

Salix fragilis × S. euxina

COMMON NAMES

crack willow

BIOSTATUS

Exotic

CONSERVATION STATUS

Not applicable

CATEGORY

Vascular

STRUCTURAL CLASS

Trees & Shrubs - Dicotyledons

SIMPLIFIED DESCRIPTION

Deciduous tree up to 25 m tall, branches not drooping but breaking easily, often with an audible crack (hence the common name), leaves narrow and lance-shaped, often with bright red swellings on them, flowers produced in spring about the same time as emergence of leaves, with long and narrow (up to 7.5 cm long and 1 cm across) yellow green in colour.

FLOWER COLOURS

Green

DETAILED DESCRIPTION

Tree to 25m high, sometimes only a shrub; bark rough and fissured. Branches spreading but not pendulous. Shoots dark or brownish green, readily and audibly snapping when bent, not slender. Bud scales dark shining brown, becoming glabrous. Shoots and leaves somewhat silky when very young, but quickly glabrous. Petiole of leaves on reproductive shoots < 1cm long. Lamina 5–15 x 1–2.5cm, sometimes larger on water shoots, lanceolate, glaucous beneath, mainly shining above, glandular-serrulate; apex acuminate. Stipules minute. Catkins usu. male, rarely female, appearing with or after leaves. Male catkins 4–7.5cm long, spreading or curving downwards, narrow-cylindric; rachis villous. Bracts 2–2.5mm long, oblong-elliptic, incurved and generally cucullate when fresh, pale green or yellowish, densely clothed in antrorse hairs; apex rounded. Glands 2, 0.4–0.6mm long, elliptic-oblong, rectangular to square. Stamens 2; filaments hairy towards base. Female catkins similar to male. Ovary glabrous, sessile or shortly stalked.

SIMILAR TAXA

Similar to other lanceolate leaved willows, but can be distinguished by the brittle green to reddish brown (rather than yellow) shoots, spreading rather than drooping branches and red galls on leaves.

DISTRIBUTION

Widespread and often abundant throughout New Zealand.

HABITAT

Riparian margins of water bodies.

GENUS

Salix

FAMILY

Salicaceae



Crown of male tree in flower. Whanganui River. Nov 2011. Photographer: Colin C. Ogle, Licence: CC BY-NC.



Male tree flowering branches. Whanganui River. Nov 2011. Photographer: Colin C. Ogle, Licence: CC BY-NC.

AUTHORITY

Salix ×fragilis L.

SYNONYMS

Salix alba L. × *S. euxina* I.V. Belyaeva; *Salix fragilis* L.; *Salix ×rubens* Schrank

TAXONOMIC NOTES

Recently recognised as a hybrid in Belyaeva, I. (2009) Nomenclature of *Salix fragilis* L. and a new species, *S. euxina* (Salicaceae). Taxon 58(4): 1344–1348. The hybrid between this entity and *Salix alba* = *S. ×rubens* is now included in the taxon *S. ×fragilis* as a synonym.

FLOWERING

September to October

FRUITING

Europe and West Asia

YEAR NATURALISED

1880

ORIGIN

Europe, Western Asia

REASON FOR INTRODUCTION

Erosion control for rivers and other waterways

TOLERANCES

The plant is intolerant of shade and highly tolerant of poor drainage. Physical damage and grazing result in resprouting.

CONTROL TECHNIQUES

Can be controlled manually, mechanically or herbicidally depending on situation.

LIFE CYCLE AND DISPERSAL

Stem fragments dispersed by water and contaminated machinery.

WETLAND PLANT INDICATOR STATUS RATING

FACW: Facultative Wetland

Usually is a hydrophyte but occasionally found in uplands (non-wetlands).

NATIONAL PEST PLANT ACCORD SPECIES

This plant is listed in the 2020 National Pest Plant Accord. The National Pest Plant Accord (NPPA) is an agreement to prevent the sale and/or distribution of specified pest plants where either formal or casual horticultural trade is the most significant way of spreading the plant in New Zealand. For up to date information and an electronic copy of the 2020 Pest Plant Accord manual (including plant information and images) visit the [MPI website](#).

ENVIRONMENTAL WEED (2024)

This plant is named in a list of 386 environmental weeds in New Zealand 2024 prepared by DOC. 759 candidate species were considered for inclusion on this new comprehensive list of environmental weeds in New Zealand. The species considered were drawn from published lists of weed species, lists of plants that must be reported or managed by law if observed, existing national and regional programmes and agreements for pest management, and species already managed by the Department of Conservation (DOC). Candidate species were then assessed to see if they were fully naturalised and whether they have more than minor impacts in natural ecosystems. Read the full report [here](#).

MANAAKI WHENUA ONLINE INTERACTIVE KEY

[Key to willow species and hybrids present in New Zealand](#)

REFERENCES AND FURTHER READING

- Webb, C.J.; Sykes, W.R.; Garnock-Jones, P.J. (1988). Flora of New Zealand Volume 4: Naturalised pteridophytes, gymnosperms, dicotyledons. Botany Division, DSIR, Christchurch.
- Popay et al (2010). An illustrated guide to common weeds of New Zealand, third edition. NZ Plant Protection Society Inc, 416pp.
- Johnson PN, Brooke PA (1989). Wetland plants in New Zealand. DSIR Field Guide, DSIR Publishing, Wellington. 319pp.
- Belyaeva, I.V. (2009). Nomenclature of *Salix fragilis* L. and a new species *S. euxina* (Salicaceae). Taxon 58(4): 1344-1348.

ATTRIBUTION

Factsheet prepared by Paul Champion and Deborah Hofstra (NIWA). Features description from Webb et. al. (1988). Some of this factsheet information is derived from [Flora of New Zealand Online](#) and is used under a [Creative Commons Attribution 3.0 New Zealand](#) licence.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/salix-fragilis-s-euxina/>

PDF DATE

08 June 2026