

coastline

Garden Plants that are Known to Become Serious Coastal Weeds

SOUTH AUSTRALIAN COAST PROTECTION BOARD

No 34 September 2003



GARDEN PLANTS THAT HAVE BECOME SERIOUS COASTAL WEEDS

Sadly, our beautiful coastal environment is under threat from plants that are escaping from gardens and becoming serious coastal weeds. Garden escapees account for some of the most damaging environmental weeds in Australia. Weeds are a major environmental problem facing our coastline, threatening biodiversity and the preservation of native flora and fauna. This edition of *Coastline* addresses a selection of common garden plants that are having significant impacts on our coastal bushland.

WHAT ARE WEEDS?

Weeds are plants that grow where they are not wanted. In bushland they out compete native plants that are then excluded from their habitat. Weeds are not always from overseas but also include native plants from other regions in Australia.

WEEDS INVADE OUR COASTLINE...

Unfortunately, introduced species form a significant proportion of coastal vegetation in South Australia. A recent biological survey of South Australian coastal dune and cliff top plant habitats (Oppermann 1999) revealed that 38% of the surveyed coastal plants were introduced species. In contrast, only 27% of plant species are introduced in non-coastal parts of the state. The higher proportion can be partly attributed to close settlement along the coast, and escapes from residential gardens into coastal environments. In extreme cases, the number of introduced species is even higher than the latter. For example, an extensive study of vegetation at Tennyson Dunes in metropolitan Adelaide found that 57% of the species were introduced (Tennyson Dune Care Group). This alarming figure highlights the urgency of the need to control weeds along our coastline.

THE IMPACT ON OUR COASTAL ENVIRONMENT

Weeds that are successful in the coastal environment have often originated from regions with a similar climate to Australia, such as the Mediterranean and South Africa. Introduced species often have an advantage over local native plants, through fast growth rates and a lack of pests or diseases that control them in their natural environment.

The ability of weeds to spread and establish allows them to readily invade and displace native plant communities.

Vegetation communities that originally had a diverse structure are transformed to a simplified state where one or several weeds dominate. Weeds aggressively compete with native species for resources such as sunlight, nutrients, space, water, and pollinators. The regeneration of native plants is inhibited once weeds are established, causing biodiversity to be reduced.

Furthermore, native animals and insects are significantly affected by the loss of indigenous plants which they rely on for food, breeding and shelter. They are also affected by exotic animals that prosper in response to altered conditions.

Weeds require costly management programs and divert resources from other coastal issues. They can modify the soil and significantly alter dune landscapes.

HOW ARE WEEDS INTRODUCED AND SPREAD?

Weeds are introduced into the natural environment in a variety of ways. They can be accidentally introduced by the movement of seed contaminated soil, or deliberately for agricultural, horticultural and utility purposes.

Weeds can reproduce and spread readily from their original point of introduction to invade other coastal and inland environments. They are primarily spread by seeds that can be dispersed by wind, water, animals and humans. Seeds also become attached to the fur or feet of animals. Humans help to disperse seeds which become attached to clothing, footwear, machinery, or by the movement of seed contaminated soil. Weeds can often also reproduce vegetatively; this occurs when segments of stems break off and take root to form a new plant. These weeds require careful disposal, as individual pieces can take root and grow for several months after breaking off from the parent plant - even if they are not on soil or sand.

WHAT CAN YOU DO TO HELP?

It is important to make informed choices when selecting plants for coastal gardens. Avoid purchasing invasive plants and remove invasive species from your garden. If you see a plant for sale that is a potential weed bring it to the attention of nursery staff. Plant native species from your local area that are naturally suited to coastal conditions. This will increase habitat for native plants and animals, maintain the gene pool and thereby ensure the survival of local species. Reduce the damage caused by weeds, and protect our beautiful coastal environment and its biodiversity...Before it's too late!

SCIENTIFIC NAME

Agave americana

COMMON NAMES

Century plant, Maguey, American Aloe

WHAT DOES IT LOOK LIKE?

Century plant is a giant succulent. Leaves are 2m in length, grey, and variegated with yellow or cream. Leaves are thick and prickly around the edge, forming a rosette at the base. Flowers are 70-85mm long, pale yellow and fleshy with a large stalk growing 7-10m in height. Flowers are evident December through to February.

HOW DOES IT EFFECT THE ENVIRONMENT?

Century plant is invasive in coastal environments, forming a dense groundcover that suppresses native vegetation. It also creates conditions that are favourable to exotic fauna. For example, it provides protection for rabbits and is a source of food and water for them during the summer months when they feed on the

succulent new rhizomes. Century plant also significantly decreases the visual amenity of an area.

HOW DOES IT SPREAD?

Dispersal is primarily by seed and vegetative reproduction.

HABITAT

It inhabits rocky hillsides and coastal dunes where it was commonly planted by farmers in the past.

WHERE IS IT FROM?

Its country of origin is unknown, but it can be found growing wild in Mexico.

DISTRIBUTION

The distribution of century plant is limited within South Australia.

DON'T CONFUSE IT WITH...

It is a distinctive plant not easily mistaken with native species.



SCIENTIFIC NAME

Arctotis stoechadifolia

COMMON NAMES

Arctotis, African daisy, Aurora daisy, White Arctotis

WHAT DOES IT LOOK LIKE?

This perennial is a ground cover plant that grows laterally in dense clumps. Leaves are grey to green and divided with indented margins. Flower heads up to 10cm across are produced from late spring to early summer. The flower centre is blue, with white, cream, pink, bronze or blue petals.

HOW DOES IT EFFECT THE ENVIRONMENT?

Arctotis significantly alters the coastal environment by smothering native groundcover species and low shrubs. The growth of native seedlings and mature native shrubs is also suppressed and in time the vegetation structure will change as plants become senescent and are unable to regenerate. This process leads to a reduction in natural diversity, as indigenous plant species are replaced with a dense monoculture of Arctotis. The natural processes associated with dune formation are also altered, causing dunes to have steeper rather than gentler angled slopes.



HOW DOES IT SPREAD?

Dispersal is by seed.

HABITAT

Arctotis grows wild in the drier parts of South Africa.

WHERE IS IT FROM?

South Africa.

DISTRIBUTION

Found growing around nearly all townships and settlements along South Australia's coast due to its use as a garden plant.

DON'T CONFUSE IT WITH...

It is a distinctive plant not easily mistaken with native species.



SCIENTIFIC NAME

Argyranthemum frutescens

COMMON NAME

Marguerite daisy



WHAT DOES IT LOOK LIKE?

Marguerite daisy is a shrubby daisy to knee high. Leaves are light green, fleshy and deeply lobed. The flower is a small white daisy to 3cm. The yellow centre of each flower contains many seeds. Flowering occurs between spring and summer.

HOW DOES IT EFFECT THE ENVIRONMENT?

It is very invasive in dunal areas where disturbance has occurred. Marguerite daisy is usually found in the mid-dune where it invades areas that are degraded or in the process of being degraded. It competes aggressively with native flora that is less vigorous.

HOW DOES IT SPREAD?

Seed production is prolific and is the primary means of dispersal.

HABITAT

Marguerite daisy often occur in sunny positions in sand along clifftops and in dunes.

WHERE IS IT FROM?

Canary Islands

DISTRIBUTION

Marguerite daisy occurs in the southern higher rainfall zones from Eyre Peninsula to the South East.

DON'T CONFUSE IT WITH...

Marguerite daisy seedlings can be confused with Variable Groundsel (*Senecio lautus*) seedlings. As mature plants they are quite different as Variable Groundsel has yellow flowers, not white.



SCIENTIFIC NAME

Carpobrotus edulis - yellow flower

COMMON NAMES

Pigface, Hottentot fig, Ice plant, Highway ice plant



WHAT DOES IT LOOK LIKE?

Pigface is a ground running perennial that forms dense mats. Each plant can grow up to 40-55cm thick and 8-10m wide. Leaves are 6-10cm long, 5-12mm wide and dull green with a reddish tinge. Stems grow on or just below the surface. Flowers have numerous petals and stamens that reach up to 8cm in diameter. Flowers are yellow at first and gradually change to pink with age. The flowering period extends from late summer to winter. Fruits are to 20mm in diameter, globular and ranges from dull yellow to red-purple.

HOW DOES IT EFFECT THE ENVIRONMENT?

Introduced Pigface (*Carpobrotus edulis*) is a threat to native vegetation. A concern is that *Carpobrotus edulis* may be hybridising with the native *Carpobrotus rossii*, reducing its genetic purity. It invades and displaces native plant communities by forming dense mats that cover the ground, smothering native species and destroying coastal habitat in its path. The growth of native seedlings and mature native shrubs is also suppressed. Introduced Pigface is a hardy plant that can resist herbivores and rigorous competition.

Introduced Pigface has indirect impacts on the environment. It predominately invades sandy areas along the coast. Native Pigface is an important stabiliser. Introduced Pigface causes sand dunes to become stabilised, but significantly reduces the biological diversity of dune vegetation. The native is not as aggressive and occurs as an open, isolated plant whereas introduced pigface forms dense mats.

HOW DOES IT SPREAD?

Pigface is spread both vegetatively and by seeds. Vegetative reproduction is when segments of leaves and stems break off from the parent plant and take root to form a new plant. Vegetative reproduction is essential to survival in coastal areas, where vegetation is frequently buried by sand. Pigface spreads rapidly by vegetative reproduction once established, with individual segments growing up to 1m per year. Seeds are another form of dispersal. Fruits are produced in summer and contain hundreds of seeds. Seeds are dispersed when birds and mammals eat the mature fruits.

HABITAT

Pigface inhabits coastal areas of South Africa.

WHERE IS IT FROM?

Cape Region of South Africa.

DISTRIBUTION

Introduced Pigface is widespread in southern Australia, extending throughout the coastal regions of Eyre Peninsula, Yorke Peninsula, Northern Lofty, Murray and South East.

DON'T CONFUSE IT WITH...

Introduced Pigface is similar to the native Karkalla (*Carpobrotus rossii*). The introduced Pigface is distinguishable from this species as it has yellow daisy-like flowers, whereas the native *Carpobrotus rossii* has pink flowers with a white base.

Angular pigface (*Carpobrotus aequilaterus*) is another species that has been introduced from South America. It has similar impacts on the environment to *Carpobrotus edulis*, and may also be hybridising with the native Karkalla (*Carpobrotus rossii*). Angular pigface is similar in appearance to the native Karkalla. However, Angular Pigface is easily distinguished from Karkalla as it is larger with purple flowers and a yellow to pink centre.



SCIENTIFIC NAME

Coprosma repens

COMMON NAMES

Mirror plant, Mirror bush, Taupata plant, Looking-glass bush, Marble plant.

WHAT DOES IT LOOK LIKE?

Mirror bush is a multi stemmed shrub growing to 2-4m high. Leaves are 2-8cm long, slightly fleshy, dark green, round and very glossy. Flowers are small, greenish white and arranged in clusters. Flowers are produced in summer. An interesting feature is that flowers are unisexual, meaning female and male bushes are separate. Bushes with female flowers produce translucent fleshy orange-red berries in autumn and winter. Berries grow to 1cm in width.

HOW DOES IT EFFECT THE ENVIRONMENT?

Often invades coastal environments where it can cast dense shade that inhibits and suppresses native vegetation. Natural diversity is reduced through habitat degradation and as a result of an altered vegetation community composition.

HOW DOES IT SPREAD?

Mirror bush produces many seeds that are dispersed by birds and other animals attracted by the bright orange-red berries. Seeds are also spread by contaminated soil. Seeds commonly germinate under light shade or where the ground is disturbed.



HABITAT

It is recorded as a coastal cliff plant in New Zealand, but can be found in rocky and sandy coastal habitats in Australia in both open and forested areas. It prefers high rainfall. Due to the adaptability of this species it will become more widespread over time.

WHERE IS IT FROM?

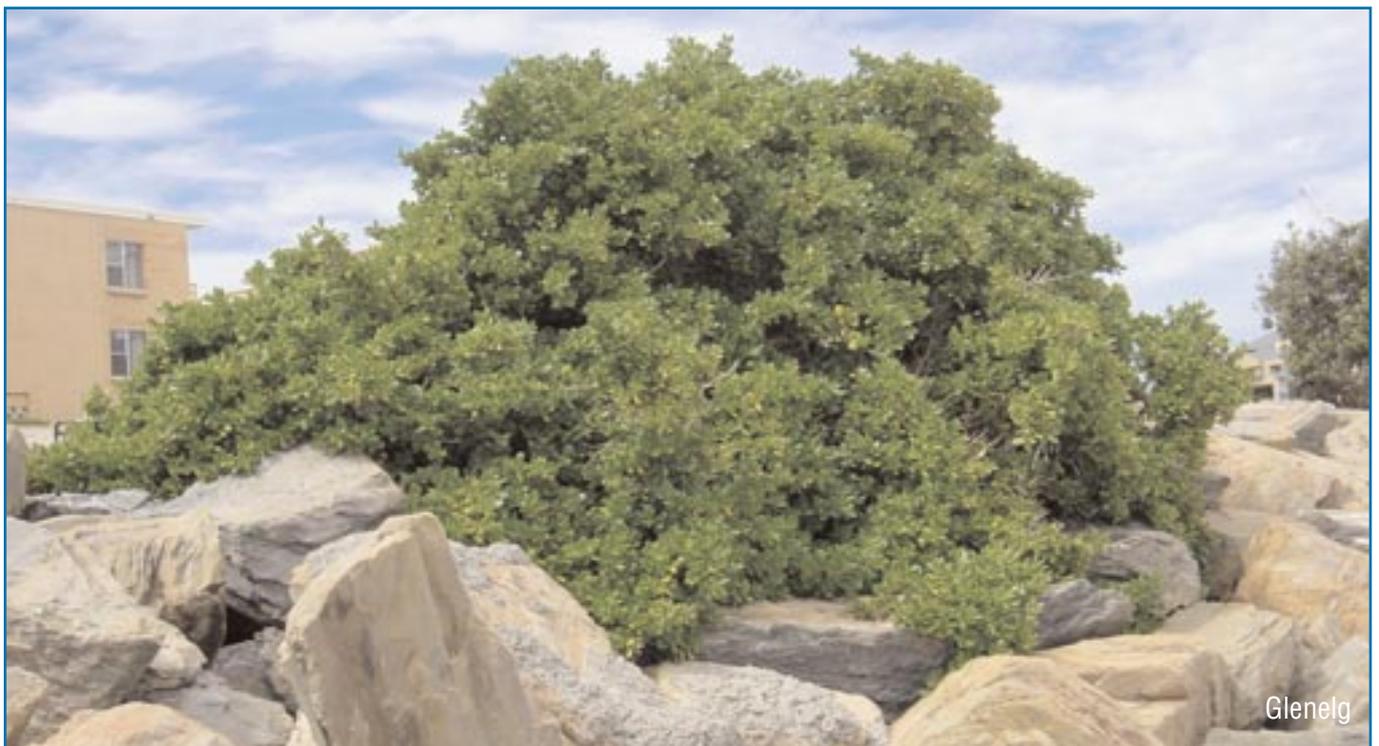
New Zealand. It was introduced to Australia as a hedge plant during early European settlement.

DISTRIBUTION

All high rainfall parts of SA's coast.

DON'T CONFUSE IT WITH...

Coprosma is a distinctive spreading shrub that is not easily mistaken with native species.



SCIENTIFIC NAME

Dipogon lignosus

COMMON NAMES

Lavatory creeper, Dolichos pea, Mile a minute, Dipogon, Okie bean, Australian pea.

WHAT DOES IT LOOK LIKE?

Lavatory creeper is a perennial large woody vine. Leaves are 1-7cm long, bright green and egg shaped with a thin texture. Pink, white or mauve pea-like flowers are arranged in clusters, with each flower being up to 1.5cm in size. Flowers are followed by flat, pea-like pods. Flowers produced in spring. Stems grow to 3cm long. Fruit is 2.5-5cm long.



HOW DOES IT EFFECT THE ENVIRONMENT?

Lavatory creeper is a rampant species that readily establishes in disturbed areas. It spreads over the ground and climbs shrubs and trees, smothering existing native species creating denser canopies, reducing light penetration and preventing regeneration. Lavatory creeper belongs to the Leguminosae family and can therefore fix nitrogen. Nitrogen fixation leads to an increase in soil fertility in an environment that normally has low nutrient soils. Subsequently, this encourages growth of other weeds that would not otherwise be able to establish in the dune environment. Lavatory creeper is considered a threat wherever it has escaped into native habitat.

HOW DOES IT SPREAD?

Lavatory creeper spreads by seed or rhizomes (underground stem). Seeds are explosively ejected from pods over several metres. Seeds are viable for many years, and germination may be initiated by disturbance or fire. Lavatory creeper is also spread through garden refuse and contaminated soil.

HABITAT

Moist shady sites associated with forests and tall shrublands.

WHERE IS IT FROM?

Western and Eastern Cape, South Africa

DISTRIBUTION

Throughout the wetter parts of South Australia and in particular the settled areas. It is also found in Western Australia, Queensland, New South Wales and Victoria.

DON'T CONFUSE IT WITH...

It is a distinctive creeper not easily mistaken with native species.

OTHER

It is essentially an old-world garden escapee and can therefore be found near settlement and abandoned farmhouses or outbuildings. Lavatory creeper was often used to obscure the outside toilet or chookhouse.



SCIENTIFIC NAME

Gazania sp.

COMMON NAME

Gazania



WHAT DOES IT LOOK LIKE?

Gazania rigens is a many branched spreading perennial herb. It spreads along the ground and can reach up to 30cm in height. Leaves are 4-10cm long, slender, with a leathery green surface. Fine white hairs are evident on the underside of each leaf, giving it a woolly texture. Daisy-like flowers are 5-8cm in diameter. Solitary flowers are produced on long stalks (peduncles) and are usually orange to yellow in colour. Flowering occurs throughout the year, but mainly in spring and autumn.

Gazania linearis is a clump forming perennial growing to 10cm in height. This is different to *Gazania rigens* that is spreading in habit. Leaves are small, linear and dark green with a white under surface. Flowers up to 10cm across are produced in spring. Flowers range from yellow to orange, with a black to dark purple marking near the base of each petal.

HOW DOES IT EFFECT THE ENVIRONMENT?

It usually invades dunes and headlands in sunny and exposed conditions. *Gazania* is readily established in sandy environments where it severely alters the vegetation community structure by suppressing native plants. An integrated approach is required to eradicate this species from coastal environments, as it is often reintroduced into managed areas by the continued planting in residential gardens and informal plantings in coastal dunes to stabilise sand areas in front of residences.

HOW DOES IT SPREAD?

Gazania is predominantly spread by seed and as a result of deliberate plantings in gardens. It can also spread vegetatively by stolons (creeping stems) that take root and form new plants.

HABITAT

Gazania inhabits coastal areas, particularly in exposed and sunny positions.

WHERE IS IT FROM?

Gazania is native to the alpine meadows of tropical South Africa.

DISTRIBUTION

Yorke Peninsula, Eyre Peninsula, Southern Lofty Region, South East, top of Spencers Gulf coast and around St Vincent Gulf and the Southern Fleurieu coastline. It is also found growing around nearly all townships and settlements along South Australia's coast due to its popularity as a garden plant. *Gazania linearis* presently covers a significant proportion of degraded areas within the Southern Fleurieu Dunes, parts of Yorke Peninsula and the Murray flats.

DON'T CONFUSE IT WITH...

Gazania is a distinctive low growing plant not easily mistaken with native species.





Ron Taylor

Victor Harbor

SCIENTIFIC NAME

Leptospermum laevigatum

COMMON NAMES

Coastal tea-tree, Victorian tea-tree, Coast tea-tree, Australian myrtle

WHAT DOES IT LOOK LIKE?

Coastal tea-tree is a large shrub or small tree growing to 4m in height. Leaves are to 2cm long, broad, flat, and blue-green to grey. Leaves are aromatic, producing a strong smell of eucalyptus oil when crushed (Coastal tea-tree belongs to the eucalypt family Myrtaceae). Flowers are 15-20mm in diameter, with 5 white petals and numerous stamens arranged around the rim. Flowering occurs from late winter to spring. Fruits are a flat-topped, cup shaped capsule 7-8mm across. Fruits contain 8-12 valves that release lots of slender seeds when opened. The trunk is short, thick and crooked.

HOW DOES IT EFFECT THE ENVIRONMENT?

Coastal tea-tree invades disturbed areas, coastal heaths and bushland. It significantly alters the natural environment by forming dense thickets that eliminate other plants through shading and competition for resources such as water, soil and nutrients. This is of particular concern to biodiversity, as indigenous plant

species can be replaced with a dense monoculture of Coastal tea-tree. This also then dramatically alters the habitat for native fauna.

HOW DOES IT SPREAD?

Dispersal is primarily through wind-blown seed, water and deliberate plantings. It can also be spread by seed dehiscing from dying branches holding fruit and the death of whole trees due to fire or old age.

HABITAT

Coastal tea-tree largely inhabits coastal dunes, headlands and scrubs where conditions are harsh and windswept. It is predominantly found on dunes and headlands, and in areas that are in close proximity to the coast.

WHERE IS IT FROM?

New South Wales, Victoria and Tasmania. Recorded on Granite Island by early settlers but may have been introduced by whalers.

DISTRIBUTION

The distribution of Coastal tea-tree was limited prior to European settlement. Due to the disturbance of coastal habitats since then, it is now found in coastal areas in South Australia, Victoria, Western Australia, Queensland and Tasmania. Coastal tea-tree grows extensively on sandy soils in southern Australia.

DON'T CONFUSE IT WITH...

Coastal tea-tree may be confused with the Desert tea-tree (*Leptospermum coriaceum*) which can inhabit near coastal areas containing red sands. Coastal tea-tree has a round or obtuse leaf apex whereas the Desert tea-tree has small acute points to its leaves and is generally a smaller greener shrub.



Henley Beach

SCIENTIFIC NAME

Pennisetum setaceum

COMMON NAMES

Fountain grass, Crimson fountain grass

WHAT DOES IT LOOK LIKE?

It is a coarse perennial grass to 90cm in height. Fountain grass is densely clumped with erect stems. Leaf blades grow to 20-65cm long and 2-3.5mm wide. The leaf sheath is smooth. Fountain grass produces many small, light pink to purple flowers from January through to April. Flowerheads are prominent, feathery and nodding.

HOW DOES IT EFFECT THE ENVIRONMENT?

Fountain grass forms thick infestations that interfere with the regeneration and survival of native plant species. A less obvious impact is that Fountain grass raises the amount of organic material in an area, thereby increasing the spread and intensity of fire. Native coastal shrubland species adapted to less extensive fire regimes are severely affected. Fountain grass is well adapted to fire and will often regenerate prolifically after being burnt.

HOW DOES IT SPREAD?

Vehicles, people and livestock are the primary method of dispersal. However, seeds can be dispersed over short distances by wind, water, birds and fire. Its popularity as a garden ornamental has also contributed to its spread. Seeds remain viable in the soil for at least 7 years.

HABITAT

This species is very adaptable and will occupy frontline coastal cliffs as well as inland disturbed roadsides.

WHERE IS IT FROM?

Native to East Africa and the Middle East.

DISTRIBUTION

It is rapidly increasing its distribution along main roads in Southern Lofty, Northern Lofty and Eyre Peninsula. It is found in small pockets on the face of low cliffs near Marino and Hallett Cove.

DON'T CONFUSE IT WITH...

It is a distinctive grass not easily mistaken with native species.



SCIENTIFIC NAME

Polygala myrtifolia

COMMON NAMES

Myrtle-leaved Milkwort, Bloukappies, Parrot Bush, Myrtle-leaf Milkwort, Butterfly bush, Myrtle-leaved Milkweed, Bellarine pea, September bush

WHAT DOES IT LOOK LIKE?

Myrtle-leaved Milkwort is a densely leaved evergreen shrub usually 1-2m, but can reach up to 5m in height. Leaves are 1-4cm long, dark green and elliptical in shape. Leaf tips are either smooth or blunt. Flowers are pea-like, with the shape bearing resemblance to a butterfly. Flowers are purple to pale lilac in colour and clustered near the tips of branches. The lowest petal has a brush-like crest that is forward pointing. A tuft of bristles is present on the end of one petal. Purple veins are visible in spring. The main flowering period is between September and October, but flowers are often evident throughout the year. Fruits are green at first, with flattened, heart-shaped pods. Two hard, dark brown seeds are released from a capsule when ripe. Mature seeds have a papery texture.

HOW DOES IT EFFECT THE ENVIRONMENT?

Myrtle-leaved Milkwort readily invades undisturbed indigenous coastal vegetation and also readily establishes in areas where disturbance has occurred. This results in a loss of local native flora and fauna through competition for resources. It has been known to dominate the understorey in bush and coastal woodlands.

HOW DOES IT SPREAD?

Readily regenerates by seed. Myrtle-leaved Milkwort is often spread by seed into coastal sand dune and cliff vegetation by birds, water and ants. Germination can be stimulated by disturbance or fire. Seeds remain viable for at least three years.

HABITAT

Resilient to coastal conditions; Myrtle-leaved Milkwort tolerates poor soil, dry conditions, and exposure to salt.

WHERE IS IT FROM?

Southern South Africa

DISTRIBUTION

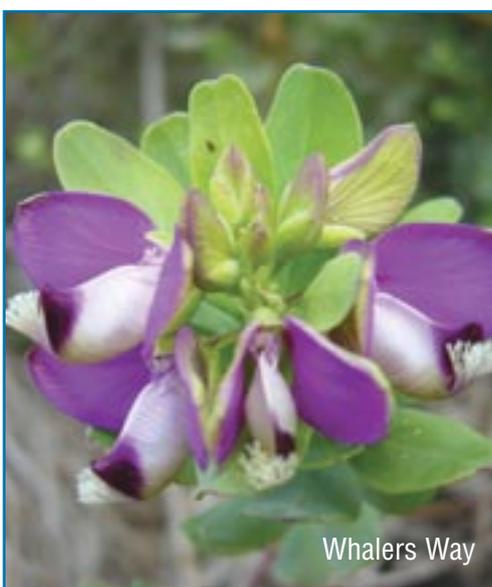
Myrtle-leaved Milkwort is found in the higher rainfall areas of coastal South Australia from southern Eyre Peninsula to the South East. It is also established along the coast of New South Wales, Victoria, Western Australia and Tasmania.

DON'T CONFUSE IT WITH...

Myrtle-leaved Milkwort may be confused with the native Sea box (*Alyxia buxifolia*) which has white flowers and red berries. Christmas Bush (*Bursaria spinosa*) has similar dark green foliage.

OTHER

A sterile variety has been developed for the nursery trade. For certainty purchase this plant only from a reputable nursery.



SCIENTIFIC NAME

Rhamnus alaternus

COMMON NAMES

Buckthorn, Italian Buckthorn, Blow-fly bush, Mediterranean buckthorn

WHAT DOES IT LOOK LIKE?

Buckthorn is a large evergreen shrub or small tree to 5m in height. It is densely branched with many leaves from ground level. Leaves are 2-7.5cm long, dark green, oval, with a pointed tip and lightly serrated edges. Leaves have a leathery texture and are paler on the underside. Leaves are situated on alternate sides of the stem. Shoots are angular, covered with fine hairs, and often purple when young. Flowers are small, pale green, scented, have 5 petals and are arranged in a cluster on small spikes along the stem. Male and female sections occur separately on each flower; the male part is situated at the base and the top part is bisexual. The top part flowers from August to September and then forms berries. Berries are 7mm long, glossy, firm, smooth and smaller than a pea. Berries are green at first, red, and then turn black when ripe. They contain a stone and produce many jet-black seeds. Roots are woody and branched.

HOW DOES IT EFFECT THE ENVIRONMENT?

Buckthorn is invasive in disturbed areas, however it does not require disturbance to become established. It has a fast growth rate, rapidly forming dense thickets that shade out native plant species and alter the

vegetation structure. It competes aggressively, being larger and faster growing than native shrub species. Buckthorn reduces native species diversity through habitat degradation and altering the natural community composition. This then significantly alters habitat structure and food sources for native fauna, creating an environment more suited to introduced flora and fauna.

HOW DOES IT SPREAD?

Readily regenerates by seed. Dispersal is assisted by birds and mammals that eat the fleshy berries. Buckthorn often emerges under trees and shrubs where seeds have been dropped by birds.

HABITAT

Buckthorn prefers a climate with dry summers and intermittent rain during winter. Buckthorn can grow in shady conditions and is commonly found in coastal shrublands.

WHERE IS IT FROM?

Mediterranean region and was introduced to Australia as an ornamental garden hedge.

DISTRIBUTION

In South Australia it is found in temperate areas near the coast from Eyre Peninsula to the South East. Buckthorn also occurs throughout the Yorke Peninsula, Northern Lofty, Southern Lofty, Murray and South East in South Australia. It is also found in New South Wales and Victoria.

DON'T CONFUSE IT WITH...

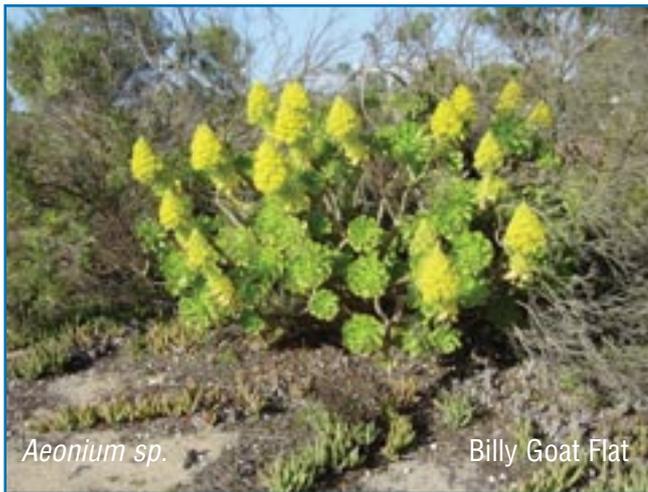
Buckthorn is similar in appearance to Sea box (*Alyxia buxifolia*). Sea box has leaves that are less than 4cm long, paired and rounded at the tips. Flowers are white and waxy.



SUCCULENTS

These pages show a range of succulents that are rapidly invading our coastline. The term succulent is broadly used to define a group of plants with thick, fleshy leaves or stems that can store water. They are usually found in tropical and subtropical dry regions, but have been introduced into the coastal environment.

Succulents have a negative effect on our coastal bushland. Succulents increase the amount of nutrients in the local environment. This leads to the subsequent invasion by other weeds that would not normally be





able to grow in these low nutrient environments. Dune formation is also altered, and the visual amenity of an area is significantly decreased.

Succulents reproduce vegetatively when segments of stems break off and take root to form a new plant. Segment can take root up to several months after breaking off from the parent plant, even when not on soil or sand. For this reason, it is important to remove all material from the environment, and never dump weeds in inappropriate places such as bushland or roadsides. Instead, put them into compost to benefit your garden.

REFERENCES

Dashorst, G. & Jessop, J.P. Plants of the Adelaide Plains & Hills, Finsbury Press, Adelaide, 1998.

Handbook for Revegetation and Weed Control in the Southern Fleurieu Dunes by Ron Taylor for South Coast Dune Care, 2000.

NSW Department of Land and Water Conservation 2001, Coastal Dune Management: A Manual of Coastal Dune Management and Rehabilitation Techniques, Coastal Unit, DLWC, Newcastle.

Oppermann, A. A Biological Survey of the South Australian Coastal Dune and Cliff-top Vegetation, Department for Environment, Heritage and Aboriginal Affairs 1999.

Prescott, A. It's Blue with Five Petals, Openbook Publishers, South Australia, 1994.

Robertson, M. Stop Bushland Weeds: A guide to successful weeding in South Australia's bushland, The Nature Conservation Society of South Australia Inc, 1997.



**COAST PROTECTION
BOARD**



Planning SA



For further information, contact:

The Coast and Marine Branch,
Natural and Cultural Heritage,
Department for Environment and Heritage.
Ph: 8124 4877 Fax: 8124 4920
or visit our website; www.coasts.sa.gov.au

Coastline Project Officer:
Amy-Jane Bruckman
SA Urban Forest Biodiversity Program