

# PLANT LIST

## OPAL LAKE TRAIL, ARCHULETTA COUNTY, COLORADO

**Location:** SE Archuleta County, south side of upper Rio Blanco Valley in southeastern San Juan Mountains. San Juan National Forest, Harris Lake Quadrangle. Trailhead parking lot is at sharp bend in Forest Road 023 that is a side road above Forest Road 660. The trailhead is marked and is at 37°12'14.33" N, 106°45'44.36" W. Forest Trail 564 is 1.8 km (1.1 mi) long.

**Access:** From the east side of Pagosa Springs, drive 8.2 miles south on US 84 to the Blanco Basin road, CR 326. Turn left (east) and drive 9.8 miles on CR 326. At the sign for Castle Creek Road, FR 660, turn right (southeast). From that point on there are signs for the Opal Lake trailhead. Cross Rio Blanco creek and follow FR 660 as it zig-zags up the hillside. At 3.5 miles turn right (south) onto FR 023. The trailhead is at the first sharp curve of FR 023, 4.2 miles from CR 326. There are no USFS campgrounds in Blanco Basin.

**Elevations:** 2661 m (8731 ft) at trailhead; 2813 m (9230 ft) at Lake Opal; 2816 m (9240 ft) at nearby knoll. Elevation gain is 155 m. (508 ft).

**Climate based on nearby stations:** Av. temp. in January is -6°C (21°F); av. low -18°C (0°F). Av. temp. in July is 14°C (57°F); av. high 18°C (64°F). Precipitation is bimodal with slightly more snow or rain in March, more rain in late July and August and relatively less rain in June. Av. precipitation is 65 cm (26") water equivalent in winter; 25 cm (9") in summer, mainly in late summer; total 90 cm (35"). Average snow melt-out is early May. The area has few strong winds or Chinooks; there were no signs of blow-downs.

**Habitats:** Upper Montane Zone with (1) disturbed area, open flats and stagnant ponds near trailhead; (2) dense aspen/conifer forest with dense groundcover of forbs and a few open areas for most of the trail; and (3) open spruce/fir woodlands, grassy meadows, willow patches, wetlands, small creek and small lake near top end of the trail. All habitats are north-facing with variable slopes from 0 to 15°, average 5°. The forest appears to be a long-term old growth mixed forest; there were no signs of extensive timber cutting or fires. Patches of aspen indicate former small fires or beetle kill.

**Geology:** Colluvial and landslide material from previously mixed Cretaceous Pictured Cliffs Sandstone cliffs and Lewis Shale slopes with debris from higher Oligocene intrusive cliffs. The light opal color of the lake is caused by rhyolite dust carried into the lake by White Creek that drains from cliffs of the Chalk Mountains that are southeast of the lake.

**Soils:** Always damp 10 cm below surface. Surface is usually damp during May. (1) In forest- slightly developed Boralf with shallow O (organic) horizon, gray to brown surface. (2) In damp meadows- Boroll with thick O horizon, dark, organic-rich surface. (3) In dry meadows & knolls- Psamment with little O horizon, pebbly litter-free surface.

**Reference for Scientific names:** W.A. Weber & R.C. Wittman, *Colorado Flora, Western Slope*. 3<sup>rd</sup> Edition, 2001.

**Observation:** The best time to visit this trail is during the morning from mid-July to mid-August, after monsoon rains have begun. Most species were observed on a field trip of the San Juan/Four Corners Native Plant Society on July 10, 2010. Susan Halabrin and Al Schneider were the Leaders and Bob Powell was the Recorder. Bob Powell also recorded more plants at other times and obtained information for this introduction.

**Additional information:** Photographs and descriptive details for most of the plants are on Al Schneider's southwestern Colorado [flower web site](#) . Two photos of Opal Lake are shown on Google Earth: Open Google Earth. In the upper left corner type 37°11'38.27" N, 106°45'04.02" W in the "Fly to" box and click on the search button. Zoom in farther as necessary and click on the large square, then click on the small blue square when it separates from the large square. A small photo will appear, click on it. Click on the next small photo to obtain a full-screen photo. Click on "Back to Google Earth" to see other views of Opal Lake.

SCIENTIFIC NAMES FAMILIES & SPECIES	COMMON NAMES FAMILIES & SPECIES	HABITATS, LOCATIONS AND COMMENTS
<b>FERNS AND ALLIES</b>	-----	
<b>Equisetaceae</b>	<b>Horsetail family</b>	
<i>Equisetum arvense</i>	Field Horsetail	Locally common in damp places, mainly lower range
<i>Equisetum pratense</i>	Meadow Horsetail	Locally common in damp places, mainly upper range
<b>Hypolepidaceae</b>	<b>Bracken Fern family</b>	
<i>Pteridium aquilinum</i>	Bracken Fern	Locally abundant in forest at upper elevations
<b>GYMNOSPERMS</b>	-----	
<b>Cupressaceae</b>	<b>Cypress family</b>	
<i>Juniperus communis</i>	Juniper Shrub	Occasional in forest at all elevations
<b>Pinaceae</b>	<b>Pine family</b>	
<i>Abies bifolia</i>	Subalpine Fir	Mainly in upper half of elevations
<i>Picea engelmannii</i>	Engelmann Spruce	Mainly in upper half of elevations
<i>Pseudotsuga menziesii</i>	Douglas-fir	Mainly in lower half of elevations
<b>ANGIOSPERMS</b>	-----	
<b>Aceraceae</b>	<b>Maple family</b>	
<i>Acer glabrum</i>	Rocky Mountain Maple	A few near creeks and in moister and cooler areas
<b>Alsinaeae</b>	<b>Chickweed family</b>	
<i>Cerastium strictum</i>	Mouse-ear Chickweed	In meadows and open places in forest, all elevations
<i>Spergulastrum lanuginosum</i>	a Chickweed	In open areas of forest
<i>Stellaria longifolia</i>	a Chickweed	In moist open areas of forest and meadows
<b>Apiaceae</b>	<b>Parsley family</b>	
<i>Heracleum sphondylium</i> subsp. <i>montanum</i>	Cow Parsnip	Common in wet areas, especially in lower elevations
<i>Osmorhiza chilensis</i>	Sweet Cicely	Frequently seen in deep forest at all elevations
<i>Osmorhiza depauperata</i>	Sweet Cicely	Frequently seen in deep forest at all elevations
<i>Oxypolis fendleri</i>	Cowbane	By creeks in forest, mainly at upper elevations
<b>Asteraceae</b>	<b>Aster family</b>	
<i>Achillea lanulosa</i>	Yarrow	Common in open areas at all elevations
<i>Agoseris aurantiaca</i>	False Dandelion	A few in meadow by Opal Lake
<i>Anaphalis margaritacea</i>	Pearly Everlasting	A clump on dry slope by Opal Lake
<i>Arnica cordifolia</i>	Heart-leaf Arnica	Common in dry forest at all elevations
<i>Artemisia franserioides</i>	Sagewort	A few in open areas at all elevations
<i>Cirsium centaureae</i>	Yellow Thistle	A few in open areas at all elevations
<i>Dugaldia hoopesii</i>	Orange Sneezeweed	Numerous in meadow by Opal Lake
<i>Erigeron coulteri</i>	Coulter's Erigeron	A few in forest at all elevations
<i>Erigeron elatior</i>	Hairy Erigeron	Many in meadow by Opal Lake
<i>Erigeron flagellaris</i>	Whiplash Erigeron	Many patches in dry open areas at all elevations

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<b>Asteraceae (Continued)</b>	<b>Aster family (Continued)</b>	
<i>Erigeron formosissimus</i>	Beautiful Origeron	Many in dry open areas at all elevations
<i>Erigeron peregrinus</i>	Glacier Erigeron	Several patches in dry open areas at upper elevations
<i>Heliomeris multiflora</i>	Showy Goldeneye	Common in open areas of forest
<i>Leucanthemum vulgare</i>	Oxeye-daisy	Large patch, alien introduction west of trailhead
<i>Ligularia bigelovii</i>	Strap-flower	Common in open areas of forest at all elevations
<i>Oreochrysum parryi</i>	---	Several in forest at upper elevations
<i>Packera neomexicana</i>	New Mexican Groundsel	Scattered plants in meadow by Opal Lake
<i>Senecio triangularis</i>	Arrow-leaf Butterweed	Large patch near creek in upper elevations
<i>Solidago multiradiata</i>	Goldenrod	Scattered plants in meadow by Opal Lake
<i>Taraxacum officinale</i>	Common Dandelion	A few in meadow by Opal Lake
<i>Tragopogon pratensis</i>	Salsify	Alien introduction in open areas at all elevations
<b>Berberidaceae</b>	<b>Barberry family</b>	
<i>Mahonia repens</i>	Oregon Grape	A few in dry slope by Opal Lake
<b>Betulaceae</b>	<b>Birch family</b>	
<i>Alnus incana</i>	Alder	Many in moist areas at all elevations
subsp. <i>tenuifolia</i>		
<i>Betula glandulosa</i>	Bog (Dwarf) Birch	Many in wetter, boggy areas at all elevations
<b>Boraginaceae</b>	<b>Borage family</b>	
<i>Hakellia foribunda</i>	Stickseed	A few in open areas west of trailhead and in forest
<i>Lithospermum multiflorum</i>	Yellow Puccoon	Several in open areas at all elevations
<i>Mertensia franciscana</i>	Bluebells, Chiming Bells	Patches in cool damp places at all elevations
<b>Brassicaceae</b>	<b>Mustard family</b>	
<i>Cardamine cordifolia</i>	Bittercress	Common in water of creek by Opal Lake
<i>Descurainia pinnata</i>	Tansy Mustard	Single plant in deep forest
subsp. <i>filipes</i>		
<i>Erysimum capitatum</i>	Wallflower	A few lilac-colored in dry meadow near Opal Lake
<i>Noccaea montana</i>	Wild Candytuft	Frequent n forest at all elevations
<b>Campanulaceae</b>	<b>Bellflower family</b>	
<i>Campanula parryi</i>	Parry's Harebell	Several patches in moist meadow by Opal Lake
<b>Caprifoliaceae</b>	<b>Honeysuckle family</b>	
<i>Distegia involucrata</i>	Bush Honeysuckle	A few in moist areas of forests and upper meadows
<i>Linnaea borealis</i>	Twinflower	A few in forest at all elevations
<i>Sambucus microbotrys</i>	Rocky Mountain Elderberry	A few, mainly in forest of lower half of elevations
<i>Symphoricarpos rotundifolius</i>	Round-leaf Snowberry	Very common in lower half of elevations
<b>Celastraceae</b>	<b>Stafftree family</b>	
<i>Paxistima myrsinites</i>	Mountainlover	Scattered few in forest at all elevations
<b>Convallariaceae</b>	<b>Mayflower family</b>	
<i>Maianthemum amplexicaule</i>	False Solomon's Seal	Scattered few in forest at all elevations
<i>Maianthemum stellatum</i>	False Solomon's Seal	Scattered few in forest at all elevations

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<b>Cornaceae</b>	<b>Dogwood family</b>	
<i>Swida sericea</i>	Red Osier Dogwood	A few in forest at several areas
<b>Elaeagnaceae</b>	<b>Oleaster family</b>	
<i>Shepherdia canadensis</i>	Buffaloberry	A few in dry areas of forest at all elevations
<b>Ericaceae</b>	<b>Heath family</b>	
<i>Vaccinium myrtillus</i> subsp. <i>oreophilum</i>	Blueberry	Common ground cover in forest at all elevations
<b>Fabaceae</b>	<b>Pea family</b>	
<i>Lathyrus leucanthus</i>	Peavine	Scattered plants in forest at all elevations
<i>Medicago lupulina</i>	Black Medic	Introduced alien in open areas near Opal Lake
<i>Trifolium parryi</i>	Parry's Clover	Patches in open areas at higher elevations
<i>Trifolium pratense</i>	Red Clover	Introduced alien in open areas near Opal Lake
<i>Trifolium repens</i>	White Dutch Clover	Introduced alien in open areas near Opal Lake
<i>Vicia americana</i>	Vetch	Frequent in open areas of forest at all elevations
<b>Fumariaceae</b>	<b>Fumitory family</b>	
<i>Corydalis caseana</i> subsp. <i>brandegei</i>	Corydalis	Several patches, wet areas of the forest or meadows
<b>Gentianaceae</b>	<b>Gentian family</b>	
<i>Frasera speciosa</i>	Green Gentian, Monument	Several in meadows below Opal Lake
<b>Geraniaceae</b>	<b>Geranium family</b>	
<i>Geranium richardsonii</i>	Richardson's Geranium	Common in the forest at all elevations
<b>Grossulariaceae</b>	<b>Currant or Gooseberry</b>	
<i>Ribes inerme</i>	White-stem Gooseberry	One in shade of tree by trailhead
<i>Ribes wolfii</i>	Black Currant	Several in moist areas of forest
<b>Helleboraceae</b>	<b>Helebore family</b>	
<i>Aconitum columbianum</i>	Monkshood	Several clumps in moist areas near Opal Lake
<i>Actaea rubra</i>	Baneberry	A few in shaded area near Opal Lake
<i>Aquilegia elegantula</i>	Western Red Columbine	A few in open, partially shaded, area near Opal Lake
<b>Hippuridaceae</b>	<b>Mare's Tail family</b>	
<i>Hippuris vulgaris</i>	Mare's Tail	Filled a stagnant pond west of trailhead
<b>Hydrophyllaceae</b>	<b>Waterleaf family</b>	
<i>Phacelia heterophylla</i>	Scorpionweed	A few in open areas of forest
<b>Laminaceae</b>	<b>Mint family</b>	
<i>Prunella vulgaris</i>	Self-heal	A few in moist areas of upper forest and meadows
<b>Lemnaceae</b>	<b>Duckweed family</b>	
<i>Lemna</i> sp.	Duckweed	Filled another stagnant pond west of trailhead

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<b>Malvaceae</b>	<b>Mallow family</b>	
<i>Sidalcea candida</i>	White Checkermallow	Several in moist areas of lower elevations
<b>Melanthiaceae</b>	<b>False Hellebore family</b>	
<i>Anticlea elegans</i>	Death Camus	Occasional in the deep forest at all elevations
<i>Veratrum tenuipetalum</i>	Cornhusk Lily	Large patch in meadow below Opal Lake
<b>Onagraceae</b>	<b>Evening-primrose family</b>	
<i>Chamerion danielsii</i>	Common Fireweed	Common in disturbed places at lower elevations
<i>Chamerion subdentatum</i>	Dwarf Fireweed	A few in gravel at edge of cold creek
<i>Epilobium hornemannii</i>	Subalpine Willowherb	A few by cold creek entering Opal Lake
<b>Orchidaceae</b>	<b>Orchid family</b>	
<i>Coeloglossum viride</i>	Green Bog Orchid	Frequent in wet areas of upper elevations
<i>subsp. bracteatum</i>		
<i>Corallorhiza maculata</i>	Spotted Coralroot	Several in moist forest at all elevations
<i>Corallorhiza trifida</i>	White Coralroot	Several in moist forest at upper elevations
<i>Goodyera oblongifolia</i>	Rattlesnake-plantain	Several in moist forest at all elevations
<i>Limnorchis hyperborea</i>	Bog Orchid	Several in moist forest at upper elevations
<b>Poaceae</b>	<b>Grass family</b>	
<i>Agrostis scabra</i>	Ticklegrass	A few by trail, accidental introduction
<i>Bromopsis canadensis</i>	Canadian Brome	Several by trailhead, accidental introduction
<i>Bromopsis inermis</i>	Smooth Brome	Common by trailhead, accidental introduction
<i>Calamagrostis canadensis</i>	Bluejoint Reedgrass	In wet areas of forest and upper meadows
<i>Dactylis glomerata</i>	Orchard Grass	A few at trailhead, accidental introduction
<i>Deschamsia caespitosa</i>	Tufted Hairgrass	Common in open areas at all elevations
<i>Elymus glaucus</i>	Blue Wild Rye	In flats near trailhead and upper dry meadows
<i>Elymus trachycaulus</i>	Wild Rye	In upper meadows
<i>Festuca thurberi</i>	Thurber Fescue	In dry open meadows at upper elevations
<i>Oryzopsis asperifolia</i>	Ricegrass	In dry meadows at upper elevations
<i>Pascopyrum smithii</i>	Western Wheatgrass	Common near trailhead, accidental introduction
<i>Phleum pratense</i>	Timothy	In open areas at all elevations, accidental intro.
<i>Poa fendleriana</i>	Muttongrass	A few in flats near trailhead
<i>Poa pratensis</i>	Kentucky Blue Grass	A few at trailhead, accidental introduction
<i>Trisetum spicatum</i>	Spike Trisetum	Common in meadows and dry areas in forest
<i>subsp. alaskanum</i>		
<b>Polemoniaceae</b>	<b>Phlox family</b>	
<i>Collomia linearis</i>	---	Occasional in forest at all elevations
<i>Linanthastrum nuttallii</i>	Nuttall's Gilia	A large plant in meadow on east side of Opal Lake
<b>Pyrolaceae</b>	<b>Wintergreen family</b>	
<i>Orthilia secunda</i>	One-sided Wintergreen	Occasional in shady area of forest
<i>Pyrola chlorantha</i>	Shineleaf Wintergreen	Occasional in shady area of forest
<i>Pyrola picta</i>	Shineleaf Wintergreen	Occasional in shady area of forest

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<b>Ranunculaceae</b>	<b>Buttercup family</b>	
<i>Trautvetteria carolinensis</i>	Tasselrue	A small clump on shaded hill near Opal Lake
<b>Rosaceae</b>	<b>Rose family</b>	
<i>Amelanchier alnifolia</i>	Serviceberry	Common in forest at all elevations
<i>Fragaria vesca</i>	Strawberry	In moist open forest or meadows at all elevations
<i>Fragaria virginiana</i> subsp. <i>glauca</i>	Strawberry	In drier open forest or meadows at all elevations
<i>Geum aleppicum</i>	Yellow Avens	Common in moist areas of upper elevations
<i>Geum macrophyllum</i>	Large-leaved Avens	Common in moist areas of lower elevations
<i>Potentilla pulcherrima</i>	Cinquefoil or Potentilla	Common in open areas at all elevations
<i>Rosa woodsii</i>	Woods Rose	A few in open areas of forest at all elevations
<i>Rubacer parviflorum</i>	Thimbleberry	A few in moist areas of forest at all elevations
<i>Rubus idaeus</i> subsp. <i>melano-</i> <i>lasius</i>	Red Raspberry	One under Peach-leaf Willow by trailhead
<b>Rubiaceae</b>	<b>Madder family</b>	
<i>Galium septentrionale</i>	Northern Bedstraw	Common in open areas of forest at all elevations
<i>Galium triflorum</i>	Fragrant Bedstraw	Occasional in shaded forest at all elevations
<b>Salicaceae</b>	<b>Willow family</b>	
<i>Populus deltoides</i> subsp. <i>wislizenii</i>	Fremont Cottonwood	One large tree west of trailhead
<i>Populus tremuloides</i>	Quaking Aspen	Common at all elevations
<i>Salix amygdaloides</i>	Peach-leaf Willow	One by trailhead
<i>Salix drummondiana</i>	Blue or Drummond's Willow	Several patches in wet area near Opal Lake
<i>Salix lucida</i> subsp. <i>lasiandra</i>	Whiplash Willow	Several patches in moist area near Opal Lake
<i>Salix monticola</i>	Yellow-twigged Willow	A few by trailhead
<b>Scrophulariaceae</b>	<b>Figwort family</b>	
<i>Castilleja liniariifolia</i>	Wyoming Paintbrush	Frequent in open areas at all elevations
<i>Castilleja miniata</i>	Scarlet Paintbrush	Frequent in open areas at upper elevations
<i>Castilleja sulphurea</i>	Sulphur Paintbrush	Frequent in open areas at upper elevations
<i>Mimulus guttatus</i>	Monkeyflower	Several in gravel by cold creek
<i>Pedicularis procera</i>	Fern-leaf Lousewort	Common in forest at lower elevations
<i>Pedicularis racemosa</i>	Sickle-top Lousewort	Common in forest and open at upper elevations
<i>Verbascum thapsus</i>	Mullein	Several near trailhead, alien introduction
<i>Veronica americana</i>	American Speedwell	Frequent in damp areas of forest and upper meadows
<b>Thalictaceae</b>	<b>Meadowrue family</b>	
<i>Thalictrum fendleri</i>	Meadowrue	Common in forest at all elevations
<b>Urticaceae</b>	<b>Nettle family</b>	
<i>Urtica gracilis</i>	Stinging Nettle	Several patches in the lower forest

