

Orobanchaceae

broom-rape family

In total there are 150 species of these holoparasitic or hemiparasitic herbs worldwide, with only three species in three genera reaching Nova Scotia. All are fleshy root parasites here and none contain chlorophyll. They are usually white to brown in colour, their leaves are reduced to mere scales. The flowers are hypogynous, their petals united and unequal in size, the corolla bilabiate and persistent after anthesis. Stamens number four, inserted in pairs alternating with the lobes of the corolla. The fifth stamen is absent or a staminode. Calyx has 3–5 lobes, persistent in fruit. Fruit is a bivalved capsule with many seeds.

Key to genera

- A. Stems freely branching; flowers dimorphic. *Epifagus*
- aa. Stems simple, or with few branches; flowers not dimorphic. B
- B. Calyx deeply cleft above and below, or nearly regular. *Conopholis*
- bb. Calyx deeply divided on the lower side only. *Orobanche*

***Conopholis* Wallr.**

Squaw-root

A North American genus, it includes only two species. Its simple stem is obscured by overlapping leaf scales. Flowers are crowded in a terminal spike, each subtended by a bract, smaller than the leaf scales. Bracts are tubular, split longitudinally on the lower surface. Corolla is also tubular, recurved and bilabiate. The upper lobe is entire and straight, while the lower lobe is recurved. Stamens and style are equal in length to the corolla.

Conopholis americana* (L.) Wallr.*Cancer-root; conopholis d'Amérique***Photo by Alain Belliveau*

This plant parasitizes trees, particularly oak. The simple stems are hidden by the overlapping scales, which are fleshy, reaching 2cm in length. Flowers are terminal, tightly clustered in a spike.

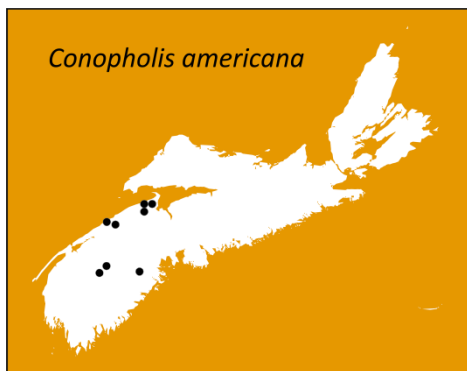
Flowers from April to July.

Associated with oaks and other deciduous species.

Reported only from the western half of the province.

Ranges from NS; QC to MB, south to FL and MS.

STATUS: ORANGE-listed in NS.

***Epifagus* Nutt.****beech-drops**

A monotypic genus, it is typically short in stature and freely branching, the stems bearing alternate leaf scales. Flowers are borne singly on slender pedicels arising from the axils and arranged in a large loose panicle. Upper flowers are large and tubular, functionally staminate. The lower flowers are pistillate, subtended by a cuplike calyx. The corolla does not open, but the developing ovary bursts the terminal lid. Corolla and stamens are about equal in length.

***Epifagus virginiana* (L.) Bart.**
Beech-drops; épifage de Virginie



Photo by Sean Blaney

Stems are dry, rarely more than 50cm tall and often persistent through the winter. Long branches bear a few alternate leaf-scales. Flowers are loosely arranged in a panicle, extending down at least the top two-thirds of the plant. Lower flowers are about 5mm long, while the upper ones are about 10mm long.

Flowers from August to October.

Associated with mixed deciduous forests where beech is common.

Especially common from Annapolis to northern Cape Breton.

Ranges from NS to ON, south to TX and FL.



Photo by Martin Thomas

***Orobanche* L**
broom-rape

A cosmopolitan genus numbering 100 species at least. Flowers are solitary or borne in racemes or spikes. Ours has a campanulate calyx, cleft into five lobes. The recurved corolla tube is longer than its lobes.

***Orobanche uniflora* L.**

Broom-rape; orobanche uniflore



Photo by Martin Thomas

Not host-specific, this parasite is short, rarely taller than 5 cm. The stems are mostly naked, or marked by a few leaf scales. The pedicels are long, to 20cm, bearing a single violet flower, subtended by bulbous involucre.

Flowers June and July.

Various host trees and shrubs, alder thickets on sand plains, intervalles and roadsides.

Scattered throughout.

Ranges from NF to AK, south to the Gulf of Mexico. Absent from MB.



Photo by Martin Thomas