

THREATS

Coastal Weeds

Sea spurge, marram grass & sea-wheat



Parks and Wildlife Service Tasmania

DEPARTMENT of TOURISM, PARKS
HERITAGE and the ARTS

Sea spurge, marram grass and sea wheat grass are introduced plants that are spreading around Tasmania's coast line and detrimentally affecting the native plant communities.

They are mostly found along the north west and west coasts, but are gradually spreading around the coast of Tasmania. Over the last couple of decades the rapid spread of **sea spurge** and **sea wheat grass** have been reported from many areas in the south east of mainland Australia. However, it was the deliberate introduction of **marram grass** that has led to its statewide coastal distribution.

Where did they come from?

Sea spurge (*Euphorbia paralias*) is native to the Mediterranean, Black Sea and central European shorelines. It was first recorded near Albany in the 1920's. Soon after it was recorded at Port Victoria in South Australia indicating it's introduction to Australia possibly by ship.

Marram grass (*Ammophila arenaria*) is a perennial grass that was introduced into Tasmania from Europe to stabilise coastal dunes. It is very effective at trapping sand and grows vigorously, so transforming the coastal dune systems.

Sea wheat-grass is a distinctive beach grass. It flowers during November, peaking around Christmas, with many "rye grass" like seed heads flowering on spikey long stems. It is found predominantly along the north coast of Tasmania. It has not yet been detected on the east coast of Tasmania. Sea wheat-grass is found throughout the world, so coastal areas of Tasmania are not immune from invasion.

Toxic Sea Spurge

Sea spurge is a shrub that can grow up to a metre in height with multiple woody stems arising from a central crown. It has rather fleshy leaves which densely clothe the stems and vary from oblong shaped at the base to almost circular at the flower heads. It has a characteristic milky sap that oozes from broken stems.

Sea spurge sap is toxic and care should be taken to avoid getting it into your eyes or on your skin as it can cause irritation.

Why are they so invasive?

Sea spurge seeds are buoyant and up to 50 % of seeds may be viable for as long as 2 years in salt water. This allows the plant to spread its seeds on ocean currents to new coastlines. Sea spurge first establishes at the back of the beach. Here the plants can develop dense populations in un-vegetated sands or invade adjacent dune vegetation. Massive infestations of tens of thousands of sea spurge plants can develop very quickly.

Marram grass develops deep and extensive rhizomes (roots) and produces dense tussocks, which dominate plant communities and entrap sand. It only produces small amounts of seed however it spreads rapidly through lateral extensions of rhizomes, which give rise to new tussocks. Fragments of these rhizomes when washed into the sea, can be spread to other beaches to start new infestations.

Sea wheat-grass is a distinctive beach grass. It is mostly identifiable as it does not form tussocks, in the same way that most other beach grasses do. Sea-wheat grass has a similar effect to marram grass and sea spurge, in that it stabilises beaches and detrimentally effects the nesting habitats of many shore birds.



sea spurge

(image thanks to the Mornington
Peninsula Surfriders Association
Victoria)

What are the impacts

All these weeds can rapidly change the shape of beaches and dune systems. The implications of this, we are only just beginning to appreciate, such as the loss of nesting sites for beach nesting birds, increased beach erosion or damage to Aboriginal heritage sites and the loss of sand from beach systems.

Native grasses do not compete well against the rapid growth rates and sand gathering capability of **marram grass**. Two native beach grass communities and five other coastal dune plant communities are known to have been displaced by marram grass. Marram grass can also vegetate areas of sand not otherwise occupied by native vegetation.

Impact on wildlife

Animal habitat is also affected by the infiltration of sea spurge and marram grass. Displacement of native grass communities could be contributing to the loss of beach nesting sites of shore birds. Bird species that are potentially affected include the hooded plover, which uses unvegetated sand areas for nesting sites. These areas are being stabilised and overgrown by **sea spurge**, **marram grass** and **sea wheat grass** and it is likely that this is contributing to the decline in hooded plover numbers (and other shore nesting birds) around the State.

What can we do to help?

Learn to identify these two weeds!

Where you find only small infestations of these weeds on beaches it may be possible to stop the invasion. Notify the local Parks and Wildlife Service reporting the size of the infestation, for marram grass, and the number of plants for sea spurge and the location.

Any sea spurge found south of Cape Naturaliste on the east coast and south of Cape Sorell on the west coast are very important to eradicate. Due to the high infestations of marram grass around the state only beaches with very little marram are of interest for control.

The focus for management is protecting the east and south coast from further infestation as well as the protection of beaches in the north of the state that are not affected. In this way some representative examples of the original coastal communities may have a greater chance of survival.

Regional assistance

Community groups wishing to control **sea spurge** can do so by hand pulling, however protective clothing should be worn to protect skin and eyes from the toxic milky sap.

Small sea spurge seedlings which can occur in their thousands are best left to thin out naturally first and then pulled the following year.

Follow up will be required as seeds germinate and fragments of broken tap roots re-sprout. Substantial declines in density of sea spurge can be achieved by this method, but it may take 4 or 5 years of concerted effort.

Marram grass may be dug out if the plants are small, but be sure to return regularly to remove new rhizomes that surface from deep below the site of removal.

Further Information

Curtis, W.M. 1993. *A Student's Flora of Tasmania, Part 3*. St David's Park Publishing, Hobart Tasmania.

Kirkpatrick, J.B. and Harris, S. 1995. *The Conservation of Tasmanian Dry Coastal Vascular Plant Communities*. Wildlife Scientific Report 95/1. Parks & Wildlife Service, Hobart, Tasmania.

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