

Boraginaceae

borage family

A family of mostly herbaceous plants, there are about 2000 worldwide. Some are cultivated as ornamentals and others have had herbal significance historically. Most have simple alternate leaves and the plants are generally hirsute. Inflorescence is often circinate. Flowers are perfect and five-merous. Petals join to form a corolla tube; the sepals are distinct or merely joined. Corolla is tubular or salverform, and often has fornicies in the throat. Stamens alternate with the lobes. Ovary is superior, divided into two carpels, each with two locules. Fruits are usually of 1–4 nutlets.

Key to the genera

- | | |
|---|---------------------|
| A. Corolla tube absent; anthers large and conspicuous, dorsal appendage prominent. | <i>Borago</i> |
| aa. Corolla tube well-developed; anthers inserted, dorsal appendage absent. | B |
| B. Corolla irregular, lobes unequal. | C |
| C. Stamens exerted; corolla not constricted at the throat. | <i>Echium</i> |
| cc. Stamens inserted; corolla constricted at the throat. | <i>Anchusa</i> |
| bb. Corolla regular, limbs similar. | D |
| D. Corolla tubular or campanulate; lobes erect or ascending. | E |
| E. Calyces and pedicels glabrous or puberulent, the hairs appressed; plants glaucous; prostrate on coastal beaches. | <i>Mertensia</i> |
| ee. Calyces and pedicels bristly; not glaucous; plants erect, not coastal. | <i>Symphytum</i> |
| dd. Corolla salverform or funnellform. | F |
| F. Nutlets prickly and visible before ripening. | G |
| G. Plants annual; flowers bracted. | <i>Lappula</i> |
| gg. Plants biennial; flowers not bracted. | <i>Cynoglossum</i> |
| ff. Nutlets glarous or hirsute, but not prickly. | H |
| H. Flowers blue. | <i>Anchusa</i> |
| hh. Flowers blue, white, pink or yellowish. | I |
| I. Flowers yellow; weed with limited distribution. | <i>Buglossoides</i> |
| ii. Flowers pink to blue; widespread and generally appearing native. | <i>Myosotis</i> |

Anchusa L.

Native to Eurasia, there are about 40 species described. One has occasionally been inadvertently introduced to NS. Plants are usually hirsute and leafy, bearing blue flowers in a terminal circinate inflorescence. Corolla tube is about equal in length as the lobes and the throat is not well-defined. Base of the fruits fit into pits on the receptacle.

Anchusa arvensis (L.) M. Bieb.

Small Bugloss; lycopside des champs

An annual species, this bugloss is hispid. Leaves are narrowly oblong and sometimes toothed. The corolla tube ranges 4–7mm long, with a distinct curve. Lobes equal in length to each other.

Dry and sandy soils.

Rarely seen. Reported historically from Pictou. Collected recently from White Rock, Kings Co. from below a bird feeder.

Found from NS west to BC, south to CA and NC. Adventive from Europe.

Borago L.

borage

Native to the Eurasian continent, of the three species, one is an occasional escape in Nova Scotia. Tall in stature, it bears broad hispid leaves along its stem. The blue flowers are borne in cymes, their corollas are ornamented with distinctive fornices and elongated lobes. Another appendage is formed by the filaments. In fruit the long pedicels are reflexed.

Borago officinalis L.

Borage; bourrache officinale

A hispid species, it also has a sprawling growth habit. Its sessile leaves are obovate. The inflorescence is crowded with blue-violet flowers subtended by leafy bracts.

Flowers July to September.

Waste ground and fallow soils.

A garden plant occasionally seen as an escape, but not often collected: Inverness County.

Ranges across Canada to AK, variously south to CA and TN. Introduced.

Buglossoides L.

A genus restricted to mountains of Eurasia and Africa, and historically introduced to Nova Scotia. These plants are covered in fine bristles or hairs. The stems are upright or sprawling, branched or unbranched, with simple ovate to lance-shaped leaves. The small funnellform flowers have flaring lobes and are usually blue or white, arranged in a leafy cyme. Corollas are sometimes ornamented with fornices. Fruits are smooth or pitted, attached basally, the attachment persisting as a thickened ring.

***Buglossoides arvensis* (L) IM Johnst.**

(=*Lithospermum arvense* L.)

Gromwell; grémil des champs

A tall slender annual, producing solitary pale flowers from the axils in the upper portion. They are almost obscured by bracts. Lanceolate leaves are acuminate pointed. The entire plant is covered with a shining appressed pubescence.

Flowers early, April to June.

Waste ground, may have been introduced as a contaminant in livestock feed.

Scattered reports but collected only from Cambridge, Kings Co.

Known from NS; QC to MB; BC; southward.

***Cynoglossum* L.**

A worldwide genus of 80 species, they tend to be robust and pubescent herbs. Flowers are arranged in terminal or axillary raceme-like inflorescences, without subtending bracts. Corolla tube is short and constricted by the fornices. The stamens are inserted. Nutlets bear prickles.

Key to species

Perennial species; inflorescence a terminal raceme with glabrous axis;
nutlets without a margin.

Cynoglossum virginianum

Biennial species; inflorescence axillary or distal on the branches; nutlets with a
raised margin.

C. officinale

Cynoglossum officinale* L.*Hound's Tongue; cynoglosse officinale**

A coarse unbranching species, it reaches 1.2m and plants are long-villous. Lowermost leaves are often 30cm long, reducing in size up the stem. Corollas are reddish purple, ornamented with protruding fornices. Nutlets form a pyramidal shape; they remain attached to the style upon dispersal.

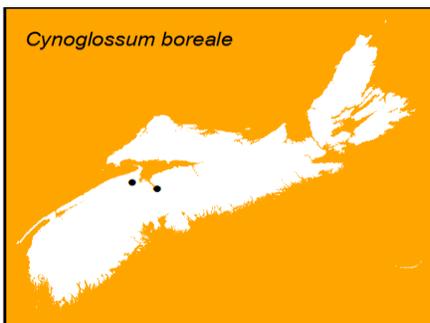
Flowers May until July.

Usually in fields or edge habitat.

Historically reported although there are no collections. Introduced from Asia.

***Cynoglossum virginianum* L.**

(=*C. boreale* Fernald)

Wild Comfrey

Another coarse species, this one is also covered in bristly pubescence. Leaves are long-petiolate and lanceolate, decurrent. The tiny blue flowers are borne in circinate racemes, straightening as the flowers expand. Fruits are covered in hooked bristles.

Flowers May and June.

Associated with open beech forest on dry soils or gypsum, in forest or thickets.

A rarely encountered species: west of Kentville and around Windsor.

Ranges across Canada and south to SD, IN and NJ.

***Echium* L.**

A genus of 50 species, their native range limited to Eurasia. The single species reaching Nova Scotia is a biennial with brilliant blue flowers, borne in coiled cymes, each subtended by bracts. Corollas are irregular and funnellform, the upper side longer. Lobes are unequal in size and fornicies are absent. The style is exerted as are some of the stamens.

***Echium vulgare* L.**

Blueweed; Viper's Bugloss; vipérine commune



Photo by Marian Munro

Biennial in habit, this tall species is extremely bristly. The large bright-blue irregular flowers are quite showy, making this species a distinctive one. The inflorescence is made up of arching cymes. Flowers have the stamens exerted. Leaves are obovate and pointed distally.

Flowers from June through September.

Weedy roadside and in fallow land, often in alkaline soil.

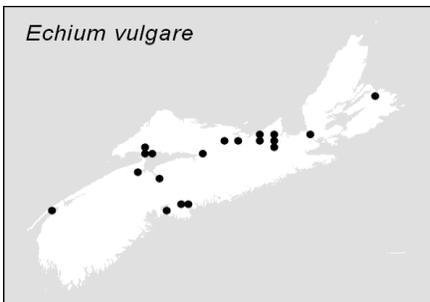
Local but abundant: Shearwater, Truro, New Glasgow, Antigonish and Parrsboro. Known from Digby Co. eastward.



Photo by Sean Blaney

Ranges from NF to AK, south to OR, TX and GA. Introduced from Europe.

Our material needs to be re-examined for inclusion in *Echium pustulatum* Sm. A new report of it needs to be verified. It was formerly included in *E. vulgare* as a variety.



***Lappula* Moench stickseed**

A small genus of the northern hemisphere; only one of 12 species has reached Nova Scotia, as an introduction. All of them are erect, annual herbs, usually hirsute. Corolla tube is about equal in length to the calyx and bears fornicies in the throat. Flowers are blue or white and arranged along a circinate raceme-like inflorescence. Bracts are present. Nutlets have several rows of bristles.

Lappula squarrosa* (Retz.) Dumort*Stickseed; bardanette épineuse**

A slender species pubescent with grey or white spreading hairs. The simple or branching stem is leafy. Vegetative rosettes are formed with upwards of 50 leaves imbricate in the bud. Mature leaves have a prominent midrib. Tiny blue flowers are crowded into 1–3 long slender racemes. Several flowers may arise in the upper leaf axils. Floral bracts to 1cm long and the calyx lobes to 3mm. Corolla is sympetalous, five-merous, ornamented with five yellow fornicies. Stamens inserted. Vegetative rosette bolts prior to the plant setting seed. Nutlets bear tiny hooked bristles.

Flowers June to September.

Frequents railbeds and roadsides, dry fallow soils.

Shelburne to Inverness Counties. Short-persistent.

Ranges from NF to AK, south to CA, TX and TN. Introduced from Eurasia.

Mertensia* Roth*bluebells**

About 35 species are known, spread across North America and Eurasia. Nova Scotia's single species is a prostrate coastal plant, with succulent leaves. The blue, pink or white flowers are funnellform or campanulate, carried in small cymes.

Mertensia maritima* (L.) SF Gray*Sea Lungwort; Oyster Plant; mertensie maritima**

Photo by Sean Blaney

These sprawling plants have strongly glaucous leaves, the uppermost which are sometimes sessile. They may be ovate or elliptic. The inflorescence is freely branching, crowded with pink or blue flowers, subtended by leafy bracts.

Flowers from mid-June to August.



Photo by Martin Thomas

Sandy, stony coastal beaches, dunes and shorelines above the high water level.

Common.

Ranges from Greenland to AK, south to New England.

***Myosotis* L.**

forget-me-nots

Boreal and temperate, the genus includes about 50 species in total. Pale flowers, blue to pink or even yellow are arranged in terminal circinate cymes, generally leafless and without bracts. Corolla is funnel-shaped and exceeds the length of the calyx. The tube is constricted by small scales. Nutlets are smooth and shiny.

Key to species

- | | |
|---|-----------------------------|
| A. Perennial, appearing native; calyx bearing straight appressed pubescence. | B |
| B. Corolla lobes 5–10mm wide; nutlets not exceeding the style. | <i>Myosotis scorpioides</i> |
| bb. Corolla lobes <5mm wide; nutlets obviously exceeding the style height. | <i>M. laxa</i> |
| aa. Annual or biennial, escaped from cultivation; calyx hairs not appressed. | C |
| C. Corolla showy, lobes 5–8mm wide. | <i>M. sylvatica</i> |
| cc. Corolla not showy, lobes <5mm wide. | D |
| D. Fruiting pedicels exceeding the calyx tube. | <i>M. arvensis</i> |
| dd. Pedicels shorter than the calyx tube. | E |
| E. Inflorescence extending almost to the base of the plant; lower flowers scattered amongst the leaves. | <i>M. stricta</i> |
| ee. Inflorescence limited to the top half of the plant, without leaves. | <i>M. discolor</i> |

Myosotis arvensis* (L.) Hill.*Rough Forget-me-not; myosotis des champs***Photo by Martin Thomas*

Noticeably pubescent, the plant is covered with stiff appressed hairs. The leaves are obovate. Flowers are pale blue and arranged along a long, slender arching inflorescence. Pedicels are longer than the calyx which is ornamented with hooked bristles.

Mid-May through June.

Grows in moist fertile soils.

Common throughout the Annapolis Valley and scattered throughout western counties. Cape Breton.

Ranges from NF to BC; south to OR, IL and SC. European introduction.

Myosotis discolor* Pers.*myosotis versicolore**

Small and delicate, this species has the inflorescence occupying most of its height. A pair of leaves may subtend the flowering stalk, otherwise the leaves are sparse. Corolla is pale yellow, eventually changing to blue then violet.

Flowers early May and June.

Limited to dry soils as on hillsides.

Scattered on the Wolfville Ridge and along the Gaspereau River, Kings Co.

NS to ON, south to MS and GA; west coast. Introduced from Europe.

***Myosotis laxa* Lehm.**

Small Forget-me-not; myosotis laxiflore



Photo by Martin Thomas

A leafy species, the leaves are linear or oblanceolate but narrow. Small flowers are arranged in circinate racemes, sometimes branching and bearing 1–2 leaves at the base of the longest branch.

Flowers during June and July.

Tolerates wet, muddy sites such as streamsides, meadows and roadside ditches.

Very common throughout and our only native species.

Ranges from NF to ON, south to AL and GA; BC and the western states.

***Myosotis scorpioides* L.**

Forget-me-not; Scorpion-grass; myosotis scorpiöide



Photo by Martin Thomas

A tall species with reclining weak stems, it bears lanceolate leaves. Flowers are deep-blue, borne in a bractless inflorescence. Calyx pubescence is straight and not hooked.

Flowers early June to July.

Wet soils in mud.

Common throughout.

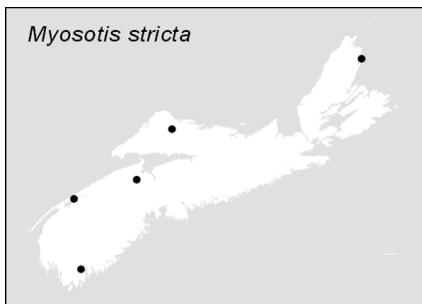
Ranges from NF to MB, south to GA; AK to CA and NM.
Introduced from Europe.



Photo by Sean Blaney

Myosotis stricta* Link*Blue Scorpion-grass; myosotis à tiges dressées**

Photo by Sean Blaney



Considered to be an annual or winter-annual here, this species branches from the base where there is a tidy rosette of leaves. It may reach 20cm in height and is often lightly pubescent. Pedicels are erect or ascending, bearing light blue flowers.

Flowers from early spring through July.

Waste ground and compacted, disturbed soils. Associated with vehicular traffic.

Recently discovered here: Island Provincial Park, Shelburne Co.; Ellenwood Provincial Park, Yarmouth Co.; Smileys Provincial Park, Hants Co.; Lumsden Dam Day Park, Kings Co. and Cape Breton Highlands national Park, at Broad Cove.

Ranges from NS to ON, south to MO and NC; AB and BC south on the Pacific. Introduced from Eurasia.

Myosotis sylvatica* Hoffmann*Garden Forget-me-not; myosotis des forêts**

Photo by David Mazerolle

One or more unbranched stems arise from a compact base that are sometimes softly pubescent. The terminal inflorescence may be simple or branched. Single blue flowers arise on short pedicels and the inflorescence terminates in tiny flowers. Calyx has numerous hooked hairs. It is prized as a rock garden ornamental.

Flowers very early spring through July.

Occasionally persisting, but rarely escaping.

Occasional reports.

NS to BC, south to New England. Introduced from Europe.

***Symphytum* L.**
comfrey

Native to the Mediterranean area of Europe, these coarsely erect perennials are represented by two species in Nova Scotia. Their leaves are broad and hirsute and the flowers are borne in modified cymes of white to blue flowers. Corollas bear a well-developed tube, which is longer than the lobes. Fornices are present, and they are erect and elongated. The stamens are inserted.

Key to species

A. Leaves decurrent; nutlets smooth.

Symphytum officinale

aa. Leaves not decurrent or only slightly; nutlets rugose.

S. asperum

***Symphytum asperum* Lepechin**
Rough Comfrey; consoude âpre



Photo by Martin Thomas

Stems and leaves are covered with coarse recurved pubescence. Leaves long and lanceolate, their bases merely slightly decurrent. Flowers are purple, borne in coiled racemes.

Flowers from mid-June to July.

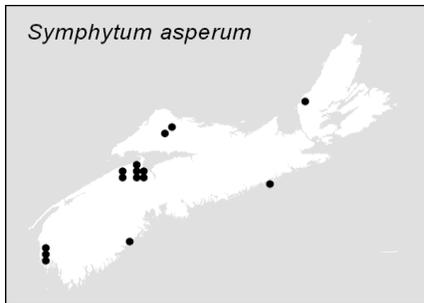
Dry sandy soils near old gardens where it is persistent.

Not common, Pictou. Abundant at Grand Pre and Yarmouth and at Canning. Scattered reports.

NS to SK, south to OH; BC south along the coast. Introduced.



Photo by Martin Thomas

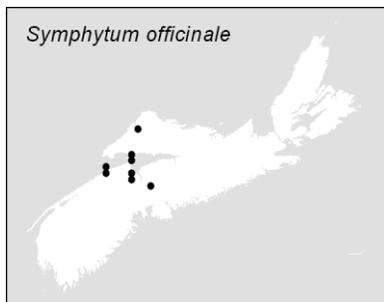


***Symphytum officinale* L.**

Common Comfrey; consoude officinale



Photo by Sean Blaney



The narrow lanceolate leaves are strongly decurrent, forming winged portions at the nodes. Coarsely pubescent, the hairs are hooked bristles. Flowers are cream-coloured.

Look for flowers from mid-June through July.

Garden escape and probably not spreading.

Most common from Kings and Cumberland counties to Truro.

Ranges across Canada and south to the Gulf of Mexico. Naturalized in North America from Europe.