



# *Gunnera hamiltonii*

## *Gunnera hamiltonii*

*Gunnera hamiltonii* is one of the rarest plants in New Zealand. It is only found on the coasts of Southland and Stewart Island. It's so rare it doesn't have a common name, but was named after W.S. Hamilton from Southland.

### Quick Facts

One of the rarest plants in New Zealand.

Is a sand specialist, growing on sand dunes.

Related to the giant *Gunnera* that grows in South America.

### What does it look like?

*Gunnera hamiltonii* is a small, stiff-leaved, creeping herbaceous plant. It grows in rosettes that are flattened to the ground.

**Leaves:** Brown/green in colour. Spear shaped with reddish-pink stalks.

**Flowers:** Inconspicuous flowers, with male and female flowers found on separate plants. Female flowers form in the centre of the rosette, close to ground. Male pollen spikes grow to about 2-3 cm tall.



### Where does it grow?

Grows on sand dune hollows near the sea. It's usually found in damp, sandy sites in the narrow transition zone between unstable dunes and stabilised shrubland. It creeps through the sand via underground stems (called rhizomes), which can extend over a large area.

There are six separate natural plants found at four locations. Five plants exist on Stewart Island and one on the Southland coast. Although each known population is only a single plant, they extend over a large area and can maintain themselves vegetatively.

### Limited distribution

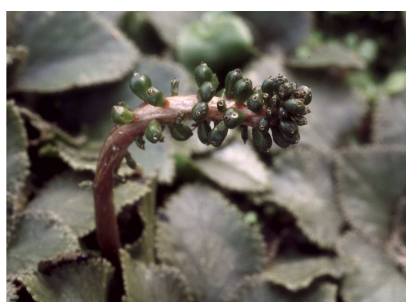
*Gunnera hamiltonii* naturally has a very limited distribution, being found only on the Southland coast and Stewart Island beaches. The first plant was discovered in 1895 and two new populations have been discovered as recently as 1995 and 1998.



## A population saved

Unfortunately, in the 1960s a population growing beside the Oreti River at Sandy Point was destroyed. Most of the population was wiped out by a combination of the effects of weeds, grazing and gravel extraction. However, a piece of this plant was rescued and replanted at Sandy Point. This early transplant still survives today.

## Why is it threatened?



This species is particularly vulnerable to a number of threats because of its very limited distribution and small number of plants.

Of the mainland populations, one site has already become extinct in the wild due to habitat modification and the other is on private land that is subject to weed invasion.

The Stewart Island populations are on land administered by the Department of Conservation. Although they are not under threat from land development, they are vulnerable to weed invasion, particularly marram grass. In addition, a recent change in river course threatened to destroy one population by undermining the dune on which it was growing.

Research on cultivated plants has now determined the sex of each known population, except the most recently found plant. There is only one location where both a male and female plant occur in the wild. However, no seedlings have ever been observed in the wild. It is thought that the separate male and female plants may be too far apart to produce seed.

## What's being done?

One of the first steps in the recovery of *Gunnera hamiltonii* was to collect a piece of each population to grow in cultivation. This provides a backup in case wild populations succumb to disaster.

Fortunately *Gunnera hamiltonii* is easy to cultivate from off-cuts and it can be found in many botanical gardens. It even grows in the Alpine House in Kew Gardens, England.

Cultivated plants have been tested to determine their sex. Female flowers have been pollinated by hand to determine if they could set seed. The first plants were hand pollinated in September 1994 and resulting seed was sown in April 1995. *Gunnera* seedlings started to grow in December 1995. This proved an exciting and important step in the recovery of the species.

In Southland there has been some experimentation with transplanting. More transplanting is planned to provide wild population 'backups'. Thought is being given to establishing mixed sex populations, with the hope that seedlings would be produced in the wild.

To protect existing wild populations, extensive weed control is regularly undertaken. This includes control of marram grass on Stewart Island.

### Find out more

Visit the Southland Threatened Plant Garden to find out more about *Gunnera hamiltonii* and other threatened plants in Southland.

Garden is open by prior arrangement:  
Phone 213 1161