

*Elymus ponticus* (Pod.) N. Snow, TALL WHEAT GRASS, RUSH WHEAT GRASS. Perennial herb, not rhizomatous, fibrous-rooted at buried nodes, densely tufted (to 100 stems per tuft), ascending to erect, in range to 150 cm tall; shoots with basal leaves and cauline leaves, having ca. 7 nodes. **Stems (culms):** cylindric, 4–6 mm diameter at base, tough, glabrous, internodes 6.5–260 mm long (increasing upward), light green, nodes 4.6–7.1 mm diameter and usually swollen, straight, green aging pale green becoming tan or brownish; internodes hollow. **Leaves:** alternate distichous, simple with sheath; prophyll to 60 mm long, not always visible; sheath open, 80–250 mm long, smooth, striped dark and light green, mostly glabrous but ciliate on exposed margin with hairs 0.5–0.8 mm long, with lobes (auricles) at top or absent, ascending or spreading to  $\pm$  clasping, narrowly triangular, ca. 1.5 mm long, glabrous; ligule truncate, 0.5–0.8 mm long, short-ciliate, splitting in age; collar 1.5–2 mm long, densely puberulent and pale green on inner surface, pale yellowish at base and green above on outer surface; blade linear, 205–400  $\times$  6–8 mm, the widest near base, inrolled and scabrous on margins, parallel-veined with generally 5 prominently raised veins on upper surface and veins slightly raised on lower surface; upper surface sparsely hairy, lower surface striped dark and light green, glabrous. **Inflorescence:** spikelets, in terminal spikelike stalk of 8–30 spikelets, panicle erect and unbranched, 100–420 mm long, spikelets alternate distichous or slightly helical, regularly spaced, spikelet generally with 8 florets (6–12), lacking awns; peduncle cylindric, 130–140 mm long, < 3 mm diameter at top, smooth, glabrous, pithy; rachis internodes 11–33 mm long, generally shorter than spikelet except for the lower few and the terminal internodes, concave to flat on side facing spikelet, convex on opposite side, node laterally puberulent. **Spikelet:**  $\pm$  ovate compressed side-to-side, at anthesis 12–15  $\times$  3.5–7 mm increasing to 30 mm long in fruit, with broad side appressed to rachis, breaking above glumes and between florets; **glumes** 2, oblong, 6.8–8 (–10)  $\times$  1.8–2.3 mm, firm, stiff, ridged with 5–9 parallel veins on outer surface, generally smooth on inner surface with veins not apparent except at tip, thin and minutely ciliate on margins, truncate and often minutely ciliate at tip; rachilla 0.8–1.5 mm long; **lemma** narrowly oblong-lanceolate  $\pm$  compressed side-to-side but especially so at tip, 9.2–10 (–12)  $\times$  1.4–2 mm, 5-veined, thin and minutely ciliate on margins, short-notched to cleft at tip, green along veins and pale yellowish green between veins, marginal veins not converging at tip but intermediate veins converging on midvein, glabrous; **palea** 8.4–9.2 (–11) mm long, slightly < lemma, 2-veined, 2-keeled with margins sharply folded inward along keels, membranous but green along each vein, densely short-ciliate along keels. **Flower:** bisexual; **perianth (lodicules)** 2,  $\pm$  teardrop-shaped, 0.6–1  $\times$  0.3–0.5 mm, initially swollen at base, translucent, entire or weakly toothed on margin, with flat, membranous, acuminate, ciliate tip having 3–4 hairs; **stamens** 3, free; anthers basifixed, dithecal with sacs attached most of length but free and parallel at base, linear, 3–4 (–6) mm long, yellow, longitudinally dehiscent; pollen yellow; **pistil** 1, ca. 1.5 mm long; ovary superior, spheroid, ca. 0.6 mm, pale yellowish green to whitish, with ring of ascending, pilose hairs below styles, 1-chambered with 1 ovule; styles 2, narrowly conic to acuminoid, ca. 0.9 mm long, stigmatic with short hairs on inner side. **Fruit:** achene (caryopsis), abscised with adherent lemma and palea, oblong-ellipsoid, 3.5–4.2  $\times$  1–1.2 mm, brown, convex on back, concave on front, tapered at base, rounded or truncate and hairy at tip.

Naturalized. Perennial herb known from a single locality in La Jolla Valley (SMM). *Elymus ponticus* is an unresolved name, and elsewhere is treated as *Thinopyrum ponticum* Barkworth & D. R. Dewey, *Elytrigia pontica* (Podp.) Holub, or *Elymus elongatus* (Host) Runemark.  
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