It is preferable to encourage the native and endemic species whereever practical. Not only are they effective natural sand binders, but the use of these species also enhances the natural character of the dunes and restores habitat for rare and threatened indigenous birds, lizards and insects.

What can you do?

*Read the signs that have been put up by your Council to help protect the dune reserves and follow the guidance.

*Avoid creating your own personal tracks across the dunes - you will almost certainly damage the dune face vegetation even if the path looks inconsequential on the back of the dune.

*Avoid bare and thinly vegetated areas of sand to give vegetation a change to establish.

*Use access ways such as board walks and steps where-ever provided. If these facilities are not provided, you can suggest sites where they are required and assist in their establishment.

*Keep stock off and ride your horse elsewhere.

*Use common sense, you know what will hinder and what will help dune vegetation to establish.

*Be friendly and respectful if you wish to encourage responsibility in others; nobody listens to know-alls or busy bodies.

*Keep motor bikes and other vehicles off the dunes.

*Be especially careful on the front of the dune, walking directly down or up can cause serious disruption to plants struggling to survive in this harsh environment. Walking diagonally can help.

*Plant sand binding species such as spinifex or pingao. The Waikato Regional Council and the Department of Conservation will be happy to provide advice.

*Make the effort to launch your boat at local ramps; don't be lazy and drag them over the dunes.

*Encourage your children to respect the dunes and play elsewhere - in particular do not let them play on the critically important seaward face of the dunes.

The restoration and improved management of the Coromandel dunes will take time and effort - but if we each do our bit the magnificent beaches and dunes of the Coromandel can be preserved for the future.

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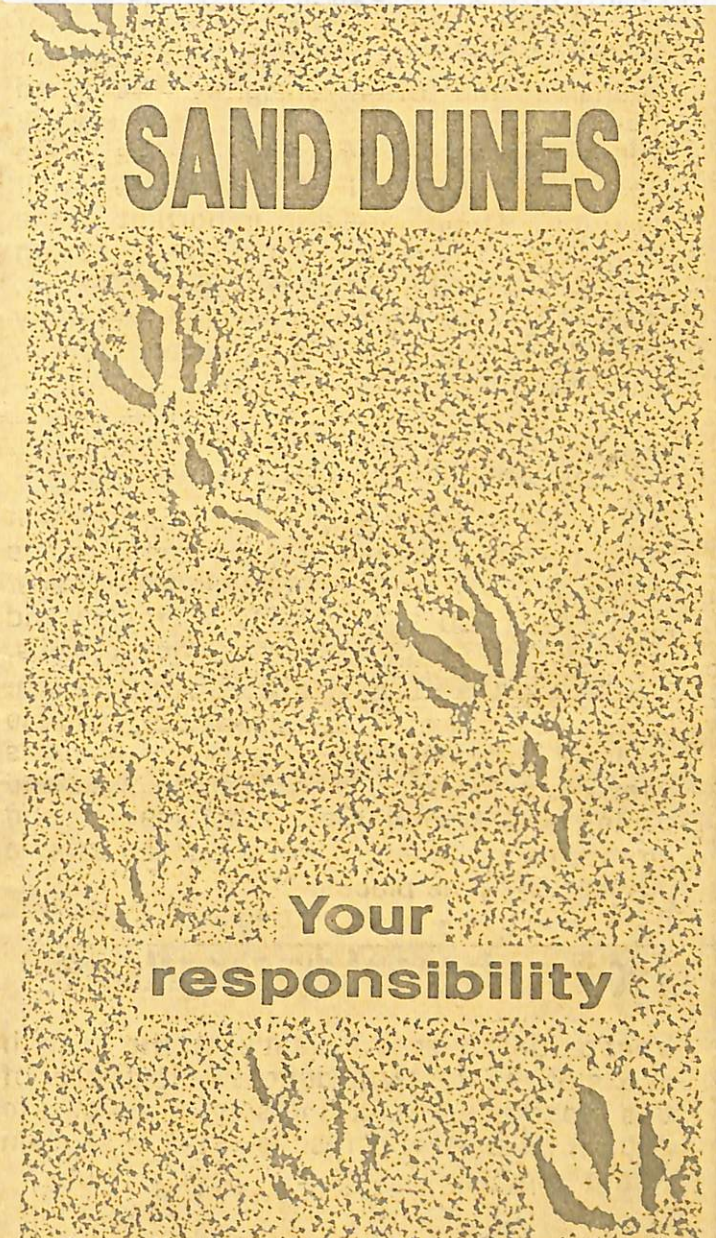
SAND DUNES



Your responsibility

Why are sand dunes important?

Sand dunes are a unique environment and are vital to the protection of the outstanding beaches of the Coromandel coast.

Dunes provide effective natural protection from erosion and wave flooding for nearshore properties - avoiding the need for expensive and often unsightly rock and seawall protection. They are inherently flexible and, after damage by storms, dune vegetation traps wind blown sand to repair the dune. Dunes are also important in the visual values of the beach and are an important habitat for indigenous species. As well as their native plant cover they provide a refuge for a range of native birds, insects and lizards.

The problem

Disruption of dune vegetation over the last 100 years is resulting in destruction of the dunes by wind erosion - reducing the buffer zone protection against coastal erosion and lowering the natural values of the beaches. People are the major cause of the problem. Dune plants are damaged by people walking over the dunes, driving vehicles over them, sandboarding, lighting fires and using the wrong sorts of plants and structures on them. Stock can also be a problem in some places.

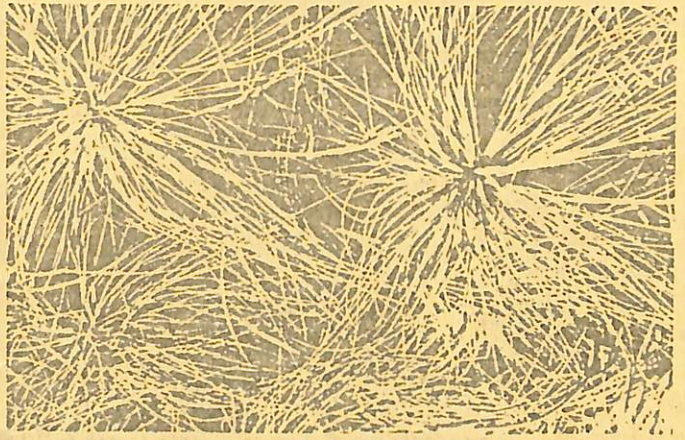
The importance of dune vegetation

Vegetation cover is essential to the growth and stability of sand dunes. Disruption of this vegetation cover upsets the delicate natural balance and results in wind erosion of the dunes.

The plants that survive in dunes have to cope with one of the most extreme environments in New Zealand - battered by salty onshore winds, often flooded by sea water during storms, and constantly struggling against burial and undermining by drifting sand. And all this in loose sands, with high temperatures, high reflectivity, very low nutrient levels and a limited capacity to hold water! Coping with human activity on top of this is simply asking too much and natural recovery from human damage is slow due to this harsh environment.

Important dune plants

The most important dune plants in the Coromandel are the sand binding grasses on the harsh seaward side of the frontal dune - particularly the natives, spinifex (spinifex sericeus) and pingao (Demoshoenus spiralis). Spinifex has a slender network of stems criss-crossing the dunes, every so often throwing up a sward of slender silver haired leaves. It is easily recognisable by its flowers which develop into star-like clusters and are often seen dispersing their seeds as they blow tumbleweed-like along the foreshore (below).



Pingao's tufted shoots and its orange green leaves make it the most colourful plant of the dunes, though it is generally less common than spinifex. Rarely, the native sand sedge (Carex pumila) also occurs - typically as an earlier coloniser near the strand line.

Pingao advancing on a dune slope

On the back of the frontal dunes you will find the spongy pohuehue (muehlenbeckia complexa), which often forms a dense and strikingly attractive dark green mat. Other important native species in this area are sand convolvulus (Calystegia solanella), identifiable by its glossy heart-shaped leaves and purple-pink trumpet flowers, and less commonly, sand coprosma (Coprosma acerosa) and sand daphne (Pimelea prostrata).

Sand convolvulus with flowers and fruits

Sand sedge