

# Chenopodium detestans

## COMMON NAME

New Zealand fish-guts plant

## SYNONYMS

None

## FAMILY

Amaranthaceae

## AUTHORITY

Chenopodium detestans Kirk

## FLORA CATEGORY

Vascular – Native

## ENDEMIC TAXON

Indeterminate

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## STRUCTURAL CLASS

Herbs - Dicotyledons other than Composites

## NVS CODE

CHEDET

## CURRENT CONSERVATION STATUS

2017 | Threatened – Nationally Critical | Qualifiers: DP, EF, TO

## PREVIOUS CONSERVATION STATUSES

2012 | Threatened – Nationally Critical | Qualifiers: DP, EF, TO

2009 | Threatened – Nationally Critical | Qualifiers: TO, EF, DP

2004 | Data Deficient

## DISTRIBUTION

Indigenous to New Zealand, South Island only. Historically the species ranged from Canterbury to Otago. Recent (post 1980) collections have only been made from Lake Lyndon (first discovered by T. Kirk in 1877) and the upper Waitaki Valley. In those days this area was extensively farmed for sheep and cattle, and while this was the case *C. detestans* was common on the shores of Lake Lyndon, in sites frequented by these animals. The species has been found in New South Wales, Australia where it may have naturalised.

## HABITAT

Open or sparsely-vegetated ground such as clay and salt pans, dried out river and lake beds.



Close up of plant. Photographer: Shannel Courtney, Licence: CC BY-NC.



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## DETAILED DESCRIPTION

Annual to short-lived perennial prostrate, grey-green to reddish-grey, fleshy herb forming patches up to 800 mm diameter, and arising from a stout central, deeply descending tap root. All parts strongly fetid, smelling of rotten fish. Branches 2-8, grey-green, with stems and emergent leaves often suffused with red, rather stiff, margins often distorted by fungus pustules. Emergent foliage grey-farinoso, maturing grey-green or reddish-grey, rather fleshy; leaves rhombic, or rhomboid-ovate, usually entire except for the basal stem leaves which often possess 1 pair of teeth, apex acute. Flowers grey-green in dense axillary to terminal spike-like clusters, stigma white. Perianth segments 4-5, 0.5-1.0 mm long, divided almost to base, obtuse, scarcely accrescent, incompletely investing fruits. Stamens 1-2 sulphur yellow, not fused at base. Seed, circular, 1-1.2 mm diameter, dark purple-brown to black brown, minutely punctate, margins rounded (obtuse), aligned horizontally in perianth.

## SIMILAR TAXA

The introduced *Chenopodium vulvaria* (fish-guts plant) is a very similar, equally smelly plant, which can only be reliably distinguished from *C. detestans* by its 5 rather than 1-2 stamens, and sharp (acute) rather than rounded seed margins.

## FLOWERING

September – March

## FLOWER COLOURS

Green, Grey

## FRUITING

December - May

## LIFE CYCLE

Seeds are dispersed by wind and water (Thorsen et al., 2009).

## PROPAGATION TECHNIQUE

As far as is known no one has successfully grown this species. There have been a few attempts to transplant wild plants and strike cuttings but these failed because the plants/cuttings were given too much water. Seed should germinate easily.

## THREATS

As far as is known *C. detestans* has declined mainly because of a loss of suitable open, sparsely-vegetated habitats. This seems to have been the result of the spread of introduced pasture grasses and weeds, and changes in land use, especially stocking levels. The only recent collections have come from well-stocked sheep farms in the upper Waitaki Valley, where it grows on clay and salt pans. Possibly because of its foul smell the species does not seem to be palatable to livestock, so livestock may help reduce competition from other taller, more palatable plants.

## ETYMOLOGY

**chenopodium:** From the Greek chen 'goose' and pous 'foot', referring to the shape of the leaves

## WHERE TO BUY

Not Commercially Available.

## ATTRIBUTION

Description based on live plants and herbarium specimens

## REFERENCES AND FURTHER READING

Thorsen, M. J.; Dickinson, K. J. M.; Seddon, P. J. 2009. Seed dispersal systems in the New Zealand flora. *Perspectives in Plant Ecology, Evolution and Systematics* 11: 285-309

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/chenopodium-detestans/>