

Not wanted dune plants



Yellow lupin were planted in the dunes with the intention that cattle might graze there. Its long tap root was thought to hold the sand. It spreads quickly and is taking over river beds and dunes throughout NZ. Volunteers have removed it to allow native species to return.



Purple Groundsel is a flowering annual taking over dune systems in NZ. The seeds disperse in the wind. It is removed from Tawharanui every spring. Purple groundsel has a more rounded growth structure than the native yellow groundsel.



Tasmanian ngaio differ from native NZ ngaio as the new leaf buds are bright green and no cells can be seen in the leaves. These shrubs trees were planted in the back dunes as amenity plantings before there was concern about restoring native biodiversity.

Not wanted dune plants



Apple of Sodom Is a very prickly unwanted shrub . It can grow to the size of a small car. It is being progressively eradicated from the Tawharanui dunes by volunteers. The fruit is picked and removed and the trunks are cut and painted with a herbicide.



Wild fressia bulbs grow in behind the camp ground. They could be classified as escaped garden plants having first been planted around little fishing huts that once existed there. They do not belong in a dune ecosystem.



Red lachenalia Is another bulb that grows in the dunes as a result of gardens by the fisherman's huts. These are spreading to a wider area and although they look pretty they are not wanted in the dune ecosystem.



**Tawharanui
Open Sanctuary
Society Inc.**



Dune plants at Tawharanui Open Sanctuary



Ocean Beach is where five of the twelve pairs of NZ dotterel have nesting territories at Tawharanui.



A sweep of weed free muehlenbeckia growing in the back dunes at Tawharanui.

Native dune plants



Sand coprosma

Coprosma acerosa is a low spreading native shrub found in sand dunes. It is declining over large parts of its original range due to competition from introduced marram grass. It is widely used in garden plantings as a ground cover.



Native shore

groundsel *senecio laetus* is a native groundsel that grows more erect than the unwanted introduced purple groundsel. It has an insignificant yellow flower. The seeds have fluffy white hairs to help them blow in the wind.



Native ngaio

myoporum laetum has fleshy gland spotted leaves and brown leaf buds not to be confused with the Tasmanian ngaio that has green leaf buds. Native ngaio can grow into gnarled large old trees in coastal regions.

Native dune plants



Pingao native golden sand sedge where the seaward toe of the dune has been undercut by storm damage. The pingao trailers hang limp over the scarp ready to catch wind blown sand.



Pingao trailers have trapped windblown sand and the gentle flowing dune slope has returned.



Spinifex also sends out long trailers trapping and stabilizing wind blown sand returning eroded sand cliffs to a gentle flowing slope.

Native dune plants



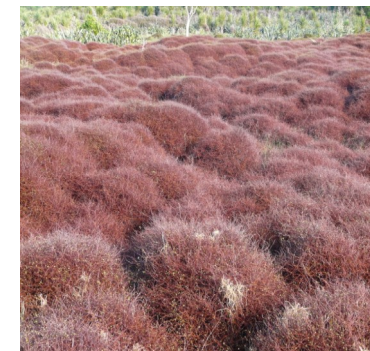
Spinifex plants are single sexed. In this photo the male has pale brown branched compact flowers that occur in October to November. Spinifex can tolerate high winds salt spray and shifting sands.



Spinifex female have large softly-spiny spherical seed heads that mature January to March. The seed heads detach from the plant and disperse by tumbling along the beach giving it the nick name of tumbleweed.



Tauhinu is a variable erect bushy, heath-like perennial native shrub. It has dull white small flowers in dense clusters. It can tolerate harsh coastal conditions. On hill country farms it can become a problem weed.



This **muehlenbeckia** photographed at Tawharanui has had its leaves completely burned by salt after a storm. Within months it returned to good health as seen in the photo on the cover of this brochure.