

# Biodiversity



Number 27

## Pingao (*Ficinia spiralis*)

### DESCRIPTION

Pingao is a grass-like plant that grows on active sand-dune systems throughout New Zealand. It is a member of the sedge family, and is often called golden sand sedge. The stiff, curled leaves vary in colour from brilliant green (when young) to golden yellow, eventually turning bright orange when mature. The leaves are narrow (2mm to 5mm wide) and occur in dense tufts on short, upright stems along the length of the rhizome. Pingao spreads by thick sprawling rhizomes that creep over the sand. It grows to a height of 30cm to 90cm. Clusters of small, brown sedge-like flowers, spirally arranged on upright stems, appear in spring and early summer. The flowers are wind-pollinated; where populations are isolated, flowers may not receive pollen, which results in poor pollination and seed set. The small (3mm to 5mm long), dark brown, egg-shaped seed ripens in early to mid-summer. Regional differences occur, with variations in the length, width and strength of the leaves, and in the way the plant grows - in the south, clumps are more compact and erect.

### DISTRIBUTION

Pingao is endemic to New Zealand and was once abundant around the coastline of the North and South Islands, Stewart Island and the Chatham Islands. It is one of New Zealand's most important native sand-binding plants for building and stabilizing coastal sand dunes. Pingao grows on active sand dunes, mostly on the seaward face of fore dunes, but can occur on the rear face and rear dunes where there is moving sand.



### CONSERVATION

Pingao is a native New Zealand species that is endangered and listed as 'At Risk, Relict'. It is in decline and is threatened in its natural habitat.

### THREATS

- Competition from marram grass (an exotic grass historically planted in dune stabilization projects) and tree lupin.
- Trampling and browsing by domestic and feral cattle, sheep, horses, goats, possums and rabbits.
- Seeds are eaten by rodents.
- Human and vehicle traffic on beaches.
- Coastal development.
- Sand mining.

### QUICK FACTS

- Pingao is a sand-binding plant. It traps wind-blown sand between its leaves, and around the plant's base, burying the rhizomes and helping to bind the sand. In doing this it reduces erosion and creates habitats suitable for other coastal species.
- Native birds nest among pingao, including the rare New Zealand dotterel and the New Zealand pipit.
- It is an important food source for several species of moth and butterfly.
- The pingao leaves turn yellow when they dry; they are popular with Maori for weaving kete.

### PINGAO IN TARANAKI

A number of small, isolated native populations occur around the coastline of Taranaki. Planting projects have occurred around the region, with the aim of re-establishing pingao and reducing the effects of coastal erosion.

### WHAT CAN YOU DO TO HELP

- Report all sightings of pingao to Taranaki Regional Council Environment Services.
- Plant eco-sourced material to preserve our local form of pingao.
- Fence off coastal areas to prevent access by browsing sheep, cattle and other wild animals.



**Taranaki Regional Council**  
Environmental Services  
47 Cloten Road, Stratford  
Ph: 06 765 7127, [www.trc.govt.nz](http://www.trc.govt.nz)