

## Primulaceae

### primrose family

Primarily Asian, there are about 1000 annuals and perennials in this family. Many with showy flowers have been cultivated for our northern gardens. Flowers are regular and five-merous, the ovary superior or nearly so. Petals, if present, are united to form a short corolla tube. Stamens oppose each lobe of the corolla. Fruit are capsules. Stipules are absent and the leaves are simple.

#### Key to genera

- |   |                            |
|---|----------------------------|
| A. Leaves in basal rosette; flowers arranged in a terminal umbel on naked scapes.                             | <i>Primula</i>             |
| aa. Leaves cauline; flowers only occasionally in umbels.  | B                          |
| B. Leaves alternate.  | C                          |
| C. Flowers solitary, axillary; sessile.   | <i>Anagallis</i> , in part |
| cc. Flowers in pairs, axillary; on long slender pedicels.   | <i>Samolus</i>             |
| bb. Leaves opposite or whorled.   | D                          |
| D. Flowers yellow.  | <i>Lysimachia</i>          |
| dd. Flowers scarlet, pinkish to white.  | E                          |
| E. Leaves in a single whorl at the top of the stem.   | <i>Trientalis</i>          |
| ee. Leaves in numerous whorls or merely opposite.   | F                          |
| F. Plants erect; leaves succulent; flowers 3mm wide; petals absent; coastal.                                  | <i>Glaux</i>               |
| ff. Plants trailing; leaves not succulent; flowers >1cm wide; petals present; not restricted to coastal zone. | <i>Anagallis</i> , in part |

### *Anagallis L.* pimpernel

A widespread genus of 25 species, only two species are found in Nova Scotia. Flowers are axillary on long pedicels. Capsule is circumscissile.

#### Key to species

- |  |                         |
|--|-------------------------|
| Leaves alternate, flowers sessile; plants erect.                       | <i>Anagallis minima</i> |
| Leaves opposite; flowers on nodding slender pedicels; plants trailing. | <i>A. arvensis</i>      |

***Anagallis arvensis* L.**  
**Common Pimpernel; mouron rouge**



Photo by Martin Thomas



Photo by David Mazerolle

A slender plant, it bears diffuse branches. Sessile leaves are elliptic or ovate. Flowers are carried in pairs on slender drooping pedicels. The scarlet corollas open only in sunshine, closing on cloudy days. Our plants belong to ssp. *arvensis*.

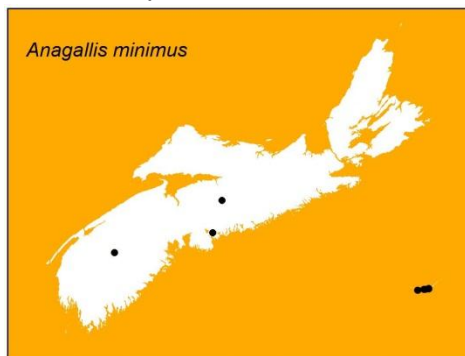
Flowers in late summer until autumn.

Grows in sandy soils, in waste places and beaches, railway lines.

Collected from Digby Co. north to Pictou and Antigonish counties and Lunenburg Co.

NF to BC, variously south to CA and FL. Naturalized from Europe.

***Anagallis minima* (L.) Krause**  
**(=*Centunculus minimus* L.)**  
**Chaffweed; mouron nain**



A dwarf plant, freely branching, it bears tiny pink solitary flowers in its leaf axils. Leaves are sessile and lanceolate.

Flowers in summer to early fall.

Frequents dry stony, compacted soil of waste asphalt and roadsides and muddy shores.

Found on Sable Island, Shubenacadie, and at Shearwater currently.

BC to SK, south to CA, TX and FL; NS is the only eastern Canadian population.

STATUS: Orange-listed.

***Glaux* L.**  
**sea-milkwort**

Monotypic and widespread, the plants are obligate halophytes. Small succulent perennials they bear flowers in the leaf axils. Corollas are absent. Calyx is campanulate and five-merous. Sepals are petaloid, and may range from red to white in colour. Leaves are sessile and opposite.

***Glaux maritima* L.**  
**Sea-milkwort; glaux maritime**



Photo by Martin Thomas

Stems are erect, branched or not and sometimes reclining. Sessile leaves are oblong and may be reduced to scales at the base of the plant. Flowers are pink, their stamens alternating with the sepals.

Flowers mid-June to late July.

Saltmarshes and beaches, dykelands.

Common around the coast and abundant where found.

NF to AK, south to CA, NM and VA; Eurasia.



Photo by David Mazerolle

***Lysimachia* L.**  
**loosestrife**

Best developed in central Asia, there are 140 species in total. Our species all bear yellow flowers, their petals variously marked with dark spots and lines. Inflorescences may be racemes or panicles (axillary or terminal), or of solitary axillary flowers. Leaves are opposite or whorled.

Key to species

A. Stamens separate.

B. Inflorescence a dense oval axillary cluster, each flower

B

*Lysimachia thyrsiflora*

- minute, 6-merous; petioles neither pubescent nor winged; all stamens with anthers.
- bb. Flowers large, solitary, or several from upper leaf axils; flowers with 5 sterile stamens between fertile ones; petioles narrowly winged, edges ciliate. *L. ciliata*
- aa. Stamens with filaments connate to level with top of the ovary. C
- C. Plant densely glandular pubescent, exceeding 1m; petals unmarked. D
- D. Flowers in terminal leafy panicles; corolla lobes entire; calyx 4–6mm long, margins dark. *L. vulgaris*
- dd. Flowers whorled in the axils of upper leaves; corolla lobes ciliate; calyx >7mm long, green. *L. punctata*
- cc. Plant not glandular pubescent; petals marked with black or red striations; <1m tall. E
- E. Plant erect; inflorescence a terminal raceme, 5–20cm tall. *L. terrestris*
- ee. Plant long-trailing; flowers large cuplike, scattered in pairs or solitary in the leaf axils. *L. nummularia*

***Lysimachia ciliata* L.**

**Fringed Loosestrife; lysimaque cilée**



Photo by Martin Thomas

An erect plant, it bears opposite leaves from smooth stems, which branch at the top. Leaves are lanceolate or ovate. Flowers arranged in whorls on long slender pedicels arising from the leaf axils. Calyx lobes are lanceolate; corolla lobes may reach 1.5cm long.

Flowers late in July.

Damp soils in low-lying areas, wet thickets, or intervals.

Few southwestern localities, scattered northward to Halifax and Cumberland counties and to Antigonish area. Abundant where found.

NS to AK, south to OR, TX and FL.



Photo by Martin Thomas

***Lysimachia nummularia* L.**

**Moneywort; Creeping Jenny; lysimaque nummulaire**



Photo by Martin Thomas

Long-trailing stems bear opposite globose leaves on short petioles. Flowers are arranged in pairs or solitary on erect pedicels from the leaf axils. The pedicels are longer than the leaves. Corolla is subtended by ovate or triangular sepals. Petals are marked with red nectar guides.

Flowers in July.

Garden escape, naturalized in intervalles, ditches and nearby meadows. Considered invasive in some American jurisdictions.

Occasionally encountered from Yarmouth northward. Probably found near most settlements.

NF to ON, south to CO, LA and GA; west coast. An early European introduction of Acadian origin.



Photo by Fritz McEvoy

***Lysimachia punctata* L.**

**Fringed Loosestrife; Large Yellow Loosestrife; lysimache ponctuée**



Leaves are lanceolate or ovate and carried in whorls of 3–4. Flowers also borne in whorls arising from the upper leaf axils. Calyx lobes are 7–10mm long and evenly green. Corolla lobes have a row of glandular hairs on the margins.

Flowers during July and early august.





Photos by Martin Thomas

Roadsides, fields and meadows. Naturalized garden species.

Common around Truro and reported from elsewhere.

NF to ON; BC, variously south. Introduced from Europe.

***Lysimachia terrestris* (L.) BSP**  
**Loosestrife; lysimaque terrestre**



Photo by Sean Blaney

It is one of our most common and familiar yellow-flowered summer plants. Simple stems are erect, to 80cm tall. Leaves are sessile and narrowly lanceolate. Flowers are borne in a single terminal raceme on long slender pedicels, subtended by short bracts. Yellow corollas have dark nectar guides. Vegetative aerial bulblets may be seen late in the season in the leaf axils.

Flowers in July.

Wet soils in ditches, marshes, bogs and marshes.

Common throughout.

NF to MB, south to OK and GA, northwest coast.



*Photo by Sean Blaney*

***Lysimachia thyrsiflora* L.**  
**Water Loosestrife; lysimaque thyrsiflore**



*Photo by David Mazerolle*

An erect plant, its stems are nearly bare towards the base of the plant. Leaves are long and narrowly lanceolate. The raceme is densely flowered, on long peduncles from the leaf axils. Stamens are greatly exerted and prominent.

Flowers from mid-June to July.

Associated with saturated soils and muck streamside, paludal or emerging from the shallows of lakes and ponds.

Common in Colchester Co., scattered northward to Cumberland and Antigonish counties, to northern Cape Breton. Also found in Halifax Co.

Elsewhere from NF to AK, south to MD and CA; Eurasia.



*Photo by Sean Blaney*

***Lysimachia vulgaris* L.**  
**Garden Loosestrife; lysimaque commune**



Photo by Sean Blaney

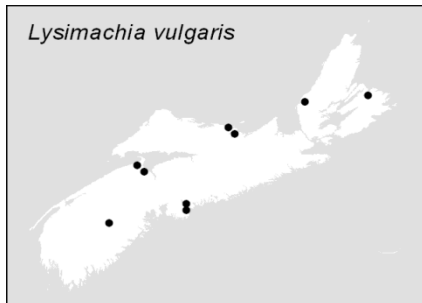
Erect plants, the simple or branching stems may reach 1 m in height. Lanceolate leaves are opposite, rarely whorled and very sparsely hirsute beneath. Flowers are pale yellow and numerous in freely-branching panicle. Calyx has its lobes less than 5mm long, conspicuously marked with dark green margins.

July to September flowers.

Frequents roadsides, thickets and wet soils in low-lying sites.

Occasionally escaped or persisting.

NS to ON, south to KY; BC to MT and OR Introduced from Europe.



***Primula* L.**  
**primrose**

Most diverse in the mountains of central Asia, Nova Scotia has two species, both of conservation concern. Basal leaves are arranged in small rosettes, from which a scape arises. Flowers are terminal, arranged in an umbel. Each flower has a campanulate five-lobed calyx. In our species, the calyx is shorter than the corolla tube.

Leaves farinose beneath, 2.5–10cm long; plant to 50cm tall; capsule 9–12mm long.

*Primula laurentiana*

Leaves smooth or only slightly mealy, 1–4cm long; plant < 20cm tall; capsule 5–8mm long.

*P. mistassinica*



***Primula laurentiana* Fern.**  
**Primrose; primevère laurentienne**



Photo by Marian Munro

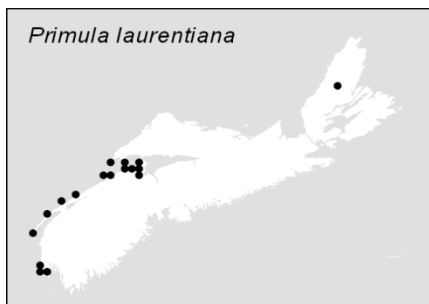
Beautiful pink to purple flowers clustered atop a scape to 50cm tall. Leaves are oblanceolate or spatulate, strongly farinose beneath, the powder white or yellow. Sepals may or may not be mealy.

Flowers from June to August.

Ledges, cliffs and meadows, especially in basaltic regions.

Scattered along the Bay of Fundy; Victoria Co.

Southern NL to ON, south to ME.



***Primula mistassinica* Michx.**  
**primevère du lac Mistassini**



Photo by Sean Blaney



Resembling the first species, but it is smaller in stature. Scape reaches only 20cm in height, bearing fewer flowers. Leaves are green, neither white nor yellow beneath.

Flowers May to August.

Springs, dripping cliffs and streambanks, crevices.

Locally prominent along a sandstone bank of the Salmon River and at Upper Stewiacke, Colchester Co.; scattered in northern Cape Breton.

Elsewhere from NL to AK, south to BC, IL and NY.

STATUS: YELLOW-listed.

***Samolus* L.**  
**water-pimpernel**

Cosmopolitan in scope, the genus is small with only 10 species. Leaves are variously shaped, with entire margins. White flowers are arranged in racemes, either terminal or axillary. Calyx is campanulate, its five lobes deltate and shorter than the corolla tube. Corolla is also five-merous; stamens deeply inserted into the tube. Fruit a round capsule dehiscent, showing five valves.

***Samolus valerandi* L.  
(=*S. parviflorus* Raf.)**

**Brookweed; Water-pimpernel; samole à petites fleurs**



*Photo by Sean Blaney*



*Photo by Sean Blaney*

A slender plant, it has simple or branched stems. Leaves in the basal rosette are ovate to oblanceolate. Cauline leaves are oblong. White flowers are minute, 2–3mm wide. Racemes are loose. Ours is ssp. *parviflorus* (Raf.) Hultén.

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Flowers July to September

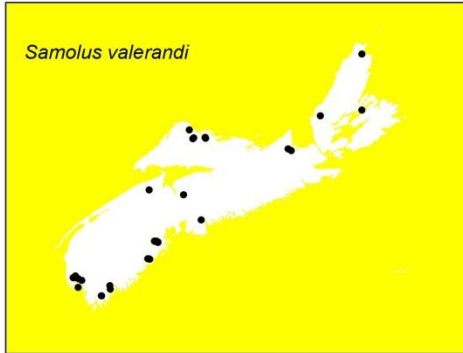
Stream beds, freshwater, tidal marshes – highly flooded stations in muck to gravel substrate.

Not common, from the Tusket River, Yarmouth Co. to Bridgewater; Northumberland coastal plain.

Ranges from NS to ON, south to TX and FL; WA to NM.

STATUS:YELLOW-listed.

CHANGE TEXT on map



***Trientalis* L.**  
**starflower**

Three north-temperate perennial species have been described, only one of which occurs here. Flowers are seven-merous. Sepals are almost separate subtending a short corolla tube, with ovate to deltate petals. Stamens are inserted at the base of the corolla. Capsules have five valves, bearing many seeds. Leaves are produced in a whorl at the top of the rhizomatous plant.

***Trientalis borealis* Raf.**  
**Starflower; trientale boréale**



*Photo by Martin Thomas*



Stems are erect with a single whorl of leaves at the top. Leaves number 5–9, attenuate and lanceolate. Flowers are few and starlike on delicate slender pedicels arising from the whorl. Both features allow easy determination of this species. The eastern plants are ssp. *borealis*.

Flowers May to August.

Found in both coniferous and deciduous forests and peaty soils elsewhere. A pioneer forest species.

Common throughout and easily recognized.

NL to SK, south to GA.

*Photo by David Mazerolle*