

Alismataceae

water-plantain family

Associated with freshwater and wetlands, these herbaceous plants have sagittate or linear leaves. The flowers have showy white petals and six or more stamens. Pistils are numerous, and form a tightly packed ring or spiral. Fruits are achenes.

Key to genera

Leaves oblong to ovate, stamens 6–9; achenes in a dense ring.

Alisma

Leaves lanceolate to sagittate; stamens numerous; achenes in a dense globose head.

Sagittaria

***Alisma* L.**

water-plantain

Herbaceous perennials, these glabrous aquatic plants number nine worldwide, with five in North America. We have three native species. The leaves are petiolate, but sessile when submersed, and ovate to elliptic in outline. The small flowers are borne in a panicle on long scapes. The achenes are keeled.

Key to species

Sepals 3–4mm long; petals 3–6mm long.

A. triviale

Sepals <3mm long; petals less than 2.5mm long.

A. subcordatum

***Alisma gramineum* Lej.** was reported from Colchester Co. but we believe this to be an erroneous report. Its native range is QC to C, south to CA and NM; VA; MO.

***Alisma subcordatum* Raf.**

alisma subcordé

Flowers are generally smaller than in the following species. The leaves are at least rounded at the base and sometimes nearly heart-shaped.

Flowers throughout the summer, from June to September.

Ditches, marshes and muddy shores, in shallows.

Recently discovered in Colchester Co. where it was found in ditches at the summit at Biorachan (1100ft.)

Elsewhere ranges from NS to MB, south to TX and GA; OR to NM.

Note: the collection needs to be re-examined to confirm whether it is *A. subcordatum*. It appears to be intermediate between this and the next species.

***Alisma triviale* Pursh**

Water-plantain; alisma commun



Photo by Sean Blaney

Reaching 80cm in height, this species bears its basal leaves on long petioles. The inflorescence is a large panicle borne above the leaves.

Flowers from June to early September.

Muddy soils in ditches, ponds and edges of streams and sinkholes.

Common from Annapolis and Cumberland counties to Inverness Co.

Ranges from NF to AK, south to CA, NM, AR and MD.

***Sagittaria* L**

arrowheads

Generally perennial, the arrowheads are centred about North and South America and total about 20 species. Stoloniferous, their leaves may be aerial, emergent or submersed. Their outline is often sagittate with two basal lobes, although great variability exists and often the leaves appear unlobed. The scape is often sheathed by the petioles, at its base. The inflorescence is a panicle; each cluster has three flowers. The achenes are compressed, their edges membranous and winged.

Key to species

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|--|----------------------------|
| A. Leaves short, linear to lanceolate. | <i>Sagittaria graminea</i> |
| aa. Leaves on long petioles, sagittate or hastate. | B |
| B. Fruiting head smooth, beaks of the achenes horizontal. | <i>S. latifolia</i> |
| bb. Fruiting head rough; beaks of the achenes erect or reflexed. | <i>S. cuneata</i> |

Sagittaria cuneata* Sheldon*Northern Arrowhead; sagittaire cunéaire***Photo by Sean Blaney**Photo by Sean Blaney*

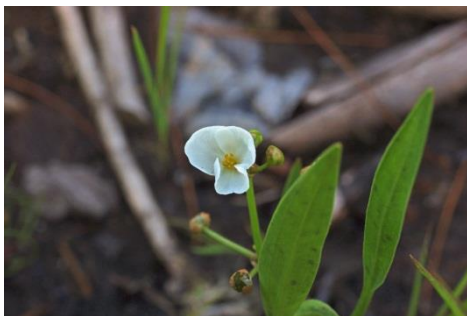
The leaves are small, 5–9cm long and deltate in outline. The bracts subtending the pedicels are lanceolate. The erect beaks of the achenes lend a rugose texture to the fruiting-head.

Flowers from June until September.

Freshwater shallows at the edges of marshes, ponds and small streams. Usually grows in mucky substrate and alluvial soils in gypsum areas.

Cumberland and Kings counties to northern Cape Breton.

Ranges from NS to AK, south to CA, TX and NJ.

Sagittaria graminea* Michx.*Slender Arrowhead; sagittaire graminoidé***Photo by Martin Thomas*

Smaller than its relatives, this species bears narrowly lanceolate or linear leaves. The scape is unbranched, rarely exceeding 40cm and bears terminal whorls of small flowers.

Flowering from May until September.

Sand or silty substrates around ponds and lakeshores. Sometimes in shallows over tidal mud.



Photo by Martin Thomas

Scattered throughout and more frequent from eastern and central regions.

NF to ON, south to AZ and FL; WA.

***Sagittaria latifolia* Willd.**

Common Arrowhead; sagittaire à larges feuilles



Photo by David Mazerolle

Plants may reach from 10–50cm tall. Its leaves are hastate or sagittate, the lobes widely divergent. The bracts at the base of the pedicels are ovate or nearly round. Mature plants exhibit smooth fruiting heads and beaked achenes. There is great variability in the width of the leaves. Former varieties are not recognized at present.

Flowers later, from June to September.



Photo by Sean Blaney

Lacustrine, muddy stream substrate and paludal.

Common throughout.

Found all over North America, but for the arctic and NV.