

BC's Coast Region: Species & Ecosystems of Conservation Concern

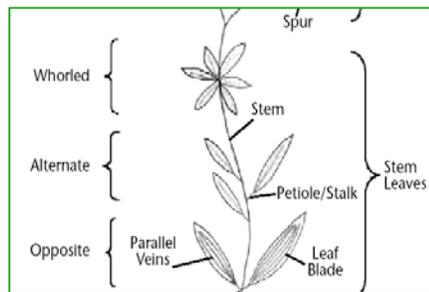
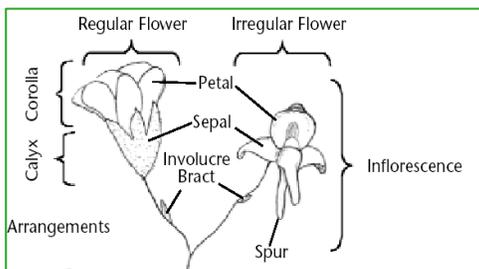
Seaside Birds-foot Trefoil (*Lotus formosissimus*)

Global: G4 Provincial: S1 COSEWIC: E, BC List: Red



Notes on *Lotus formosissimus*: This rare member of the family Fabaceae (“pea”), is also referred to as “seaside lotus”. Not a true “trefoil” species, this legume overlaps with a number of *Lotus* species in BC. True trefoils have five leaflets, and unlike *L. formosissimus*, the central three leaves are held conspicuously above the others, from which the name “trefoil” is derived.

Plant Anatomy



Description

Height 20-50 cm. A perennial ground spreading herb growing from a short rhizome, usually sprawling but occasionally erect. Stems are multi-branched and without hairs. Stem leaves alternate in arrangement, divided into five (occasionally three or seven) oppositely arranged leaflets. Leaflets are egg or spoon-shaped, .6-2 cm long. Large, triangular stipules are present. The inflorescence has a long stalk with a compact cluster of 3-9 pea-like flowers; a delicate 3-lobed bract (modified leaves) is present just below the flower. Corollas generally yellow with distinct pink to purple wings. Fruits and seeds are pea- pod like, 2-4 cm long, with up to 15 dark brown or black seeds.

Look's Like?

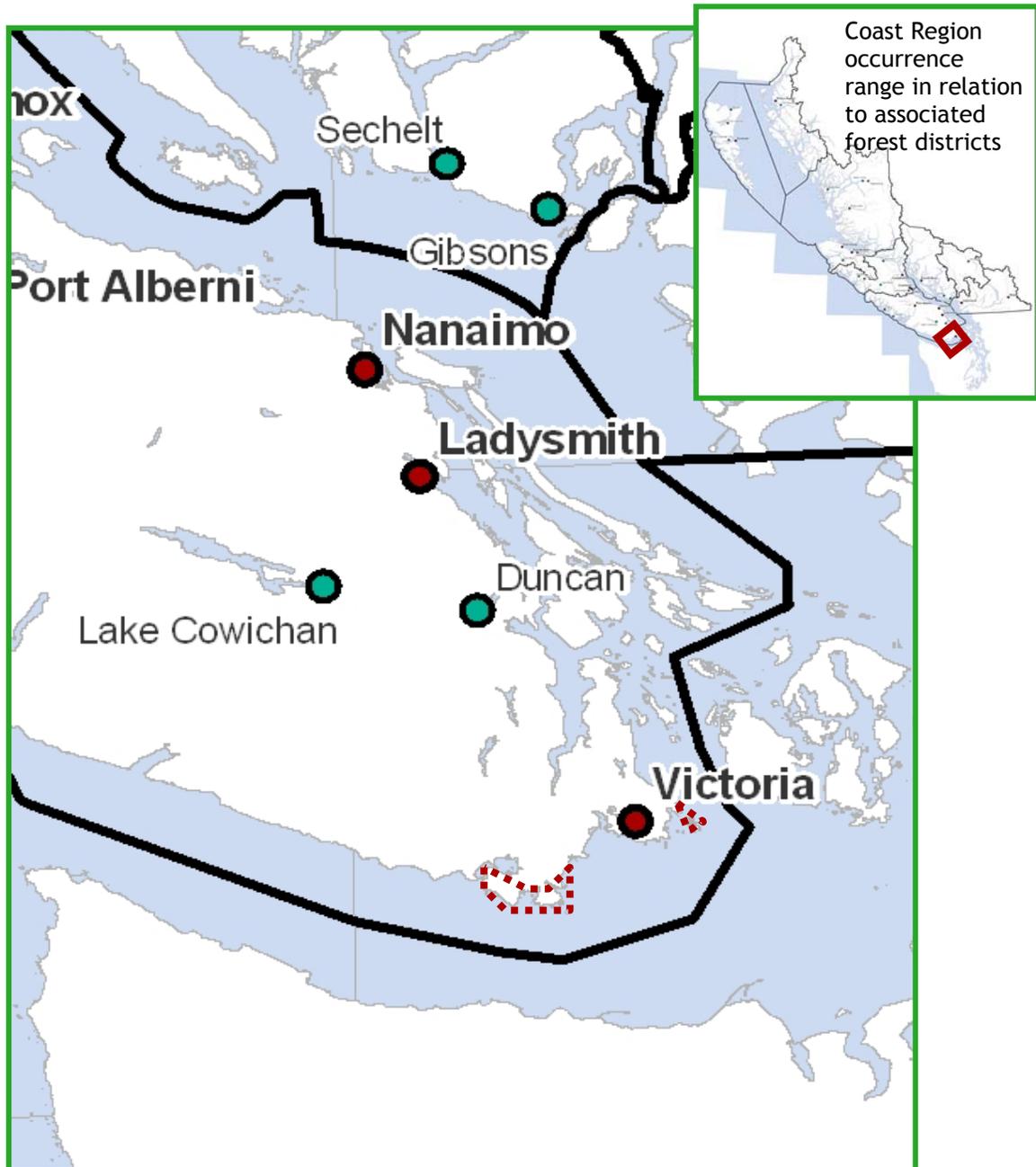
The similar but more common meadow (“bog”) birds-foot trefoil can be distinguished from seaside birds-foot trefoil by its fine hairy stems and leaves, the creamy-white corollas, and the presence of a taproot instead of a rhizome.



Meadow (“bog”) Birds-foot Trefoil

Distribution

This species occurs along maritime meadows and headlands from California to southeast British Columbia. On the Coast Region it has a very limited distribution with only 4 of the historic 5 populations in the Greater Victoria area and adjacent islands remaining. Three of the populations occur around the maritime headlands of the Metchosin area (mainly on Department of National Defense Lands), while the fourth and largest population occurs on Trial Island, south and east of Victoria. The harsh seaside habitat where this species is found limits populations to a relatively small numbers of plants.



Seaside Birds-foot Trefoil (*Lotus formosissimus*), known range of population occurrences (red-dotted line) for the Coast Region

Habitat Preferences

As with many marine headland and Garry oak meadow plant species, this perennial is tolerant of continuous sun, wind and salt spray. Populations of this plant also occupy seasonal seepages that occur on slightly sloping exposed rocky outcrops along the shoreline that dry up toward the end of summer. These communities also tend to contain large amounts of invasive alien pasture grasses such as orchard-grass and brome species.



This species is tolerant of continuous sun, wind and salt spray and favours southern, eastern or northeastern aspects.

Critical Features

Seaside bird’s-foot trefoil will not grow in moderate to deep shade and is usually found growing within shallow, damp to wet soils in herbaceous rich meadow communities that occur on coastal headlands

Seasonal Life Cycle

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Shoot growth sub-surface January - March, plants emerge or new plants germinate February - March-, flower											
						Seed maturation & dispersal, plants die back to rootstock and go into dormancy August-December					

Re-sprouting can occur after summer/fall drought periods if late summer rains occur (rarely occurs). Dormant buds may break as early as September with new shoots emerging from the soil by late September or early October.

Threats

- ◆ The preferred ecological associations of this species are geographically limited and subject to urban development and associated habitat loss.
- ◆ This species is subject to high seedling mortality, few plants survive their first summer after die-back. Remaining plants are slow to regenerate and do not flower in their year of germination. It is not clear how long plants take to mature.
- ◆ Disturbance and trampling from outdoor recreation activities.
- ◆ Competition for nutrients and shading from associated vascular plants and subsequently expansion of other more shade tolerant species.
- ◆ Fire suppression has led to increased spread and encroachment of competitive plant species (i.e. vascular plants) including several invasive species.
- ◆ Grazing by introduced non-migratory Canada Geese has contributed to decline of at least one population.

Conservation & Management Objectives

- ◆ Apply conservation and management objectives for this species as set out in the “Recovery Strategy for Multi-species at Risk in Maritime Meadows Associated with Garry Oak Ecosystems in Canada”.
- ◆ Collection activities should be limited and apply practices identified in the Province’s “Voucher Specimen Collection, Preparation, Identification and Storage Protocol: Plants & Fungi.” Inventory activities should consider approaches and references identified in E-Flora’s Protocols For Rare Vascular Plant Surveys.

Specific activities should include:

- ◆ Assess actual level and extent of threats to existing populations.
- ◆ Monitor existing populations on an ongoing basis to assess viability and reduce potential disturbance from land use activities. Where suitable habitat occurs, work with land managers and land owners to ensure development or recreational activities do not disturb or encroach on sensitive areas.
- ◆ Consider historic distribution as part of developing a reintroduction program to suitable sites.
- ◆ Conduct outreach to raise awareness of this species and how to identify it to improve distribution knowledge
- ◆ Effective long-term control and reduction in competition from invasive or aggressively spreading vascular plants (e.g. invasive grasses, Scotch broom) must form part of strategies to protect and recover populations. Disturbance to rare plant species and communities must be minimized during control activities.

This species is listed under the Federal Species at Risk Act (SARA) and may be subject to protections and prohibitions under the BC Wildlife Act. Habitat for this species may also be governed under provincial and federal regulations including the Fish Protection Act and Federal Fisheries Act as well as Regional and local municipal bylaws.

Content for this Factsheet has been derived from the following sources

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Proulx, Gilbert et al. 2003. A Field Guide to Species at Risk in the Coast Forest Region of British Columbia. Published by International Forest Products and BC Ministry of Environment. Victoria (BC).

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Every effort has been made to ensure content accuracy. Comments or corrections should be directed to the South Coast Conservation Program: info@sccp.ca. Content updated August 2010.

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