

Common Water-plantain *Alisma triviale*

Alismataceae—Water-plantain family

by Tom Reaume © 2010 Nature Manitoba

Grant: **Manitoba** 

An aquatic, glabrous **perennial wildflower** 0.3–1.25 m tall in small clusters or singly from a mass of tan **fibrous roots** 3–12 cm long by 0.5–1 mm wide that hide the thickened stem base; along muddy shores in shallow water of quiet streams, ponds and marshes; **juice milky**.

● **FLOWERS** white, blooming May–August; **inflorescence** a panicle, glabrous, stiff, much branched with a delicate appearance, 7–60 cm long and up to c. 65 cm wide with 3–7 nodes along the central stem; **floral branches** 8–40 cm long by 0.5–3 mm wide, usually 5–7 at the lowest node of the inflorescence, ascending, hollow, triangular with blunt corners with 2 or 3 long lines per side, each branch with up to 5 nodes with branchlets; **pedicels** glabrous, stiff, 3.2 (2–5.1) cm long by 0.5–0.7 mm thick, in whorls of 3 or 5 along the branches; **subtending bracts** (of floral branches), 3–5 per stem node, 0.5–3 cm long by 1–8 mm wide, reduced above, pointed, ascending, reddish green; **bracteoles** smaller, at the base of each whorl of branchlets and pedicels; **flower buds** c. 3.8 mm long by c. 2.5 mm wide, green; **flowers** perfect, numerous, 5–12 mm wide by 2–4 mm tall, ascending, blooming sequence not obvious, 1–58 flowers open at once, each lasting about one day; **sepals** 3, each 2.5–6 mm long and wide, green, C-shaped, hooded with a green protuberance near the outer apex, entire with hyaline margins, 3 or 4 strong veins on both sides of the midvein, persistent, appressed and dark brown at the base of the fruit cluster; **petals** 3, spreading, 3–6 mm long and wide, white with a yellow base, faintly veined, the edges erose to entire, drop in a day; **stamens** 6, slightly exceeding the pistils, ascending; **filaments** 1.5–2 mm long, attached in a green ring at the outside base of the pistil ring; **anthers** green, 0.5–0.8 mm long by c. 0.7 mm wide; **pollen** yellow; **pistils** compound, together in a roundly triangular ring (above) 2.5–3.2 mm wide by c. 1.8 mm tall, with a deep cavity in the middle, each pistil 1.8–2 mm long by c. 1.2 mm wide by c. 0.5 mm thick with one groove along the outer convex side; **styles** 0.4–0.7 mm long, green turning brown, curved, near the inner margin, persistent on fruit; **ovary** green, c. 1.2 mm long by c. 1 mm wide by c. 0.4 mm thick; **fruit clusters** green, turning brown when ripe, 4–7 mm wide by 2–2.5 mm tall, roundly triangular from above; **flower to fruit** 6–8 weeks.

● **FRUIT** an achene, 1-seeded, tan, 15–20 per fruit cluster, each 2–3 mm long by 1.2–2 mm wide by c. 0.5 mm thick with a groove along the outer convex edge, beaked, hairless, slightly shiny; **seeds** shiny, smooth, brown with a thin shallow groove on both sides, flat, c. 1.5 mm long by 0.7–0.8 mm wide by c. 0.4 mm thick, margins rounded.

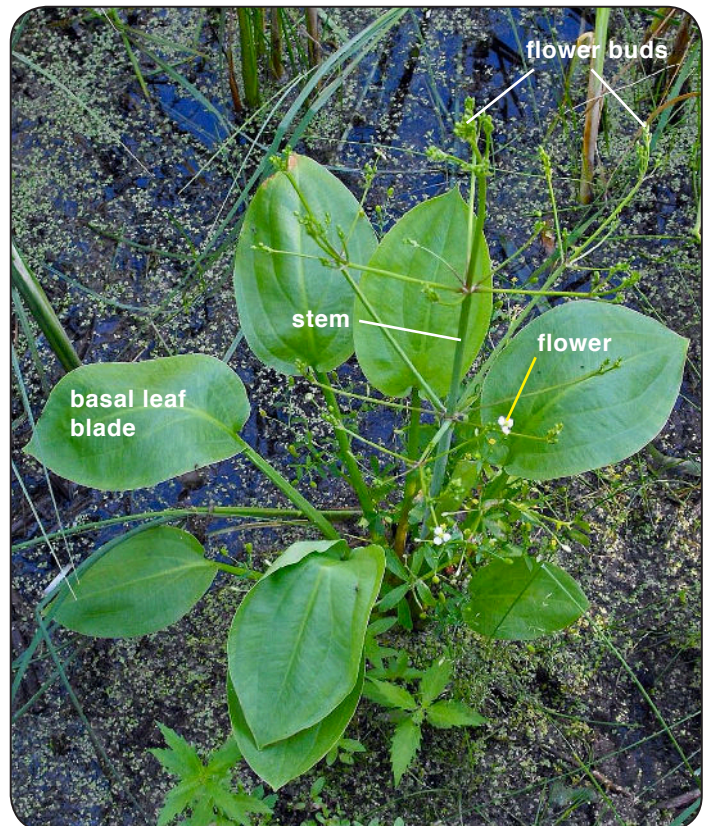
● **LEAVES** basal, entire, simple, 4–20, glabrous, sometimes reaching to the lower floral branches of the panicle, ascending above the water; **blades** 3–35 cm long by 1–12 cm wide, dull, flat, with 2 or 3 large lateral veins parallel to the margins and converging to the apex; **petioles** 3–47 cm long by 4–6 mm wide (midway), flat above, round below, solid, widening over 8–10 cm at the concave winged base.

● **STEM** erect, hollow, 1 or 2 per root, roundly triangular and branched above, glabrous and glaucous; 2–8 mm thick above the thickened, roundish, 1–2 cm wide base.

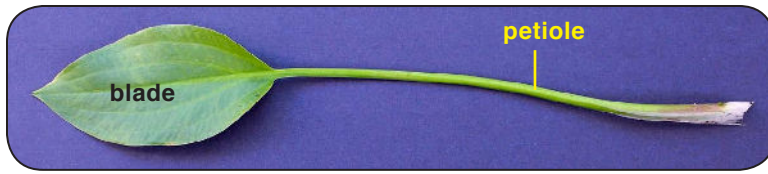
● **RANGE:** (CAN) 11 provinces; (USA) 32 states; absent from the southeast; a **native**.



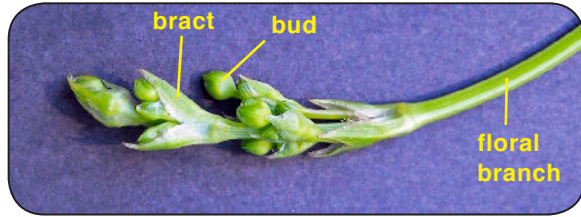
Common Water-plantain c. 1.2 m tall at edge of a pond in Assiniboine Park, Winnipeg, Manitoba



A young 60 cm tall plant with 2 flowers open among the buds on one stem from the center of 8 leaves



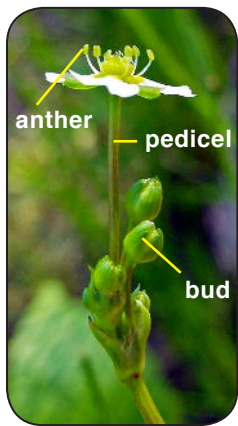
Basal leaf with blade 13 cm long and petiole 27 cm long



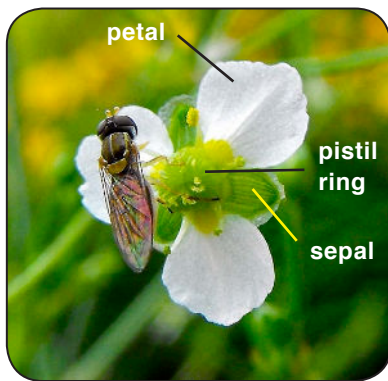
Flower buds in whitish green subtending bracts; length of buds together is 3 cm



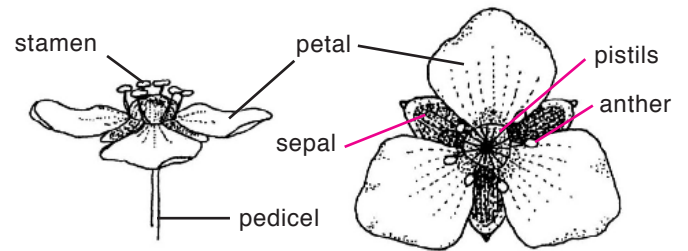
Ventral (upper) side of leaf blade near apex showing the finer venation of Common Water-plantain



Flower 9 mm wide; side; buds below

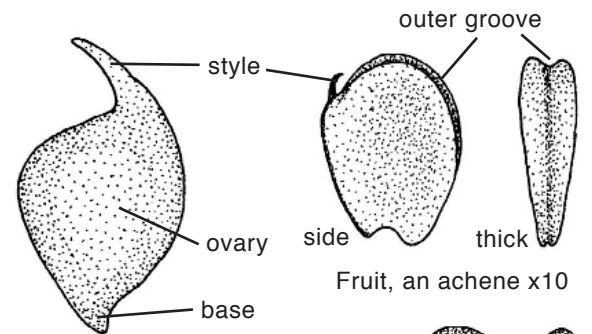


Flower 10 mm wide with a visitor



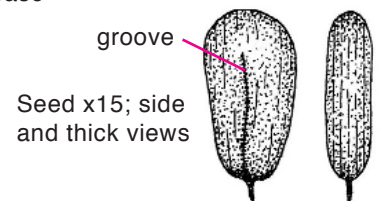
Flower x4; side

Flower x4; above

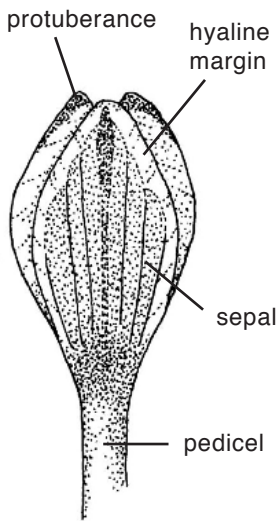


Pistil x20; side

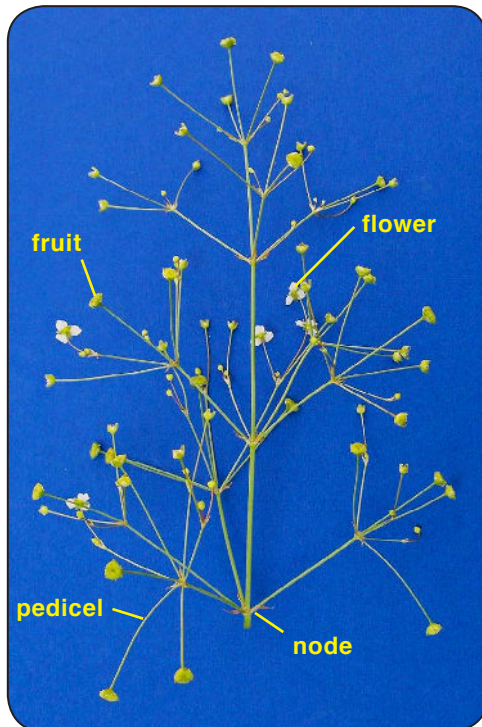
Fruit, an achene x10



Seed x15; side and thick views



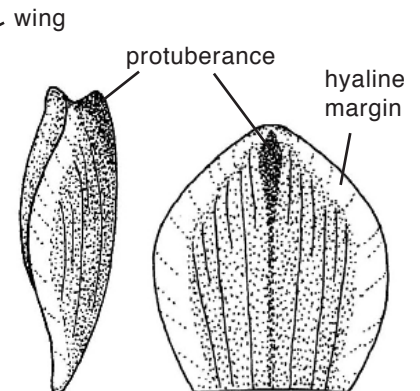
Flower bud x10; 3 outer sepals



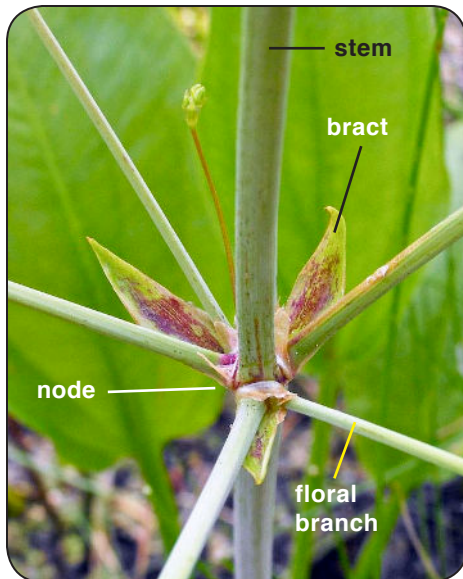
Top 18 cm of stem with 5 open flowers and green ripening fruit clusters in a panicle



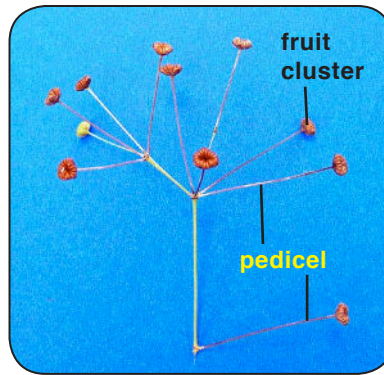
Petiole 7 mm wide near winged base



Sepal x10; side (left); flattened on D-side (right)



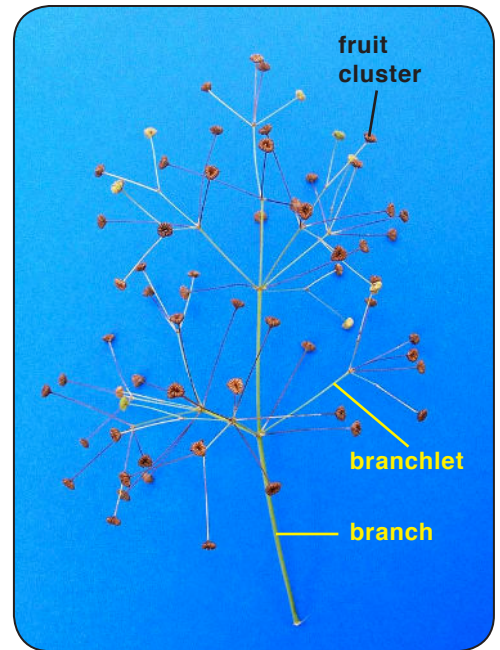
Subtending, c. 2 cm long reddish bracts of floral branches at lower stem node



Branchlet 9 cm long with 11 mostly brown fruit clusters



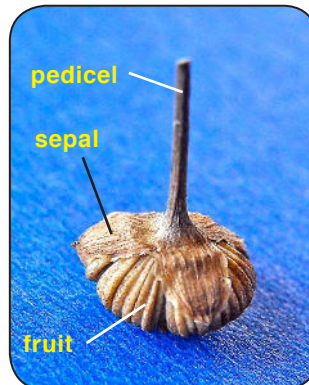
Two fruit clusters c. 5 mm wide from above, each with 19 fruit



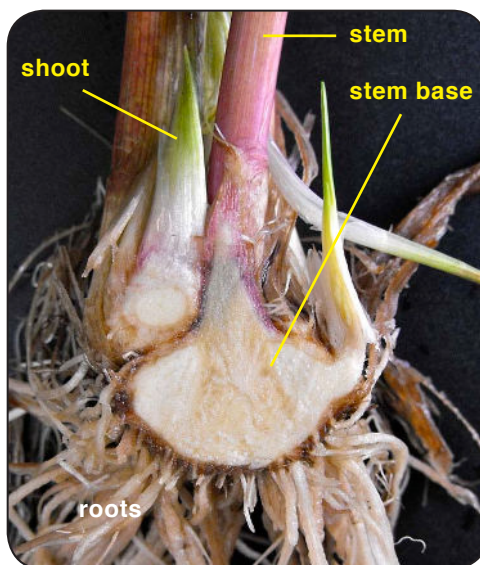
Fruiting branch 23 cm long with 65 mostly brown fruit clusters 5–6 mm wide



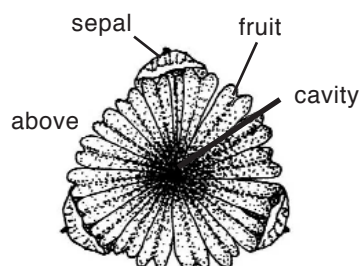
12 fruit, each c. 2.5 mm long



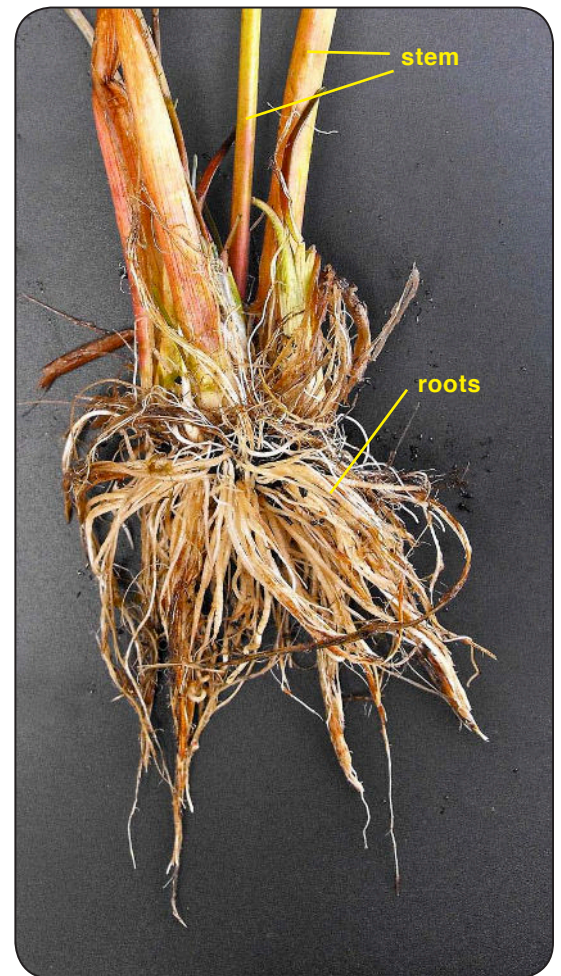
Fruit cluster 6 mm wide from side and below; sepals appressed



Cut thickened stem base 2 cm across with a couple of new green shoots in fall



Fruit cluster x6; above; 5 mm wide with 18 fruit and 3 sepals around a central cavity



Underground portion of Common Water-plantain; aerial stem on right 8 mm wide