



Coastal Planting for sand dune restoration

Recommended species for the Horizons Region

Foredune plants



Photo: Colin Oglie

Spinifex (*Spinifex sericeus*)
kōwhangatara; silvery sand grass

Native sand-binder that sends out runners binding the sand and stabilizes it, so a dune is built up. Ideal sand-binding plant for West Coast conditions. Seed heads are spiky balls often seen blowing along the beach in February/March. Can be propagated from seed, or by root tip cuttings. Plant is green/silvery in colour. This is Horizons Regional Council's preferred plant for foredune restoration work.



Photo: Jeremy Rolfe

Pingao (*Ficinia spiralis*)
Golden sand sedge; Tāne's eyebrows

Native sand-binder though not as effective as spinifex. Grows in clumps and spreads by rhizomes, but is less likely to build up sand than spinifex as it is not as vigorous. Used by Māori for weaving because of its golden colouration and fibre quality.



Photo: John Barkla

Sand Sedge (*Carex pumila*)

Best planted at the toe of the foredune and between dunes where the sand is more moist, but will tolerate drier conditions higher on the dunes. Blue/green in colour, this sedge grows no more than 20 cm in height but can be effective at building dunes. Spreads by rhizomes.



Photo: Aaron Madden

Sand Daphne (*Pimelea villosa*) autetauranga; toroheke; sand pimelea

A low-growing, sprawling shrub with an open habit. It has blue/green leaves that are covered in hairs on the undersides and margins, and sometimes on the uppersides. The plants that occur in this Region are the rarer variant of this species so any planting needs to be from locally collected seed sources.

Mid-and rear-dune plants



Photo: Lisa Forester

Sand Daphne (*Pimelea villosa*) tātaraheke

Has narrow, pointed green leaves that are held close to the orange stems. Fruit is white to pale blue. Growing in a matted, sprawling formation, it is a hardy plant ideal for sand stabilization in the mid- to rear-dune area. It can be grown from seed or cuttings.



Photo: Jeremy Rolfe

Knobby Club Rush (*Ficinia nodosa*) wiwi

Grows in stiff, rush-like clumps with tall stems and has a brown seedhead near the top of each stem. Stems are greenish-brown. Despite the common name, this plant is not a rush at all but a coastal sedge. It can be grown from seed but divisions prove very successful if done over the winter months.



Photo: Aaron Madden

**Wire Vine (*Muehlenbeckia complexa*)
pōhuehue**

A hardy, sprawling, coastal groundcover that will climb over other plants. The leaves are small, green and roundish and the stems are reddish-brown. Cream flowers are followed by black seeds held in a fleshy cup. This plant is semi-deciduous; most of the outer leaves are absent over winter.



Photo: Jeremy Rolfe

Coastal Shrub Daisy (*Olearia solandri*)

A very hardy shrub that can grow up to 4m in sheltered sites; rarely over 2m in exposed conditions. Leaves are dark green on top and yellow underneath. Young branches are also yellow. The fragrant flowers are produced in summer.



Photo: John Barkla

**Sand Convolvulus (*Calystegia soldanella*)
nihinihi; shore bindweed**

The distinctive pale pink flowers of this native plant are similar to the ordinary garden convolvulus. It helps to hold shifting sand and often grows together with spinifex and pingao. Commonly found in the mid-to rear-dune zone but sometimes on the foredune.



Photo: David Lupton

**Flax (*Phormium tenax*)
harakeke**

Flax is suitable for the rear dune and in damp hollows or areas between the dunes. It grows up to 3m in height with dull red flowers that provide nectar for a variety of bird species. The large leaves provide an excellent weaving resource.



Photo: Jeremy Rolfe

Taupata (*Coprosma repens*)

Usually located on rear dunes, taupata is a hardy, fast-growing plant that withstands exposed sites. Its form can vary from a small tree to a low shrub depending on exposure to the salt wind. The glossy green leaves are often curled under at the margins in harsh conditions.



Photo: Aaron Madden

Ngaio (*Myoporum laetum*)

A fast-growing small tree for the rear dune area. The leaves contain small oil glands which appear as pale dots. Flowers are followed by bright red fruit up to 9mm long. Ngaio leaves are toxic to stock so they should not be planted near grazed land.



Photo: Aaron Madden

**Kānuka (*Kunzea robusta*)
nihinihi; shore bindweed**

A very hardy small tree suitable for the rear dune area. It has small, pointed leaves and long strips of loose, papery bark. Masses of white flowers appear from late spring through summer followed by small, hard seed capsules.

Additional information

Further information is available on Horizons' website: www.horizons.govt.nz OR contact us on free phone 0508 800 800.

The photos of Pingao, Sand Sedge, Sand Coprosma, Knobby Club Rush, Coastal Shrub Daisy, Sand Convolvulus and Taupata are sourced from the NZ Plant Conservation Network website, www.nzpcn.org.nz.