

# Ulex europaeus

GORSE

ENGLISH NAMES	gorse, furze, Irish furze, prickly broom, thorn broom, whin
SCIENTIFIC NAME	<i>Ulex europaeus</i>
FAMILY	Fabaceae or Leguminosae (Pea)



Photo Credit: ERICA WHEELER

Gorse is a perennial, spiny shrub with green branches and shiny yellow flowers.

## RANGE/KNOWN DISTRIBUTION

Gorse, a native of central and western Europe, is now recognised as a weed in Hawaii, New Zealand, Australia, Chile, Iran, Italy and Poland. It is found along both the east and west coasts of North America. In Canada, it is found only in British Columbia where it is common in parts of southwestern British Columbia and the Queen Charlotte Islands.

## IMPACTS ON GARRY OAK AND ASSOCIATED ECOSYSTEMS

Gorse is extremely competitive and displaces native plants, often creating a shrub layer where none existed previously. Established patches of gorse can produce a large amount of acidic litter that inhibits the germination and growth of many native grasses and other plants. Gorse also 'fixes' atmospheric nitrogen, creating soil conditions that favour other non-native species. The soil is often bare between gorse plants, which could increase erosion on slopes that were once covered with native grasses and forbs.

The high oil content of gorse creates a risk of hotter than normal fires, with the potential for damage to oaks and other native vegetation.

## FIELD DESCRIPTION

Gorse is a perennial shrub, up to 3 m tall, with erect, densely branched stems. Bright yellow pea-like flowers with a mild coconut smell are found on lateral branches, especially at the tips. The fruit is a flattened grey-black pod.

Gorse can be distinguished from Scotch broom (*Cytisus scoparius*) by its prominent spines, evergreen leaves and larger, darker yellow flowers.

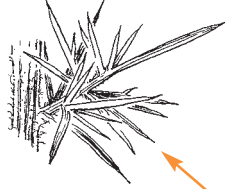
# ULEX EUROPAEUS



Flattened hairy pod,  
2 cm long, black,  
gray or brown,  
holding 3–8 seeds



Flowers bright  
yellow, single, pea-  
like, 2 cm long on  
velvety stalks



Spines stiff,  
branched,  
furrowed



Branches green with  
black hairs, 5-angled,  
tipped with spines

Small leaflets on  
young plants, 1.5–2.5  
cm long. Replaced by  
spines on older plants

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## LIFE HISTORY

Seedlings start in a compact, rosette-like form with thin leaves. As the plant grows, spines replace the leaves and flowers appear on second-year branches. Gorse flowers in March and April, sometimes with a second flowering in late fall. Individual plants grow outward, forming an impenetrable thicket with a central area of dead, dry vegetation. A single plant can be 10 m in diameter, and up to 30 years old.

Most seeds fall around the parent shrub, but may be spread up to 2 m by the explosive splitting of the seed pod. Seeds are also spread by water and in mud on animals, humans and vehicles.

## HABITAT

Develop a long-term, realistic program for invasive species removal before undertaking any work. Before taking action, expert advice should be obtained. Please refer to the introductory section of this manual.

Gorse invades a variety of disturbed areas, including roadsides, pastures, and burned lands, preferring well-drained, open sites at low elevations. Its deep root system and waxy leaves enable it to survive in dry sites. Mature plants can tolerate fairly severe frosts, although it will not thrive in areas with severe winters.

## MANAGEMENT

Gorse can form extensive, impenetrable thickets that produce large quantities of long-lived seeds. The highest priority is to prevent gorse from becoming established by removing seedlings before they have a chance to flower. After adult plants have been removed, there is a flush of germination, and removal of seedlings growing from the seed bank may be necessary for as many as 20–30 years.

**PHYSICAL CONTROL:** Seedlings and young plants (up to 1.5 m tall) can be pulled by hand or with weed wrenches when the soil is moist, being careful to minimise soil disturbance. Where possible, roots should be removed to reduce resprouting.

Cut mature plants close to the ground, preferably when the plant is just starting to flower, or before the seeds are set. Roots can then be carefully dug out, if this will not unduly damage native plants or if the gorse infestation is so severe that soil disturbance during removal is inevitable. Soil disturbance will encourage seedling growth from the seed bank, so follow-up control will be necessary. Cut material, including roots, should be disposed of off-site.

**BIOLOGICAL CONTROL:** Research in the United States and Australia has found that the gorse seed weevil (*Apion ulicis*) reduces seed production but does not seem to have a significant effect on gorse populations. Researchers in Australia and New Zealand are experimenting with other biological controls, with no conclusive results to date.

For more information contact the Garry Oak Ecosystems Recovery Team, or see the website at [www.goert.ca](http://www.goert.ca)