sortie Conservation Area extending around to Kellys Point, and a small area of private land on Woodlands. For this exercise I have mapped the approximate area of the infestation.

Camphor laurel (*Cinnamomum camphora*)

A single camphor laurel has been recorded from the gully near the southern boundary of 11 Victoria Avenue. Given the limited occurrence, it is probably unnecessary to include this species in general broadscale information and advice to the community.

Cape Leeuwin wattle (Paraserianthes lophantha)

There are scattered occurrences of cape leeuwin wattle around Dennes Point but several that are obviously 'garden escapes', which suggests it may be an emerging weed problem. For this exercise all known individuals and small patches have been mapped as point data.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Cotoneasters (Cotoneaster spp.)

Cotoneasters are occasional weeds in residential gardens and along road verges around Dennes Point. For this exercise all known individuals have been mapped.

New occurrences of cotoneaster can occur at some distance from existing mature plants due to birds eating berries and defecating seed elsewhere, with gullies being the highest risk sites, but there appears to be little if any spread occurring at Dennes Point.

Cotoneasters should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

English broom (Cytisus scoparius)

English broom is a listed pest species and a WoNS. There used to be a large infestation on Justin Jones' property at 9 and 15 Victoria Avenue. Most of that infestation has been removed but a small copse remains. For this exercise I have mapped the approximate area of the infestation.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

English ivy (Hedera helix)

There are scattered infestations of ivy around Dennes Point, including at 88 Bruny Island Main Road where it is invading native bushland at the western end of the lot. For this exercise I have mapped each known infestation as point data.

The potential spread of seeds via birds means new occurrences may appear at distance from existing infestations and I have removed one plant from bushland near the dam at the eastern end of Kris Jones property.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Gorse (Ulex europaeus)

Gorse is a listed pest species and a WoNS. Thankfully it is not widespread on North Bruny, but there are some serious infestations between Killora Road and Quarantine Bay at Barnes Bay. For the purposes of this exercise, the infestations at Barnes Bay that are visible from the public roads or on aerial photography have been mapped.

Most landowners in the area are actively managing gorse on their properties and some of the areas mapped may no longer have gorse or may have a reduced coverage or density of gorse.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Heath (Erica holosericea)

This heath, along with a range of others, is a listed pest species. It has only been recorded and mapped from the boundary of Kellaway Park Recreation Reserve and my own property at 90 Bruny Island Main Road.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Mirror bush (Coprosma repens)

Mirror bush is widespread and common on residential properties around Dennes Point, often on the boundary between lots. All individuals known of have been mapped, although often from a distance.

Because of mapping from a distance, it is possible some of the records are of the closely related karamu (*Coprosma robusta*), which is a listed pest species in Tasmania.

Mirror bush and karamu should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Monterey pine (Pinus radiata)

Monterey pine is widespread in gardens and the coastal reserves around Dennes Point, while there is a larger infestation of 'wildlings' around Grays Road at Killora. For this exercise I have only mapped pines in locations where they are visibly invading healthy native vegetation.

This species should be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Montpellier broom or canary broom (Genista monsplessulana)

Montpellier broom is a listed pest species and a WoNS. It has been recorded from several locations on private land in the dunes behind Nebraska Beach and also north of quarantine Bay at Killora.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Pattersons curse (Echium plantagineum)

Pattersons curse is a listed pest species and a WoNS. I am only aware of one record in the area of interest (on Kris' Jones land northwest of Dennes Hill).

Pride of madeira (Echium candicans)

This is a plant recognised as an environmental weed in some places (eg Victoria). For this exercise the most prominent patches around Dennes Point have been mapped as point data. There is a large infestation on the Owens' property at 37 Nebraska Road, but this will be controlled as part of the Weed Management Plan associated with the subdivision permit.

This species could be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Ragwort (Jacobaea vulgaris)

Ragwort is a listed pest species and a WoNS. The largest infestation in the area is on the Holdsworth property at 189 Bruny Island Main Road, where the approximate extent of the infestation has been mapped. Smaller infestations occur at other locations and have been mapped as single point records.

This species could be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Redpurple ragwort (Senecio elegans)

Red-purple ragwort occurs on dunes and coastal flats at Dennes Point (the feature not the locality), particularly on the Council land at the end of the point. There are also occasional occurrences from several locations in the dunes behind Nebraska Road. This species has not been mapped for this exercise because I have seen no direct evidence of it invading healthy native vegetation at Dennes Point.

This species could be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Spanish heath or portuguese heath (Erica lustanica)

This heath, along with a range of others, is a listed pest / declared weed and a WoNS. This species is probably the single biggest invasive weed issue in Kingborough, but thankfully the species has not established at any scale in the Dennes Point area.

A few small infestations occur on private property along Nebraska Road and have been mapped as single point records. Given the threat associated with this species and the limited distribution at present, in my opinion this species should be a high priority for action.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Sweet pittosporum (Pittosporum undulatum)

There are several mature sweet pittosporum 'trees' in gardens around the Dennes Point area and all known specimens have been mapped.

New occurrences of sweet pittosporum can occur at some distance from existing mature plants due to birds eating berries and defecating seed elsewhere, with gullies being the highest risk sites. Seedlings are widespread in the gullies and drainage lines near mature plants, and the approximate distribution of seedlings has also been mapped.

This species should be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Because this species forms an attractive feature tree and mature fruit are part of the attraction, this species may be the hardest to convince owners to remove and incentives in terms of free non-weedy replacement plants or other support would be a good idea.

Tree heath (Erica arborea)

This heath, along with a range of others, is a listed pest / declared weed. It has only been recorded and controlled on my own property at 90 Bruny Island Main Road (not mapped) and a single other occurrence has been recorded.

This species should be included in general broadscale information and advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Tree lucerne (Cytisus proliferus)

This is a plant recognised as having the potential to invade and modify native bushland. It has not been mapped for this exercise because I have seen no direct evidence of it invading healthy native vegetation at Dennes Point. It is occasional but widespread in the area, and most common on the dunes along Nebraska Beach.

In the coastal context tree lucerne may be performing an important function in stabilising sandy areas, and as a legume it may be assisting soil fertility and the establishment of other species in its wake.

This species could be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Tree lupin (Lupinus arboraeus)

This is another legume recognised as having the potential to invade and modify native bushland, particularly in coastal areas. It has not been mapped for this exercise because I have seen no direct evidence of it invading healthy native vegetation at Dennes Point. It is uncommon in the area, but a dense infestation has developed in the dunes along Nebraska Beach south of Stiffys Creek in the last few years.

In the coastal context tree lupin may be performing an important function in stabilising sandy areas, and as a legume it may be assisting soil fertility and the establishment of other species in its wake.

This species could be included in general broadscale advice to the community about what species to avoid or to consider removing from gardens to reduce the risk of a weed problem emerging.

Willow (Salix sp.)

Willow species are listed pests / declared weeds and WoNS because of their invasive nature in riparian environments and the fact they alter the geomorphology and hydrology of affected watercourses.

There is one willow on the vacant private property directly north of the Dennes Point Café that will be removed soon during development of the lot. There is also a patch of mature willows in the lower reaches of Graveyard Creek at Killora in the vicinity of the large dam at this site.

Winter euryops (Euryops abrotanifolius)

This daisy species is recognised as a problem environmental weed in several states and appears to be an emerging weed issue in Tasmania. For this exercise, the approximate extent of current infestations at Dennes Point has been mapped.

The largest infestation is currently on the Owens' property at 37 Nebraska Road, but this will be controlled as part of the Weed Management Plan associated with the subdivision permit.

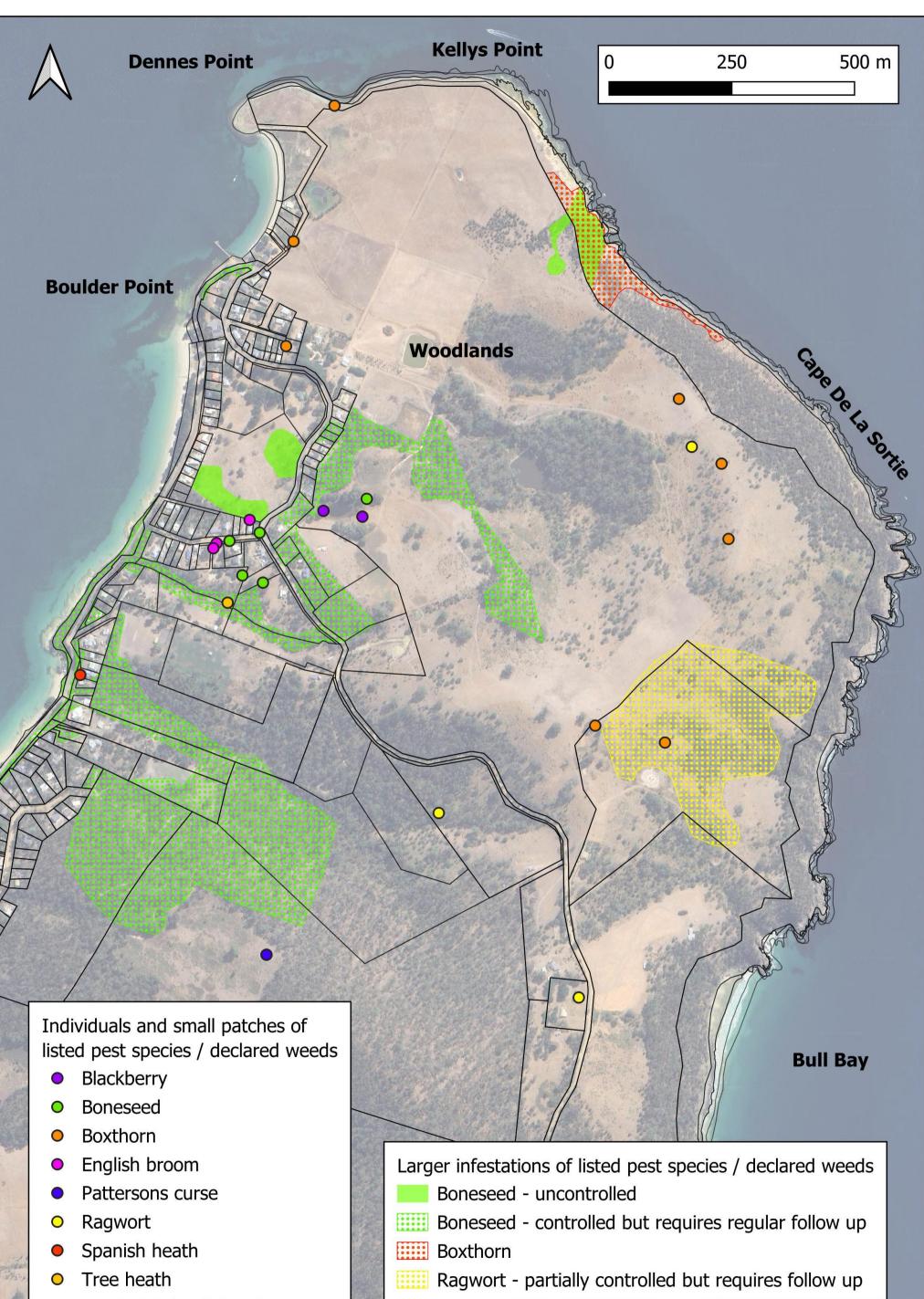


Figure 1. Distribution of listed weed species in the area between Dennes Point and Bull Bay

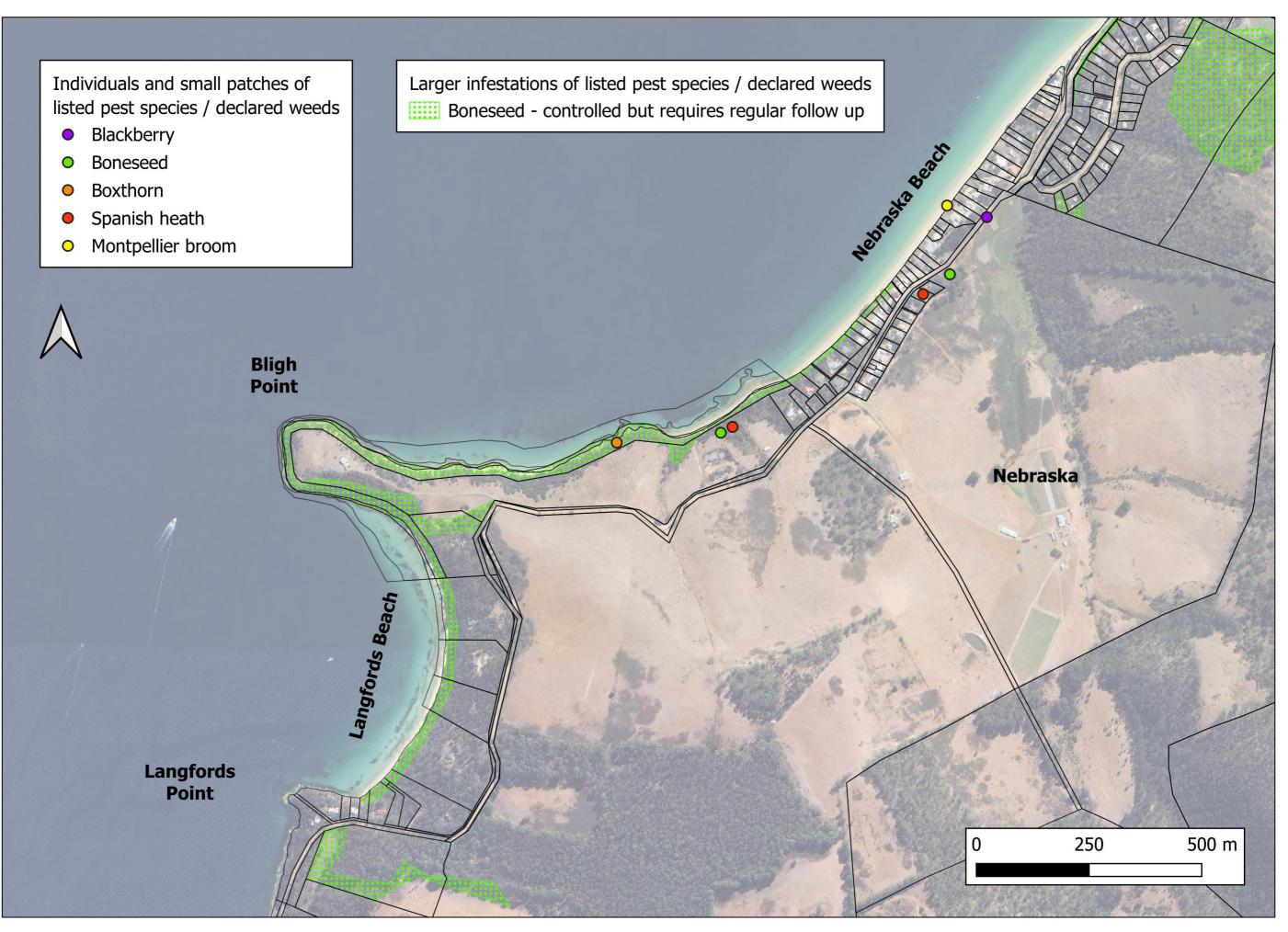


Figure 2. Distribution of listed weed species in the area between Cox Drive and Rat Bay

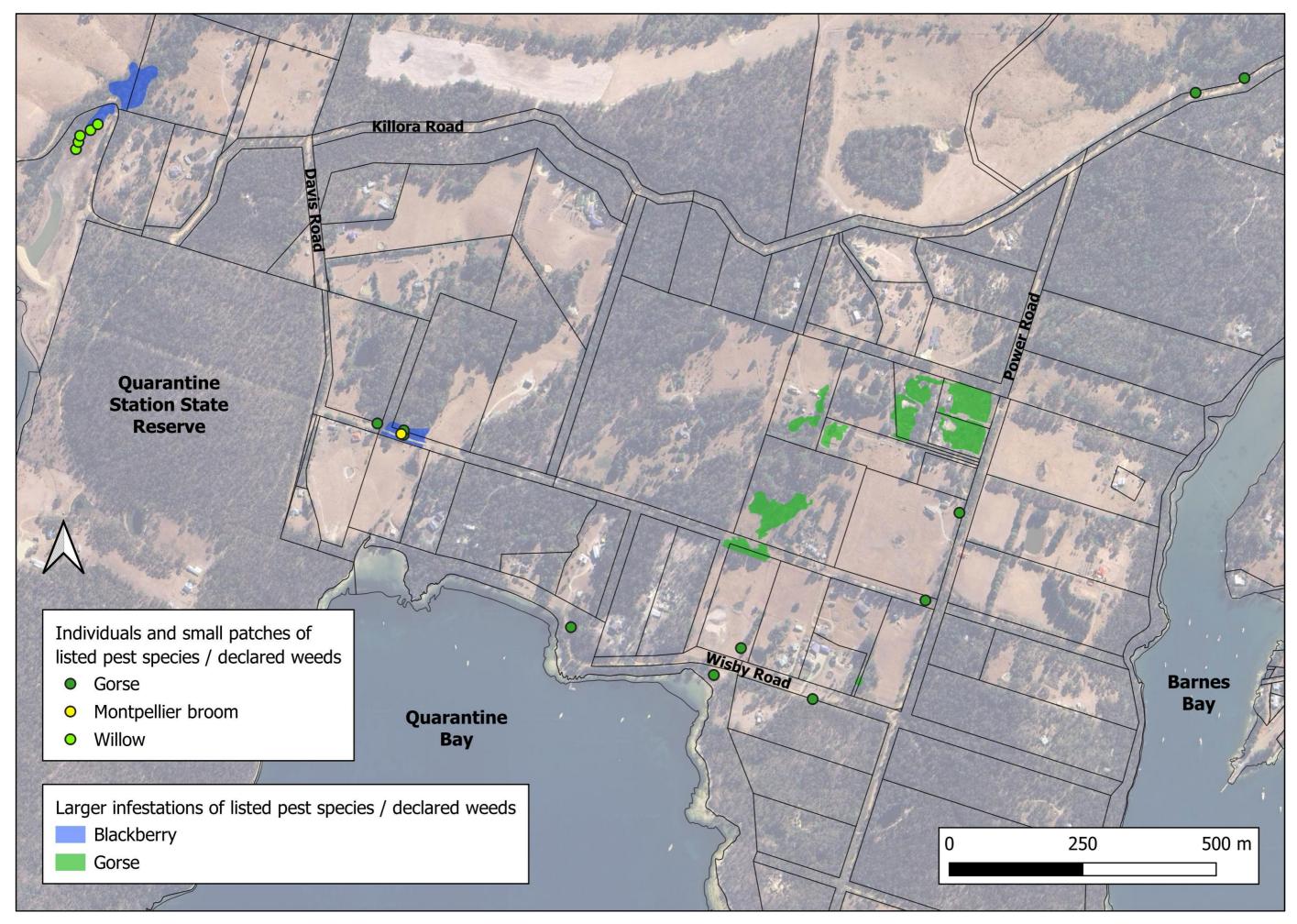


Figure 3. Distribution of listed weed species in the area north of quarantine Bay at Killora

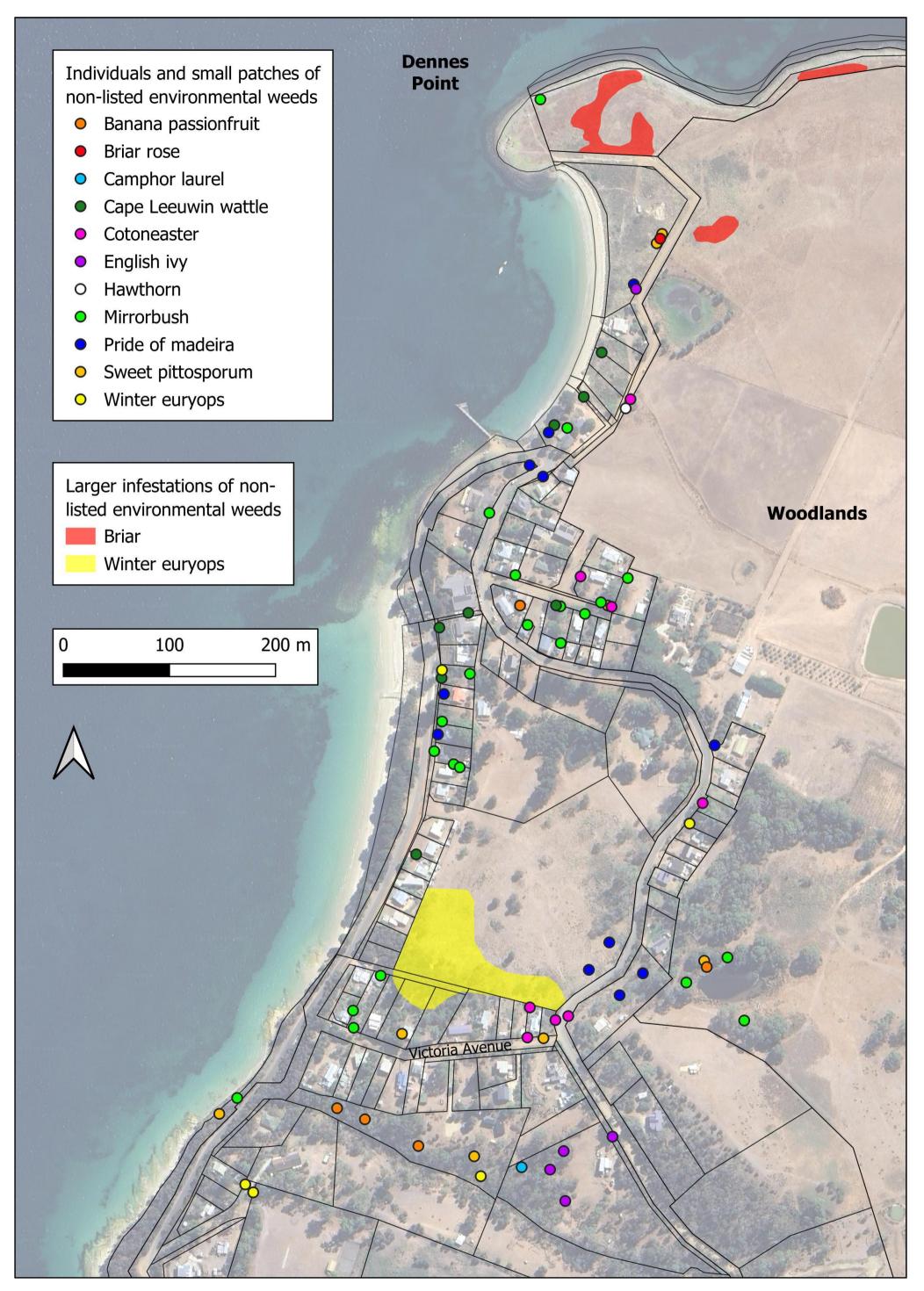


Figure 4. Distribution of non-listed environmental weeds in the area between Dennes Point and Sports Road

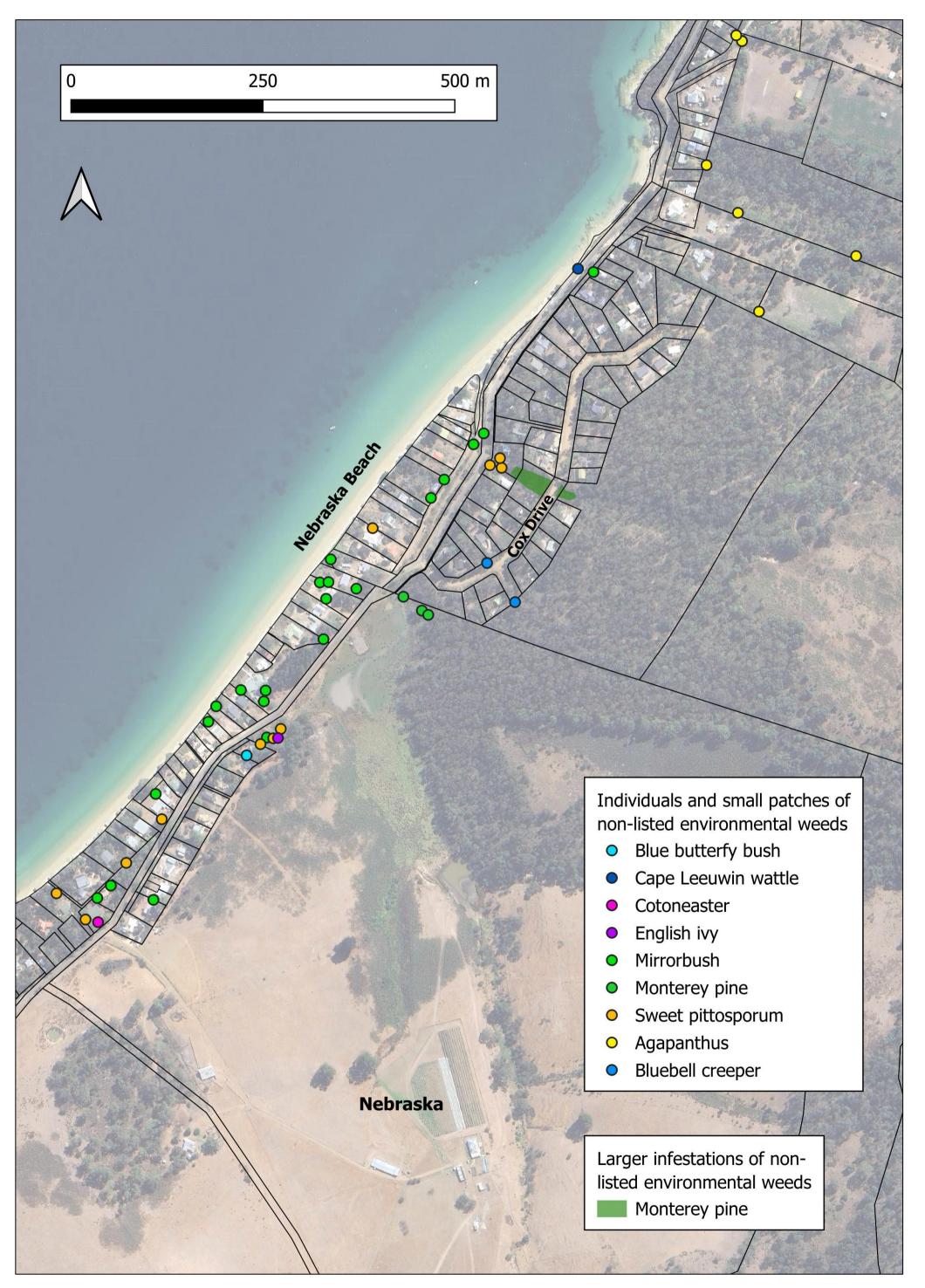


Figure 5. Distribution of non-listed environmental weeds in the area between Sports Road and Bligh Point

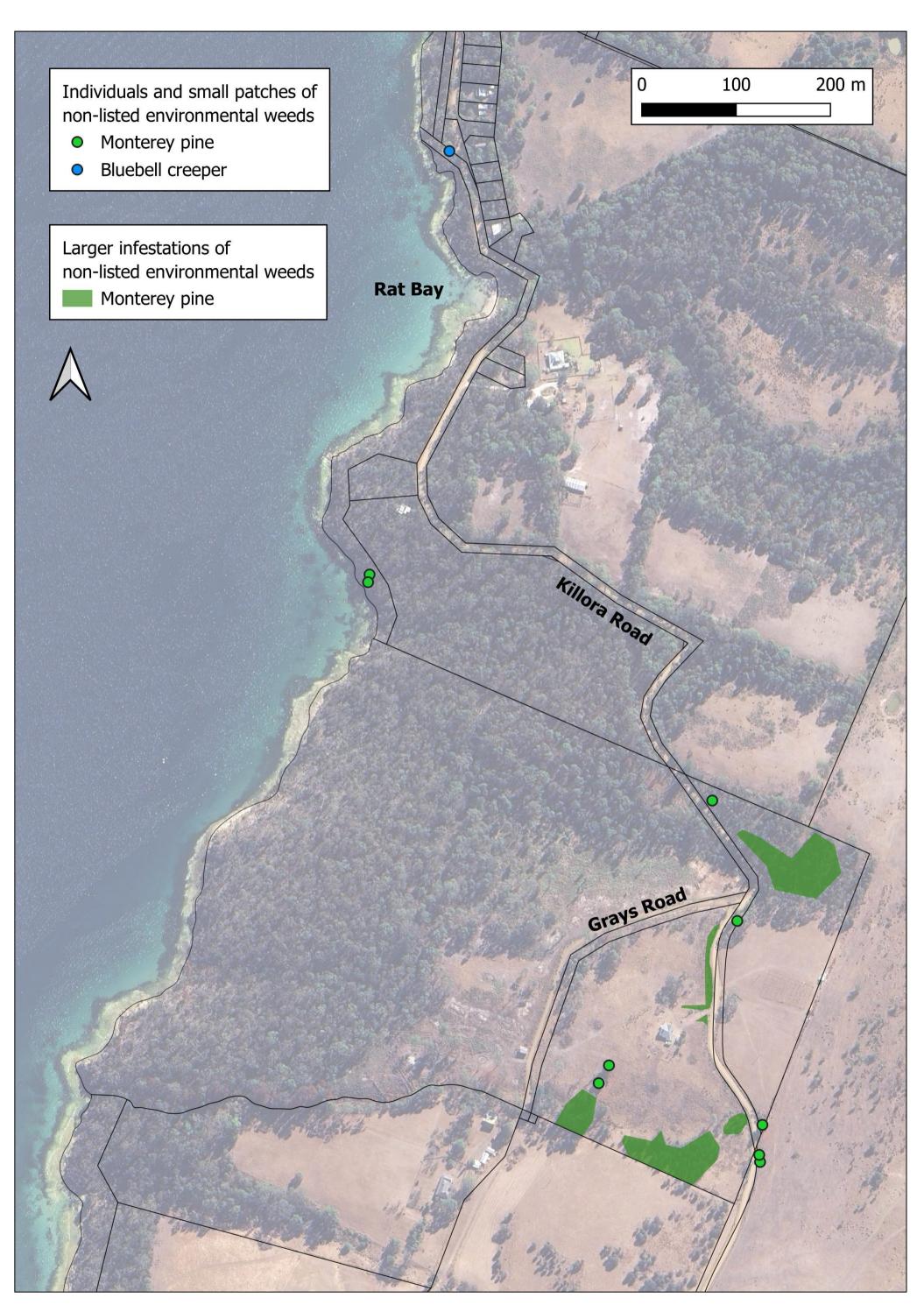


Figure 6. Distribution of non-listed environmental weeds in the Rat Bay / Grays Road area



Figure 7. Occurrence of English ivy along Dennes Point Road west of Lauriston