

ALISMATACEAE – WATER PLANTAIN FAMILY

Plant: herbs (annual or mostly perennial) – mostly aquatic; streams, swamps, and muddy ground

Stem: leaves form a sheath for the stem

Root: mostly fibrous, sometimes forming tubers

Leaves: simple, basal, smooth, arrow-shaped and oval or lance-shaped, veins often prominent, only main veins parallel

Flowers: perfect or imperfect (monoecious; *Sagittaria*); flowers whorled or opposite, 3 green, separate and persistent sepals; 3 petals, usually white or pinkish; stamens usually 3-6 to numerous and spiraled; 3 to many pistils in a ring or a cluster, ovary superior, 1 ovule, carpels 6 to numerous

Fruit: usually a dry seed (achene or follicle)

Other: most common in temperate areas; Monocotyledons Group

Genera: 11+ genera; locally *Alisma* (water-plantains), *Sagittaria* (arrow-heads), and *Echinodorus* (bur-heads)

Alismataceae (Water-Plantain Family) – corolla of 3 petals (usually white but sometimes pinkish); calyx of 3 separate sepals; leaves simple, basal, and only the main veins are parallel; fruit an achene or follicle

Genus *Alisma*



ring of single pistils,
flat receptacle

Northern [Large-Flowered] Water Plantain

Genus *Sagittaria*



Pistils in clustered heads,
achene fruits flattened, three
bracts, no bracteoles
(secondary, usually smaller
outer bracts), perfect or
imperfect (monoecious)



Broadleaf [Common] Arrowhead

Genus *Echinodorus*

Pistils in clustered heads, achene fruits
flattened, three bracts plus several bracteoles,
perfect

ALISMATACEAE – WATER PLANTAIN FAMILY

Northern [Large-Flowered] Water Plantain; *Alisma triviale* Pursh

Grassy [Grass-Leaved] Arrowhead; *Sagittaria graminea* Michx.

Broadleaf [Common] Arrowhead; *Sagittaria latifolia* Willd.

Northern [Large-Flowered] Water Plantain



Alisma triviale Pursh

Alismataceae (Water-Plantain Family)

Maumee Bay State Park, Lucas County, Ohio

Notes: 3-petaled flower, white, petals 3+ mm, sepals usually half to two-thirds length of petals, numerous flowering stalks on long stem; leaves ovate and basal with long slender petiole, acute tip, less than 2x as long as broad; fruit ring 3.5 to 5 mm, muddy shores; summer to early fall

[V Max Brown, 2006]



Grassy [Grass-Leaved] Arrowhead

Sagittaria graminea Michx.

Alismataceae (Water-Plantain Family)

Ottawa National Wildlife Refuge, Ottawa County, Ohio

Notes: 3-petaled flower (monoecious), upper staminate flowers white (or pinkish), on long pedicels, mostly in whorls of 3, sepals ovate, rounded and fused at base, lower pistillate flowers similar; leaves linear to lance-linear with blades 4+ longer than wide; muddy shores or aquatic; summer to early fall

[V Max Brown, 2008]



Broadleaf [Common] Arrowhead [Duck Potato]



Sagittaria latifolia Willd.

Alismataceae (Water-Plantain Family)

Maumee River Metroparks, Lucas County, Ohio

Notes: 3-petaled flower, white, often falling early, 20+ stamens, all flowers on long pedicels, mostly in whorls of 3, lower flowers pistillate; leaves vary from narrow to broad, arrowhead-shaped (hastate to sagittate); most common species; muddy shores or aquatic; summer to fall

[V Max Brown, 2005]

