

Apiaceae

carrot family

Nearly 3000 aromatic species comprise this family, of mostly herbaceous plants. The greatest diversity of the Apiaceae is in North America. Leaves are alternate, often very large, their petioles sheath the stems from the nodes. Flowers are five-merous, small and arranged in a simple or compound umbel. Involucres are present just below the rays of the umbel and involucels may subtend the umbellets in compound umbels. The calyx is reduced to a row of teeth around the summit of the ovary. Corolla has distinct petals which are overlapping, alternating with the stamens. Ovary is inferior and bears two chambers, formed by fusion of two carpels. Stylopodia are present, merged to the nectary disk. Fruits are schizocarps.

Identification to genera is often challenging without mature fruit or flowers.

Key to genera

- | | |
|--|--------------------|
| A. Leaves simple, sometimes lobed, or reduced to phyllodes (modified petioles in the absence of true leaves). | B |
| B. Leaves palmately lobed. | <i>Sanicula</i> |
| bb. Leaves not palmately lobed. | C |
| C. Leaves round or kidney shaped, or reduced to phyllodes. | D |
| D . Leaves reduced to hollow segmented phyllodes. | <i>Lilaeopsis</i> |
| dd. Leaves round or kidney-shaped. | <i>Hydrocotyle</i> |
| cc. Leaves lanceolate or ovate. | <i>Sium</i> |
| aa. Leaves compound, at least once, or some of them. | E |
| E. Leaves once-divided, ternate (in 3s), pinnate or palmate. | F |
| F. Leaves palmately or ternately once-compound. | G |
| G. Fruit and ovary bristly. | <i>Sanicula</i> |
| gg. Fruit and ovary glabrous; or if pubescent leaves >10cm wide. | H |
| H. Stems pubescent, outer flowers irregular, outer petals exceeding the size of the inner ones; flowers white or creamy. | <i>Heracleum</i> |
| hh. Stems glabrous or glabrescent; flowers regular; flowers yellow. | <i>Zizia</i> |
| ff. Leaves once divided, pinnate. | I |
| I. Leaflets lanceolate to linear, at least 3cm long. | <i>Sium</i> |
| ii. Leaflets oblong or ovate-obovate, or less than 3cm long. | J |
| J. Leaves mostly basal, cauline leaves | <i>Pimpinella</i> |

| | | |
|--|--|---------------------|
| | sparse; fruit wingless. | |
| | jj. Leaves evenly distributed along the stem; fruit winged. | K |
| | K. Flowers white; upper leaf sheaths greatly expanded. | <i>Heracleum</i> |
| | kk. Flowers yellow; upper leaf sheaths not greatly expanded. | <i>Pastinaca</i> |
| | ee. Leaves 2 or more times divided. | L |
| | L. Leaves cleft into distinct leaflets, (or indistinctly divided into segments) <1cm wide. | M |
| | M. Ovary fruit and stem at least puberulent, or pubescent to bristly. | N |
| | N. Involucre of long pinnately divided bracts. | <i>Daucus</i> |
| | nn. Involucre absent, or of short linear bracts. | <i>Pimpinella</i> |
| | mm. Ovary and fruit glabrous, stem glabrous or sometimes glabrescent. | O |
| | O. Leaves with distinct linear-lanceolate leaflets, mostly 2.5cm or longer. | <i>Cicuta</i> |
| | oo. Leaves with indistinct leaflets, the numerous divisions <2cm long. | P |
| | P. Bractlets of the involucels ovate-lanceolate. | Q |
| | Q. Leaf sheaths pubescent; stem not purple-spotted. | <i>Anthriscus</i> |
| | qq. Leaf sheaths smooth; stem with purple markings. | <i>Conium</i> |
| | pp. Bractlets absent or linear. | R |
| | R. Fruit winged, dorsally flat. | <i>Conioselinum</i> |
| | rr. Fruit ribbed, but not winged, laterally flattened or round. | S |
| | S. Fruit >2.5 times long as broad. | <i>Anthriscus</i> |

| | |
|---|-------------------|
| ss. Fruit <2 times long as broad. | T |
| T. Fruit rounded. | <i>Coriandrum</i> |
| tt. Fruit flattened. | U |
| U. Flowers irregular; ribs wider than intervals. | <i>Aethusa</i> |
| uu. Flowers regular; ribs on fruit narrower than intervals. | <i>Carum</i> |
| II. Leaves cleft into distinct leaflets >1cm wide. | V |
| V. Ovary and fruit bristly. | W |
| W. Rays of the umbel 10 or fewer; fruit attenuate to base. | <i>Osmorhiza</i> |
| ww. Rays >10; fruit free from base. | <i>Angelica</i> |
| vv. Ovary and fruit smooth or mostly so. | X |
| X. Involucre comprising several to many bracts. | <i>Levisticum</i> |
| xx. Involucre absent, or of 1-few bracts. | Key 2 |

Key 2

| | |
|--|-------------------|
| A. Plant in flower. | B |
| B. Flowers yellow. | C |
| C. Leaves pinnately compound. | <i>Pastinaca</i> |
| cc. Leaves mostly ternately compound. | <i>Zizia</i> |
| bb. Flowers white. | D |
| D. Upper leaf sheaths expanded at least 1cm wide when flattened. | <i>Angelica</i> |
| dd. Upper leaf sheaths not as above. | E |
| E. Leaflets <9; lateral veins lead to a tooth. | F |
| F. Involucels absent; calyx teeth absent. | <i>Aegopodium</i> |
| FF. Involucel bracts present; calyx teeth present. | <i>Ligusticum</i> |
| ee. Leaflets >9; lateral veins lead to sinus, branching to a tooth. | <i>Cicuta</i> |
| aa. Plant in fruit. | G |
| G. Fruit winged; dorsally flattened. | H |
| H. Involucels absent usually; upper sheaths not swollen, <1cm wide when flattened. | <i>Pastinaca</i> |
| hh. Involucel bracts several to many; upper sheaths swollen, >1cm when flat. | <i>Angelica</i> |
| gg. Fruit ribbed but not winged, laterally flattened. | I |
| I. Fruit >6mm long. | <i>Ligusticum</i> |
| ii. Fruit <5mm long. | J |

- J. Lateral veins lead to a sinus, forking to reach teeth. *Cicuta*
- jj. Lateral veins from midrib reaching the teeth, not forking. *K*
- K. Rays of mature umbels irregular in lengths; stylopodium absent. *Zizia*
- kk. Rays of mature umbels nearly equal; stylopodium visible in fruit. *Aegopodium*

Aegopodium L.

From Eurasia, this small genus of seven species, reaches NS by way of a single perennial ornamental. Rhizomatous, these plants are aggressively colonial. Leaves are ternately compound, the leaves further cleft and serrate. Umbels of white flowers are borne on long peduncles from the leaf axils near the summit of the plants. Involucre and involucels are absent as is the calyx.

Aegopodium podagraria L.

Goutweed; podagraire



Photo by Ross Hall

A coarse invasive species, it has pinnately compound leaves, each further divided into three toothed leaflets. Both green-leaved and variegated varieties are known.

Flowers from June to August.

Near old garden sites, spreading to roadsides and neighbouring properties in urban settings. Invasive.



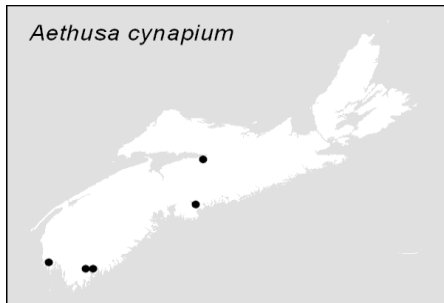
Photo by Martin Thomas

Common about communities such as Halifax, Truro and occasional elsewhere.

Introduced from Europe and established across Canada south to OR, MO and FL. Absent from the prairies and plains.

Aethusa* L.*Fool's Parsley**

Native to Eurasia, this monotypic genus reaches Nova Scotia only as an annual weed. Leaves are pinnately compound and glossy green. Flowers are arranged in branched umbels; calyx absent. POISONOUS.

Aethusa cynapium* L.*Fool's Parsley; petite ciguë**

Similar to several other genera, but distinguishable on the presence of involucels. These tiny bractlets exceed the length of the flowers. The smallest leaf segments are lanceolate and not linear like *Carum* or *Conioselinum*. Plant emits an unpleasant odour.

Flowers from June to August.

Disturbed soils around yards, and urban centres.

Not common. Collected from Shelburne and Halifax.

NS to ON, variously south to AL; ID. Adventive from Europe.

***Angelica* L.****angelicas**

Circumboreal in distribution, they number about 50 species. Usually tall plants, their stems are unbranched, terminating in large compound umbels of greenish white or white flowers. Calyx is absent. Leaves are pinnately compound on long petioles, decreasing in size distally. Fruit is globose, but flattened dorsally and bearing winged ribs.

3-4 Apiaceae

Key to species

- A. Plants of coastal beaches; lateral wings of the fruit coriaceous.
- aa. Plants not restricted to coastal habitats; lateral ribs of the fruit membranaceous.
 - B. Plants glabrous; stems reddish.
 - bb. Plants pilose or puberulent above; the umbel rays densely pubescent.

Angelica lucida

B

A. atropurpurea

A. sylvestris

***Angelica atropurpurea* L.**

Purple Angelica; angélique pourpre



Photo by Sean Blaney

A tall species, it is distinctly reddish on the stems. The ample umbels produce pale flat fruits, with broad wings. The leaflets are sharply serrated with incurved teeth.

Flowers late May until September.

Grows in swamps, meadows, in ditches and along streams. Ditches at Quinan, Yarmouth Co.

Very abundant in northern Cape Breton and known from Mahoney's Beach area, Antigonish Co.

Ranges from NF to ON south to TN and NC.

***Angelica lucida* L.**

Seaside Angelica; angélique brillante



A coarse plant with stout hollow stems, the leaf sheaths are broadly swollen. Leaflets are doubly serrate and lanceolate in outline. The inflorescence is branched, subtended by a conspicuous and leafy involucre.

Flowers July and August.

Photo by Sean Blaney



Photo by Sean Blaney

Gravelly beaches and coastal headlands; sandy shores.

Scattered throughout the coastal regions. Infrequent on the turfy dunes of Sable Island.

Page | 122

NF to ON, south to NY; VA; NT west to AK, south to CA.
Native.

***Angelica sylvestris* L.**

Angelica; angélique sauvage



Photo by Sean Blaney

A leafy plant, its leaflets are ovate in outline and doubly serrate, often with several irregular lobes.

Flowers from July to September.

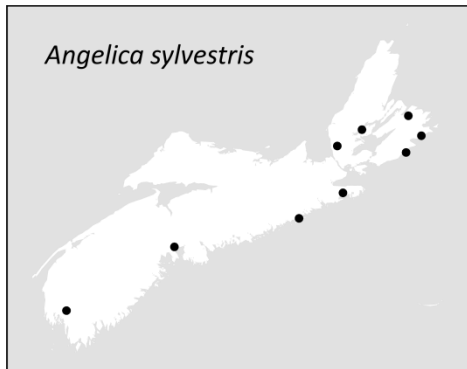
An aggressive weed, spreading along roadside ditches and in fields.

Scattered throughout eastern Cape Breton, after its introduction at Louisbourg. Now actively spreading throughout mainland NS, from Guysborough Co to western Halifax Co.



Limited to eastern Canada: NS, NB, QC and ON. Introduced from Europe.

Photo by Sean Blaney

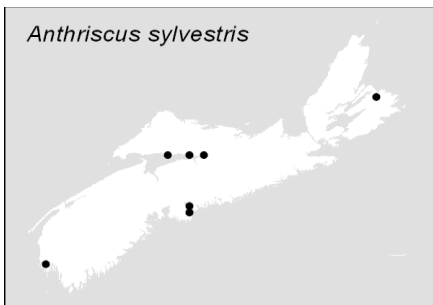


Anthriscus Pers.

A single species reaches Nova Scotia of the 20 species described worldwide. Leaves are 2–3 times compound. Inflorescences are branching, terminal on the plant. Petals are white; calyx is absent. Fruit is smooth and ovate or linear and bears a small beak

***Anthriscus sylvestris* (L.) Hoffm.**

Wild Chervil; anthrisque des bois



A biennial species, its leaves are coarsely dissected. Leafy bracts forming an involucre present. Fruit is lustrous and many times longer than the beak. This plant is coarser in appearance than others such as *Daucus*.



Flowers in mid-June.

An aggressive weed where found: old gardens, composts, hedgerows and ditches where soil is deep and fertile.

Known from Yarmouth area, through the lowlands of Colchester and Cumberland counties to Cape Breton.

Ranges from NF to ON, MN to TN; northwest coast; Greenland.



Photos by Sean Blaney

***Carum* L.**

A widespread genus of 30 species, only Caraway is known from Nova Scotia, as an escape from gardens. A smooth plant, its leaves are cleft into many linear leaflets. Umbels are compound, with the umbellets bearing tightly clustered tiny white flowers. Fruits are laterally flattened and smooth, narrowly ribbed.

***Carum carvi* L.**

Caraway; carvi commun



A tall sprawling plant, with ternately compound leaves; the smallest segments are nearly linear. Flowers are borne in flat-topped umbels producing dark flat seeds.

Flowers in June.

Frequents damp rich soils around gardens, fields and nearby

Photo by Sean Blaney



Photo by Sean Blaney

roadsides.

Common throughout the province.

Introduced from Europe: across Canada and south to NM, LA, and SC.

***Cicuta* L.** **water-hemlocks**

A small genus of only four species; all are VIOLENTLY POISONOUS perennials, three limited to North America. Distinguishing character of the genus is the hollow septate stem-base. Leaves are 1–3 times pinnate, the leaflets well-defined. Umbels are branching, flowers white. Fruits are laterally flattened with corky ribs.

Key to species

A. Leaflets more than 5mm wide; bulbets absent from leaf axils.

Cicuta maculata

aa. Leaflets less than 5mm wide; upper axils with bulbils.

C. bulbifera



***Cicuta bulbifera* L.**

Bulbous Water-hemlock; cicutaire bulbifère



Photo by Ross Hall

A slender delicate species, it is freely branching but sparsely vegetated. Leaves are divided into irregular linear segments. The upper leaf axils bear small bulbets, developing in the fall. Stem is fleshy, but hollow at the base.

Flowers in August.

Freshwater marshes, cattail marshes, often emergent or in wet muck.

Scattered northeastward from Annapolis and Queens counties.

Across Canada and south to OR, KS and NC; FL.

***Cicuta maculata* L.**

Water-hemlock; Spotted Cowbane



Photo by Sean Blaney

A tall leafy herb, it may exceed 1–2m in height. Leaves are palmate, with toothed leaflets. White flowers are tightly clustered in round open umbels. Globose seeds are striated with yellow and brown.

Flowers early in July.

Ditches, swamps, marshes and meadows, in alluvial or



Photo by Sean Blaney



***Conioselinum* Hoffm.**

Hemlock-parsley

Ten species comprise this North American and Eurasian genus. A single species is native to our province. Perennial herbs, all are erect, their leaves are finely dissected and ternate. Inflorescence is large and branching. Flowers have white petals. Sepals are absent. Plants are glabrous except for the umbels which are often hirsute. Fruit is dorsally flattened, the ridges prominently winged.

***Conioselinum chinense* (L.) BSP**

Hemlock-parsley; coniosélinum de Genesee



A tall slender species with fernlike foliage, its leaves are ternately compound, the ultimate segments linear. Leaf sheaths are expanded and may subtend the inflorescence. Umbellets have no involucels.

Flowers from August to October.

muddy soils.

From Yarmouth to Cape Breton, more abundant northeastward. Common around the Fundy marshes.

Across the continent, from arctic islands southward.

DEADLY POISONOUS...A single mouthful can kill.

Photo by Sean Blaney

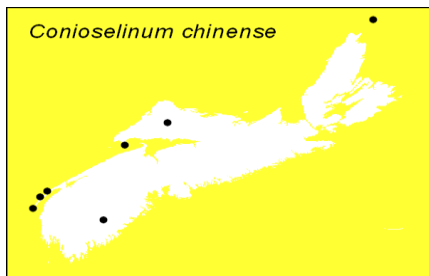


Treed swamps, mossy coniferous forest, seepy coastal slopes.

Scattered on Digby Neck. Common on Saint Paul Island and infrequent elsewhere.

NL to ON, south to NE and the Gulf of Mexico.

Photo by Sean Blaney



Conium L.

Biennials from Eurasia, a single species was formerly introduced here. It is included for its notoriety...it is DEADLY POISONOUS. Inflorescences are of multiple umbels, 2–4 together, the flowers white. The leaves are large, pinnately compound several times.

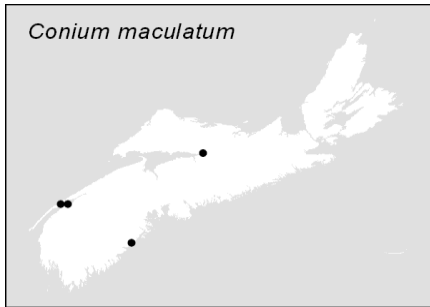
Conium maculatum L.

Poison-hemlock; cigüe maculée



With fernlike foliage borne along a striated stem, it is an attractive plant. Crowded flowers are creamy, producing striated seeds, strongly marked with veins. Petioles are glabrous, easily separating it from *Daucus*.

Flowers July and August.



Fallow soils and waste ground, ditches and old gardens.

Rare: Weymouth, Digby, Truro and in Queens Co.

Ranges across most of North America, except for MB, FL and MS.

The seeds are DEADLY POISONOUS.



Photos by Martin Thomas

***Coriandrum* L.**

A Mediterranean genus of only two species; one is a garden escape in Nova Scotia. Annual herbs, they have compound or simple leaves and pink or white flowers. Umbels have 4–8 rays, the outermost petals and sepals larger than those of inner flowers. Involucels are limited to three linear bractlets on the outer periphery of the umbellets. Globose fruit is hard, with well-marked ribs.

Coriandrum sativum* L.*Coriander; coriandre cultivée***Photo by Martin Thomas*

It has distinctive basal leaves, pinnately divided, but not compound. Leaflets are rounded. Upper leaves are filiform. Flowers are tiny, creamy carried in sparsely flowered, neat umbels. Seeds are golden-coloured, rugose and round in cross-section.

Flowers June and July.

Fallow soils.

A casual adventive and not persisting.

Ranges from NS, west to ON and southward. From Eurasia.

*Photo by Martin Thmas****Daucus* L.**

This is a widespread genus of 60 species, a single biennial reaches Nova Scotia. Leaves are multiple times compound, giving its foliage a fernlike or lacy appearance. Umbels are branching comprising white flowers. Often a central purple flower is present and the petals on the peripheral flowers may be enlarged. Involucre is large, the bracts may be dissected. Fruit is oblong with a row of bristles on the ribs, alternating with a row of flattened spines on secondary ridges.

***Daucus carota* L.**

Wild Carrot; Queen Anne’s Lace; carotte sauvage



Photo by Martin Thomas

Softly pubescent stems and leaves and well-spaced leaves along the rachis mark this species. Flowers are cream-coloured but for the purple central flower. The umbels are flat-topped. Involucre is made up of linear, split bracts. Seeds have two types of armament, bristles and spines.

Flowers from July to September.

Tolerant of a wide range of soils: fields, roadsides, waste ground, generally in the sun.

Very common and somewhat weedy throughout Nova Scotia.

Introduced from Europe and spread to most of North America.

***Heracleum* L.**

These plants are very large and robust for herbaceous biennials or perennials. There are 60 species in total; one is native here and two are introductions. Coarse plants, they have very large leaves which are compound, toothed and lobate. The broad petioles sheath the stem, a conspicuous feature. Umbels are very large, borne on branching rays, of unequal lengths. Outer flowers may have enlarged and notched petals.

Key to species

- A. Leaves pinnate, 5–7 leaflets, which are sessile or nearly so. *Heracleum sphondylium*
- aa. Leaves ternate; leaflets petiolate. B
- B. Leaflet lobes narrowly deltate; seed ribs extending more than half the length; seeds rounded at the bases. *H. mantegazzianum*
- bb. Leaflet lobes broadly deltate; seed ribbed to less than half the length; seeds pointed at the base. *H. maximum*

***Heracleum mantegazzianum* Sommier & Levier**

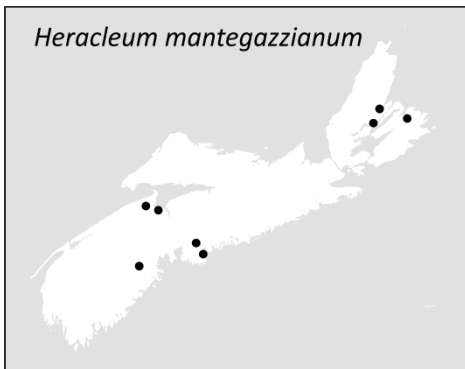
Giant Hogweed; berce du Caucase



Photo by David Mazzerolle



Photo by Rob Paxton



Extremely robust, 2–3m in height, this species has umbels reaching 60cm wide or more. The ternate leaves have narrowly deltate leaflets, with sharply angled lobes. The hollow stems may be 4–5cm in diameter. Plant contains an irritating sap, causing serious skin burns and even blindness. The seeds are ribbed, at least halfway along their length. They are rounded at the bases.

Flowers July to September.

Uncommon but widespread from Cape Breton to Shelburne and Annapolis Co.

Ranges from NS to ON, south to IL; west coast. Introduced from Europe.



Heracleum maximum* Bartr.*(=*H. lanatum* Raf.)****Cow-parsnip; Masterwort; berce laineuse; pagosi***Photo by David Mazzerolle*

With large ternate leaves, this species is conspicuous in its habitat. Leaflets are irregularly lobed, broadly deltate and finely toothed. They may be tomentose below. Oval fruit is flattened and pointed at the base. The ridges do not extend beyond the middle. The sheathing petiole is also conspicuous.

Flowers from June to August.

*Photo by David Mazerolle*

Found in moist shady habitats, in alluvial soils along streams and sometimes coastal.

Common in eastern Nova Scotia and elsewhere in suitable habitat.

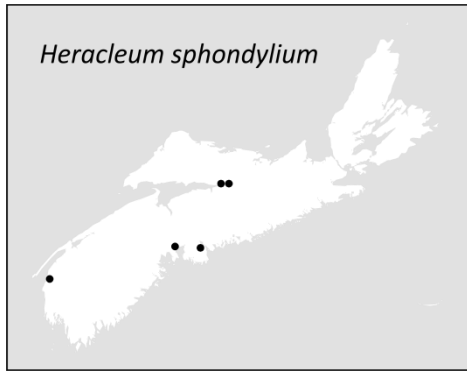
Across North America and south to CA, NM and GA; absent from the Gulf States; Siberia. Native.

Pagosi, the Mi'maq name, was an influenza and cold remedy.

Heracleum sphondylium* L.*Hogweed; berce sphondyle***Photo by Sean Blaney*

Leaves are pinnately compound, with five or seven lobed and toothed leaflets. They may be puberulent below. Peduncles are very long and without involucre. Colonial, the clumps may be 1 m in height. Seeds are globose and broadly winged.

Flowers from June to August.



Roadsides and fallow ground.

Common along Willow Street in Truro and still spreading out to the county along the Salmon River and at Riversdale; collected throughout HRM and spreading, Halifax Co.

NF to ON, south to NJ; WA and OR.



Photo by Sean Blaney

***Hydrocotyle* L.**

pennywort

Small perennial herbs they are mostly limited to the tropics and subtropics. Nova Scotia has two native species of the 75 found worldwide. Leaves are round or reniform, peltate or with sinuses, on long petioles. Stems root at the nodes. Umbels are simple arising from the leaf axils. Fruits are globose or elliptic and laterally compressed.

Key to species

A. Leaves peltate (petiole attached near the centre of a shield-shaped leaf).

Hydrocotyle umbellata

aa. Leaves cordate, petiole attached at the base.

H. americana

***Hydrocotyle americana* L.**
Pennywort; hydrocotyle d'Amérique



Photo by Sean Blaney

A small creeping plant, it has scalloped cordate leaves. Very small flowers are clustered 1–5 in a sessile umbel in the leaf axils.

Flowers in July and August.

Moist mossy shady slopes, banks and hollows.

Common throughout except in northern Cape Breton and extreme southwestern areas.

Ranges from NF to ON south to AR and SC.

***Hydrocotyle umbellata* L.**
Water Pennywort; hydrocotyle à ombelle

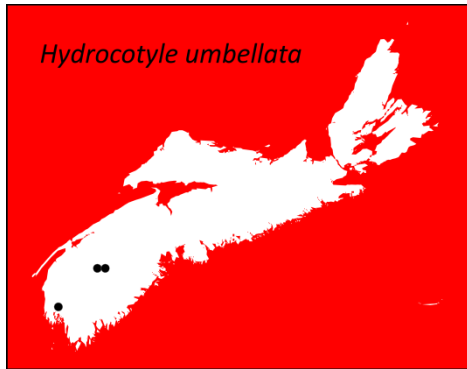


Photo by David Mazerolle

Round peltate leaves arise on long petioles from a creeping stem. They are scalloped on the margins. Flowers are borne in sparse umbels on short rays, arising from a long peduncle. This species has fewer leaves than the last species and may be more robust.

Flowers from July to September.

Only found on wet, sandy lake margins. A coastal plain species.



Rare and local: Wilson's Lake and Springhaven Duck Lake, Yarmouth Co.; Kejimikujik and George Lakes in Kejimikujik National Park, Queens Co.

NS to TX along the coastal plain; Great Lakes states; CA; OR; Mexico and tropical America.

STATUS: RED-listed.

***Levisticum* Hill lovage**

Including only three species, of Southeast Asia, one was formerly cultivated here and has naturalized. Perennial herbs, they are tall coarse plants similar to *Angelica*. Fruits are dorsally compressed with winged lateral ribs. Leaves are pinnately compound, several times. Flowers are yellow or greenish.

***Levisticum officinale* WDJ Koch. Garden Lovage; livèche officinale**



Photo by Martin Thomas

Leaves have narrowly ovate leaf segments, toothed only at the distal ends. Umbels are spreading and subtended by a conspicuous leafy involucre.

Flowers May to July.

Disturbed soils as on embankments.

Collected from Yarmouth and Lunenburg counties. Less common, it is an infrequently planted species now.



Photo by Martin Thomas

Escaping throughout North America and known from NS to ON; SK, southward.

***Ligusticum* L.**

lovage

Bearing the same English vernacular name as the previous species, this is a north-temperate genus of 20, with a single common species here. All are perennials, arising from a taproot. Leaves are ternately compound. Umbels are also compound, with the umbellets few-flowered. Petals are white; sepals are deltate.

***Ligusticum scoticum* L.**

Scotch Lovage; livêche d'Écosse



Photo by Marian Munro



Photo by Martin Thomas

One of our most familiar coastal herbs. It is not succulent, but a leafy plant forming low-growing mats. Leaves arise from the base of the plant from red stems, especially so along the sheaths. Leaflets are toothed. Umbels of white flowers form strongly grooved ovate seeds. Often confused with *Angelica lucida*, a more robust plant with bipinnate leaves (not ternately compound).

Flowers from July through August.

Frequents rocky soils on cliffs, beaches and headlands. Rarely far from the sea.

Scattered around the coast.

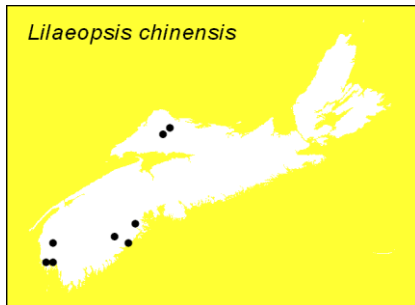
Along the coast from Greenland to NU, south to NY; Europe.

***Lilaeopsis* Greene**

Limited to the Americas, there are 20 species in total. Our single species is like no other plant, although it is easy to overlook. Arising from creeping rhizomes, rather than bearing leaves and stems, these plants produce phyllodes which are functionally leaves. Hollow, they are also septate. Simple umbels are borne on scapes from the axil of the phyllode and rhizome. Bearing a few flowers, their petals are white. Fruit is compressed and nearly round.

Lilaeopsis chinensis* (L.) Kuntze*liléopsis de l'Est**

Photo by Martin Thomas



Simple phyllodes arise from the creeping stems. They are slightly succulent but hollow. Small in stature, plants rarely reach 10cm in height. Flowers number 5–7 in a simple umbel.

Flowers are seen during July and August.

Estuarine in muck, mud or on stony banks.

Tusket and Annis Rivers, Yarmouth Co.; Roseway River, Shelburne Co.; Medway River, Queens Co. and LaHave River, Lunenburg Co.; and River Philip, Cumberland Co.

NS; ME to TX along the coastal plain.

Osmorhiza* Raf.*Sweet cicely**

Eleven species comprise this far-flung genus, from North America, Andean region and eastern Asia. Erect perennials, all have ternate leaflets, further divided. Basal leaves are long-petiolate; upper cauline leaves are nearly sessile. Umbels are terminal or lateral, and compound. Umbellets have few flowers; their petals are white. Fruits are laterally compressed, attenuate and bristly at the base and prolonged distally.

Key to species (after Voss and Reznicek, 2012)

A. Involucel present, although sometimes deciduous in fruit; styles not strongly reflexed.

B

B. Styles less than 1.5mm long; plant not fragrant.

Osmorhiza claytonii

bb. Styles 2mm long; plant smells like anise or licorice.

O. longistylis

aa. Involucel absent, mature styles strongly reflexed.

C

C. Fruit with convex and blunt-tipped apex in maturity;
young fruit with no constriction.

O. depauperata

cc. Fruit concave-tapered with a short beak at apex; young fruits with
slight constriction below the apex.

O. berteroi

***Osmorhiza berteroi* DC**

(=*O. chilensis* Hook & Arn.)

osmorhize de Bertero



Photo by Sean Blaney

Leaflets are deltate, deeply toothed. Fruit is covered in silvery white appressed pubescence. Umbel is widely divergent. Our largest most robust species, it reaches upwards of 1m.

Flowers in June and July.

Climax deciduous forests and riparian zones.

Ranges from the North Mountain in Annapolis Co. to Blomidon, Kings Co. and Cumberland Co. Northern Cape Breton.

Across Canada, although appears to be disjunct east and west, south to MI in the east; CA in the west.

***Osmorhiza claytonii* (Michx.) CB Clarke**

Hairy Sweet Cicely; osmorhize de Clayton



Photo by Martin Thomas

A distinctive species, with its palmate leaves, pinnately compound. The stems are smooth but the petioles and leaf ribs are hirsute. Flowers are white; fruits are green, covered in appressed pubescence. Plants are not sweetly scented when crushed.

Flowers May and June.

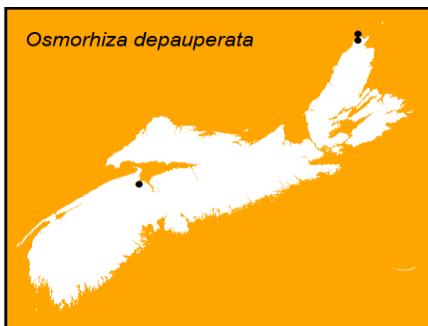
Alluvial soils, fertile deep soils in upland forests.

Our most common species, from Annapolis Co. to northern Cape Breton. Uncommon along the Atlantic coast.

Ranges from NF to MB; south to GA and KS.

***Osmorhiza depauperata* Philippi**

osmorhize obtuse



Resembles *O. berteroi* but mature fruits are essentially convex and blunt at the apex without a beak. They are blunt or cuneate rather than acutely pointed.

Flowers late June and July.

Forests.

Not common. Found in Wolfville area and elsewhere only in northern Cape Breton around Bay St. Lawrence.

NF to BC south to CA, NM. Absent in the eastern US.

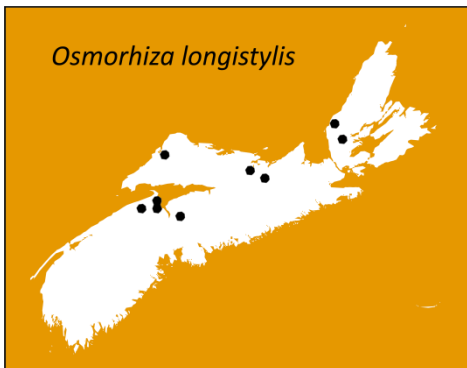
***Osmorhiza longistylis* (Torr.) DC**
Anise-root; osmorhize à long style



Photo by Ruth Newell



Photo by Sean Blaney



Resembling *O. claytonii* with the presence of involucels, but this species has the petioles glabrous. Leaves have the marginal teeth appressed, on ovate leaflets. Plants are sweetly anise-scented when crushed.

Flowers late June to July.

Intervale soils where fertility is high; deciduous forests.

Scattered along the North Mountain in Annapolis and Kings counties to Cumberland Cobequids. Infrequent in Cape Breton.

Ranges from NS to AB south to TX and GA.

***Pastinaca* L.**

Eurasian in range, there are 15 species in total. Only Parsnip reaches NS as an escape from cultivation. Leaves are pinnately compound; the leaflets are toothed along the margins. Flowers with yellow petals are borne in compound umbels. Fruit is smooth and compressed, bearing winged lateral ribs. Other ribs if present are filiform.

***Pastinaca sativa* L.**

Wild Parsnip; panais sauvage



Photo by Martin Thomas

A coarse weedy species with yellow flowers producing ovate stramineous fruit, marked with darker ridges. Leaves are pinnate, leaflets 9–13, toothed or lobed.

Flowers in July.

Grows in dry sandy stony soil as on roadsides, beaches and orchards.

A common weed in the Annapolis Valley. Scattered elsewhere to Cape Breton.

Widely naturalized from Europe and absent in North America only from the extreme southeast and north.

CAUTION: Handling the plant may cause dermatitis or photosensitive skin.



Photo by Martin Thomas

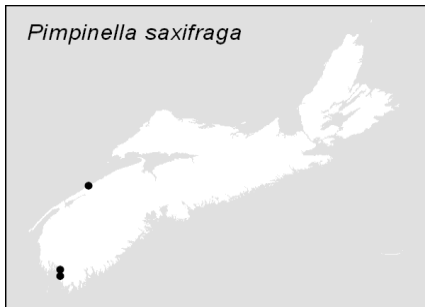


***Pimpinella* L.**

Nearly 150 species comprise this Eurasian genus. Perennial herbs, they have pinnately divided or compound leaves. Involucre is absent; fruit is smooth, but bears five wings on each carpel.

***Pimpinella saxifraga* L.**

Burnet-saxifrage; petit boucage



Leaves are distinctive. They are pinnately compound, but each leaflet is nearly ternately lobed. Basal leaflets are round, distal leaflets nearly linear. Involucre is present, leafy.

Flowers in July and August.

Roadsides and lawns, where soil is disturbed.
Discovered in 1950 as abundant in Upper Pubnico,
Yarmouth Co. No other records.

NF to ON, variously south to TN; WA and MT. European.

***Sanicula* L.**

sanicles

Almost cosmopolitan, 40 species comprise this genus. Typically, plants have palmate leaves. Basal leaves are long-petiolate, cauline leaves have short petioles. Umbels are compound, with the umbellets having three perfect sessile flowers and several staminate flowers. Ovaries are bristly in the perfect flowers and smooth in the staminate flowers, borne on longer rays. Sepals are present and well-developed, persistent. Fruits are ovate or oblong, slightly compressed laterally.

Key to species

Sepals 1–1.5mm long; staminate flowers longer than the fruits.

Sanicula marilandica

Sepals <1mm long; staminate flowers shorter than the fruits.

S. odorata

Page | 144

***Sanicula marilandica* L.**

Black Snakeroot; sanicle du Maryland



Photo by Sean Blaney

Bearing palmately divided leaves but the leaflets are obovate. Flowers are borne in a loose umbel, the umbellets resembling a head, producing bristly fruits, more than 4mm long.

Flowers from June to August.

Fertile soils beneath deciduous forest, intervale and alluvial soils, where humus content is high.

Scattered to common from Digby and Cumberland counties to northern Cape Breton. Infrequent along the Atlantic, where soils are more acidic.

Found across Canada and south to FL and NM.



Photo by Sean Blaney

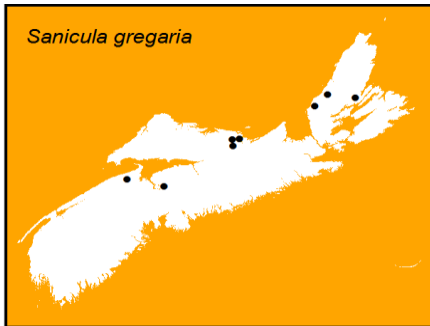
***Sanicula odorata* (Raf.) KM Pryer & LR Phillippe**

(=*S. gregaria* Bickn.)

Sanicle; sanicle odorante



Photo by Sean Blaney



Leaves are glossy, palmately divided and toothed. Flowers are arranged in globose open umbels. The staminate flowers are shorter than the fruit, which are 3–4mm long.

Flowers during July and August.

Found only on fertile alluvial soils and on intervalles.

Five Mile River, Hants Co.; Cornwallis River, Kings Co., West River, Pictou Co, Salmon River, Colchester Co and Southwest Margaree River, Inverness Co.

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

STATUS: ORANGE-listed.

***Sium* L.**
water-parsnip

These are north-temperate species, eight in total. Leaves are pinnate, with more than five serrate leaflets. Umbels are compound. Flowers are white and sepals vestigial or absent.

***Sium suave* Walt.**
Water-parsnip; berle douce



Photo by David Mazerolle

A distinctive plant, its pinnate leaves are often carried perpendicular to the rachis. Submerged leaves may be finely dissected. Open umbels of tiny white flowers produce tiny rugose seeds.

Flowers mid-July through August.

Muddy streambanks, lakeshores, marshes and even ditches.
Often emergent.



Photos above, below by Sean Blaney

Common throughout.

Throughout the continent.



***Zizia* WDJ Koch**
golden alexanders

A distinctive genus in this family, in that the flowers are brilliant yellow. With only four species described, they are all native to North America. A single species reaches Nova Scotia. Perennials, they arise from thickened rootstocks. Leaves are once or twice ternately compound. Umbels are also compound, each umbellet has many flowers. Involucre is absent. Fruits are ovate-oblong, with five ribs on each mericarp.

***Zizia aurea* (L.) WDJ Koch**
Golden Alexanders; zizia doré

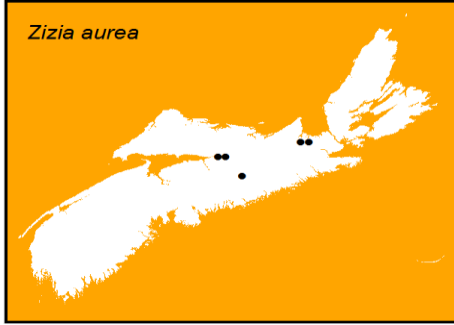


Photo by Sean Blaney

A tall species, bearing palmate ternately compound serrate leaves. The swollen petioles sheath the stems. Bright yellow flowers crowd the umbellets, forming spherical heads. Flowers May and June.

Meadows, shores, thickets and even wooded swamps.

Occasionally reported: Pomquet and South River, Antigonish Co., Upper Musquodoboit, Halifax Co.



Ranges from NS to MB, south to TX and FL; MT.