

Liliaceae

lily family

While there is much compelling evidence available to divide this polyphyletic family into as many as 25 families, the older classification *sensu* Cronquist is retained here.

Many are familiar as garden ornamentals and food plants such as onion, garlic, tulip and lily. The flowers are showy and mostly regular, three-merous and with a superior ovary.

Key to genera

- | | |
|---|---------------------|
| A. Leaves mostly basal. | B |
| B. Flowers orange; 8–11cm long. | <i>Hemerocallis</i> |
| bb. Flowers not orange, much smaller. | C |
| C. Flowers solitary. | <i>Erythronium</i> |
| cc. Flowers several to many. | D |
| D. Leaves linear, or, absent at flowering time. | E |
| E. Flowers in an umbel, terminal, numerous; leaves absent. | <i>Allium</i> |
| ee. Flowers in an open cluster, or dense raceme. | F |
| F. Leaves with white stripe on midrib; flowers white, 2–8 on long peduncles. | <i>Ornithogalum</i> |
| ff. Leaves green; flowers greenish, in dense racemes on very short peduncles. | <i>Triantha</i> |
| dd. Leaves oval to elliptic, present at flowering. | G |
| G. Flowers in an umbel, 3–6, yellow. | <i>Clintonia</i> |
| gg. Flowers in a one-sided raceme, white. | <i>Convallaria</i> |
| aa. Leaves mostly cauline. | H |
| H. Leaves in one or more whorls. | I |
| I. Leaves in numerous whorls; flowers >4cm in diameter. | <i>Lilium</i> |
| ii. Leaves in 1–2 whorls; flowers much smaller. | J |
| J. Leaves 3 in a single whorl; flowers white or purple. | <i>Trillium</i> |
| jj. Leaves in 2 whorls, or 5–9 leaves; flowers yellow, small. | <i>Medeola</i> |
| hh. Leaves alternate. | K |
| K. Flowers numerous in a terminal inflorescence. | L |
| L. Plants delicate, glabrous; leaves 1–2 petiolate. | <i>Maianthemum</i> |
| ll. Plant coarse, robust; stems pubescent; leaves many, clasping stem. | <i>Veratrum</i> |
| kk. Flowers occurring singly or in pairs in the leaf axils. | M |
| M. Leaves reduced to minute scales; distal branches filiform. | <i>Asparagus</i> |
| mm. Leaves not scalelike, broad, flat, green. | N |
| N. Tepals fused to form a tube. | <i>Polygonatum</i> |
| nn. Tepals distinct, not fused. | O |
| O. Flowers 1–2, campanulate and terminal; stem prolonged beyond the flowers. | <i>Uvularia</i> |
| oo. Flowers many, in pairs or single, pendent from the leaf axils; cylindric; pedicel and peduncle jointed, lending a twisted appearance. | <i>Streptopus</i> |

Allium L.

A genus of about 500 species, it includes onion, leek and garlic as well as some ornamentals. The erect stem arises from a bulb, clad in several layers. Most of the leaves are basal. The scape bears a cluster of white to purple flowers arranged in a head.

Allium tricoccum Aiton

Wild Leek; ail des bois; ail sauvage



Photo by Ross Hall



Photo by Sean Blaney



Photo by Sean Blaney

Leaves appear early in May, soon to disappear, prior to flowering. Similar in shape to those of *Erythronium*, this species' leaves have no purplish markings, turning yellow before withering. Scapes reach 30cm, erupting from elliptic bulbs. The umbels are crowded with white flowers, producing trilobed capsules, with 1–2 seeds per lobe. The onion odour is noticeable in these plants.

Two varieties are known, the smaller plants are var. *burdickii* Hanes while the larger plants belong to var. *tricoccum*.

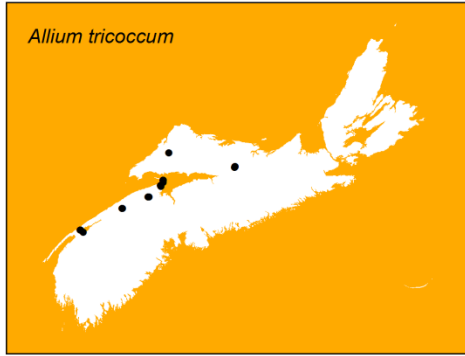
Flowering in late July.

Limited to the fertile deciduous forests and alluvium on intervals.

A very local species with known stations along the north mountain ridge in Digby and Kings counties, Brooklyn Corner, Kings Co. and Kempton, Colchester Co.

Found from NS to MB; south to OK and GA.

STATUS: ORANGE-listed in NS.



Asparagus L.

Native to Europe, this genus of 300 species has spread to North America as cultivated material. A single species reaches Nova Scotia. Most are upwards of 2m in height, freely branching, with the leaves reduced to small scales. There are many short branches clustered in the axils of the scales. These are flattened and photosynthesize. Flowers are small green and imperfect, producing red berrylike fruit.

Asparagus officinalis L.

Asparagus; asperge



Photo by Ross Hall

The stems are 1–2m tall giving rise to slender lateral branches. The scalelike leaves bear tufts of short linear branchlets from their axils. Flowers are greenish and only 2–4mm long, arranged in clusters of 1–3 from the branch nodes. The pedicels have a wide swelling midway along the length. Berries are red, about 8mm in diameter.

Flowers in June.

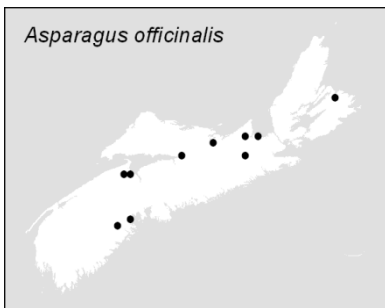
Occasionally escaped from gardens and persistent in nearby fields, thickets or orchards; railroad beds.

Collected from Lunenburg and Kings counties to Truro and Sydney.

Widely cultivated so widely escaping from all provinces and US. Introduced from Europe.



Photo by Ross Hall



***Clintonia* Raf.**

One of six species reaches Nova Scotia, a common and familiar spring wildflower. Arising on creeping rhizomes, this herb occurs in colonies. Each plant produces 2–5 basal leaves, lanceolate in outline. The scape bears a terminal cluster of 1–3 campanulate flowers.

***Clintonia borealis* (Aiton) Raf.**

Clintonia Lily; Bluebead Lily; clintonie boréale

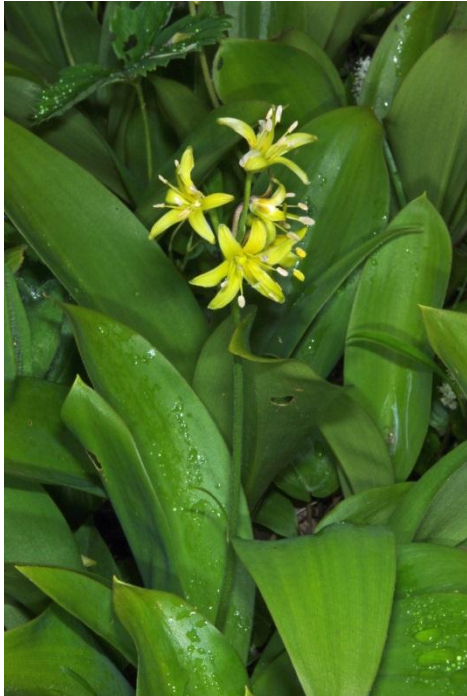


Photo by Martin Thomas



Photo by Martin Thomas

A perennial, the scapes reach no more than 20–30cm in height. It produces two or more broadly elliptic glossy leaves. The several yellow flowers are arranged in a nodding umbel. Perianth comprises six distinct tepals. Fruits are oblong glaucous blue berries, 8mm in diameter.

Flowers in early June.

Found in shaded soils of forests, especially conifer or mixed conifer woods.

Common throughout.

Ranges from NF to MB, variously south to TN and GA.

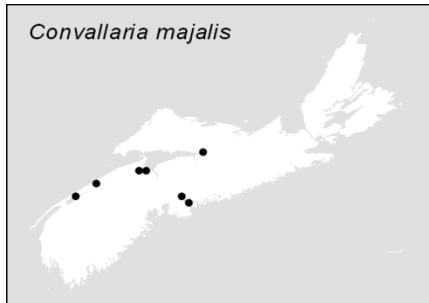
***Convallaria* L.**
lily-of-the-valley

A monotypic genus, it has been a favourite cultivated ornamental for many years. Arising from creeping rhizomes, plants quickly spread. Leaves are dark green and glossy, borne at the base. The angular scape terminates in a second raceme of nodding campanulate flowers.

***Convallaria majalis* L.**
Lily-of-the-valley



Photo by Martin Thomas



Convallaria majalis

Standing only 20–30cm tall, the plants grow from stout trailing rhizomes. Leaves number 2–3, and are lanceolate, arising near the base. The raceme is 3–8cm long, subtended by bracts. The nodding white flowers are borne on recurved pedicels, sweetly fragrant. The lobes of perianth are also recurved from the apices.

Flowers from late May into June.

Persisting and spreading after cultivation in dooryards, cemeteries and roadsides.

Limited to mainland Nova Scotia.

Ranges from NF to ON; SK and variously west to OR and south to AL; Eurasia. Naturalised from Europe.

***Erythronium* L.**
trout-lily

This genus of 15 species is limited to North America, but for one species. Strongly colonial, the plants carpet the ground wherever found. Leaves are green, marked by purple or brown splashes. Half of the slender stem remains subterranean, making the whorl of leaves appear basal. A single species is found in Nova Scotia, bearing lilylike yellow flowers.

***Erythronium americanum* Ker-Gawlor**
Trout Lily; Dogtooth Violet; érythrone d'Amérique



Photo by Martin Thomas



Photo by Sean Blaney

Standing 10–20cm tall, its stem arises from a deep round corm, partly remaining underground. Plants tend to form large colonies of single leaved plants arising from slender stolons. Leaves are widely lanceolate and darkly blotched. The yellow flowers are about 2cm wide, nodding from recurved pedicels. Fruits are short ovoid capsules.

One of our earliest wildflowers, appearing in early May.

Frequents upland deciduous forests, especially beech and maple. Alluvial soils on the intervalles.

Limited to the fertile uplands of the Annapolis Valley through the Cobequids to Pictou Co. and Cape Breton.

Elsewhere found from NF to ON, south to LA and GA.

***Hemerocallis* L.**
day-lily

A genus of about 20 species, they are Eurasian natives, reaching Nova Scotia only as cultivated and persistent plants. The long straplike leaves are mostly basal. The inflorescence is branching, borne on a long scape. Flowers are large, variously red to yellow and orange, resembling the true lilies. Each flower lasts but a day.

Hemerocallis fulva* L.*Tawny Day-lily; hémérocalle fauve***Photo by Martin Thomas*

Coarsely branching, the scape may reach nearly 1m tall. Leaves are copious and very long, to 2.5cm wide. The flowers are 6–7cm long, carried in an irregular branching inflorescence.

Flowers from July through August.

Persisting in old gardens in ditches and fallow soils.

Scattered throughout, but more common in the Annapolis Valley.

Ranges from NS to ON, variously west to OR and south to TX and FL. Introduced.

***Lilium* L.**
lily

A genus of 80 species, only one is native to Nova Scotia. Typically they are perennial herbs arising from an irregular or ovoid bulb. Leaves are scattered along the stem or in whorls from 1–12, each ovate or elliptic in outline. Stems are green or purplish and usually glabrous. The inflorescence is bracteate, umbellate or racemose, the bracts 1–2 per flower. Flowers are pendent and pedicellate, the sepals and petals differentiated. Nectaries are present. Flowers range from red to white or yellow and all colours between.

Lilium canadense* L.*Canada Lily; Wild Lily; lis du Canada***Photo by Martin Thomas*

Erect, simple stems 60–150cm tall, bear whorls of 4–10 leaves. Flowers are 6cm long, borne on recurved pedicels, one or more per plant. They are yellow or orange yellow, spotted reddish within.

Flowers in July.

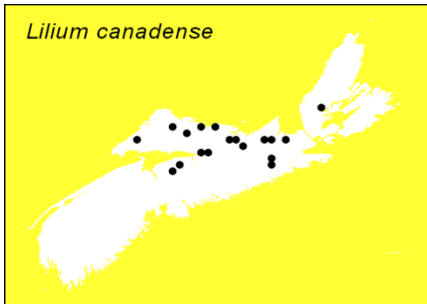


Photo by Eugene Quigley

Meadows, floodplains and streamsides.

Local; from Kings and Cumberland counties eastward to southern Cape Breton.

Becoming rare throughout its range, from NS to ON variously west to KS and south to AL.



***Maianthemum* Wiggers
wild lily-of-the-valley**

Now the genus includes the species formerly separated as *Smilacina*, bringing the number of species to 30. All are perennial herbs, some even aquatic. Ours are terrestrial plants arising from creeping rhizomes 10–120cm tall. The stems are simple, arching or erect. There are 2–15 cauline and paired, clasping or short-petiolate leaves. Their blades are usually ovate, glabrous or weakly pubescent, the bases rounded or cordate. Inflorescences are terminal, paniculate or racemose. The flowers are 3-merous (six tepals, six stamens) or, by reduction, 2-merous (four tepals, four stamens). The perianth is spreading with the tepals distinct, white, ovate or triangular.

Key to species

- A. Inflorescence a panicle, the branches well-developed; tepals inconspicuous, <1mm long. *Maianthemum racemosum*
- aa. Inflorescence a raceme, flowers 1–4 per node; tepals >1mm long. B
 - B. Leaves 8–11 on fertile shoots; tepals 6; immature fruits green striped with black. *M. stellatum*
 - bb. Leaves 2–4; tepals 4–6; immature fruits green spotted red. C
 - C. Leaf blade tapered; racemes simple; tepals 6. *M. trifolium*
 - cc. Leaf blades with narrow sinus, distal leaf cordate; racemes with 2 flowers per node; tepals 4. *M. canadense*

***Maianthemum canadense* Desf.**
Wild Lily-of-the-valley



Photo by Sean Blaney



Photo by Martin Thomas

A small neat plant no more than 15cm tall, with one or two leaves and white flowers in a raceme, 2–3cm tall. The berries are pale red with purplish spots. The leaves are clasping and cordate, with the flowers four-merous.

Flowers late May and June.

One of the first plants to colonise beneath conifers.

Very common throughout the province.

Ranges from NF to YT, south to WY and GA.

***Maianthemum racemosum* (L.) Link**
(=*Smilacina r.* (L.) Desf.)
Large False Solomon's-seal; Solomon's Plume



Photo by Martin Thomas

Standing 40–70cm tall, the flexuous stems bear two rows of puberulent elliptic leaves. Dull green, they are borne on very short pedicels. Flowers are numerous, 2–3mm wide on short pedicels. Fruits are reddish berries spotted with purple.

Flowers early in June.



Photo by Martin Thomas

Grows in open canopied deciduous forests, edges of clearings or thickets.

Not common in the southwest, becoming more frequent northward.

Ranges from NS to AK, south to CA and FL. Absent from YT.

***Maianthemum stellatum* (L.) Link
(=*S. stellata* (L.) Desf.)**

Starry False Solomon's Seal; smilacine étoilée



Photo by Sean Blaney

An erect herb standing 30–40cm tall. The dull leaves are marked by 3–7 strong ribs and many finer ones, usually exceeding the height of the inflorescence. The racemes have few flowers on very short pedicels, 3cm long. Immature berries are green with dark stripes, ripening to red.

Flowers appear in late June.

Found on coastal headlands, in marshes and wet meadows.

Occasional becoming more frequent in Cape Breton.

Ranges from NF to AK, south to CA and NM and VA.



Photo by Sean Blaney

***Maianthemum trifolium* (L.) Sloboda
(=*Smilacina t.* (L.) Desf.)**

Three-leaved False Solomon's Seal; *smilacine trifoliée*



Photo by Sean Blaney

An erect plant, it stands 20cm tall. The long stem below the glossy leaves is buried in the substrate. Three leaves generally clasp the stem, tapering at their bases. Flowers few, the sepals and petals spreading, borne on a long peduncle above the leaves. Fruits are dark red berries.

Flowers in mid-June.

Found in sphagnum fens, swamps and meadows.

Common throughout.

Ranges from NL to YT, south to OH and MT; Siberia.

***Medeola* L.
Indian Cucumber-root**

A monotypic genus, it is restricted to North America. The stems arise from a thick tuber, bearing two whorls of leaves. Inflorescence is a nodding umbel of drooping flowers.

***Medeola virginiana* L.
Indian Cucumber-root; *médéole de Virginie***



Photos by Marian Munro

Tall and unbranched the stems are 30–60cm in height. The whorls of leaves are located near the top of the plant. Five to seven lanceolate leaves are about 10cm long in the lower whorl. The upper whorl bears 2–4 leaves, about half as long. Flowers are greenish yellow, 1cm wide and are carried on recurving pedicels, drooping beneath the upper leaves. Each flower has three stigmas 5–7mm long reflexing below the flower. Berries are dark purple.

Flowers during June and July.

Found in deep humus in open deciduous and mixed forest, well-drained slopes.

Common throughout.

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



***Ornithogalum* L.**

About 150 temperate species comprise this genus of Eurasian herbs, some are used ornamentally and one is sometimes seen here. Star-of-Bethlehem has small white stellate flowers. Leaves are striped white along their centres on the upper surface. Bulbs are coated and known to be poisonous.

***Ornithogalum umbellatum* L.**

Star-of-Bethlehem; ornithogalle en ombelle



Photo by Martin Thomas

A perennial species arising from bulbs and producing linear basal leaves. Scapes are up to 20cm tall, bearing a terminal raceme of erect flowers whose petals and sepals are widely divergent. Petals white above and with a wide green stripe below.

Flowers early, from April to June.

Occasionally seen on roadside and around old home sites.

Collected from Halifax, Hants and Guysborough counties.

NF to ON south to TX and FL; west coast.



***Polygonatum* Miller**

Solomon's Seal

Limited to the northern hemisphere, these perennials number about 50 species. All arise from creeping and knotted rhizomes. Stems are bare on the lower half, bearing sessile or clasping leaves above,

pubescent on the lower surfaces. The tubular flowers are greenish, pendulous below in pairs from the leaf axils.

***Polygonatum pubescens* (Willd.) Pursh**
Solomon's Seal; sceau-de-Soloman pubescent



Photo by Martin Thomas

Standing 30–80cm in height, the upper stems bears widely lanceolate leaves, 5–10cm long. Tapering at the base, they are puberulent below. Flowers are greenish and only about 1cm long, hanging in pairs below on bifurcate pedicels. Fruits are red berries. Rootstocks are thickened and knotty, bearing ovate scars from previous years' stems.

Flowers in June.

Found in fertile deciduous forests, on alluvial soils of the intervalles and in ravines.

Common on the northern side, from Annapolis to Inverness Co. Scattered elsewhere and infrequent along the acidic soils of the southern side.

Found from NS to ON, south to GA and IA.



Photo by Sean Blaney

***Streptopus* Michx.**

A genus of only 10 species, mostly distributed across Eurasia and North America. Two reach Nova Scotia. These are herbs with bifurcate stems. Leaves are sessile and the flowers pendulous along the flexuous branches below the leaves.

Key to species

Flowers rose; leaf blades ciliate.

Streptopus lanceolatus

Flowers greenish white; leaves smooth.

S. amplexifolius

Streptopus amplexifolius* (L.) DC*White Twisted Stalk; streptope à feuilles embrassantes**

Photo by Martin Thomas



Photo by Sean Blaney

Larger than the following species, its leaves are clasping at the base and smooth along the edges. The yellowish-green flowers are borne on forking peduncles, sometimes with a noticeable elbow near the middle. They arise from the lower side of the leaf axils, remaining adnate to the leaf towards the next leaf before drooping. Berries are red, about 1.5cm long.

Flowers from May through July.

Grows in moist deciduous forests, ravines and alluvial soils.

Common from Annapolis Co. to northern Cape Breton. Infrequent elsewhere.

Ranges from NF to AK, south to CA, NM and variously to NC; Greenland.

***Streptopus lanceolatus* (Ait.) Reveal
(=*S. roseus* Michx.)****Rosy Twisted Stalk; streptope rose**

Photo by Martin Thomas



Photo by Sean Blaney

A smaller species only 30–40 cm tall, bifurcate at the top, or sometimes branching. Leaves are widely lanceolate and alternate, 5–10cm long, arising from ciliate nodes. The campanulate flowers are rosy pink, hanging singly from the nodes of puberulent peduncles. Berries are red and only about 1cm long. Our plants are considered typical.

Flowers from late May through June.

Grows in acidic soils of coniferous or mixed forests and thickets.

Scattered to common throughout.

Ranges from NF to MB, variously south to GA; west coast AK to AB and OR.

***Triantha* (Nutt.) Baker**

Another small genus of four perennial herbs, ranging in North America and Japan. A single species reaches Nova Scotia, limited to Cape Breton. Leaves are mostly basal although a reduced cauline leaf is borne near the middle of the scape. The terminal inflorescence is a dense raceme of 2–7 small white to greenish flowers with six persistent sepals. Fruits are elliptic or cylindrical capsules.

***Triantha glutinosa* (Michx.) Baker (=*Tofieldia glutinosa* (Michx.) Pers.)**

False Asphodel



Photos by David Mazerolle



Plants are only 20–35cm tall, with linear leaves mostly at the base. Crowded flowers pack a raceme only 2–3cm long. The upper part of the scape is glutinous with dark sessile glands.

Flowers from June to August.

Grows in swamps, bogs and rocky beaches.

Collected from Black River bog, Inverness Co. and earlier reported from Cheticamp area.

Ranges from NF to AK, variously south to GA and OR.

STATUS: ORANGE-listed in NS.

***Trillium* L.**

Familiar woodland plants, *Trillium* includes about 50 species across North America and eastern Asia. Leaves are borne towards the top of the plants, in threes. Flowers having three divergent petals are borne above or below them. Fruits are three-loculed and fleshy. Brown seeds are many, and each bears a fleshy elaisome, an adaptation for ant dispersal of seed (myrmecochory).

Key to species

A. Leaves petiolate; flowers bicoloured, white with pink.

Trillium undulatum

aa. Leaves sessile; flowers purple, pink or white.

B. Flowers and capsules dark purple; erect.

aa. bb. Flowers and capsules white or suffused with pink; recurved.

B

T. erectum

T. cernuum

***Trillium cernuum* L.**

Nodding Trillium; trille penché



Photo by Sean Blaney

This trillium has wider, more cuneate leaves than our other common species, tapering to an obscure petiole and acuminate at the apices. Flowers are waxy and may be pinkish, borne on slender lax pedicels, pendulent below the leaves. Flowers are small, about 3cm wide, with the sepals and petals similar in size.

Flowers appear late May through early June.

Found in alluvium and in old-growth deciduous forests.

Common only in Colchester and Pictou counties. Infrequent along the Atlantic coast and elsewhere.

Ranges from NF to SK, south to SD, IL and VA.

***Trillium erectum* L.**

Purple Trillium; trille rouge



Photo by Peter Neily

A larger species, its sessile leaves taper at both ends lending a diamond shape. Flowers are borne upright, their petals dark purplish brown and slightly exceeding the length of the sepals.

Flowers during late May and early June.

Found only in fertile deciduous forest and on ravine slopes in same.

Common along the slopes above the Annapolis Valley, east to Pictou Co.

Ranges from NS to ON, south to AL and GA.



Photo by Martin Thomas

***Trillium grandiflorum* (Michx.) Salisb, White Trillium** was historically known from Centreville, Kings Co. and Truro. It is unknown whether these sites are extant.

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***Trillium undulatum* Willd.
Painted Trillium; trille ondulé**



Photo by Martin Thomas

Standing only 20–40cm tall, this species has definitive petiolate leaves, at least 5cm long. Petals are white, lanceolate and streaked within with purple or dark pink lines. Sepals are smaller than the petals.

Flowers from late May through June.

Found in open dryish sites in forests, riparian zones and often in cut-over land.

Scattered throughout the mainland and limited in Cape Breton.

Ranges from NS to northern ON, south to GA.



Photo by Martin Thomas

***Uvularia* L.
bellwort**

Including only five North American species, bellwort arises on simple stems from creeping rhizomes. Alternate leaves are sessile and sometimes perfoliate. There is a single flower per branch, campanulate, with the tepals soon deciduous. Fruits are greenish yellow capsules, dehiscent late.

***Uvularia sessilifolia* L.**
Bellwort; Merrybells



Photos by Sean Blaney



A small compact plant, reaching only 30cm in height, its slender stem sometimes branching near the top. Leaves are only 2–4cm long, elliptic and sessile. The inflorescence is a single flower arising from the leaf axil and nodding. Capsules three-winged later dehiscent to release 1–3 seeds per locule. Probably ant-dispersed. Plants are often found in large patches and it is one of our early spring ephemerals.

Flowers in May before the leaves are fully expanded.

Rich alluvial deciduous forest, where its distribution often marks the winter high water line.

Found from Annapolis to Inverness Co., but most frequent in north-central NS.

Ranges from NS to MB, south to OK and FL.

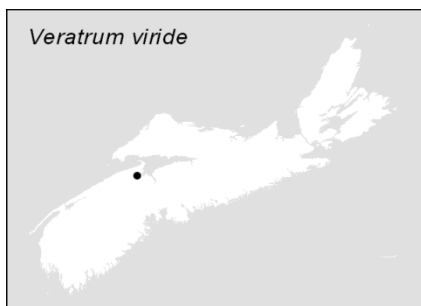
***Veratrum* L.**
False Hellebore

A genus of 25–30 species of perennial herbs, simple hollow stems arise from short thick, vertical rhizomes and fleshy basal bulbs. They are swollen at the base. Alternate simple leaves have strong venation, orbicular in outline, plicate and reducing upwards along the stem. Their bases narrow to closed, overlapping sheaths. The compound racemes or panicles are bracteate and pubescent. Flowers are generally bisexual although some of the basal individuals may be staminate. Tepals are petaloid and variously pink, purple, yellow or green. Stamens are perigynous, the ovary superior or partly inferior. Fruits are trilobed capsules with persistent style beaks.

***Veratrum viride* Aiton**
Green False Hellebore; vérâtre vert



Photos by Sean Blaney



Arising on tall stems sometimes reaching 2m, the large leaves are ovate, reducing in size upwards along the stem. Both the leaves and the stems may be white-tomentose. The inflorescence is a panicle, its branches ascending or spreading, about 35cm long and also tomentose. It is bracteate, the bracts lanceolate and shorter than the flowers. Tepals are green to yellow and lanceolate, but narrowing to a broad claw.

Flowers are produced from June to September.

Open moist meadows.

Found once in the meadow along the stream at the Kentville Research Station and to be expected elsewhere. This is possibly native.

Ranges in the east from NL to QC, southward to GA and AL; western populations range from AK to NT, south to WY and CA.