

Perennial Sow-thistle *Sonchus arvensis*

Asteraceae—Aster family

by Tom Reaume © 2010 Nature Manitoba

A perennial **wildflower** 50–200 cm tall with brown **rhizomes** 10–20+ cm long by 2–5 mm wide with **roots** 1–10 cm long by 1–2 mm wide; in cultivated fields, uncut ditches, along rivers, roadsides, edges of gravelly parking lots and disturbed, dry to slightly wet areas; **juice milky**.

● **FLOWER HEADS** yellow, fragrant, blooming June–October; **inflorescence** corymbiform, 15–70 cm long by 10–38 cm wide; **floral branches** one to several, ascending, 5–55 cm long with up to 23 flower heads and 8 branchlets on a long branch; **peduncles** hairless or glandular-hairy, 0.7–15 cm long by 1–2 mm wide; **flower head buds** with whitish hairs clustered like frost at bases; **flower heads** 8–150 per plant, each 3.5–6.8 cm wide by 2.2–2.5 cm long, erect to nodding, remain open 1–2 days, usually 3 (0–15) heads open at once per plant at the peak of blooming; **top flower head** the first to open; **involucre** medium to dark green, hairless or glandular-hairy, 14–20 mm long by 7–9 mm wide in flower; **involucral bracts** 38–50, in 4 series, imbricate, 3.5–17 mm long by 1.8–2.5 mm wide with hyaline margins, descending in fruit; **ligulate florets** perfect, fertile, 150–190 per head, 2–3.7 cm long; **ovary** 1–1.7 mm long by c. 0.7 mm wide; **pappi** of white bristles 10–14 mm long; **corolla tube** 10–17 mm long by 0.5 mm wide, pale yellow with white spreading hairs on upper half; **ligule** yellow, hairy at tapered base, 9–20 mm long by 2–3 mm wide, 5 apical teeth 0.3–0.5 mm long; **stamens** 5, yellow; **anthers** c. 5 mm long, forming a tube; **style** hairy, exserted 2–8 mm beyond the anthers; **stigma** 2-parted, curled; **fruiting heads** ascending, 2.5–3.5 cm wide by 2.5–3 cm long (including descending involucral bracts); **flower to fruit** 12–13 days.

● **FRUIT** an achene, 1-seeded, 2.4–3.5 mm long by c. 1 mm wide by c. 0.6 mm thick, dull, dark brown, two wide lateral ribs plus 5–7 narrow ribs per side with cross striations; **pappi** of whitish smooth bristles 9–12 mm long, each fruit pappus c. 2 cm wide; **receptacle** 6–9 mm wide, light tan, hairless, smooth, flat, round to oval.

● **LEAVES** basal and stem, 12–16 per stem, alternate, reduced and bract-like above and subtending the floral branches, sessile, midrib wide, pale green to reddish, continues down along stem as a sharp ridge, especially below; **blades** glabrous, simple, not stiff, ascending, 2.5–36 cm long by 0.5–15 cm wide, reduced above, mostly with 2–5 lobes per side to entire, each lobe up to 4 cm long by 3 cm wide, pointing slightly backward, some lobes curled upward, margins weakly prickly (not hurtful), lower stem blades wilting early; **auricles** roundish, toothed, clasping stem; **basal leaves** absent by flowering; **first year plants** in fall 30–60 cm tall by 30–50 cm wide; **leaves** 9–33 cm long by 2.5–7 cm wide (including petioles); **petioles** 3–8 cm long by 2–9 mm wide, winged, pale.

● **STEM** angled, hairless, hollow, erect, glaucous, branched above, ridged below; 4–12 mm wide at the reddish hard base.

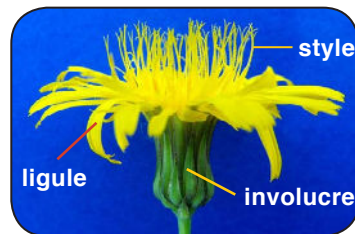
● **RANGE (CAN)** 12 provinces; **(USA)** 43 northern states; **naturalized** in North America.



Colony of plants 80–150 cm tall facing east along an uncut margin of the Assiniboine River in Winnipeg, Manitoba



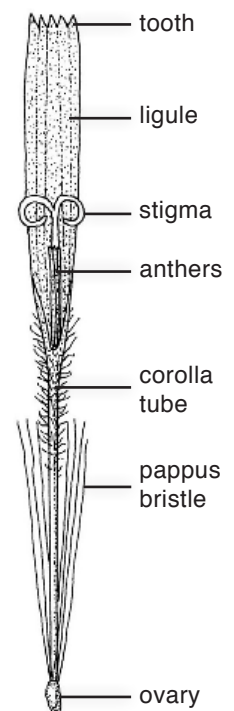
Two flower heads, each 5–6 cm wide and each with c. 160 ligulate florets



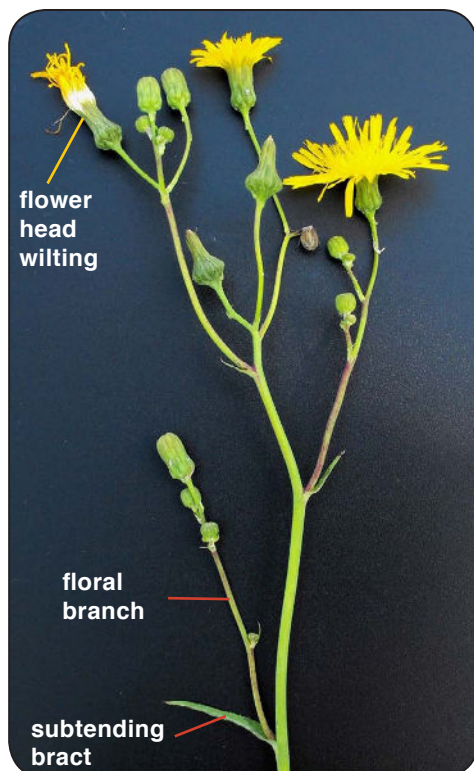
Flower head 5 cm wide; side view of projecting styles and 2-parted stigmas above yellow ligules



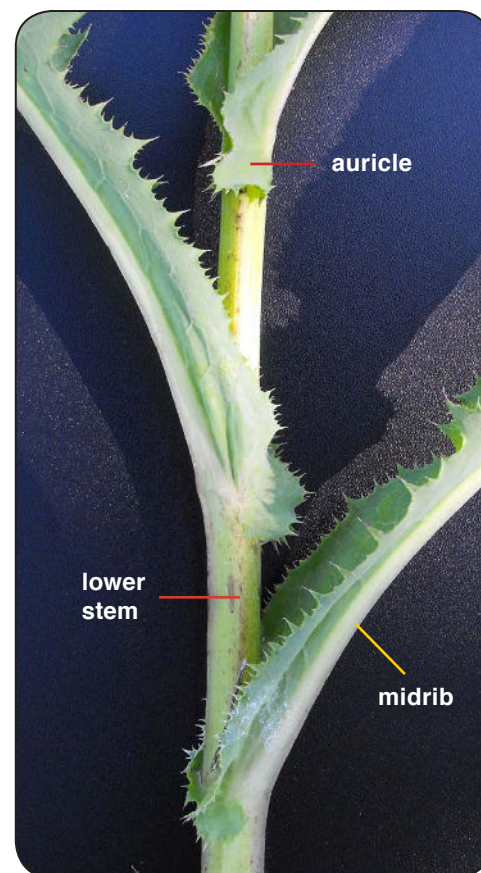
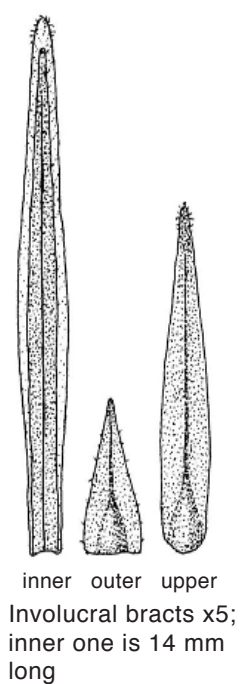
Syrphidae at flower head



Ligulate floret x3



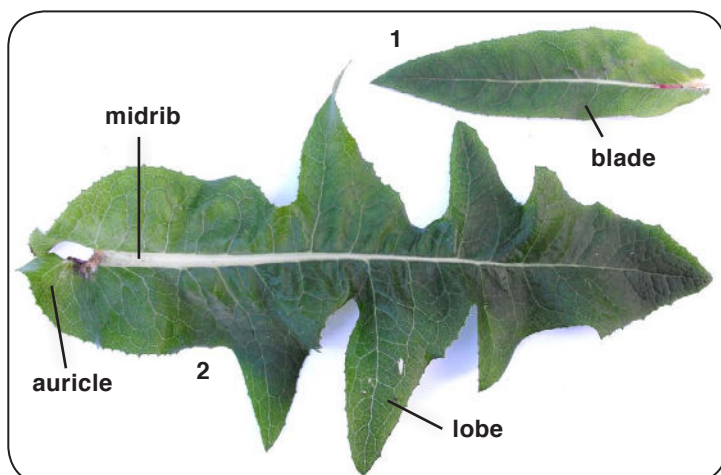
Upper plant arrangement of floral branches, flower head buds and wilting head



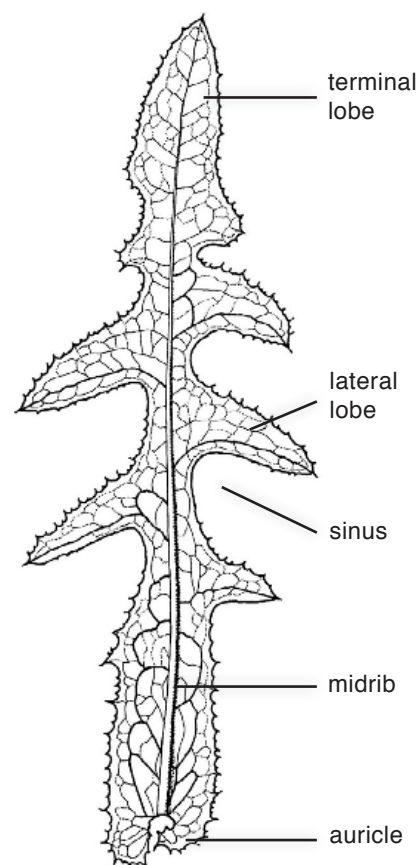
Three lower alternate leaves clasping the stem with their bases (auricles)



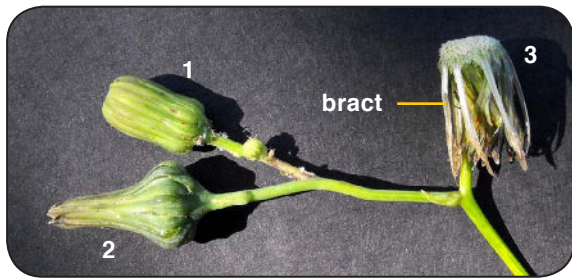
Left to right: (1) flower head bud (2) open (3) closing (4) ligules about to fall (5) fruiting head closed, fruit ripening inside (6) fruiting head open



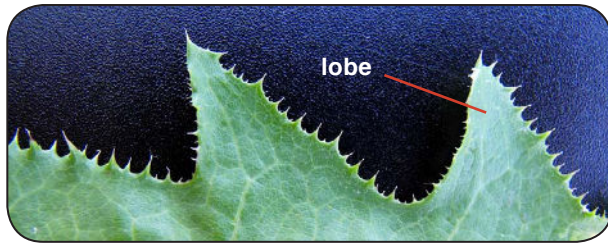
Two sessile stem leaves: (1) upper small unlobed one and (2) lower lobed blade 30 cm long; margins with small pointed teeth



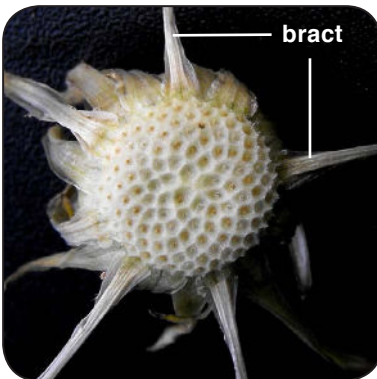
Mid-stem leaf x0.6



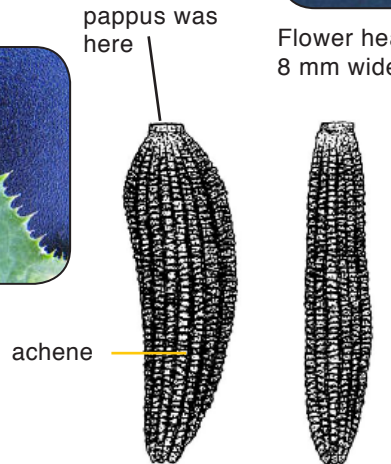
Three stages: **(1)** flower head bud **(2)** closed head as fruit ripens and **(3)** bare receptacle 7 mm wide with descending involucre bracts



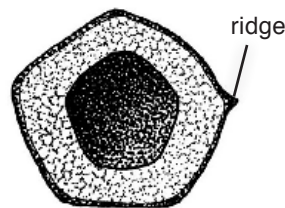
Prickly margin of large leaf



Receptacle 8 mm wide showing pattern from bases of fruit after their dispersal by wind



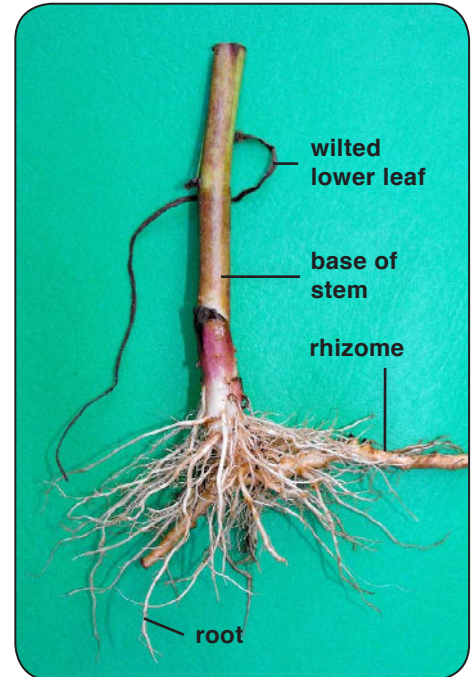
Fruit x15; 3 mm long with pappus removed



Cross-section of lower stem x3



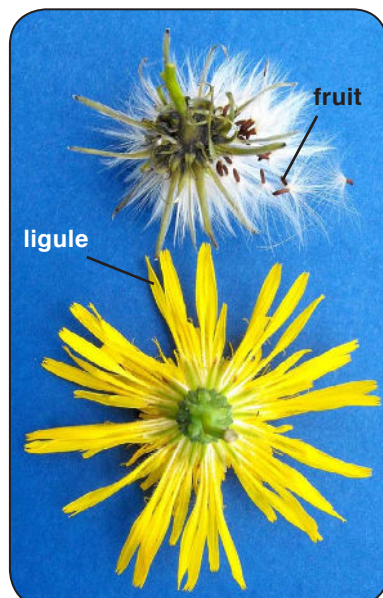
Flower head 5 cm wide; green involucre is 8 mm wide at its base



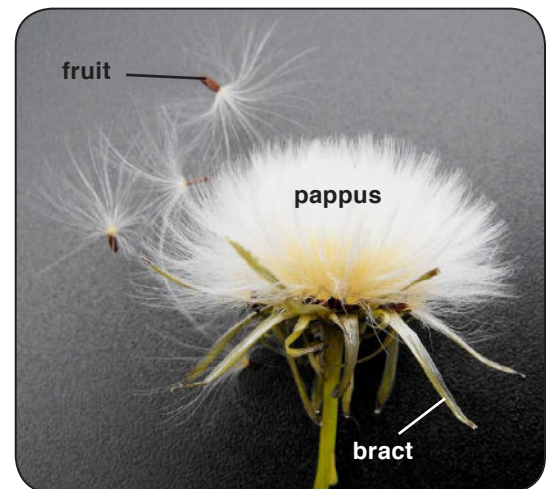
Shallow rhizomes (underground horizontal stems) from the base of the stem



Young plant 30 cm tall from a rhizome



Fruiting and flowering heads; below



Fruiting head 3 cm wide (side) with descending involucre bracts; a few wandering fruit to the left of the pappus