

Gymnosperm Family Key

& Key to the species of *Taxus* and *Juniperus* in Newfoundland and Labrador

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- 1a. Trees, usually erect and tall, to 60+ m tall; sometimes dwarfed as wind- or frost-pruned krummholz, known locally as tuckamoor (alternate spelling: tuckamore); leaves needle-like, linear, 1–18 cm long; seeds borne in woody cones. **Pinaceae** (see separate key)
- 1b. Low or dwarf shrubs, spreading or creeping along the ground, usually 1 to less than 2 m tall in our Province; leaves needle-like or scale-like, to 2.5 cm long; seeds borne in resinous berry-like cones or partially enclosed within a fleshy red aril. **2**
 - 2a. Needles flat, soft, 1–2.5 cm long, needle bases decurrent along the green stem; modified cones with a single seed surrounded by an ovoid red aril open at the apex, the aril base subtended by several thin scaly bracts.
..... ***Taxus canadensis*** (Canada yew, Taxaceae)
 - 2b. Needles concave, stiff, to 1.5 cm long, or scaly and 4-ranked, to 2 mm long, overlapping about 1/3 of their length; seeds borne in globose to ovoid berry-like cones, at first yellowish, maturing to glaucous blue, then bluish-black; cones mature in 2 years (*Juniperus*). **3**
- 3a. Low shrubs, spreading, usually 1 to less than 2 m tall; needles linear, 1.5 cm long by 1.6 mm wide, stiff and sharply pointed at the apex; needle green, concave, with a pale glaucous stripe along the centre of each upper surface; cones 6–9 mm in diameter.
..... ***Juniperus communis* var. *depressa*** (ground juniper, Cupressaceae)
- 3b. Dwarf prostrate shrubs, branches creeping or trailing along the ground, often several metres long; needles scaly, 1.5–2 mm long, overlapping about 1/3 of their length; cones 5–7 mm in diameter. ***Juniperus horizontalis*** (creeping juniper, Cupressaceae)

Gymnosperm Family Comparison Chart

	<i>Cupressaceae</i> Cypress Family	<i>Taxaceae</i> Yew Family	<i>Pinaceae</i> Pine Family
Genera:	<i>Juniperus</i>	<i>Taxus</i>	<i>Abies, Larix, Picea, Pinus</i>
Needle Persistence	evergreen, remaining on shrubs 3–5 yrs.	evergreen, persistent for several yrs.	evergreen or deciduous, evergreen needles persistent for 1–20 yrs.
Needle Attachment	subulate and concave or scale-like; needles sessile	linear and flat; needle bases decurrent	linear and flat, hemispherical, or 3–4-angled in x.s.; needle bases round and flat, with peg-like bases, or 2–5 in short shoots (fascicles)
Needle Arrangement	opposite and decussate (4-ranked) or in whorls of 3 (6-ranked); attached singly	attached singly, with needle bases bent so needles appear 2-ranked	spirally arranged, attached singly or in fascicles of 2–5 short or long needles
Needle Length	to 1.5 cm long	1–2.5 cm long	< 1–18 cm long
Cone Shape	plants dioecious; cones somewhat fleshy, spherical, glaucous blue to blue-black; maturing in 1.5–2 yrs.; cones with 1–2 whorls of 3 scales, each 1 mm long	plants monoecious; a fleshy red cup-shaped aril surrounds a single seed; maturing in 1 season; aril subtended by 2–3 decussate pairs of thin scales	plants monoecious; cones with woody scales; maturing in 1–2 seasons, scales persistent or shed with seed in fall; cones with 10 to numerous scales
Cone Size & Seeds	5–15 mm in diam., with 1–3 seeds	arils 6–7 mm long; seed 4–5 mm long	1–20 cm long; seeds 1–6 mm long, often winged