

Downy Yellow Violet *Viola pubescens*

Violaceae—Violet family

by Tom Reaume © 2011 Nature Manitoba

Grant: **Manitoba** 

A hairy to glabrous **perennial wildflower** 9–40 cm tall with a rough, furrowed, erect to horizontal **rhizome** 1–3 cm long by 2–5 mm wide, whitish tan with numerous tan **roots** 3–12 cm long by 0.5–1.2 mm wide with secondary rootlets 1–3 cm long by c. 0.25 mm thick; solitary or in patches in moist to dry woodlands, along banks of streams and rivers, and in thickets.

● **FLOWERS** yellow with brownish purple veins in the throat of all 5 petals but mostly on the bottom petal; **blooming** March–June; **inflorescence** axillary, flowers solitary; **peduncles** ascending, 2–8.5 cm long by c. 1 mm wide, 6-ridged, white hairs spreading and to c. 0.5 mm long, often with 2 bracteoles 1–3 mm long by c. 0.6 mm wide with a few scattered hairs along their lower margins; **flower buds** 9–10 mm long by c. 4.5 mm tall by 3–4 mm wide (from above); **flowers** perfect, nodding, 16–25 mm wide by 15–20 mm long by 6–12 mm tall, fragrant, cleistomagmous flowers (lacking petals) occur late in the season; **sepals** 5, green, 6–10 mm long by 1.5–2.4 mm wide, margins narrowly white hyaline, entire, generally with marginal hairs only at the thickened bases, glabrous above, 3- or 5-veins visible on inner side, pointed, persistent on open fruit; **corolla** of 5 petals; **upper petals** 2, each 13–15 mm long by 6–7 mm wide; **side petals** 2, each 14–16 mm long by 6–7 mm wide, with a tiny beard of white hairs in the throat; **lower petal** 1, 12–15 mm long by 7–8 mm wide, forming a blunt spur 2–3 mm long at its base; **stamens** 5, each c. 3 mm long by 1.3–1.5 mm wide; **filaments** green, wide, with an apical orange appendage 1–1.3 mm long and wide, lower margins finely ciliate; **anthers** green, c. 1.8 mm long; **pollen** medium yellow; **pistil** c. 4 mm long, surrounded by the stamens; **stigma** white with flat white hairs on the sides; **flower to fruit** 6–7 weeks.

● **FRUIT** a capsule, bluntly triangular, light green turning brown, 3-valved, each valve 8–14 mm long by 3.2–5 mm wide, woolly to glabrous, splitting open along sutures from the apex, the pointed valves spreading; **seeds** tan, some with mottling, each 2–3 mm long by 1.7–2 mm wide by c. 1.3 mm thick, smooth, slightly shiny, with a whitish ridge to the base, 19–33 per capsule, in 2 alternating rows in each valve; **caruncles** 1.2–1.5 mm long, starting at the hilum where the funiculus is attached to a flat point c. 0.5 mm wide and continuing down to the fruit's base as a ridge.

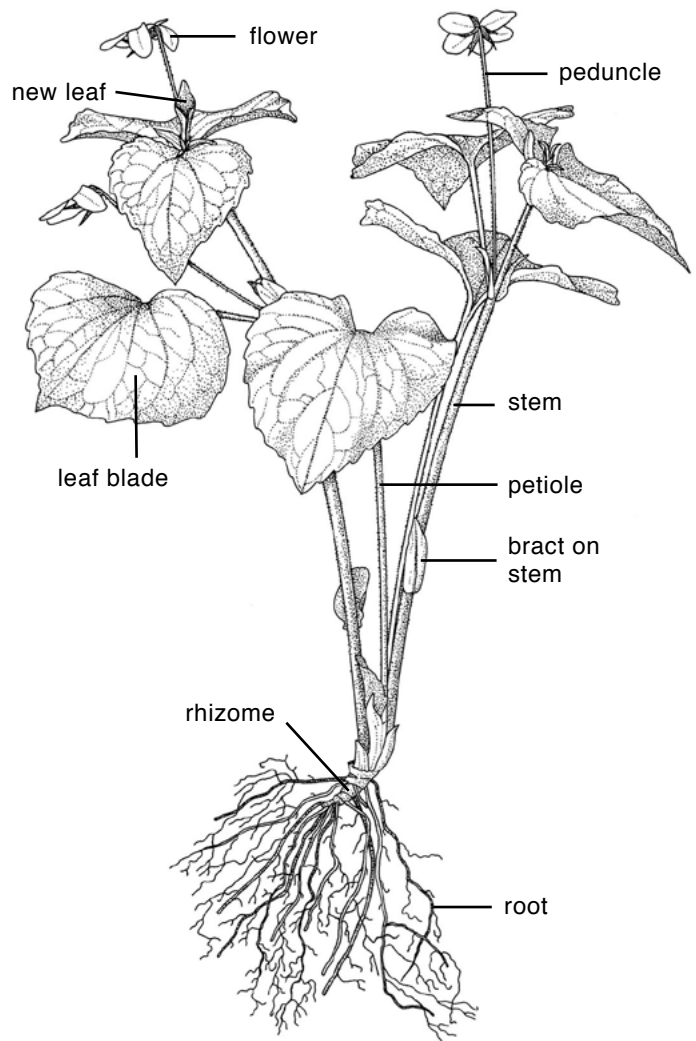
● **LEAVES** basal and stem, alternate, simple, 2–4 near the top of each stem; **blades** wavy, widely heart-shaped, 3–10 cm long and wide, downy below along the raised veins, less so above, margins revolute, ciliate, teeth blunt; **petioles** ascending, 1–22 cm long by 1–2 mm wide and deep, shorter to longer than their leaf blades, with scattered white hairs and a shallow groove above; **stipules** paired, 8–20 mm long by 4–7 mm wide, entire or toothed, pointed, ascending, hairy or not.

● **STEM** roundish, erect, stout, reddish green, one to several, smooth to downy in the upper half, 2–3 mm thick near the base; **bracts** stipule-like, on stems near the base, erect, c. 1.5 cm long by 5–7 mm wide, toothed, pointed; **crown bud** (next year's plant) whitish purple, thick, c. 10 mm long in the early autumn.

● **RANGE:** (CAN) 7 provinces; (USA) 38 states; an eastern native.



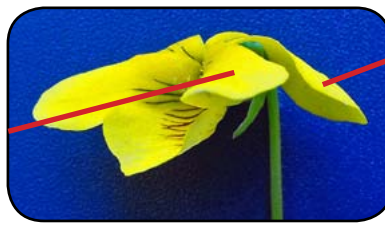
Downy Yellow Violet patch after a rain in the deciduous forest of Assiniboine Park in Winnipeg, Manitoba. The oval tan objects on the leaves are the fruit of American Elm



Plant 23 cm tall x0.6, with three open flowers

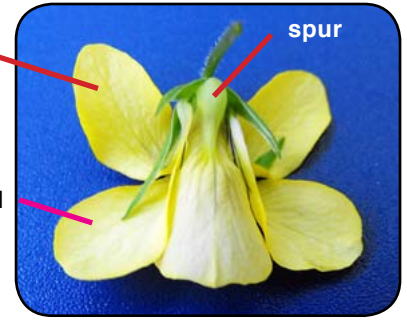


front

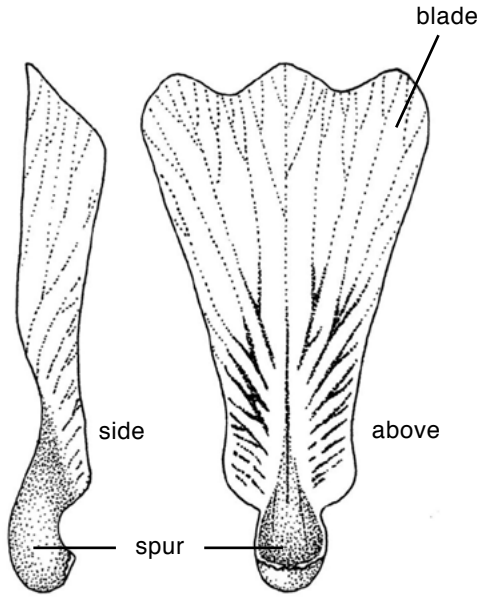


side

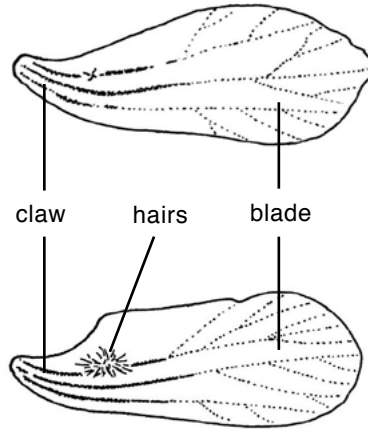
Downy Yellow Violet flowers



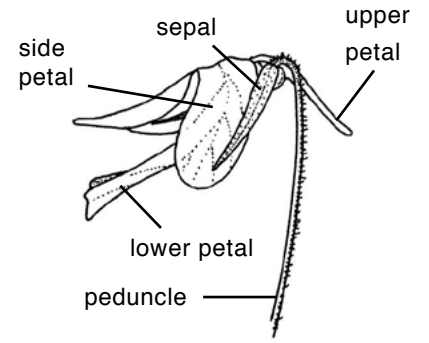
front/below



Lower petal with spur x5



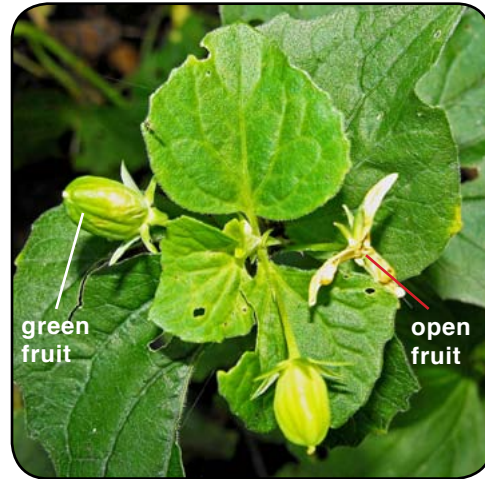
Top – upper petal x3,
bottom – side petal x3



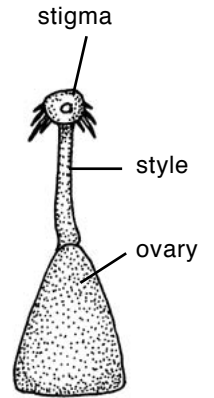
Flower x2; side



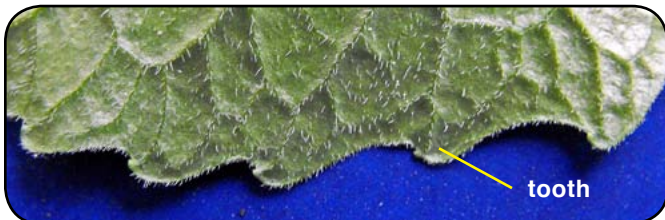
Two leaf blades minus petioles; each blade c. 8 cm wide



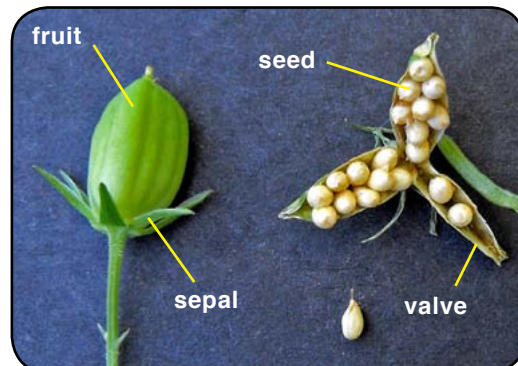
Two green fruit and 1 open capsule at top of plant in Winnipeg, Manitoba



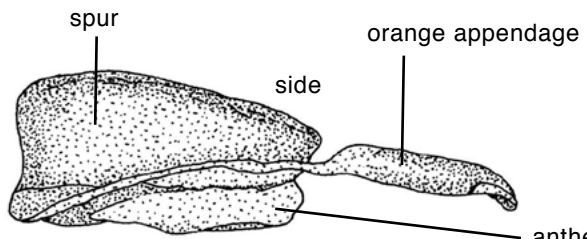
Pistil x10



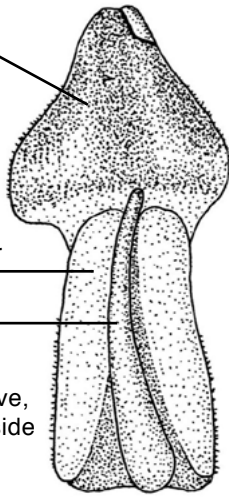
Hairy dorsal (under) side of leaf margin



Closed, 12 mm long green fruit and ripe open fruit with 2.5 mm long tan seeds filling the 3 valves

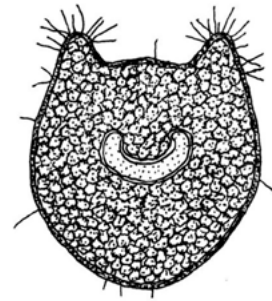


Lower stamen x20, with spur

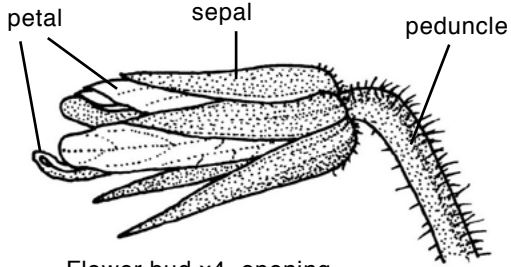


above,
outside

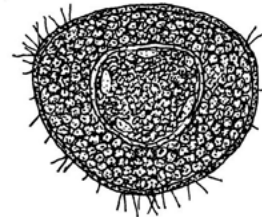
Lower stamen x20,
with spur, above



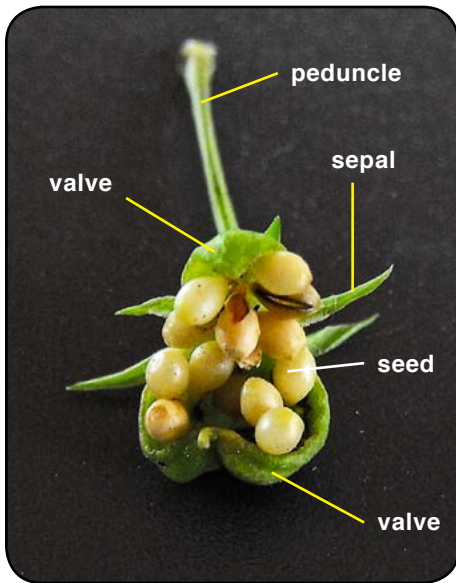
Petiole x20, cross-section,
groove at top



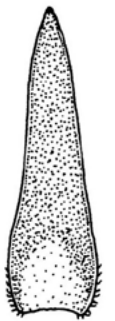
Flower bud x4, opening



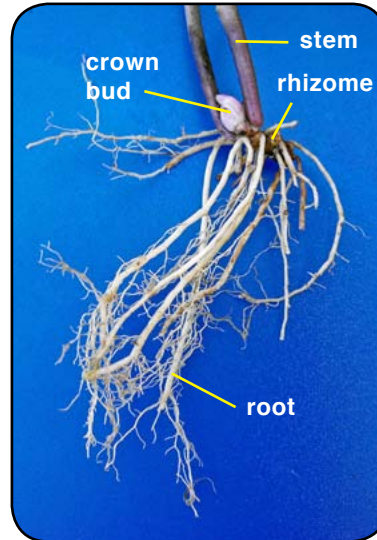
Lower stem x10, cross-section



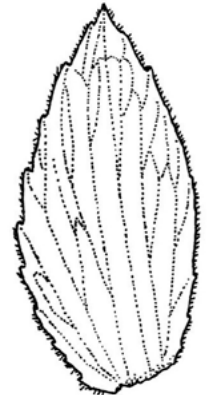
The front of an open fruit with 2.5 mm
long seeds in Winnipeg, Manitoba



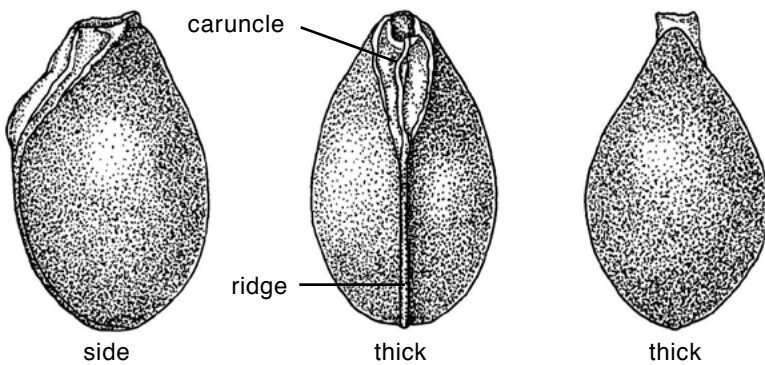
Sepal x5,
dorsal side



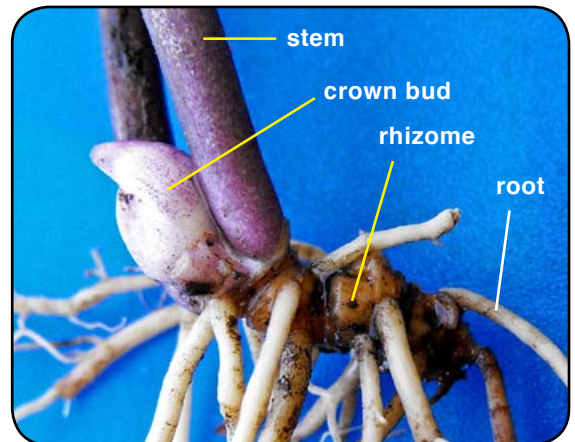
Roots with crown bud on top of
rhizome between the 2 stems



Stipule x3, at base
of petiole, dorsal
side



Seeds x15, Downy Yellow Violet



Crown bud (next year's plant) at top of brown
rhizome and between two purplish stems