

Narrow-leaved Cattail *Typha angustifolia*

Typhaceae—Cattail family

by Tom Reaume © 2011 Nature Manitoba

Grant: 

A perennial wetland herb 1–3 m tall, in colonies from a basal crown with light brown **rhizomes** to c. 50 cm long by 1–3 cm thick with side **roots** 1–2 mm thick from nodes; often forming extensive colonies along shores of shallow ponds, lakes and marshes; **monoecious**.

● **FLOWERS** green, blooming May–August; **inflorescence** a double spike, cylindrical, terminal, together 33 (18.7–42.8) cm long; **flowers** unisexual, tiny, hundreds per spike; **perianth** absent; **upper spike** male, 16 (7–22.8) cm long by 9–12 mm wide at anthesis; **male flowers** with brown filiform bracteoles, some branched at their tips and slightly longer than the stamens; **stamens** numerous, soon deciduous; **anthers** usually 3 (1–5) per filament, 2–3 mm long, yellow with a green apex, 4-lobed; **filaments** c. 0.4 mm long, to c. 1 mm long at anthesis; **rachis gap** 2.8 (0.5–5.6) cm long between the two spikes; **lower spike** female, 14.5 (6.6–19.8) cm long by 6–9 mm wide at anthesis, swelling to 1.2 (0.7–1.6) cm wide in fruit, then dark brown, starting to open in late summer, persisting overwinter and opening in spring to disperse fruit with wind, of 3 parts: (1) **female flowers** numerous, fertile or sterile; **hairs** 40–50, together to c. 12 mm wide, white, attached to the stipe's base; **stipe** in fruit 2–3 mm long by 0.1 mm wide, tan, erect; **ovary** c. 1 mm long; **style** in fruit tan, wide, sinuous, erect; **stigmas** linear, c. 1.3 mm long, persisting, dark brown in fruit, forming the soft surface of the spike along with tips of the bracteoles (2) **bracteoles** c. 3 mm long, their tips covering the spike's surface, lengthening to 5.5 mm with fruit, apices dark brown and wide (3) **carpodia** club-like, tan, body c. 1 mm long atop a 3.5 mm long stipe, apices truncate, slightly shorter than bracteoles and stigmas; **female rachis** c. 2.2 mm wide, solid, medium brown, rough; **pedicels** tan, peg-like, 0.3–0.7 mm tall by c. 0.2 mm wide, united at bases.

● **FRUIT** a **follicle** (pod), light brown, smooth, vertical, dull, tapered at both ends, opening along one side only, 1–1.2 mm long by 0.3 mm wide and thick; **seed** one per follicle, 0.9–1.1 mm long by 0.3 mm wide by 0.25 mm thick, slightly shiny, striated longitudinally, tan, 2-ribbed, ribs lighter brown than the seed's body, apex truncate and whitish brown, tapered to a whitish brown narrow base which is the first part of the seed to project from the base of the open pod.

● **LEAVES** appear alternate, simple, entire, linear, glabrous, filled with air chambers, floating when tan and dry the next spring, ascending, arching, 2-ranked, several per reproductive plant, convex on one side, concave on the other side, tapering slowly to a brownish tip, developing fine black dots overwinter, often with a twist near the tip, creating a horizontal tangle among plants in the late fall as they turn brown; **petioles** none; **upper blades** to c. 120 cm long by 4.7 (3–12) mm wide by 1–2 mm thick, extending 10–30 cm past the top of the male spike when held erect; **lower blades** 40–80 cm long by 5–9 mm wide; **sheaths** with membranous auricles, body extends to the plant's base forming layers around the stem.

● **STEM** round, smooth, erect, persists upright or leaning overwinter and into the next summer, 3–5 mm thick below the female fruiting spike, green, turning tan in the fall, stiff, 1.5–2 cm wide near the base where surrounded by leaf sheaths.

● **RANGE:** (CAN) 8 provinces; (USA) 38 states; an eastern, native, spotty distribution in the western and southern parts of the USA; can form hybrids with the Common Cattail.



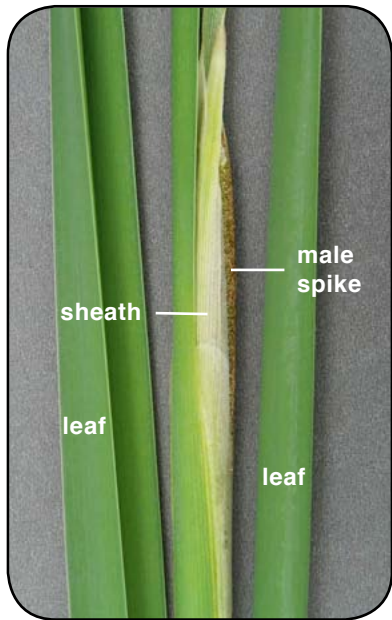
Narrow-leaved Cattails c. 2 m tall, display their inflorescences in early July from a shallow pond along Portage Avenue in Winnipeg, Manitoba



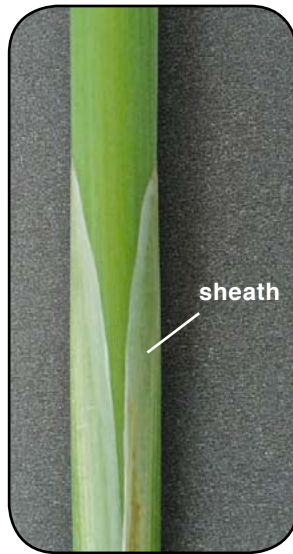
Pond full of a new growth of cattails 1–2 m tall, mid-June; old tan female spikes persist; new spikes not yet in bloom



New green stalks emerging from thick underground rhizomes below a litter of old leaves and stems



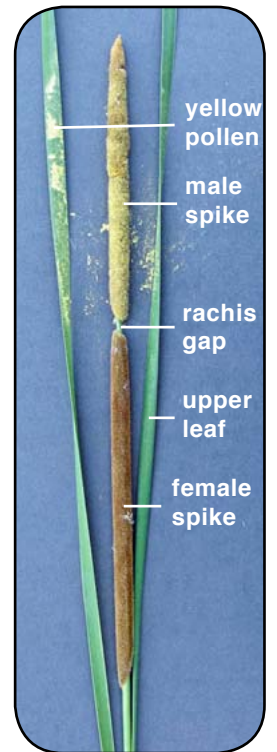
Flower spikes beginning to emerge from whitish sheaths



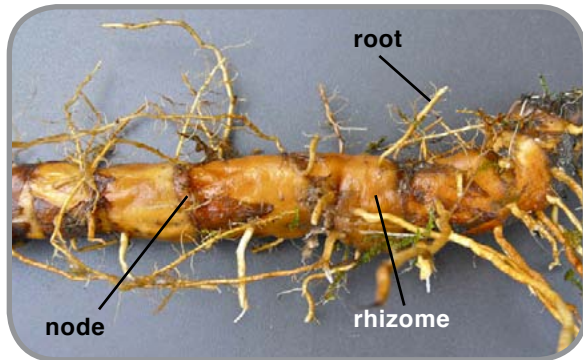
Sheath of lower leaf, V-shaped, open



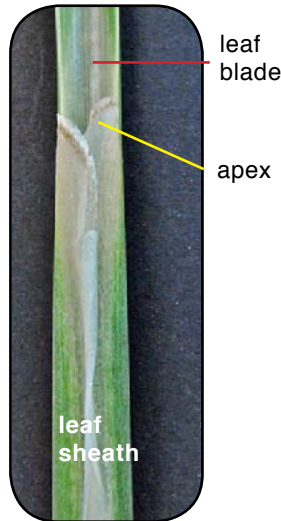
Male spike 13.7 cm long by 9 mm wide of Narrow-leaved Cattail in bloom; pollen yellow



Inflorescence 31 cm long; male spike above



Portion of 1.7 cm thick underground rhizome with roots c. 1 mm thick mostly from nodes



Leaf blade 5 mm wide with open sheath, membranous at apex; above

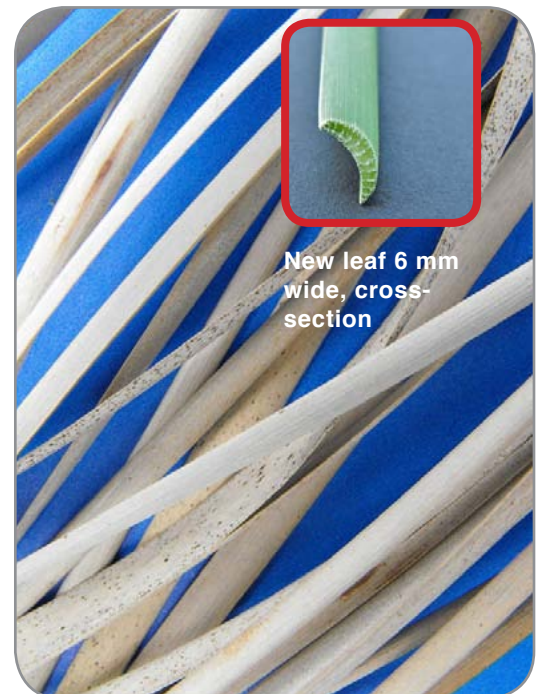


Leaf blade and sheath 9 mm tall; side



Cut lower stem 1.5 cm wide showing layers of 8 leaf sheaths on a 2 m tall plant in Winnipeg

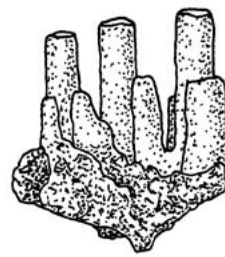
In late August the female spikes, 1.4 cm wide, begin to open



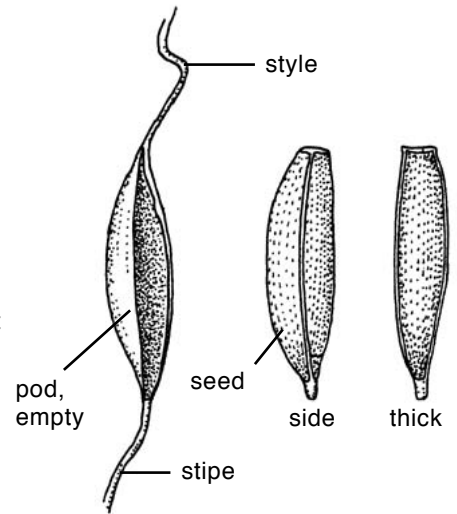
Tan leaves that have overwintered average c. 5 mm wide by 1 mm thick



Erect fruiting heads of cattails expand greatly for dispersal of tiny, 1-seeded fruit in the spring



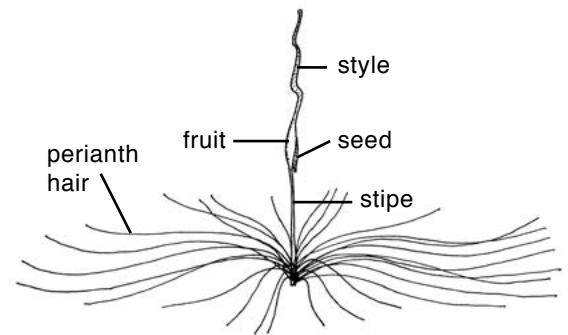
Erect pedicels on female rachis x40, fruit gone



Fruit and seed x30

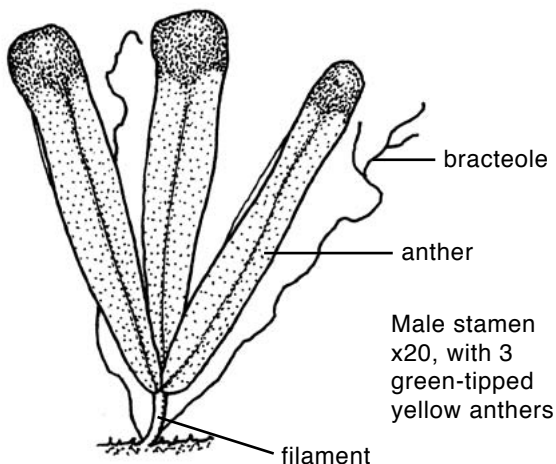


rachis covered with tan pedicels

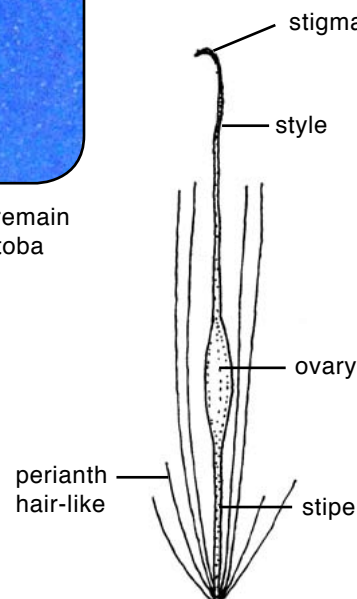


Fruit x6, of Narrow-leaved Cattail, side view, ready to disperse in the wind

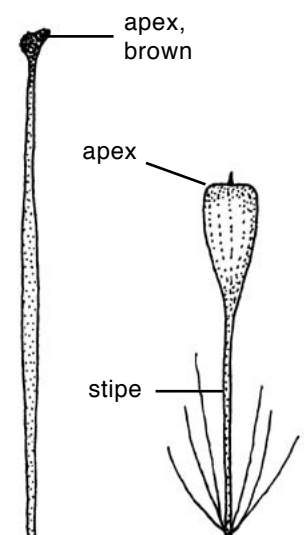
Rachis c. 4 mm wide of female spike; tan bases of pedicels remain after fruit has been dispersed by the wind in Winnipeg, Manitoba



Male stamen x20, with 3 green-tipped yellow anthers



Female flower x20



Female bracteole x20

Carpodium x20, club-like