

Ice Age Remnant At the end of the last Ice Age, forests stretched across the plains from the Cypress Hills to the Rocky Mountains. As the climate warmed, grasses took over, leaving an isolated remnant of this ancient forest in the higher elevations of the Cypress Hills. With a wetter, cooler climate than the surrounding prairies, the hills are now a refuge for many forest plants for from their normal ranges.

A Refuge for Orchids Orchids are among the rarest and most interesting plants that have found refuge in the Cypress Hills. At least 18 species and 2 varieties of orchids have been reported from the Cypress Hills of Alberta and Saskatchewan. Some are uncommon in the rest of Canada, but are quite abundant here. Other rare species have only recently been reported. Careful searching may reveal even more unreported species and varieties. Provincial parks in Alberta and Saskatchewan, jointly administered as an Interprovincial Park, now protect much of the Cypress Hills habitat of these unusual flowers.

Orchid Description Found throughout the world, most orchids are tropical species and grow on trees. In North America, orchids are generally quite small and grow on the ground, and some obtain nutrients from decaying soil matter. To germinate and grow, orchid seeds need to be invaded by a fungus. The most distinctive aspect of orchids are their flowers, consisting of three separate *sepals*, often resembling petals, and two separate *lateral petals*. A third, lower petal usually forms an elaborate and unusually shaped *lip*, often bearing a backward projecting *spur*. In the centre of the flower a complex structure called the *column* holds the reproductive organs.

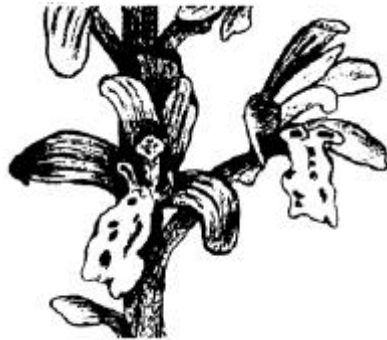
Orchid Checklist This checklist contains information on all the orchids found in the Cypress Hills of both Alberta and Saskatchewan. Use this key to understand the abbreviations:

- D** – description of the flower
- H** – typical habitat in the Cypress Hills
- F** – usual flowering season
- A** – relative abundance in the Cypress Hills
- R** – remarks or comments



Calypso Orchid
Calypso bulbosa

D sepals and petals pink, purple and some yellow; large sac-like lip pinkish with purple streaks and yellow hairs; a single flower 1.3-2.5 cm long. **H** drier soil in pine woods **F** mid-May/ early June **A** common and abundant in Alberta hills; very rare in Saskatchewan hills **R** most common and striking orchid on the Alberta side of the Cypress Hills; decreasing in abundance throughout North America due to logging and picking.



Spotted Coral-root Orchid
Corrallorhiza maculata

D petals and 3-lobed lip white with purple spots, 0.6 cm long; sepals pale greenish-yellow with purple trim; conspicuous yellow spur; 10-40 flowers **H** drier soils in aspen woodlands and open pine woods **F** late June/ early August **A** fairly common and abundant **R** all coral-root orchids lack green colour in stalks.



Stripped Coral-root Orchid
Corallorhiza striata

D sepals and petals white with three purple stripes; lip white to maroon with five dark purple stripes, 1.3 cm long; no spur; 15-25 flowers **H** dry to damp soil in woods **F** mid – May / early August **A** fairly common and abundant **R** a rare orchid in North America; an extremely rare non-stripped variety of this orchid is found only in the Cypress Hills.

Pale Coral-root Orchid
Corallorhiza trifida

D sepals and petals greenish-yellow; 3-lobed lip whitish spotted with purple, 0.5 cm long; no spur; 3-12 flowers **H** moist, wooded areas **F** mid – May / early August **A** fairly common but not abundant.

Yellow Lady's Slipper
Cypripedium calceolus

D sepals yellowish or greenish, striped with purple, 3-5 cm long; petals greenish-yellow to purplish-brown, twisted, 3-5 cm long; pouch-shaped lip yellow marked with purple, 1.5-4 cm long; 1 flower **H** moist, open areas in woods and along banks and ditches **F** June **A** very rare in Saskatchewan hills; not reported from Alberta.

Mountain Lady's Slipper
Cypripedium montanum

D sepals and petals greenish-brown to purple-brown, twisted, 4-6 cm long; luminescent white lip striped with purple, 2-3 cm long; 1-3 flowers **H** moist woods **F** late May / July **A** known from one location in Saskatchewan Cypress Hills **R** first reported from hills in 1984; a rare species.



Sparrow's Egg lady Slipper
Cypripedium passerinum

D sepals green, petals pure white; pouch-shaped, translucent lip white or pale lilac, spotted with purple, 1 cm long; no spur **H** margins of ponds, streams and bogs in mossy spruce forests **F** mid-June / early August **A** rare but locally abundant

Rattlesnake-Plantain
Goodyera oblongifolia

D sepals and petals greenish-white, forming hood; spout-like lip greenish-white, 6-9 mm long; no spur; numerous flowers in a single, long spiral spike **H** drier, cool soil in coniferous woods **F** late July / mid-August **A** uncommon but locally abundant **R** a second species, *Goodyera repens*, has also been reported

Tall White Bog Orchid
Habenaria dilata

D sepals and petals white to yellowish-white or greenish-white; lance-shaped lip waxy white, 5-10 mm long; sharp, slender spur; numerous small flowers **H** rich soils in wet coniferous woods, bogs, thickets and meadows **F** early June / early August **A** rare in Saskatchewan hills; not reported in Alberta portion **R** strong fragrance of cloves or vanilla



Northern Green Bog Orchid
Habenaria hyperborea

D sepals and petals yellow-green; tongue-shaped lip pale green, 0.6 cm long; club-shaped spur; numerous flowers in a long, dense spike **H** along creeks and ponds, springy areas in moist coniferous woods **F** late May/ early August **A** fairly common and abundant on the Alberta side; rare in Sask. Hills

Blunt-leaved Bog Orchid
Habenaria obtusata

D sepals and petals green; narrow, tapering lip pale greenish-white with downward bend, 1 cm long; slender, tapering spur; a few flowers in short, loose spike **H** boggy areas in spruce woods **F** mid-June / early August **A** uncommon in Sask. **R** difficult to find; pollinated by mosquitoes.

Bracted Bog Orchid
Habenaria viridis

D sepals green; thread-like petals greenish – white; 2-3 lobed lip greenish-white sometimes streaked with purple, 1 cm long; sac-like spur; numerous flowers in a long, loose spike **H** damp soil in meadows in pine and aspen woods **F** mid-June / mid-August **A** uncommon but locally abundant

Northern Twayblade
Listera borealis

D awl-shaped sepals and petals green; 2-lobed lip translucent pale green with central dark green stripe, 1.3 cm long; no spur; several flowers in loose spike **H** wet, cold, moss-covered soil in mature spruce woods **F** late May/ early August **A** rare; confined to remote, boggy valleys

Heart-leaved Twayblade
Listera cordata

D sepals and petals purplish to yellowish green; 2 lobed lip purplish green, 4-5 mm long; no spur; 4-20 tiny flowers **H** acidic soils in mossy woods, thickets and bogs **F** early June/ early August **A** rare in Saskatchewan hills; not recorded from Alberta side.

White Adder's Mouth
Orchis monophylla

D sepals and petals greenish to yellowish; drooping, oval – shaped lip tapering to a point, greenish to yellowish, 2 – 3 mm long; no spur **H** damp woods, banks and bogs **F** June **A** rare **R** first reported in the Alberta Cypress Hills in 1988; considered a rare species elsewhere in Alberta.



Round-leaved Orchid
Orchis rotundifolia

D sepals and petals pale pink; 3 – lobed lip white, spotted with purple, 0.8 cm long; stout, curved spur; 3 - 6 flowers **H** moss covered, springy wet soil along streams in mature spruce forests **F** late May / early July **A** uncommon but fairly abundant in remote undisturbed valleys **R** a very rare variety with a purple striped lip is known only from the Cypress hills and a few spots in Ontario.

Hooded Ladies' Tresses
Spiranthes romanzoffiana

D sepals and petals creamy – white, forming a hood; fiddle – shaped lip creamy – white and bent downward, 0.6 cm long; no spur; numerous flowers in a short twisted spike **H** bogs, open woods, meadows, moist depressions in fescue grasslands **F** late July / August **A** fairly common and locally abundant on Alberta side; rare in Sask. Hills **R** last orchid to bloom each summer

Searching For Orchids

The best time of year to look for orchids is mid – June, when most of the species are in bloom throughout most of the summer. Searching for orchids is a wonderful way to explore the Cypress Hills, but please take care not to disturb these fragile and unique plants or their habitats. Orchids rarely survive transplanting, and picking the flowers will prevent orchids from reproducing. If you find an orchid, the best way to preserve it is with a photograph. Without care and respect, orchids may disappear from their refuge in the hills.

For More Information

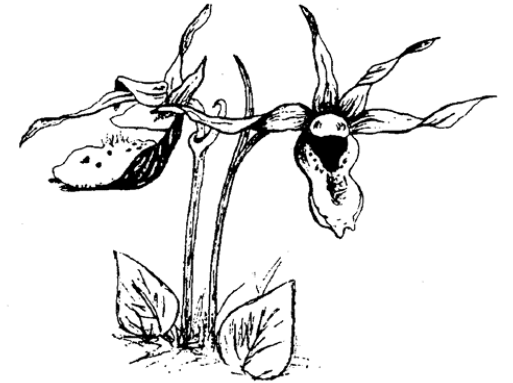
Please help us protect the orchids of Cypress Hills. If you discover a rare orchid, please notify park staff. If you have any comments or questions, drop by one of the Visitor Centres, or write to:

Cypress Hills Interprovincial Park	
Box 12	Box 850
Elkwater, Alberta	Maple Creek, Sk.
T0J 1C0	S0N 1N0
(403) 893-3777	(306) 662-4411

Text: Michael Klassen
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ORCHIDS

Cypress Hills Interprovincial Park



The diversity and abundance of orchids found in the Cypress Hills cannot be matched anywhere else on the prairies. Many of these fragile and beautiful flowers can be found while hiking in early summer, making this area an orchid-lover's haven. Use this fact sheet to help you discover and identify the orchids of the Cypress Hills

Fact Sheet

