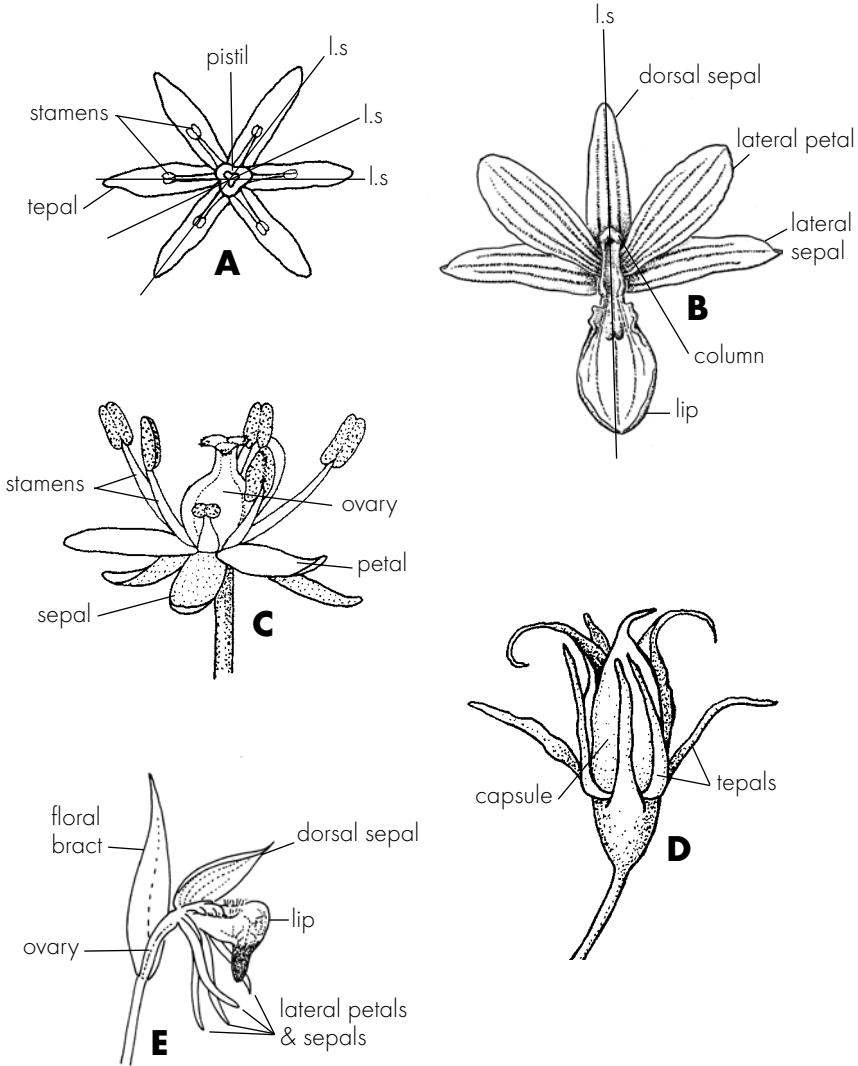


Figure 1 : Flower structure



- A** - regular flower as found in the lily and iris families.
l.s.=line of symmetry
- B** - irregular flower as found in the orchid family.
l.s.=line of symmetry
- C** - superior ovary, Liliaceae.
- D** - partly inferior ovary as seen in a capsule, Liliaceae.
- E** - inferior ovary, Orchidaceae.

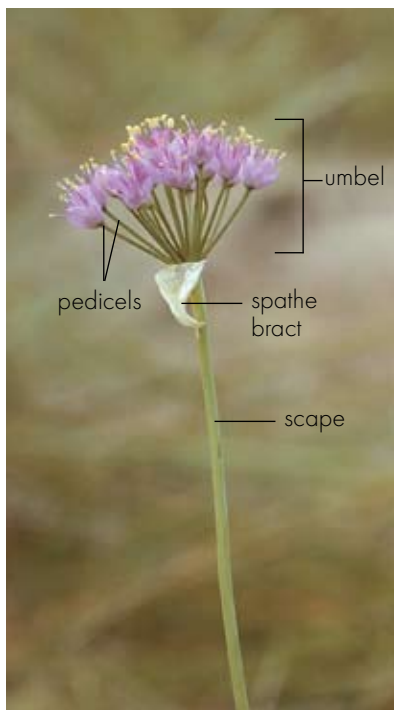
Allium L.

ONION [CHIVES, GARLIC]

Onion-scented, perennial herbs with leafless stems (scapes) from tunicate bulbs enclosed in a fibrous, membranous or papery coat. Leaves grass-like, basal to subbasal, round, flat or channeled. Flowers perfect, regular, white, pink or purple in terminal umbels subtended by 1–3+ spathe bracts (\pm separate segments of the membranous spathe, which rips apart as the flowers open); petals and sepals similar (tepals), 6, withering and persisting below the capsule; stamens 6, opposite tepals with filaments fused into a ring attached to base of perianth; ovary superior. Fruit a 3-lobed, \pm spherical, 3-chambered, loculicidal capsule with conspicuous appendages on the distal end in some species; seeds black, 1–2 in each of the 3 chambers.

Allium is the Latin word for garlic. Members of this genus have been used worldwide for food and medicine. This mostly northern hemisphere genus has 700-800 species worldwide, 96 in North America, 12 in Canada and 4 in SK.

Figure 3 : Wild Onions and Chives



A

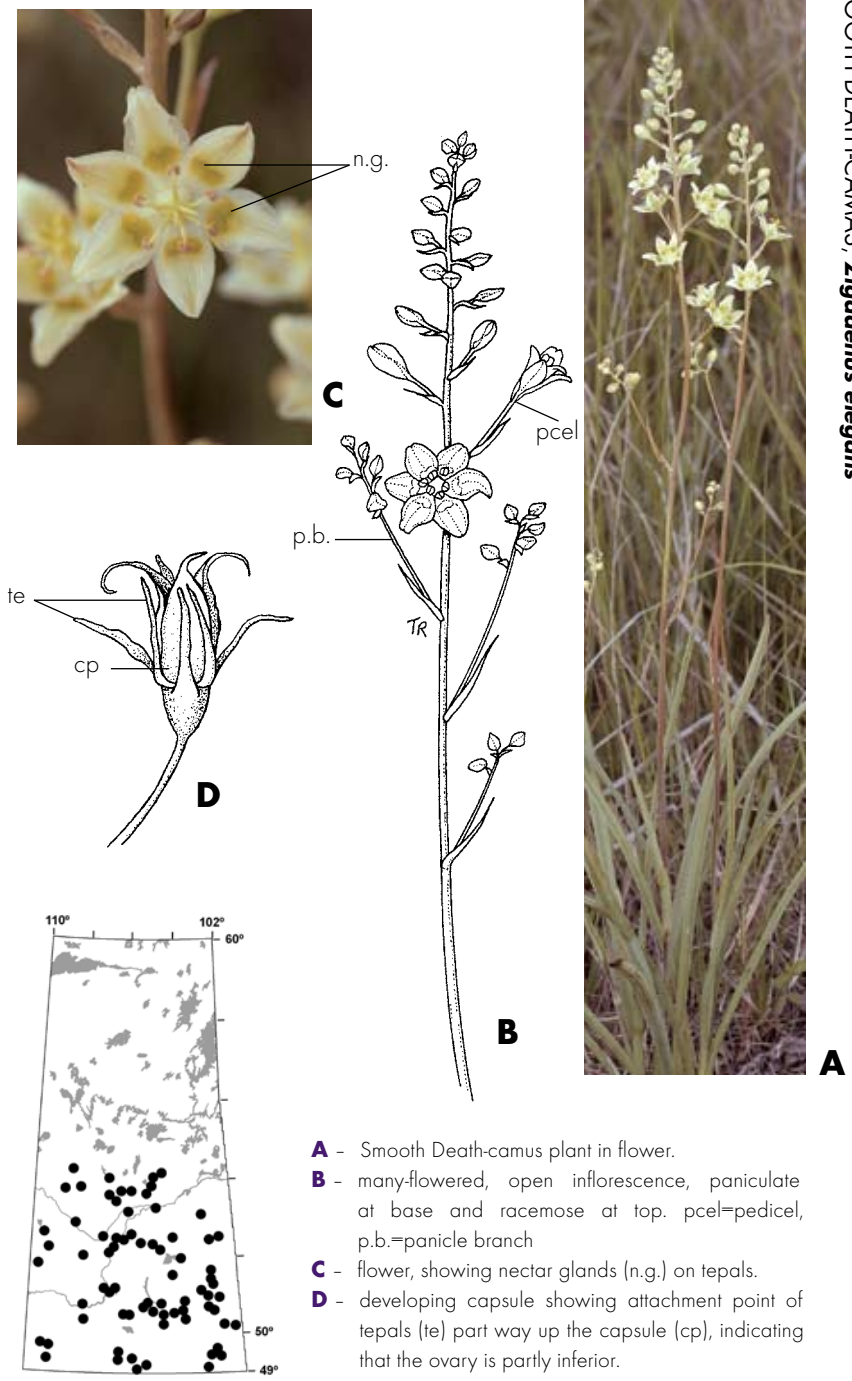


A - upper part of stem.

B - immature umbel enclosed by the spathe.

C - expanding flowers pushing through spathe tearing into persistent spathe bracts.

Figure 21



- A** - Smooth Death-camas plant in flower.
- B** - many-flowered, open inflorescence, panicate at base and racemose at top. p.cel=pedicel, p.b.=panicle branch
- C** - flower, showing nectar glands (n.g.) on tepals.
- D** - developing capsule showing attachment point of tepals (te) part way up the capsule (cp), indicating that the ovary is partly inferior.

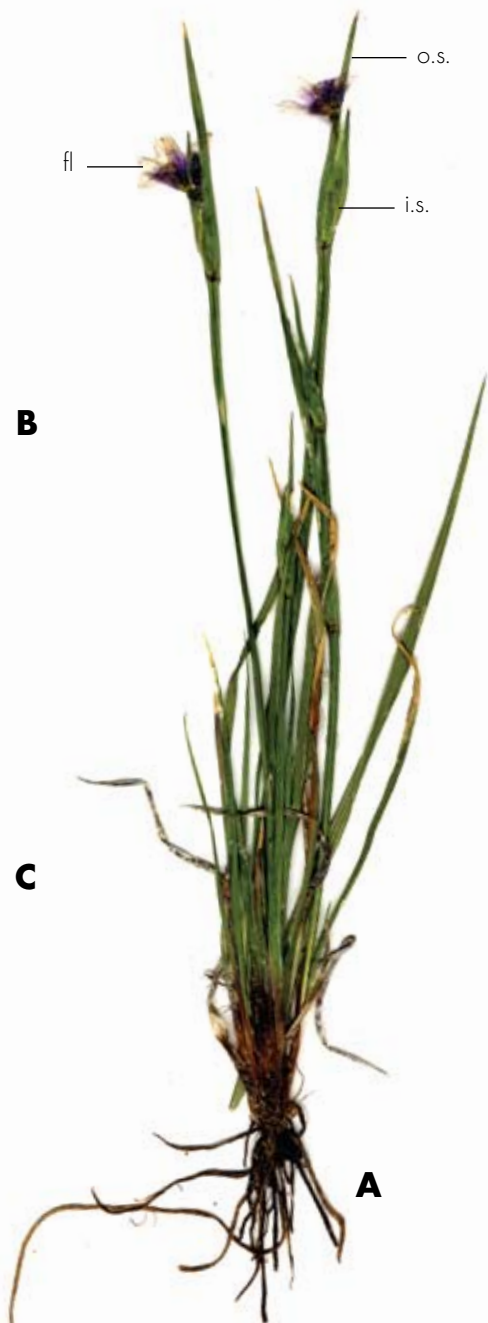
Figure 26



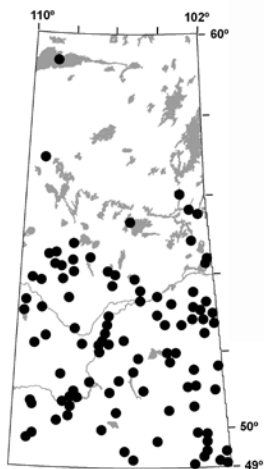
B



C



A



A - Common Blue-eyed Grass plant in flower. fl=flower, i.s.=inner spathe, o.s.=outer spathe

B - flower, showing tepal tips

C - plant in full flower.

KEY TO GENERA OF ORCHIDACEAE

- 1a. Plants non-green saprophytes lacking leaf-blades; flowering stems yellowish to purplish-red or brown (pale greenish-yellow in *C. trifida*), bearing sheathing bracts; rhizomes rootless, coral-like in their branching; capsules drooping. **Corallorhiza, Coralroot (p. 103)**
-
- 1b. Plants green, with at least some green leaf-blades, these sometimes early withering or late developing; flowering stems green (pale pink to purplish-red in *Calypso bulbosa*), bearing sheathing bracts in some species; rootstocks not coral-like; capsules spreading to erect (occasionally drooping when old). **2**
-
- 2a. Flowers 1 to 2 per stalk (occasionally more in *Cypripedium reginae* and *C. montanum*), large, showy; lip 1 cm long or longer, either inflated or broad and flat **3**
-
- 2b. Flowers 3 or more in a spike-like inflorescence, small, often inconspicuous; lip usually less than 1 cm long, but if longer, neither inflated nor broad and flat **5**
-
- 3a. Lip broad and flat, not inflated; flower subtended by a pair of minute, scale-like floral bracts; leaf single, emerging during or after flowering from upper sheathing bract on stem, linear, grass-like, 2-4 mm wide, folded lengthwise **Arethusa, Dragon's-mouth (p. 96)**
-
- 3b. Lip inflated, a slipper-like or sac-like pouch; flower subtended by a single, large, usually leaf-shaped floral bract; leaves usually 2 or more, present at flowering-time, (in *Calypso bulbosa* the broad, basal leaf that is produced the previous fall, may or may not be present at flowering time) **4**
-
- 4a. Leaf, when present, single, basal, narrowed to a stalk-like base, not folded lengthwise; lip slipper-like with a large opening and a broad "toe" covered with a whitish, apron-like lamina; staminode absent; stems arising from bulbous corms **Calypso, Fairy-slipper (p. 98)**
-
- 4b. Leaves 2 or more, cauline or basal, lacking stalk-like bases, often folded lengthwise; lip an inflated, nearly closed, sac-like pouch, lacking an apron-like lamina; petal-like staminode present above stigma (Figure 29B); stems arising from rhizomes with slender roots.
. **Cypripedium, Lady's-slipper (p. 111)**
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