PRIORITY WEEDS NORTH-WEST TASMANIA

what they look like * where you'll find them * how and when to control them

AXEL MEISS

AIM OF THIS SESSION

- Identify 11 priority weeds for North-West Tasmania
- Help you identify these weeds in the field and on your property
- Provide tips on how to distinguish these weeds from other plants
- Provide some tips of control methods for the target weeds with consideration of surrounding environment, native vegetation and toxicity.

WHICH WEEDS?

- Many are widespread - focus on controlling and limiting spread
- Some are limited in distribution - focus on eradication
- Some are very limited in distribution - focus on reporting to your local NRM unit in council
- Some are declared under *Tasmania's Weed Management Act*
- Legislative requirement for all of these weeds to be contained and/or controlled by the land managers.
- **It is illegal for any declared weeds to be transported by people without a permit from NRE**, whether as seeds, cut flowers, whole plants, as a contaminant of agricultural produce, soil etc. This also includes their transport on dirty machinery or other equipment.

PRIORITY WEEDS WE WILL FOCUS ON DURING TODAY'S SESSION

Asparagus scandens – Asparagus fern (King Island only)

Cytisus scoparius – English broom

Disa bracteata – South African weed orchid

Erica lusitanica – Spanish heath

Euphorbia paralias – Sea spurge (furthering biocontrol roll-out)

Genista monspessulana – Montpellier broom

Leycesteria formosa – Elisha's tears

Phytolacca octandra – Red inkweed (King Island population)

Salix species – Willow spp. (excl. non-invasive taxa)

Senecio jacobaea – Ragwort

Sporobulus anglicus – Rice grass (Spartina)

GENERAL RULES FOR WEED CONTROL

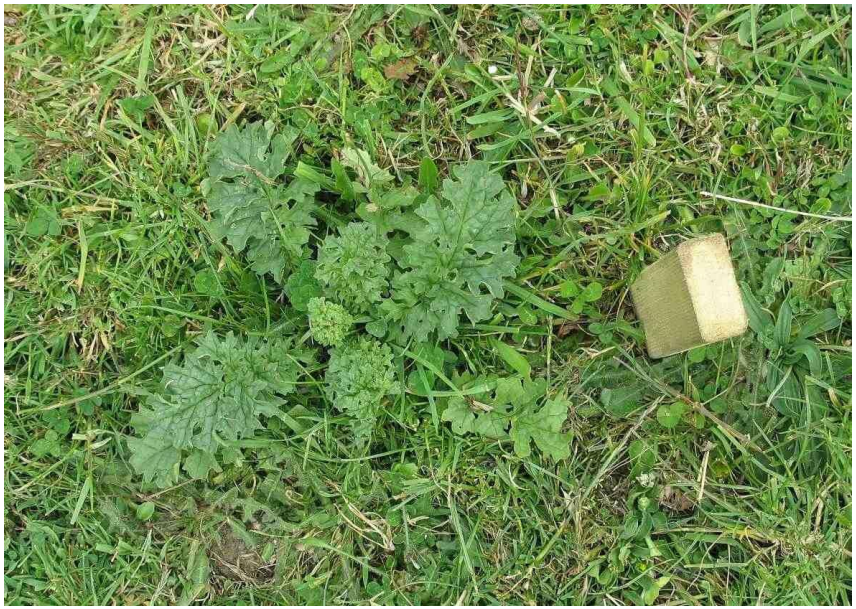
- **Know your enemy** – without successful weed ID, you can't be sure you're using the right technique, or even targeting the right plant
- **If you only control a site once, you're wasting your time** – most weed control is a long term project
- **Weeds don't respect boundaries** – some populations will need cooperative approaches to control with other land managers.
- **Weeds love bare patches** - minimise soil and vegetation disturbance when working to minimise the number of weeds you'll have to control - and **replant** where necessary also to **avoid erosion**.
- **Always follow the label** - read the labels on any herbicides you use. Only use frog-friendly glyphosate unless special circumstances. Spray away from the waterbody.
- **Think about off-target damage** - will your work affect local water ways, native plants or animals, or create a public safety issue?
- Keep up your **good weed hygiene practices** – a few minutes spent cleaning equipment can save days of work in years to come - and will also protect you from potential fines. Weed debris travelling down stream may get your neighbour or local council of side.
- Know where to **get the right information** to control target weeds – general information available at the DPIPWE website – www.dpipwe.tas.gov.au/weeds.
- Refer to the Guidelines for Safe and Effective Herbicide Use Near Waterways at the DPIPWE website http://dpipwe.tas.gov.au/Documents/herbicide_guidelinesFINAL2012.pdf
- **If you're not sure** what it is, take a photo and/or bring a sample back for identification, as well as details of where you found it.

RAGWORT

(*Senecio jacobaea*)

- Most often a weed of poorly managed pasture and disturbed areas but can also invade native bush
- **Toxic** to stock and people
- Naturally biennial, but changes to a perennial if constantly cut.
- One plant can produce 250,000 seeds in a year.
- Seeds can lay dormant for 20 years. At the end of that time 70% are still viable.

WHAT DOES IT LOOK LIKE?



- Usually single, but sometimes multi-stemmed, 45-60cm (-180 cm) tall
- Leaves dark to mid-green on top, paler and sometimes downy below, up to 35 cm long, deeply divided and wrinkled.
- Flower heads bright yellow “daisy” type ~ 2.5cm across, 12 – 15 petals

NOT TO BE CONFUSED WITH…

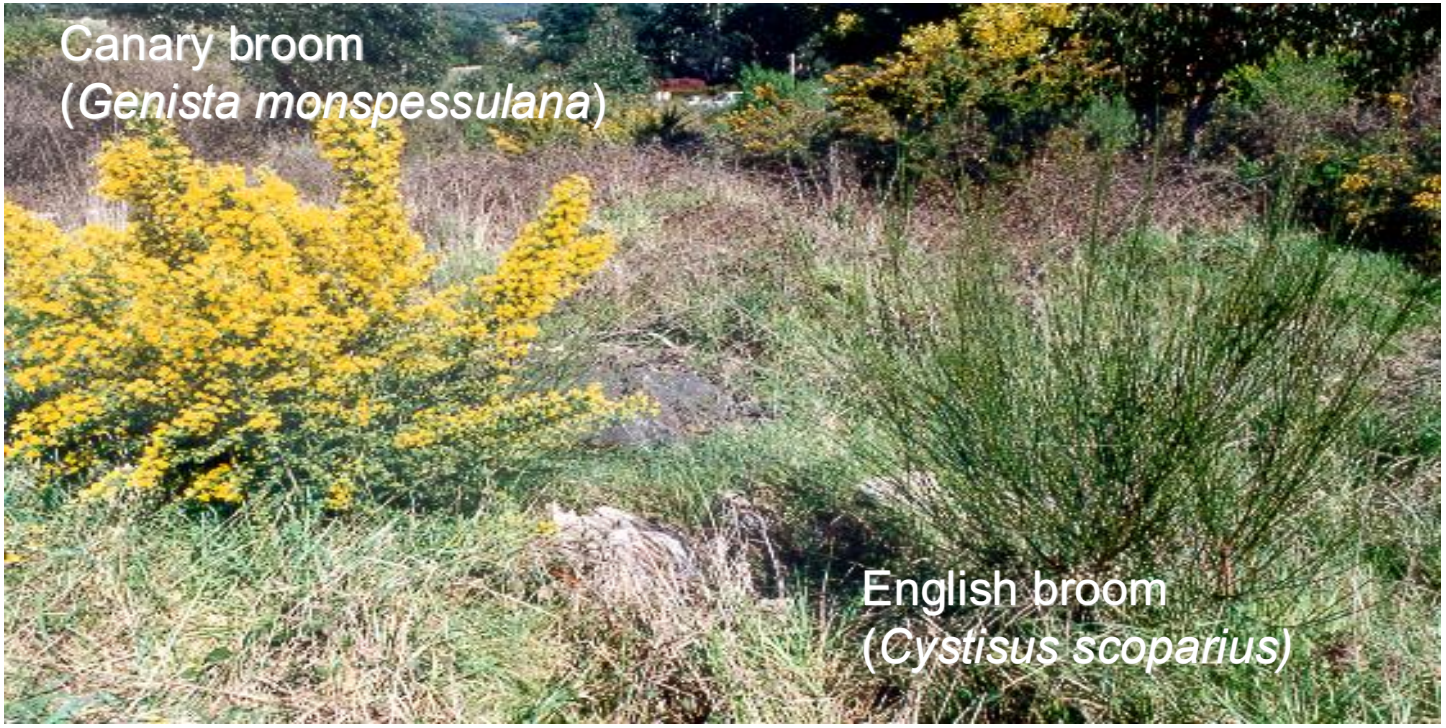
Native daisies like fireweed (*Senecio linearifolius*).

Ragwort's highly wrinkled and divided leaves are quite different to those of native *Senecios.*

CONTROL METHODS FOR RAGWORT

- Safety gear needed for ragwort controllers: rubber/neoprene gloves, long sleeved shirt and trousers, pollen mask if plants are flowering.
- Digging or hand-pulling OK to start with, but ragwort can resprout from root fragments.
- Chemical control will need to continue for at least two years – plants should be sprayed in spring and autumn with Brush-off ® or Lontrel ® if the plants are close to flowering.
- Grazing programs can be used in pasture as part of integrated management plans.
- All flower heads, mature or not, can produce viable seed – make sure you dispose of them properly! Flowerheads should be bagged, and burnt or deep-buried.

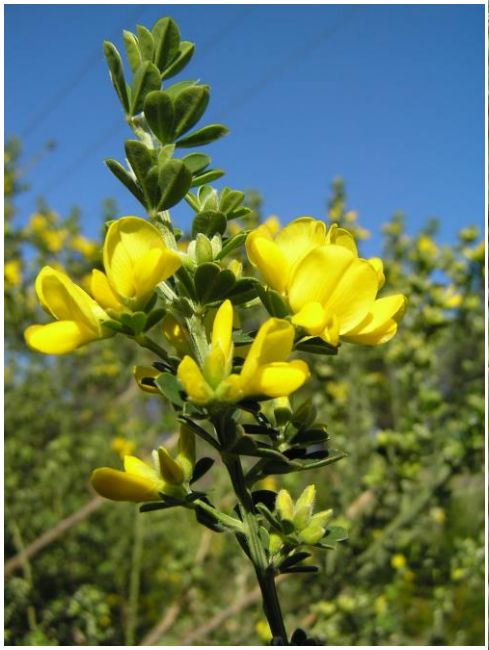
BROOMS



- Both brooms are serious agricultural and environmental weeds
- Both produce numerous hard seeds that can stay viable in the soil for many years
- Both form dense thickets, out-competing other vegetation by shading it out and fixing nitrogen from the soil.
- Both are easily spread along roadsides by dirty equipment.

CANARY BROOM

(*Genista monspessulana*)



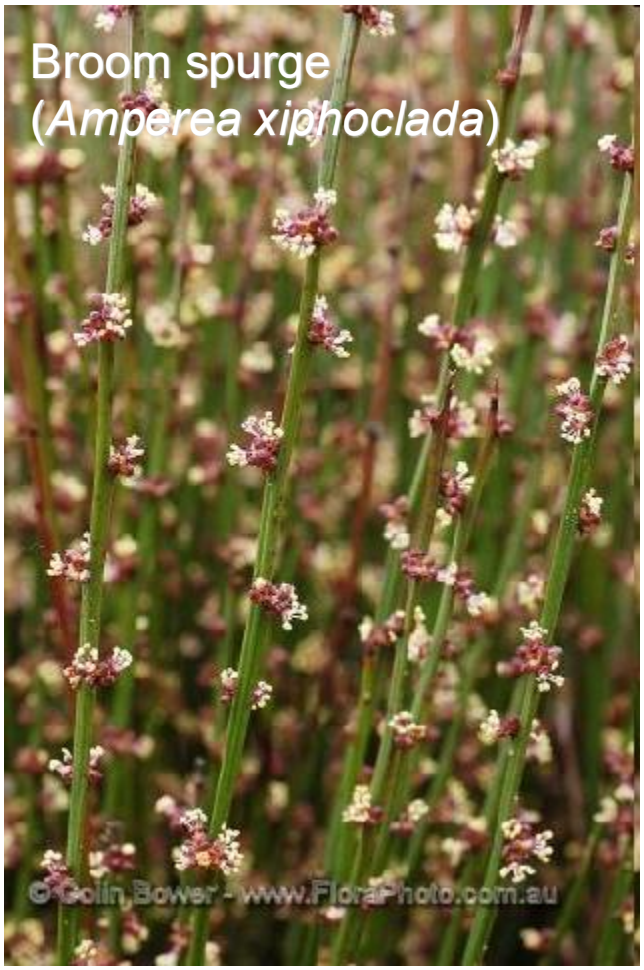
- Upright woody shrub to 3 m tall
- Stems are ribbed and covered with short hairs
- Leaves are divided into three leaflets, up to 2.5 cm long and 1.5 cm wide, and are hairier on their lower surface.
- Flowers are yellow pea type flowers, ~ 1 cm long, and in groups of 3-7 at the end of short branchlets.
- When ripe, seed pods are dark brown, hairy, 1.5 – 2.5 cm long and about 0.5 cm wide. These pods only have hairs around the margins.
- Seeds are hard, brown to black, ~ 2.5 mm across.

ENGLISH BROOM

(*Cystisus scoparius*)

- Upright shrub to 4 metres tall
- Branchlets are five-sided
- Leaflets are can be narrow to roughly oval, and are broadest away from where they connect to the stem. The central leaflet is longer than the side leaflets. Leaves are 4 – 20 mm long, 1.5 – 8 mm wide.
- Flowers grow at the joints between leaf stalk and stem, usually in ones or twos. Flowers are generally deep yellow, sometimes with tinges of other colours.
- Pods are narrow, 25 to 60 mm long , ~ 1 cm wide. They are flattened, silky hairy all over and turn black when ripe.
- Seeds are explosively released from the pods once they are ripe – each pod contains 6 – 18 seeds.

NOT TO BE CONFUSED WITH…



- Other Tasmanian native pea shrubs
- If you're not sure, bring a sample in to be checked before controlling.

CONTROL METHODS FOR BROOMS

- The seeds of both brooms germinate in autumn and spring, and are often present in very large numbers in the seed bank under established plants.

- Where there are few seedlings, and the ground is soft, seedlings can be hand pulled.
- Larger plants can be cut and painted with glyphosate (i.e.; Roundup Biactive ®)

- Where there are many small plants, these can be slashed to decrease the bulk of the infestation, allowed to regrow and then sprayed.

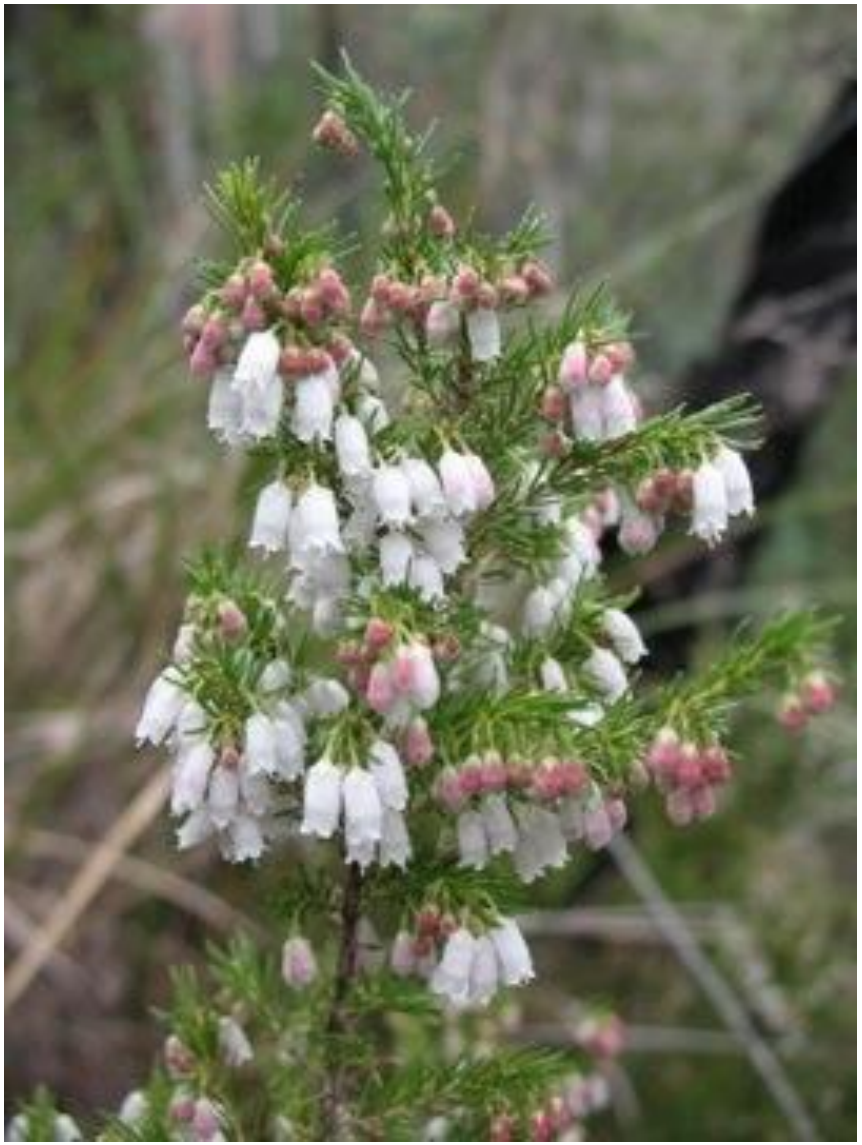
- Applications of herbicides should occur when the plants are actively growing, and should be avoided when the plants are stressed.

- Any control works need to be followed up for at least five years, to ensure that seedlings sprouting from the soil-borne seed bank are eradicated.

SPANISH HEATH

(*Erica lusitanica*)

- Woody weed, producing millions of seeds per year
- Can totally swamp areas it invades, pushing everything else out.
- Very commonly spread by road works, slashing etc on dirty equipment or in soil.
- Loves disturbance, takes off after slashing or fire, and can resprout from roots.



WHAT DOES IT LOOK LIKE?

- Woody shrub 50 cm – 2 m tall
- Bright green feathery leaves
- Masses of bell-shaped pinkish white flowers mostly in winter and spring

NOT TO BE CONFUSED WITH…

- Many of the native heath plants, like the common heath, *Epacris impressa,* have similar flowers to Spanish heath, but unlike all the native heaths, Spanish heath has soft, feathery leaves.

CONTROL METHODS FOR SPANISH HEATH

- Small plants can be hand pulled if not flowering – try not to disturb soil too much, and make sure you get all the roots.
- Larger plants – remove with mattock – get all the roots.
- Otherwise, cut'n'paint.
- Large infestations can be sprayed using woody weed herbicides, such as Garlon®

Important

Do not slash Spanish heath while it's flowering!

this will spread the seeds even further.

ELISHA'S TEARS

(*Leycesteria formosa*)

- Sometimes known as Himalayan honeysuckle
- Aggressive invader of wet forests and watercourses - smothers understorey species and forms dense stands
- Readily sprouts from root and stem fragments - easily dispersed by water, allowing it to spread rapidly downstream.
- Fruit are attractive to birds and other animals, who also help it spread.
- Large problem in Victoria and NSW - lesser populations here. Potential for containment and local eradication.
- Known from Hydro land at Wayatinah.

WHAT DOES IT LOOK LIKE?

- Soft-wooded bushy shrub - can grow to 2-5m tall
  - Stems are green, hollow, hairless or nearly hairless
- Leaves are opposite on stems, much darker on top surface than underneath, roughly oval with pointed tips.
  - Deciduous, losing its leaves over winter (sometimes holds them in warmer areas)
- Flowers showy and distinctive - generally white or pink, tubular, 10-12 cm long, hairy, hanging in clusters at the end of branchlets.

- Flower clusters partially enfolded by small purple or greenish bracts (modified leaves)
- Flowers - late spring to autumn
- Fruit - summer through autumn. Berries reddish purple to black, oval ~6-10 mm long.

CONTROL METHODS FOR ELISHA'S TEARS

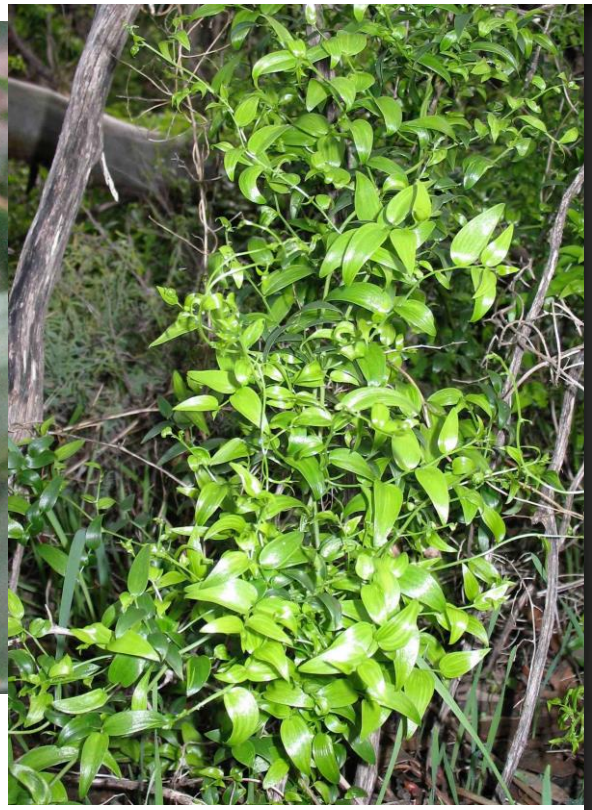
- Smaller plants can be hand-pulled or dug out.
- Larger plants can be sprayed with frog-friendly glyphosate products (ie; Weedmaster Duo®, Roundup Biactive®)
- Larger plants that cannot be effectively sprayed can be cut'and'painted or drilled and filled as low to the ground as possible from spring through to autumn, using a 1:% frog-friendly glyphosate mix.
- Very dense infestations can be slashed in winter before they bear fruit, and then sprayed with frog-friendly glyphosate products when regrowth occurs in spring.
- **It is very important that all fragments of Elisha's tears are removed from site,** to stop fragments striking into new plants

ASPARAGUS WEEDS

- Both WONS
- Both highly aggressive invaders
- Both form underground root mats with tubers, that inhibit growth of native plants and allow plants to survive harsh conditions.
- Both are tolerant of a range of climates, and can tolerate dense shading.

BRIDAL CREEPER

(Asparagus asparagoides)



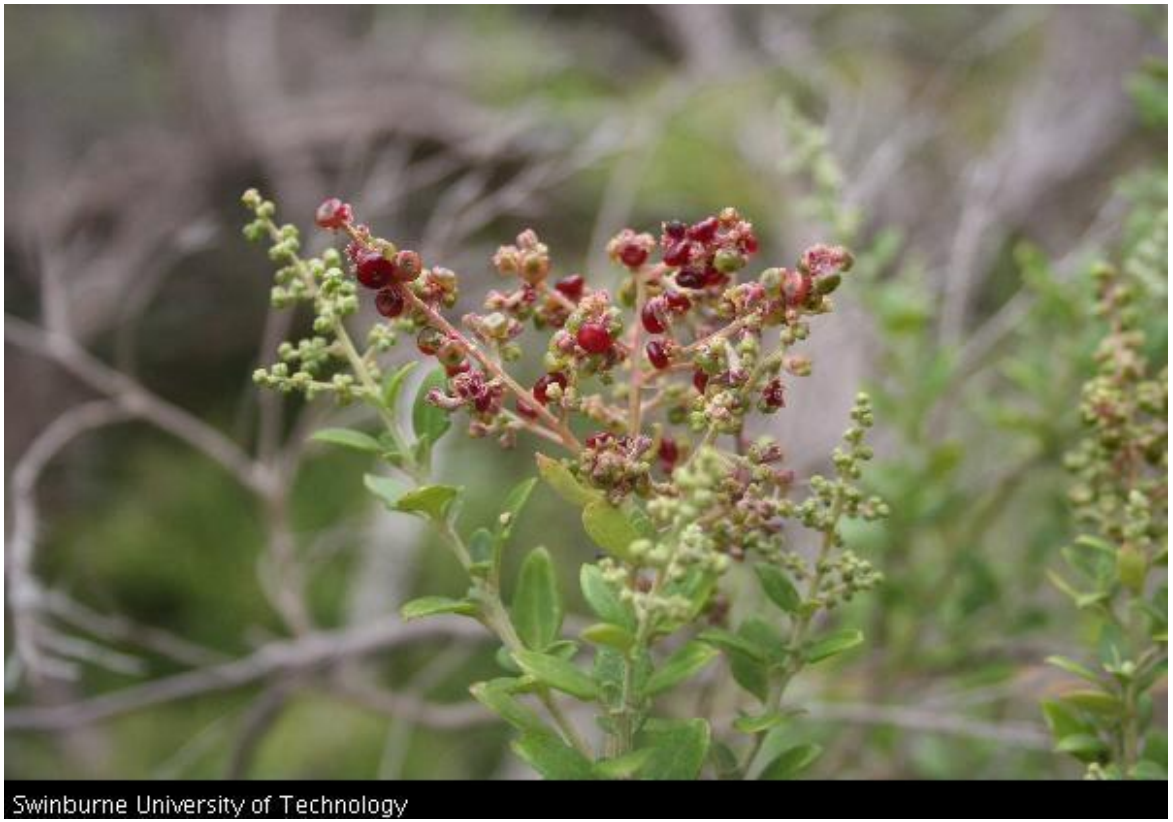
- Wiry, climbing stems, that zig-zag slightly
- Summer deciduous (leaves die bac
- Leaves fine and shiny
- Flowers tiny, greenish white in spring
- Fruits sticky white to red berries in summer
- Roots form a tuberous mat, which allow the plant to survive harsh conditions.

ASPARAGUS FERN

(Asparagus scandens)

- Twining vine that grows year round
- Keeps leaves year round
- Leaves are narrower than those of bridal creeper - deep green and scale-like
- Flowers small, white to pinkish, 6 petals
- Fruit are round fleshy berries, green turning to orange red when ripe.
- Underground root mat bears narrow tubers.

NOT TO BE CONFUSED WITH…



- *Tetragonia implexicoma* (ice plant) or *Rhagodia candolleana* (coastal salt bush)
- Both common native coastal plants sometimes thought to resemble bridal creeper
- *Tetragonia* has fleshy, succulent, matt leaves - those of bridal creeper are smooth and glossy
- *Rhagodia* - has woody stems - bridal creeper and asparagus fern don't

SOUTH AFRICAN WEED ORCHID

(Disa bracteate)

- South African Weed Orchid (Disa bracteata) is an emerging threat to Tasmanian ecosystems and orchid populations.
- It self pollinates producing millions of dust-like seeds.
- Seed continue to mature if the flower head has been picked
- Viability 7 years.
- Seeds disperse easily on the wind, vehicles, equipment, clothing and shoes.
- Once established, South African Weed Orchid can form dense colonies and spread rapidly.

WHAT DOES IT LOOK LIKE?

- A robust, erect, fleshy perennial orchid 30–50cm high
- Annual above-ground growth from tubers.
- One plant grows up to 60 tiny flowers in a dense spike that resembles a brownish asparagus spear.
- Easiest to identify when flowering.
- Produces millions of dust-like seeds allowing it to spread easily and form dense colonies.

CONTROL METHODS FOR SOUTH AFRICAN WEED ORCHID

- Plants can be dug out, removing all tubers, double bagged, taken off site and disposed appropriately.
- Larger populations may be sprayed using METSULFURON-METHYL(Brush-Off/ Bowsaw/ Associate) in combination with a penetrant if off-target damage is minimal.

Sea spurge
(*Euphorbia paralias*)

- Sea spurge is a coastal weed which establishes dense infestations on upper beach and fore-dune areas.

-Sea spurge reduces the public amenity on beaches by disrupting access and through the toxicity of the milky sap released by damaged plants.

- Sea spurge reduces biodiversity; alters the natural shape and structure of beaches and dunes; impacts on sites with Aboriginal heritage values, and has adverse effects on the nesting habitat of shorebirds

WHAT DOES IT LOOK LIKE?

- Sea spurge is an erect perennial herb
- Grows up to one metre high.
- Produces one to 10 stems that arise from a woody root crown.
- Each of the stems produce three to five terminal, fertile branches, which are further branched.
- The fleshy stems produce a milky white sap that can irritate the skin and eyes.
- The stems die after flowering and are replaced by new shoots from the root crown.
- The fleshy, bluish-green leaves are five to 30 millimetres long and overlap along the length of the stems.

Photos: Tim Rudman

CONTROL METHODS FOR SEA SPURGE

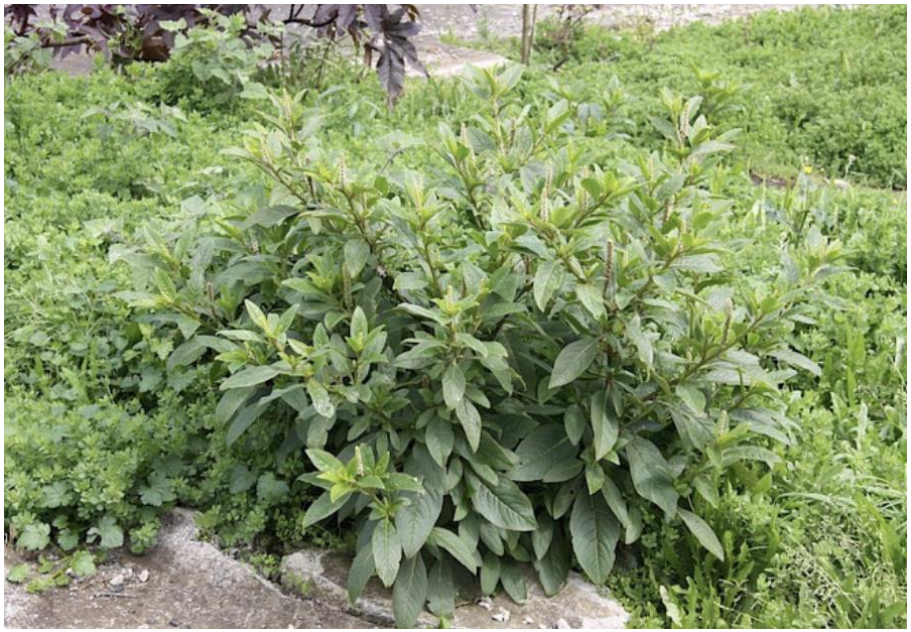
- Hand removal with plants left in a pile to decompose. Little or no regrowth from these piles has been observed
- Herbicide application using Glyphosate (frog friendly) or metsulfuron-methyl.
- Follow up is necessary, as areas are re-invaded by floating seed and plant particles, as well as root particles.

Photo: Tim Rudman

Red inkweed
(Phytolacca octandra)

- Inkweed is a competitive, fast maturing plants that produce prolific amounts of viable and easily dispersed seed.
- They are pioneer plants that are often the first colonisers of disturbed ground and can

quickly cover and outcompete an area of other native species.



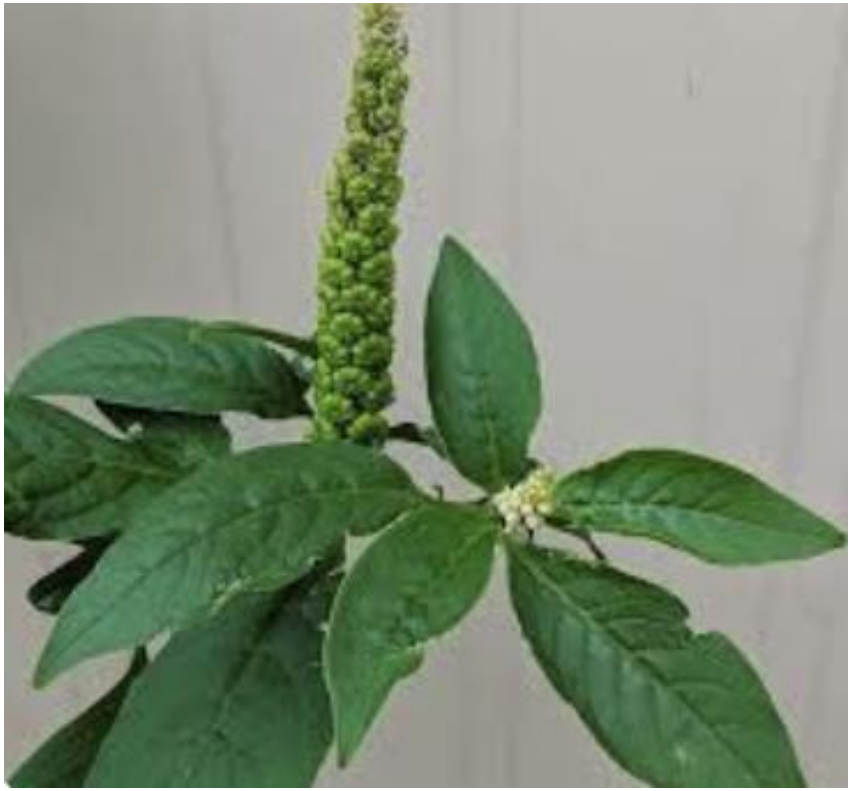
WHAT DOES IT LOOK LIKE?

- A bushy and spreading perennial shrub commonly growing to 1m in height
- Stems are hollow and brittle, growing slightly woody at the base and supported by a large, brittle taproot.
- Stems are light green, sometimes reddish and have numerous white dots of crystalline calcium oxalate inside.
- Leaves are large, oval-shaped (5-25cm long, 1-8cm wide), light green when young but can change to reddish/purple.
- Flower clusters are produced along the main stem. These are dense, erect clusters of pale flowers that develop into purple/black inky berries.

Photos: Norfolk Island Regional Council

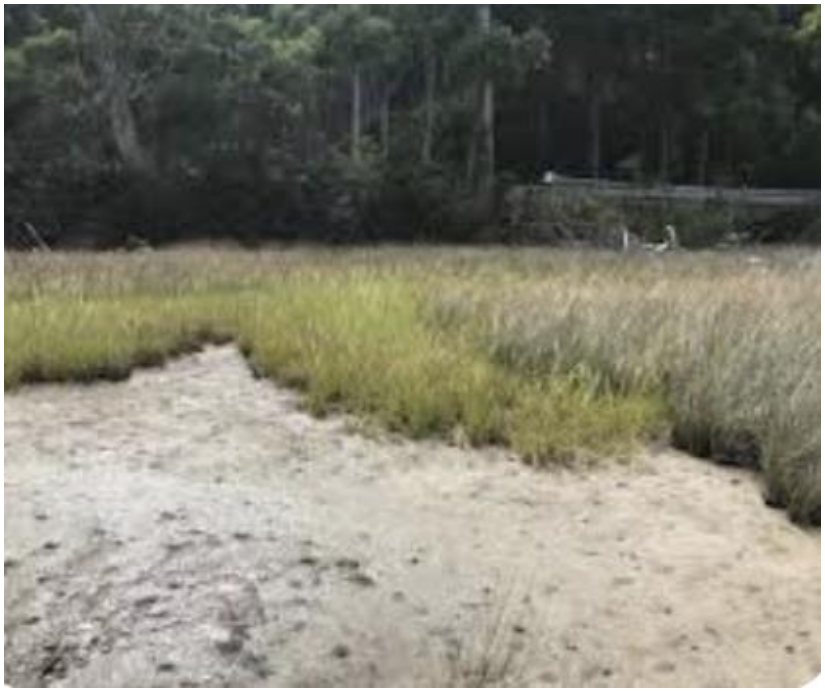
CONTROL METHODS FOR INKWEED

- Hand removal of samller plants
- Cut and paint using Glyphosate (frog-friendly) at 50:50 diluted with water
- Foliar herbicide application using Glyphosate (non-selective – risk of off target damage); metsulfuron herbicide; or other woody weed herbicdes such as Garlon 600. Apply foliar herbicide in combination with a surfactant or penetrant.



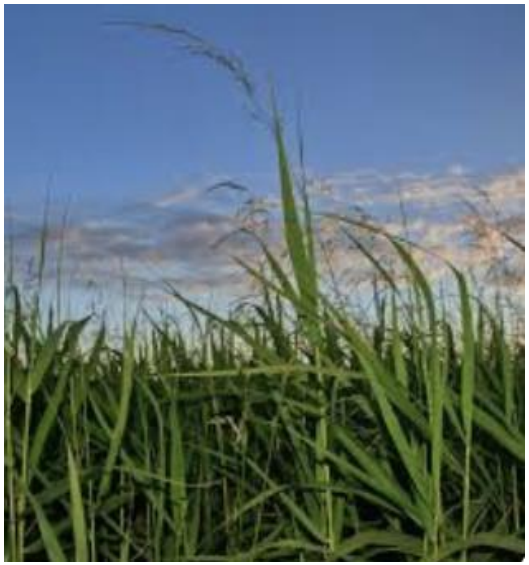
Rice Grass (Spartina)
Sporobulus anglicus

- Rice grass (Spartina anglica) is a vigorous exotic grass, which is commonly found along the edges of estuaries and within saltmarshes.
- The grass is known to spread quickly, destroying fish habitat and smothering native plants in the process.
- It reproduces by seed and by fragmentation and dispersal of rhizomes.



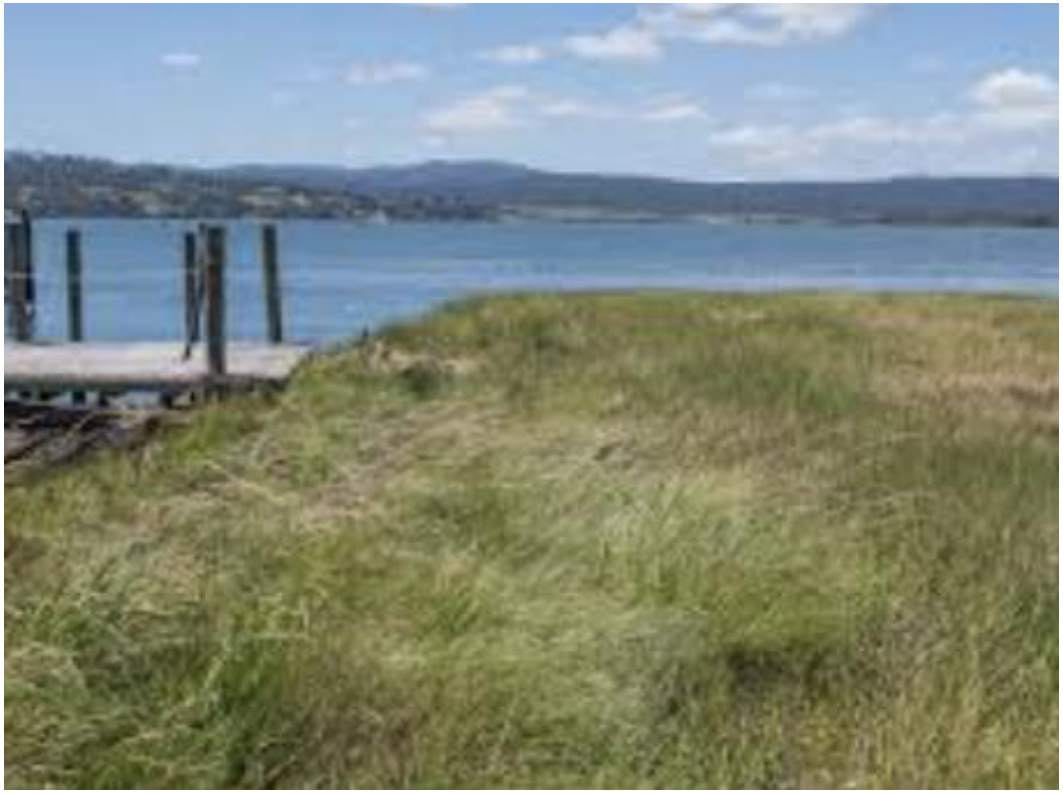
WHAT DOES IT LOOK LIKE?

- Rice grass is a clumping grass that grows about a metre high.
- Leaves are smooth to the touch and feel smooth when running your fingers back and forth, unlike grasses which feel rough one way.
- Leaves are ribbed on the tips.
- Flowers appear in groups at the tip of the plant.
- Stalks are very erect and thick when compared to other estuary grasses.
- It has a greenish/blueish colour to the stems.



CONTROL METHODS FOR RICEGRASS

- Foliar application with frog-friendly Glyphosate
- Foliar application with selective grassy herbicide



WEED ID ROUND-UP

- **Keep an eye out for new plants** behaving unusually
- **If you find something you don't recognize, bring it in**, with details of where you found it.
- **Make sure that the plant you're controlling is the plant you think it is -** if in doubt, get it checked out.
- **Keep your machines and equipment clean** to avoid creating more work for yourselves

THANKS FOR YOUR TIME

ANY QUESTIONS?

Many thanks to Matt Baker, Sandy Leighton, Karen Stewart, Micah Visoiu, Tim Rudman, Elizabeth Schrammeyer, Jarrah Vercoe, Nicole Gill, Cassandra Strain, NRE, TLWP, and anyone else I may have forgotten.