

The Latin name for Orchard Grass—*Dactylis*—derives from the Greek *daktulos*, which means finger, in reference to the stiff branches of the flower-head. Orchard grasses come from the Old World and are cultivated in hay mixtures. *Dactylis* can become weedy and is thought by many ecologists to be displacing native species. On the plus side, *Dactylis* provides high-value forage for cattle and deer populations.

***Dactylis glomerata* L.**

Orchard Grass

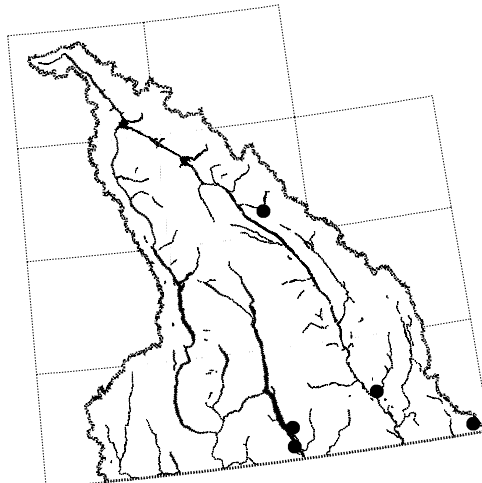
Plant: *Dactylis glomerata* is an introduced species that grows to 1.5 m tall. It is a robust, clump-forming perennial with a slightly branched asymmetrical flowerhead with clustered spikelets.

Leaves and Stem: Stout, erect, hollow stems arise from a dense mass of rank leaves and grow from short rhizomes that are often difficult to see. The sheaths are open part way. The hairless but rough-feeling leaf blades are 3–11 mm wide and flat. Young growth is bluish green. There are no auricles. The ligules are 3–9 mm long and hairy. The upper half of the ligule may be turned back and split in several spots.

Flowerhead and Flowers: The somewhat one-sided, slightly pyramid-shaped flowerhead is 3–15 cm long and can be recognized even in dry winter specimens. Spikelets are crowded on the ends of short, stiff branches. Flattened spikelets bear three to five flowers, which extend somewhat beyond the glumes. Glumes are about equal in length and are shorter than the first flower. Glumes have short awns, and one of the glumes is hairy in the upper portion. Lemmas likewise have short awns and hairs on the upper part.

Habitat: Orchard Grass is a widespread, weedy species of roadsides, fields, and disturbed sites. In the Columbia Basin region it grows around Kootenay Lake, along Akamina Creek, at Wardner, and at Creston. It is sometimes used in seed mixtures planted after a serious burn (G. Berg, pers. comm., 1999).

Similar Species: Orchard Grass might be confused with Reed Canary Grass (*Phalaris arundinacea*), another tall, robust grass. Reed Canary Grass generally grows much taller, usually in seasonally wet sites. Its leaves are wider and the flowerhead is narrowed and pointed.

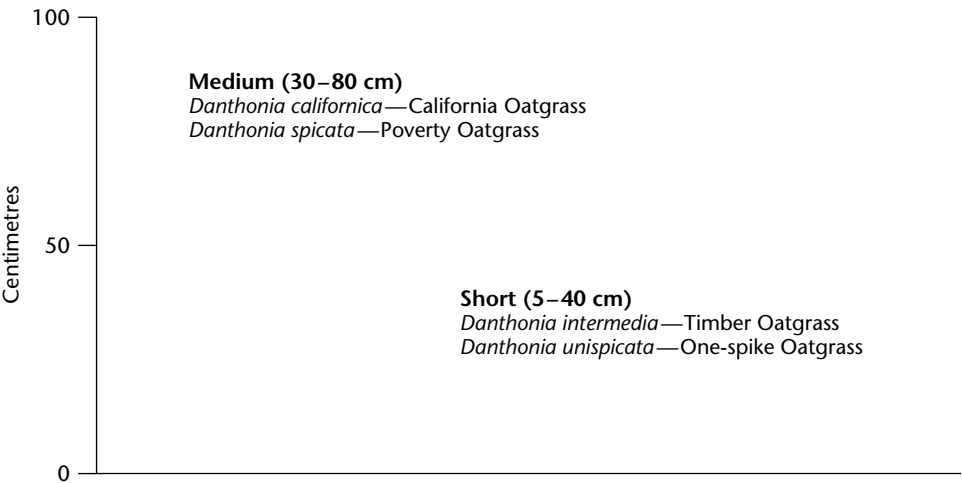


Four species of the distinctive Oatgrass occur in the Columbia Basin region. Generally, these tufted perennials grow to a low to medium height (less than 80 cm). Oatgrasses have narrow, flat to inrolled leaves, no auricles, and a fringe of hairs where the ligule should be. The spikelet separates *Danthonia* from most other genera. As with many other members of the Oat tribe to which *Danthonia* belongs, the prominent rounded to keeled glumes are mostly longer than the flowers (except in *Danthonia californica*). The flattened, bent (not in immature specimens), and sometimes twisted awn is an obvious diagnostic character. The awn arises in a depression between two long teeth from the back near the tip of the lemma. Spikelets break apart above the glumes. Important features to note when trying to identify the species are whether the sheaths are hairy or not, whether the flowerhead is open or spike-like, and whether the back of the lemma is hairy or not.

Danthonia—Adapted from Douglas et al. (1994)

- 1a. Lemma length less than 6 mm; lemmas more or less hairy over the back as well as along the edge *Danthonia spicata*
- 1b. Lemma length greater than 6 mm; lemmas smooth over the back 2
 - 2a. Flowerhead branches spreading at right angles; lower branches as long as or longer than the spikelets *Danthonia californica*
 - 2b. Flowerhead branches pressed close to the axis; lower branches shorter than the spikelet length 3
 - 3a. Lower branch with more than one spikelet. *Danthonia intermedia*
 - 3b. Lower branch with only one spikelet *Danthonia unispicata*

Heights of *Danthonia* species



Danthonia californica Boland.
California Oatgrass

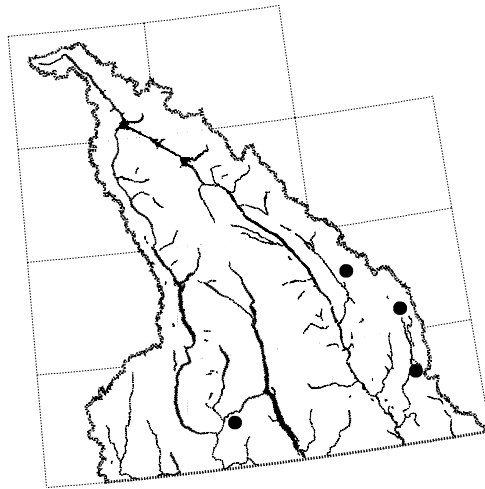
Plant: *Danthonia californica* is a native species that grows 30–80 cm tall. It is a tuft-forming perennial with an open, branched, few-flowered flowerhead.

Leaves and Stem: Leaves occur at the base and along the stem. Sheaths are hairy and open. Flat to inrolled leaf blades are 1.5–3 mm wide. The ligule is less than 1 mm long and consists mostly of hairs. Auricles are absent.

Flowerhead and Flowers: The sparse flowerhead has two to five spikelets, one each at the ends of the branches, which are as long or longer than the spikelets. The glumes are 14–18 mm long, nearly equal in length, and extend into an awn-like point. Except for the long, bent awn, the first flowers are enclosed in the glumes. However, the remaining four to seven flowers usually stick out beyond the tips of the glumes. Lemmas are largely without hairs, except at the base and margins.

Habitat: California Oatgrass grows on sandy and rocky ridges, lakeshores, and coastal meadows. In the Columbia Basin region it grows at Copper Mountain, Fording Lookout, Marysville, and Albert Creek.

Similar Species: California Oatgrass resembles Timber Oatgrass (*Danthonia intermedia*), but California Oatgrass has spreading branches and hairy leaf sheaths, whereas Timber Oatgrass has erect branches and smooth leaf sheaths. The few-flowered stalk arising from a tuft of narrow leaves, and the flattened, twisted awns from between two teeth at the tip of the lemma are diagnostic characters for the *Danthonia* genus.



Danthonia intermedia Vasey
Timber Oatgrass

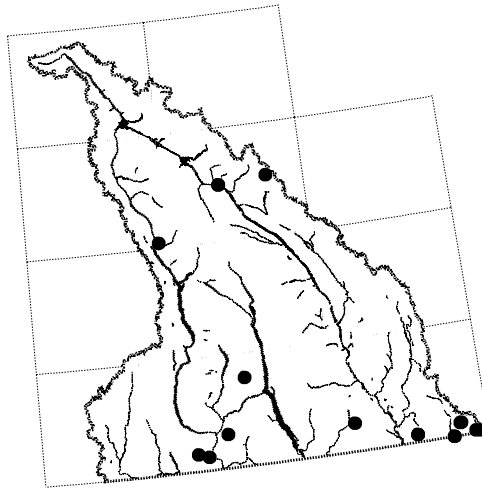
Plant: *Danthonia intermedia* is a native species that grows 5–40 cm tall. This perennial forms dense tufts with erect stems and spiky flowerheads.

Leaves and Stem: The leaf blades are 2–4 mm wide, flat to inrolled, and erect to curved, and grow mostly at the base where old leaves persist. The leaf blades are especially hairy where they meet the stem. Sheaths are smooth to sparsely hairy and open. The ligules are hardly present, being made of short hairs. Auricles are absent.

Flowerhead and Flowers: The flowerhead is narrow and 3–6 cm long, and often appears to have the spikelets arranged to one side. Each side branch has one (occasionally two) spikelet with few flowers. The glumes are 13–17 mm long, about equal in length, and enclose most of the several flowers. Lemmas are hairy at the base and along margins. A 10-mm-long, generally bent and twisted awn emerges from between two teeth at the tip of the lemma.

Habitat: Timber Oatgrass grows in dry to moist, gravelly and rocky sites such as slopes, beaches, meadows, and openings in woods. In the Columbia Basin region it occurs at Waitabit Creek, Flathead River, Grizzly Gulch, and Old Glory Mountain.

Similar Species: Timber Oatgrass is similar to California Oatgrass. See the Similar Species description for California Oatgrass (*Danthonia californica*). Further differences between the two species are: the glumes of Timber Oatgrass are longer than all of its flowers, and the flowers are rarely visible, whereas in California Oatgrass the upper flowers on the axis extend slightly beyond the glumes.



Danthonia spicata (L.) Beauv. ex R. & S.
Poverty Oatgrass

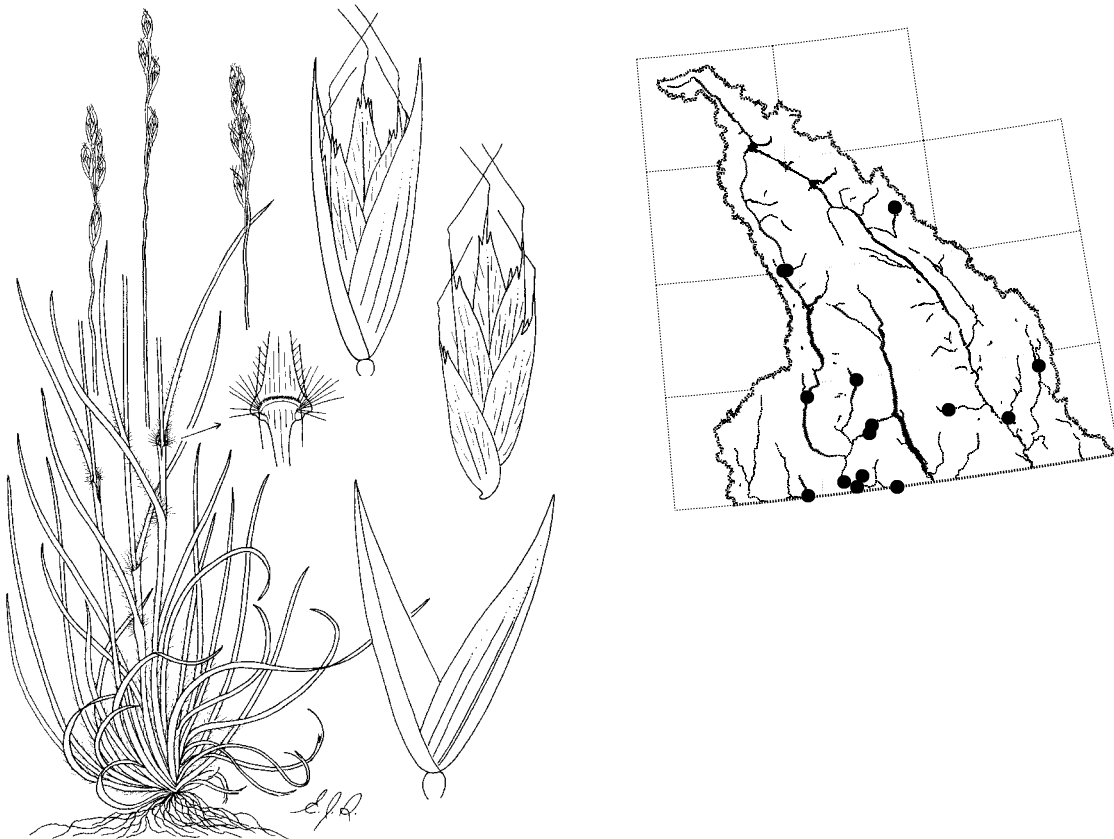
Plant: *Danthonia spicata* is a native species that grows 20–70 cm tall. It is a strongly tufted perennial with strongly curved to curled old basal leaves and a small, narrow flowerhead with the spikelets tending to one side.

Leaves and Stem: The leaves mostly form a dense mass at the base, though some are scattered along the stem. Old basal leaves are curved to strongly curled. The leaf blades are 0.5–2.0 mm wide and inrolled. Sheaths are open and smooth to slightly hairy with especially long hairs at the throat and in the collar. The ligule of hairs is scarcely 0.5 mm high, and there are no auricles.

Flowerhead and Flowers: The narrow, spiky flowerhead is only 2–5 cm long and secund. The very short branches have one or two spikelets. The slender glumes are about equal in length and both are longer than the flowers (excluding the awn). The lemmas are 4–5 mm long and sparsely hairy on the back, and bear two long, prominent teeth at the tip. An 8- to 9-mm-long flattened awn arises between the teeth. The awn is often twisted and bent, and sticks out of the spikelet.

Habitat: Poverty Oatgrass grows in dry, stony sites, in dry meadows, and along lakeshores. In the Columbia Basin region it is widespread and grows at New Denver, Nelson, Moyie, Bull River, and Yoho National Park (to name a few locations).

Similar Species: Poverty Oatgrass differs from other Oatgrass species because it has a lemma that is less than 6 mm long, and hairy on the back and margins—not hairy just on the margins. Sometimes the lemmas may be up to 7 mm long, but their backs are at least sparsely hairy.



Danthonia unispicata (Thurb.) Munro ex Macoun
One-spike Oatgrass

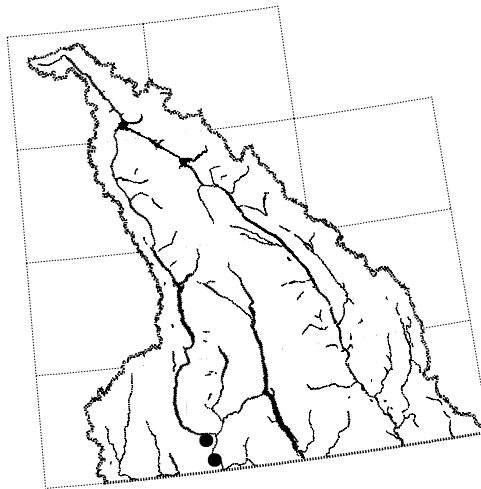
Plant: *Danthonia unispicata* is a native species that grows 10–30 cm tall. It is a tufted perennial with generally straight basal leaves, and a small, narrow flowerhead of one spikelet.

Leaves and Stem: The leaves form a tufted mass at the base and are scattered along the stem. Basal leaves are straight to curved. Leaf blades are 1.0–4.0 mm wide and flat to inrolled. Sheaths are open and usually obviously hairy with especially long hairs at the throat and on the collar. The long, white hairs stick out at right angles to the sheath. The ligule of hairs is scarcely 0.5–1 mm high and there are no auricles.

Flowerhead and Flowers: The small, spiky flowerhead usually consists of a single spikelet (rarely more) and is about 1–3 cm long. The first glume is slightly shorter than the second and both are taller than the flowers (excluding the awn). The lemmas are 9–12 mm long and smooth on the back with hairs along the margin and perhaps at the base. They bear two prominent teeth at the tip. A flattened awn arises between the teeth. The awn is often twisted and bent, and sticks out of the spikelet.

Habitat: One-spike Oatgrass grows in dry to moist prairies, slopes, and ridges at low to mid elevations. There are only two records for One-spike Oatgrass from the Columbia Basin region in the Royal BC Museum's database: these are from Trail and Castlegar.

Similar Species: One-spike Oatgrass differs from other Oatgrass species because it usually has a single spikelet in a spike-like flowerhead. Compared to Poverty Oatgrass, it has much longer lemmas (9–12 mm vs less than 6 mm) that are smooth, not hairy, on the back.



The genus is named after the French botanist Jean Deslongchamps (1774–1849). The species in this genus are all perennial except for the annual *Deschampsia danthonioides*. *Deschampsia* species were once included in *Aira*, but that genus is now agreed upon to include only delicate annuals of which there are two species in North America. Cody (1996) separates the two genera on characters such as whether the length of the glume is shorter than the spikelet (as in *Deschampsia*) or is equal to or exceeds the uppermost flower (as in *Aira*).

***Deschampsia*—Adapted from Douglas et al. (1994)**

- 1a.** Plants annuals *Deschampsia danthonioides*
- 1b.** Plants perennials; plants densely tufted 2
 - 2a.** Leaves flat or slightly inrolled and 1.5–4 mm wide. . .
 *Deschampsia cespitosa*
 - 2b.** Leaves narrow and less than 1.5 mm wide *Deschampsia elongata*

Deschampsia cespitosa (L.) Beauv.
Tufted Hairgrass

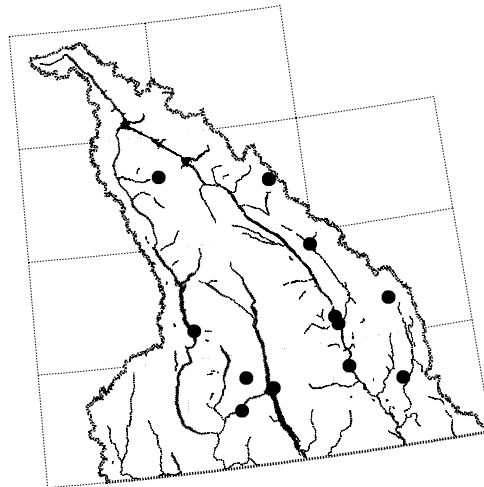
Plant: *Deschampsia cespitosa* is a native species that grows 20–120 cm tall. It is a strongly tufted perennial with several stems from each tuft. The loose, open flowerhead appears shiny and can have purplish to tawny-coloured spikelets.

Leaves and Stem: The open sheaths range from smooth to rough to the touch. The ligules are 4–8 mm long, hairy, pointed to blunt, and often split. The leaves are matted at the base and often stiff. The leaf blades are flat or rolled inward and 1.5–4 mm wide. The leaf veins are raised. There are no auricles.

Flowerhead and Flowers: The loose, open flowerhead is 8–25 cm long and has branches that spread or droop or that may be pressed close to the stem axis. The flowerhead appears shiny and can have purplish to tawny-coloured spikelets. The nearly equal glumes are narrow and longer than the flowers. The lemmas are ragged along the upper tip and 2.5–5 mm long, and have callus hairs at the base that are 1 mm long. The 2.5- to 4-mm-long awn is attached near the base of the lemma.

Habitat: Tufted Hairgrass grows in moist meadows and on rocky ridges in the montane to alpine zones. In the Columbia Basin region it is widespread at higher elevations and has been collected at Goldstream Mountain, Nakusp, Yoho National Park, Nelson, Crawford Bay, and Canal Flats (to name a few locations).

Similar Species: The features of Tufted Hairgrass vary considerably and some authors have described several varieties. Douglas et al. (1994) have described two subspecies: *beringensis* and *cespitosa*. Subspecies *beringensis* occurs in saline meadows and tidal marshes. Subspecies *cespitosa* occurs east of the Coast-Cascade Mountains in the montane to alpine zones. The glumes of subspecies *cespitosa* are less than 5 mm long, and the branches of the flowerhead are pressed toward the stem axis at maturity. Subspecies *beringensis* has longer glumes and an open (spreading branches) flowerhead at maturity.



Deschampsia danthonioides (Trin.) Munro ex Benth.
Annual Hairgrass

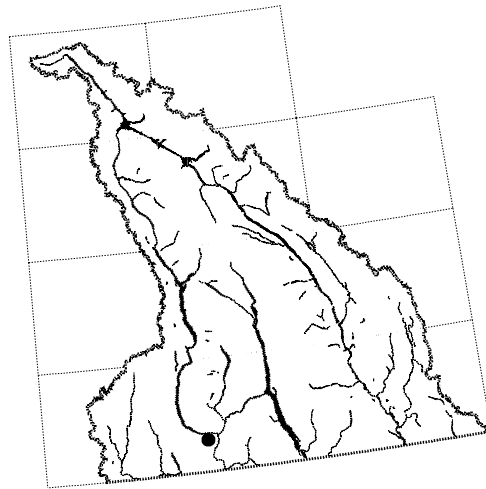
Plant: *Deschampsia danthonioides* is a native species that grows 5–50 cm tall. It is a simple, tufted annual with thin leaves and a narrow, erect flowerhead.

Leaves and Stem: One to several stems arise from a few leaves at the base. Sheaths are open. The leaf blades are 1–1.5 mm wide, usually inrolled and concentrated at the base. The ligules are 3–6 mm long and somewhat pointed. There are no auricles.

Flowerhead and Flowers: The flowerhead varies from narrow to spreading, and is up to 25 cm long. Spikelets are generally two-flowered. The two nearly equal, relatively long glumes are longer than the upper flower. Lemmas are firm, smooth, shining, purplish, and about 2.5 mm long. A bent awn extends from the middle of the back of the lemma.

Habitat: Annual Hairgrass grows on dry slopes, by roadsides, and beside vernal (spring) pools. In the Columbia Basin region it occurs in Castlegar.

Similar Species: Its annual growth habit distinguishes Annual Hairgrass from other species.



Deschampsia elongata (Hook.) Munro ex Benth.
Slender Hairgrass

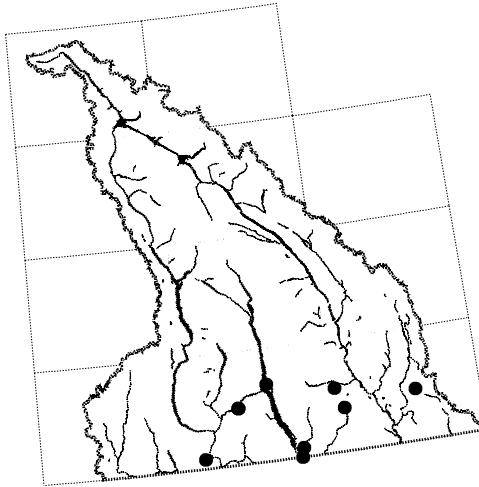
Plant: *Deschampsia elongata* is a native species that grows 25–80 cm tall. It is a tufted perennial with numerous stems and a narrow, pale green to purple flowerhead.

Leaves and Stems: The open sheaths are smooth and auricles are absent. The ligules are 3–9 mm long and pointed, and have a smooth edge, unless torn during the emergence of the flowerhead. The leaves usually occur as a basal tuft and the basal leaves are hair-like. Leaves along the stem are flat or in-rolled, but rarely over 1.5 mm wide.

Flowerhead and Flowers: The narrow flowerhead has slender upward-pointing branches, and is pale green to purple. The nearly equal, pointed glumes are equal to, or exceed the upper flower in length. The blunt-tipped lemmas are firm, smooth, and shining. The blunt upper tip has a ragged edge. The lemma awn is attached just below the midpoint and is 3–4 mm long and nearly straight. The bearded callus has hairs that are 1/2 as long as the lemma.

Habitat: Slender Hairgrass grows on moist slopes, along streambanks, and in open forests from the lowland to alpine zones. In the Columbia Basin region it occurs at Nelson, Rossland, Rykerts, Kootenay Bay, Marysville, and Lumberton.

Similar Species: Slender Hairgrass resembles Tufted Hairgrass, but Slender Hairgrass has fine, hair-like leaves rather than flat leaves.



This genus of mostly tropical species is well known for its weedy species. The name originates from the Latin word *digitus*, for finger, in reference to the finger-like segments of the flowerhead.

***Digitaria sanguinalis* (L.) Scop.**
Hairy Crabgrass

Plant: *Digitaria sanguinalis* is an introduced species that grows to 30 cm tall. It is a freely branching, spreading perennial with an open flowerhead with finger-like branches. These branches give the flowerhead a hand-like look.

Leaves and Stem: The lower parts of stems tend to creep along the ground before becoming erect, and may form patches up to a metre across. Sheaths are open and covered in long sparse hairs. Leaf blades are flat, 4–7 mm wide, and hairy toward the base. Ligules are 1.5–2 mm long and truncated at the tip. Leaf margins are turned upward near the base and join the ligule as slight ridges. The collars of the leaf blade/sheaths have long hairs. There are no auricles.

Flowerhead and Flowers: The flowerheads are 5–12 cm long and open, and have numerous narrow finger-like branches that usually occur in whorls. The spikelets have two flowers but the lower flower is usually sterile. The spikelets are arranged along one side of the branch of the flowerhead. There is only one obvious shield-like glume, with the second glume missing or tiny. The glume is more or less as long as the spikelet. The greenish brown lemma of the fertile flower is smooth and hard.

Habitat: Crabgrass was introduced from Europe but remains an infrequent species in British Columbia. It occurs along roadsides, on disturbed sites, and in lawns. In the Columbia Basin region, there is a single record of this species at Castlegar.

Similar Species: The finger-like branches and obvious weedy habitat preference of Crabgrass make this species unmistakable.

