

# Puccinia embergeriae

## COMMON NAME

Chatham Island sow thistle rust, Embergeria rust

## FAMILY

Pucciniaceae, Basidiomycetes

## AUTHORITY

McKenzie & P.R.Johnst.

## FLORA CATEGORY

Fungi – Native

## ENDEMIC TAXON

Yes

## ENDEMIC GENUS

No

## ENDEMIC FAMILY

No

## CURRENT CONSERVATION STATUS

2015 | Threatened – Nationally Critical

## DISTRIBUTION

This rust is known only in the Chatham Islands, and has been collected from Kaingaroa, Ocean Mail and Waitangi West (de Lange 2021)

## FRUITING

There are eight collections of this rust held in the New Zealand Fungal Herbarium (PDD) and Unitec Herbarium (UNITEC), collected between November 1992 and February 2021.

## THREATS

*Sonchus (Embergeria) grandifolia* is a at risk species de Lange et al. (2018). *Puccinia embergeriae*, which is an obligate parasite, probably co-exists with its host plant. However, the *Puccinia* is also a threatened species (Denchev et al. 2015), absolutely dependant on its host for survival (Denchev et al. 2015; de Lange 2021). *Puccinia embergeriae* is assessed as CR B1ab(iii); D (Critically Endangered) using the IUCN Red Listing Categories (Denchev et al. 2015). There is no equivalent, up to date, threat listing for this species using the New Zealand Threat Classification System (NZTCS) categories - however, the IUCN assessment is similar to the New Zealand definition of 'Nationally Critical' using the NZTCS, so that approximation is used here. New Zealand Fungi are overdue for a threat assessment using the NZTCS.

## SUBSTRATE

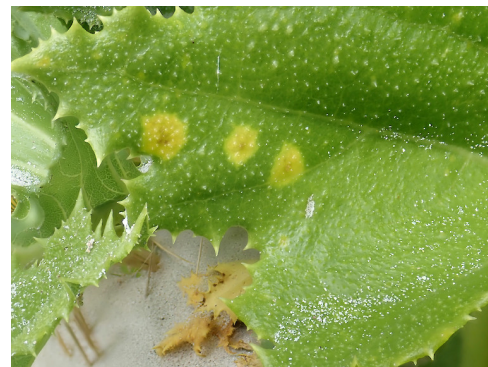
This rust is an obligate parasite on leaves of *Sonchus (Embergeria) grandifolia*.

## WHERE HELD

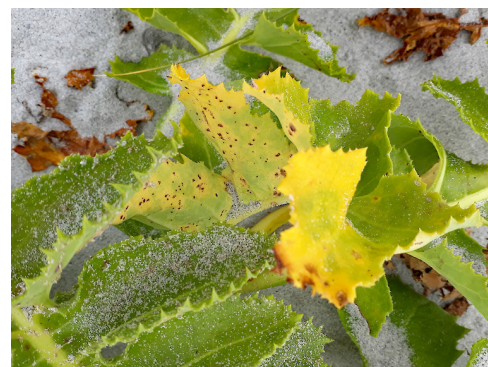
PDD (holotype) and additional specimens, UNITEC

## EXTANT COLLECTIONS

8



*Puccinia embergeriae* lesions on adaxial leaf surface of host plant *Sonchus (Embergeria) grandifolius* at Waitangi West Beach, Rekohu / Wharekauri / Chatham Islands. Photographer: Peter J. de Lange, Date taken: 08/02/2021, Licence: CC BY.



*Puccinia embergeriae* telia on adaxial leaf surface of host plant *Sonchus (Embergeria) grandifolius* at Ocean Mail Scenic Reserve, Rekohu / Wharekauri / Chatham Islands. Photographer: Peter J. de Lange, Date taken: 17 November 2018. Photographer: Peter J. de Lange, Date taken: 17/11/2018, Licence: CC BY.

## REFERENCES AND FURTHER READING

de Lange, P.J. 2021: New locations for embergeria rust (*Puccinia embergeriae* McKenzie et P.R.Johnst.), Pucciniaceae, on the Chatham Islands. *Trilepidea* 208: 3-7.

<https://www.nzpcn.org.nz/publications/documents/trilepidea-e-newsletter-for-july-2021/>

de Lange, P.J.; Rolfe, J.R.; Barkla, J.W.; Courtney, S.P.; Champion, P.D.; Perrie, L.R.; Beadel, S.M.; Ford, K.A.; Breitwieser, I.; Schönberger, I.; Hindmarsh-Walls, R.; Heenan, P.B.; Ladley, K. 2018: Conservation status of New Zealand indigenous vascular plants. 2017. *New Zealand Threat Classification Series 22*: 1–82. Department of Conservation, Wellington.

Denchev, C.M.; McKenzie, E.H.C.; Denchev, T.T. 2015: *Puccinia embergeriae* McKenzie & P.R. Johnst. In: The Global Fungal Red List Initiative. [http://iucn.ekoo.se/iucn/species\\_view/370658/](http://iucn.ekoo.se/iucn/species_view/370658/).

## NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Puccinia embergeriae* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network.

<https://www.nzpcn.org.nz/flora/species/puccinia-embergeriae/> (Date website was queried)

## MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/puccinia-embergeriae/>