

Osmunda regalis

COMMON NAME

royal fern

FAMILY

Osmundaceae

AUTHORITY

Osmunda regalis L.

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Ferns

NVS CODE

OSMREG

CONSERVATION STATUS

Not applicable

BRIEF DESCRIPTION

Tall deciduous fern, up to 2 m tall, occasionally with a trunk, fronds of two types, mostly large, up to 3 m long and 75 cm across divided into small flat leaflets up to 7 cm long by 1.8 cm across, with upper fronds sometimes made up of small rounded segments, like a bunch of grapes, turning from green to reddish brown in summer.

DISTRIBUTION

Scattered from Northland to Wellington, locally abundant in Waikato.

HABITAT

Fens often under open mānuka and grey willow (*Salix cinerea*), other wet peaty habitats including roadside drains, occasionally on exposed clay banks adjacent to water bodies.

WETLAND PLANT INDICATOR STATUS RATING

OBL: Obligate Wetland

Almost always is a hydrophyte, rarely in uplands (non-wetlands).

DETAILED DESCRIPTION

Rhizomes forming thick erect trunks to 150 cm tall. **Fron**ds 30–300 × 20–75 cm, ovate, 2-pinnate, glabrous except when very young, dimorphic with the outer ones sterile and inner fertile. **Fertile fronds** bearing sterile pinnae at base and much reduced fertile pinnae at apex. **Sterile secondary pinnae** in up to 15 pairs, 2–7 × 0.8–1.8 cm, narrowly oblong, obtuse, ± truncate at base, often with a rounded lobe on one side. **Fertile secondary pinnae** to 3 × 0.4 cm, densely covered with clusters of sporangia.

SIMILAR TAXA

No other fern has the combination of deciduous dimorphic fronds.

FLOWERING

Late spring to autumn

FLOWER COLOURS

No flowers

FRUITING

Late spring to autumn



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LIFE CYCLE

Perennial. Wind dispersed spores.

YEAR NATURALISED

1890

ORIGIN

Almost cosmopolitan apart from Australasia

REASON FOR INTRODUCTION

Ornamental plant or as fibre-bearing plant for orchid cultivation.

CONTROL TECHNIQUES

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

TOLERANCES

Tolerates frost, wet, moderate shade, poor and acidic soils.

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](#).

ATTRIBUTION

Factsheet prepared by Paul Champion and Deborah Hofstra (NIWA). Features description from Webb et al. (1988).

REFERENCES AND FURTHER READING

Webb CJ, Sykes WR, Garnock-Jones PJ. 1988. Flora of New Zealand, Volume IV. Naturalised Pteridophytes, Gymnosperms, Dicotyledons. Botany Division, Department of Scientific and Industrial Research, Christchurch, NZ. 1365 p.

Popay I, Champion P, James T. 2010. An illustrated guide to common weeds of New Zealand, 3rd edition. NZ Plant Protection Society Inc, Christchurch, NZ. 416 p.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/osmunda-regalis/>