

The Native Orchids of Nevada

by Carol Siegel

Pity poor Hawaii... Contrary to its lush image as the Orchid Capital of the world, Hawaii has only three native orchids. Hawaii has the fewest native orchids in the United States. Nevada, on the other hand, with its sizzling, dry deserts and freezing, snowy mountains, the last place associated with orchids, boasts no fewer than TWELVE native orchids, two of which occur in two distinct varieties. Stand aside, Hawaii, as we strut our stuff.

It's not easy to be an orchid in Nevada, yet our resilient and resourceful native orchids have learned to make a living in any little microclimate that boasts a little water and a little shade. Professor Wes Niles, curator of the Herbarium at UNLV, relates that under a dripping fountain outside the Chemistry Building, clumps of *Epipactis gigantea* started to grow, its seeds carried on the wind. In the drainage of a university swimming pool, additional stands grew and flowered just a couple of miles from the Strip.

In the steaming desert of Las Vegas in Clark County, where temperatures can range from nine degrees to one hundred and nineteen degrees, three orchids are found: *Epipactis gigantea* in many places in Red Rock Recreational Area and elsewhere, *Platanthera dilatata* var. *leucostachys* in Kyle Canyon, and our common species *Platanthera sparsiflora*, in several locations in the Spring Mountains including Kyle and Lee Canyons. In Southern Nevada, including Clark, Nye and Lincoln counties, these and an additional four native orchids are found, *Corallorhiza maculata*, *Spiranthes diluvialis*, *Spiranthes infernalis*, and *Spiranthes romanzoffiana*, an amazing seven native orchids. In all, Nevada has these seven, and also *Corallorhiza striata*, *Listera cordata*, *Spiranthes porrifolia*, *Piperia unalascensis*, and the variety *Platanthera dilatata* var. *albiflora*, and *Platanthera stricta*, twelve in all. All our orchids are "terrestrial", that is, they grow in the ground rather than clinging to the bark of a tree.

An orchid was considered to be in Nevada if it was listed in herbariums (dried plant and information repositories) at UNLV and UNR or if it was listed as being an orchid from Nevada in the FLORA OF NORTH AMERICA VOLUME 26 2002, Luer's NATIVE ORCHIDS OF THE UNITED STATES AND CANADA, Correll's NATIVE ORCHIDS OF NORTH AMERICA, (and/or Brown & Folsom THE WILD ORCHIDS OF NORTH AMERICA NORTH OF MEXICO). There may be other

orchids in other counties, but we thought that this was a reliable start to cataloguing the orchids of Nevada.

CORALLORHIZA MACULATA



Leafless, flowers heavily-spotted, devoid of green, this odd orchid gets its nourishment solely by being parasitic on its fungus hosts. This is one of those orchids that doesn't look like most people's idea of an orchid. Known as the "spotted coral root", its fungus-infected roots have a knobby appearance like pieces of branched coral, and its three-lobed white lip, and often its sepals, petals and column, are dotted with reddish to purplish spots. It mooches off other living things its whole life. It is known as "mycotrophic plant" because it relies on a special relationship with mycorrhizal fungus for its food. All orchids start their lives dependent on fungus for food because orchid seeds have no endosperm or food tissue for their growing embryos. The little seed must land on the fungus that serves as its nanny providing food. As most orchids grow, they develop leaves and become self-supporting. *Corallorhiza maculata*, however, is like a teen-ager who never leaves home. It continues to feed off its fungus for food throughout its whole life. Without photosynthesis, it has no

need for leaves or chlorophyll, and the leaves are reduced to tiny sheaths on the flower stem. The plants are devoid of green and exhibit, instead, gay and attractive shades of brown, red and yellow. The strangely-shaped plants are just rhizome, stem and flowers, and appear above the ground to bloom. The plant grows usually in dry, open forest between 6900 and 10,000 feet in the decaying leaf litter although they tolerate some moist environments, too. Because of their delicate relationship with their fungus, transplanting them from the wild is out of the question, even if it were legal.

This orchid is a favorite in folk medicine, used to break fevers by causing sweating. The Paiute and Shoshone Indians of Nevada made a tea to build up the blood in pneumonia sufferers.

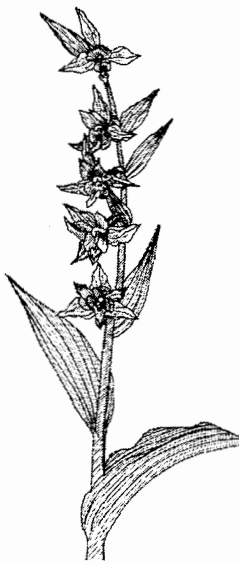
CORALLORHIZA STRIATA var. STRIATA and var. VREELANDII



Corallorhiza striata, with its riot of stripes, is easy to tell from all other coral-roots. About 16 inches tall, *C. striata* bears more than 45 heavily-striped flowers on leafless stems, each flower little more than $\frac{1}{2}$ inch across. Like all coral-roots, it never produces its own food. A parasitic wasp pollinates this most striking and largest-flowered coral-root.

Different color forms of *C. striata* have been given forma names. In Nevada, the varieties "vreelandii" and "striata" have been noted by the FLORA OF NORTH AMERICA. "Striata" is larger, brown to reddish-brown with sepals and petals which have three to five reddish-to-brown veins and lips over 7 mm. "Vreelandii", with a light-tan to yellowish base color and dull-brown stripes, is slightly smaller and less bright than "striata". Blooming season is from May to July, and individual plants do not bloom every year. In a study lasting 29 years on a single colony, the number of blooming plants varied from 0-155. Four years, there were NO plants at all.

EPIPACTIS GIGANTEA



In May of 2000, over fifty of our Greater Las Vegas Orchid Society adventurers hiked into the hills of Red Springs in the Red Rock Recreation Area to see our native orchid, *Epipactis gigantea* with Dr. Patrick Leary, Chairman of Biology at CCSN. As we hung over the side of the cliff, we had the thrill of seeing dozens of these orchids, lips quivering in the breeze, for the very first time. In the shade of the sandstone cliff, a spring wetting the earth, this little orchid had found a tiny, hospitable microclimate in which to flourish in the desert.

Epipactis gigantea, is sometimes known as the "stream orchid" because it loves to grow in wet places from sea level to 7500 feet, where it is found in bogs, hot springs, road cuts and wet cliff faces. How strange to find it in the Mojave Desert with only 2-4 inches of rain a year! It is the most common native orchid in California and occurs all over Las Vegas where there is a little water—First Creek, La Madre Spring, Ash Spring, Pine Creek, Icebox Canyon, Spring Mountain Ranch,

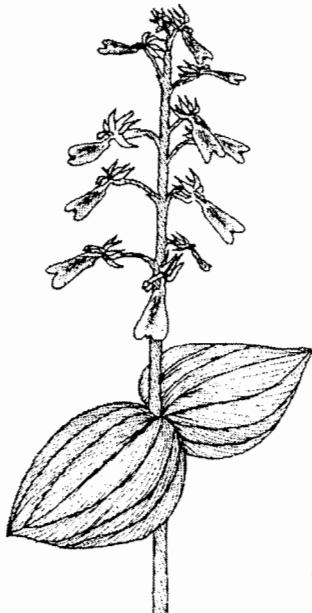
Sandstone Spring, and Blue Diamond to name some. Springs in Blue Diamond are being pumped dry, and there is worry that they may not survive there.

The orchid is pollinated by the syrphid fly. The aroma of the orchid supposedly smells like the honeydew smell given off by aphids, which are the food supply for the syrphid fly larvae. Fooled by little projections on the orchid that look like masses of aphids and by the sweet smell, the syrphid fly lays its eggs on the orchid, inadvertently pollinating the flower in the process. Since there are really no aphids, just a trick, the poor little hatched larvae are doomed to perish.

Epipactis comes from an ancient Greek word used by Theophrastus in 350 B.C. for a medicinal plant. *Gigantea*, of course, means gigantic, although neither the plant nor the flower is gigantic. The plant blooms to about three feet high, with 12-20 flowers per inflorescence. The flowers are about one-and-a-half to two inches across and usually face in the same direction. The sepals are dark green, and the lip is usually red, three-lobed in the middle, with yellow lateral lobes. Part of the lip is elongated and quivers in the breeze, hence its other popular name, the "chatterbox orchid" for its moving lips! The plant has ten or more green, alternating leaves, which die back to the ground in the fall. Come winter, you don't even know the orchid is there.

Indians used a medicine of the fleshy roots for internal use when they felt sick all over. Other Indians were said to drink a similar concoction to combat mania and severe illness.

LISTERA CONVALLARIOIDES



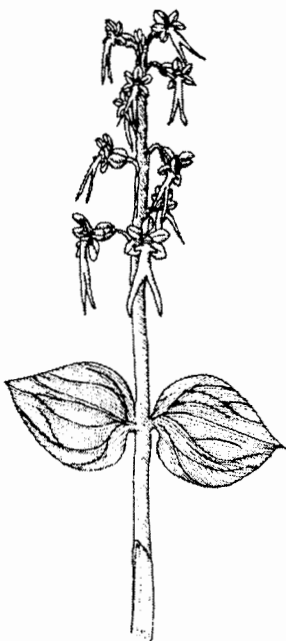
This is one of those beauties that requires a magnifying glass to truly appreciate.

"*Convallarioides*" means "like lily-of-the-valley", which it is supposed to resemble. *Listera convallarioides* is easy to tell from *L. cordata* since the lip of the former is shallowly trilobed and the latter is deeply forked. The whole genus *Listera* was named in honor of Martin Lister, an English botanist and scientist. It is a worldwide genus of 25 species, eight growing in the United States, and two in Nevada. Hard to find because of its small size, it reaches to just 10 inches, carrying over 25 small

green or sometimes purple flowers. Some have said that the flower shape looks like a prehistoric bird or a mayfly.

This orchid also has a special pollination device, a little projection from the rostellum that acts as a trigger firing pollen masses at visiting insects.

LISTERA CORDATA



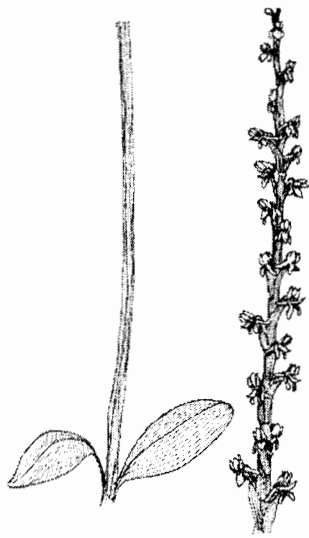
An adorable, tiny plant just 4-10 inches tall, it bears up to 30 flowers that are deeply forked for half its length. The little flowers look like tiny elves, with forked lip looking like legs, tiny horn-like projection looking like arms, and petals and sepals spreading over the lip like the hat.

This orchid is not listed in the *Flora of North America*, but there is an herbarium sample for it, found in Snake Creek in the Snake Range of White Pine County, *Listera cordata* is part of a genus commonly called "twayblades" because it always has two leaves. With its heart-shaped opposite leaves halfway up its stem, it has earned the title "heart-leaved twayblade".

Fungus gnats, attracted by odor and nectar, visit the orchid, triggering three pressure-sensitive hairs that eject a droplet of glue on the unsuspecting gnat. Then, the pollinia are dropped into the glue. The glue hardens like cement, and the fly is stuck with carrying the pollinia to another flower!!

PIPERIA UNALASCENSIS

The species is named for Unalaska, the Aleutian Island where it was first found. Commonly called "Alaskan piperia" or "slender spire orchid", the small, delicate flowers are carried in a spire that varies from 6-24 inches. The genus was named in honor of C. V. Piper of the Agricultural Experiment Station at Pullman, Washington. In the fall, *Piperia* forms new underground roots, one of which later forms a new tuber. The basal leaves appear in late fall to spring, and the flower spikes arise from late springs to early summer. The leaves yellow and fall away before the flower opens; the flowers last from four to six weeks.



Nocturnally fragrant yet lingering during the day, the flower attracts moths with its unusual smell, sometimes described as musky, soapy, or honey-like.

Interestingly, when the flower first opens, the lip is held tight against the column forcing its pollinator to remove pollen only in the search for nectar in its spur. Aging over time, the lip moves downward, exposing the nectary and allowing pollen deposition. This clever strategy effectively prevents self-pollination by not having the male and female parts available at the same time.

Over the years, the plant has been classified with *Habenaria* or *Platanthera*. Plants in all these forms underground tubers with fibrous roots, but *Piperia* has round tubers and *Platanthera* has elongated tubers. *Piperia* has leaves near the base, and *Platanthera* has them scattered along the stem.

PLATANTHERA (syn. HABENARIA) DILATATA

var. ALBIFLORA and var. LEUCOSTACHYS



"The Bog Candle", "Scent-Bottle", or "White Bog Orchid", as it is commonly called, is a small white stalk of fragrant little flowers, maybe eight inches high and looking just like a little white candle. The first time I saw this orchid I was on the island of Newfoundland in Canada. They were just growing wild in the streets. They grew along the roadsides, in front of houses, in ditches, in forest, under picnic tables—just everywhere, hundreds and hundreds of them. They also grow in many counties in Nevada. UNR says it has numerous herbarium samples of it. It grows here with a wide range of heights, some plants having as many as 248 flowers.

There are two varieties of *Platanthera dilatata* in Nevada, the var. *albiflora* and the var. *leucostachys*, with var. *leucostachys* being treated sometimes as a distinct species. Both have a spur carrying nectar, providing a reward for pollinators. The varieties are based on differing spur length reflecting different pollination pressures. The long spurs on the flowers and nocturnal fragrance of var. *leucostachys* means it is specialized for moth pollination. The short spur on variety *albiflora* suggests a broad range of pollinators including the bee or fly.

Variety *leucostachys* (white means "white spike" in Greek) is easy to recognize because its flower is always white. The flowers are very fragrant smelling a lot like cloves. The petals trap the emerging lip and newly opened flowers have a loopy look. The upturned lip offers access to only one side of the lip, and the visiting insect can only take one pollinia per visit. This strategy ensures that the flower will have more pollinators carrying genetic material, supposedly increasing the chances for success. The plant blooms from May to September, and has a wide tolerance for surviving in different elevations.

This orchid has been used in folk medicine by the Thompson Indians of British Columbia. "Young men use it as a wash to make them lucky, good looking and sweet smelling. Women use the wash to gain a mate and have success in love. Both sexes use it to obtain riches and property. When they dig up the plant they chant, 'Friend, I want wealth and much property.'" Northwest Indians and Eskimos eat the corms that supposedly taste like potatoes. (Coffey, p.328)

PLATANATHERA (SYN. HABENARIA) SPARSIFLORA



Flowering from April to September in wet meadows, marshes, stream banks and seeping slopes, its common name is "Sparsely flowering bog orchid". Often producing over 120 green to yellowish green very fragrant flowers per plant, it is sparsely flowering only in comparison to *Platanthera dilatata*. It blooms in Mummy Springs in Mt. Charleston, and our club hiked up to see it. It is easily recognized by its green color and large column, which fills half the "hood" formed by the sepals and petals. This is a narrow flower that likes high elevations and wet ground. It is thought to be pollinated by a moth, the pollinia attaching to its proboscis.

PLATANTHERA STRICTA

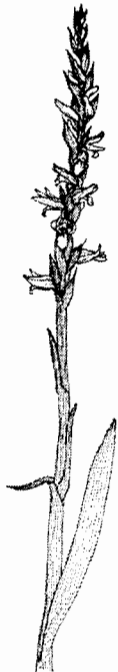


Sometimes called *Platanthera saccata*, because of its "saccate" or purse-shaped spur, this two-to-three foot orchid can have sixty green flowers, sometimes with a purple tinge. As a reward to the variety of insects that visit the flower, the orchid offers droplets of nectar on the flowers as well as nectar inside the spur. Blooming from May to early August in Elko County at 7500 feet, it is called the

Slender Bog Orchid. It is not mentioned in the FLORA OF NORTH AMERICA but is mentioned in Correll's NATIVE ORCHIDS OF NORTH AMERICA and Luer's NATIVE ORCHIDS OF THE UNITED STATES AND CANADA.

It is pollinated by a whole group of insects with short mouthparts. It has a whole bouquet of treats to attract pollinators- floral fragrance, a sparkling, shimmering appearance of the inflorescence, extrafloral glucose to eat on the flower raceme, nectar in a spur, and a pollination chamber that can accommodate a variety of insects.

SPIRANTHES DILUVIALIS



Of conservation concern, this rare orchid is a naturally-occurring hybrid of *S. romanzoffiana* and *S. magnicamporum*, blooming in July and August, in moist to wet meadows, stream banks, and marshes. Although it has been found in Colorado, Idaho, Montana, Nebraska, Utah, Washington and Wyoming, it is very rare in Nevada. It is commonly called Ute's Ladies'-tresses and is pollinated by long-tongued bees like bumblebees who seek out the nectar.

James Morefield of the Nevada Natural Heritage Program says that it is listed as a threatened species under the US Endangered Species Act. He further remarked in an e-mail on April 29, 2003:

One of my highest orchid priorities has been to establish whether or not *Spiranthes diluvialis* is still present in Nevada. The only record is from the 1930's, probably in the native hay meadow directly below (west of Panaca Spring on the northern edge of Panaca in Lincoln County). This

meadow is privately owned, and so far the land owner has not been keen on allowing a State employee to determine whether or not a threatened orchid exists on their land.

James Coyner, American Orchid Society Rep to the Utah Orchid Society who is a *Spiranthes diluvialis* recovery team member, recounts his frustration also:

I also searched an area north of there in White Pine County in the general area of the Pony Express Route west of the Goshute Indian Reservation. The search was based on a ranch hand's report that he had seen such a plant growing there.

He found no orchids and would be very interested in anyone who has. It would be an interesting project for our club to try to re-locate this orchid.

SPIRANTHES INFERNALIS



Ash Meadows in Nye County is an unlikely place to find an orchid. Hot and dry, just nine miles from Death Valley Junction, the ground is so thickly covered with salt that it looked like winter snow. Fed by a vast network of underground springs, the ground bounces like foam rubber when you walk on it. On June 25, 2003, seven hardy Greater Las Vegas Orchid Society conservation enthusiasts braved the intense summer heat to participate in the orchid count of *Spiranthes infernalis* at Ash Meadows National Wildlife Refuge. *Spiranthes infernalis* is found there and nowhere else in the world. We got up at dawn and drove 90 miles to make sure that the population of endemic orchids was safe. Invasive weeds, like the Russian knapweed (*Acroptilon repens*), a noxious perennial herb, probably introduced in hay from Eurasia, now covers over 500

acres where there were none in 1990. The fear is that the introduced weeds will squeeze out the rare and exotic orchid.

The 22,000 acres of Meadows are protected as a national wildlife refuge because they contain a greater concentration of unique species than any other location in the United States—13 threatened and endangered species and at least 24 plants and animals found nowhere else in the world- including our orchid. It is one of the few natural desert oases in the Southwest, providing habitat for 220 species of migratory birds.

Spiranthes come from two Greek words meaning "coil" and "flowers" for the coiled or spiraled flower spikes of this genus. Because of the supposed resemblance of the spirals to some hairstyles, *Spiranthes* are commonly called "ladies'-tresses." *Spiranthes infernalis*, Ash Meadows ladies'-tresses, was named in 1989 by Charles J. Sheviak and is endemic to the alkaline, moist soils of Ash Meadows, meaning it is ONLY found there, making it very special. It is similar to other *Spiranthes* with many small, white, spiraling orchid flowers. In 1990, populations world-wide were estimated at between 730-1160 individuals. Until last year, global counts for species were around 1400 individuals. Surveys last year estimated 10,000 individuals and this year, happily, the survey we took part in found 13,500 plants.

SPIRANTHES PORRIFOLIA



"Porrifolia" comes from two Latin words meaning "leek green" and "leaves", referring to the color of the leaves. The beautiful flower spike has multiple spirals of over 100 creamy yellow flowers. Thoreau wrote of *Spiranthes*, "Its crystalline white flowers are arranged in a dense spiral cone like the thread of a screw" although others think it resembles a girl's braids. Restricted in range, it is limited to the western parts of the United States, mainly California, Oregon and Washington, giving it its common name of "western ladies'-tresses". Its peak blooming season is July and August, and its blooming season overlaps with *Spiranthes romanzoffiana*, which may account for the existence of natural hybrids between the two. It grows in moist meadows and seeps.

Darwin described the pollination mechanism of *Spiranthes* to prevent self-pollination. On freshly-opened flowers, the column is positioned close to the lip blocking the stigma. The insect probing for nectar comes away with a load of pollen but cannot deposit it on the blocked female part. As the flower ages, the stigma is revealed, and an insect can deposit pollen from another flower. This is a common strategy of *Spiranthes*.

SPIRANTHES ROMANZOFFIANA



The species is named in honor of Nicholas Romanzof, a Russian minister of state when the flower was discovered in Alaska, Alaska was a Russian territory and so named it for its minister. The sepals and petals form a hood over the column and the basal half of the lip, and the common name is therefore "hooded ladies'-tresses", the tresses referring to the "curly" spirals of flowers. It has a "pandurate" or violin-shaped lip *that is* distinctive. In the Southwest, blooming size is between 4 and 16 inches with up to 60 flowers in three dense spirals. It is found in meadows as well as springs and grassy wet areas. Blooming in August, it is difficult to find when not in bloom because the grasses and other plants hide its short leaves.

Spiranthes romanzoffiana has a sweet aroma that has been described as that of sweet lilacs. Eleven pollinators are attracted to its delightful aroma, six species of bumblebee, one cuckoo bee, one leaf-cutting bee, and three halictid bees. Bees visit many times over a long period, landing on the lowest flowers first and working their way up the inflorescence. Supposedly, the lower flowers have the most nectar and are therefore the most attractive. The tallest, prettiest plants attract the most visitors. Pollinia are attached to the insect's tongue!

So there we have them, all twelve. What a thrill it is for us to know that so many native orchids have found a home in Nevada!

Author's note; I could not have done this little article without the help and guidance of Ron Coleman. I never appreciated how much time and effort went into his books until I started writing this tiny shadow of his work. Much of the information in the article comes from his books. I am overwhelmed with gratitude to Paul Martin Brown and Stan Folsom who kindly allowed me to reprint the pictures from their wonderful new book on wild orchids. Thanks, too, Dr. Patrick Leary, Southern Nevada plant expert for his help with the local orchids and for actually showing them to us. I am grateful to Dr. Wes Niles of the UNLV Herbarium for the time he spent with me at the herbarium as well as to Kathryn Birgyy for her help with the database. At UNR, I am indebted to Arnold Tiehm and Christy Malone for information about the herbarium. Thanks to Gina Glenn of the US Fish and Wildlife Service for allowing me to take part in the *Spiranthes infernalis* orchid count. I much appreciate the input by e-mail from James Coyner of the *Spiranthes diluvialis* recovery team and to James Morefield of the Nevada Natural Heritage Program, as well as to Dr. Lucy Jordan and to Marilyn Light, Chairperson of North American

Regional Orchid Specialist Group, In addition, I appreciate all the leads from David McAdoo, leader of the Native Orchid Group, a great organization.

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8. Van Der Cingel, N.A. **An Atlas of Orchid Pollination: America, Africa, Asia and Australia.** AA Balkema Publishers. Rotterdam. 2001.

The following orchids are mentioned in the Flora as being in Nevada:
Flora of North America Editorial Committee, ed. **Flora of North America:**
Volume 26. New York, Oxford. Oxford University Press. 2002

Spiranthes romanzoffiana
Spiranthes porrifolia
Spiranthes diluvialis
Spiranthes infernalis
Platanthera dilatata var. *albiflora*
Platanthera dilatata var. *leucostachys*
Platanthera sparsiflora
Piperia unalascensis
Listera convallarioides
Corallorhiza striata var. *striata*
Corallorhiza striata var. *vreelandii*
Corallorhiza maculata var. *occidentalis*

Platanthera stricta is not mentioned in the FLORA but is mentioned as being from Nevada in:
Correll, Donovan Stewart. **Native Orchids of North America North of Mexico.** Stanford University Press. Stanford. 1978.

Luer, C.A. **The Native Orchids of the United States and Canada.** New York Botanical Garden. New York. 1975.

The following orchids are represented by dried specimens and are in the database of UNLV at Las Vegas, Nevada. Thanks to Professor Wes Niles and Kathryn Birgy for all your help.

Corallorhiza maculata
Epipactis gigantea
Habenaria dilatata (syn. *Platanthera*)
Habenaria dilatata var. *leucostachys* (syn. *Platanthera*)
Habenaria sparsiflora (syn. *Platanthera*)
Listera cordata (not mentioned in the Flora above)****
Spiranthes infernalis
Spiranthes romanzoffiana

The following species are dried specimens and in the database of UNR. Thanks to Arnold Tiehm and Christy Malone for your help.

Corallorhiza maculata
Epipactis gigantea
Habenaria dilatata (syn. *Platanthera*)
Habenaria dilatata var. *leucostachys* (syn. *Platanthera*)
Habenaria sparsiflora (syn. *Platanthera*)
Listera convallarioides
Spiranthes porrifolia
Spiranthes romanzoffiana

In the herbariums of UNR and UNLV, the following orchids are represented by county (starting from Southern Nevada and going north)

CLARK:

Epipactis gigantea
Platanthera (Habenaria) dilatata var. *leucostachys* (This orchid is NOT represented in the herbariums. However, Dr. Patrick Leary asserts that it was collected by Ira Stokey in Kyle Canyon, and Dr. Leary is the expert on this area's plants.)
Platanthera (Habenaria) sparsiflora

NYE:

Corallorhiza maculata

Epipactis gigantea
Platanthera (Habenaria) sparsiflora
Spiranthes infernalis
Spiranthes romanzoffiana

LINCOLN:

Platanthera (Habenaria) sparsiflora

ESMERALDA

Platanthera (Habenaria) sparsiflora

MINERAL:

None

DOUGLAS:

Corallorhiza maculata

Epipactis gigantea

Platanthera (Habenaria) dilatata var. *leucostachys*

Platanthera (Habenaria) dilatata (no variety listed)

Listera convallarioides

LYON:

Platanthera (Habenaria) dilatata (no variety mentioned)

CARSON CITY:

Platanthera (Habenaria) sparsiflora

Platanthera (Habenaria) dilatata var. *leucostachys*

Listera convallarioides

CHURCHILL:

None

STOREY:

Platanthera (Habenaria) dilatata var. *leucostachys*

LANDER:

Platanthera (Habenaria) dilatata var. *leucostachys*

EUREKA:

None

WHITE PINE:

Corallorhiza maculata

Platanthera (Habenaria) dilatata (var. not mentioned)

Platanthera (Habenaria) dilatata var. *leucostachys*

Platanthera (Habenaria) sparsiflora

Listera convallarioides

Listera cordata

WASHOE:

Corallorhiza maculata

Listera convallarioides

Platanthera (Habenaria) dilatata var. *leucostachys*

Platanthera (Habenaria) dilatata (var. not mentioned)

Platanthera (Habenaria) sparsiflora

Spiranthes porrifolia

Spiranthes romanzoffiana

PERSHING:

None

HUMBOLDT:

Epipactis gigantea

Platanthera (Habenaria) sparsiflora

ELKO:

Corallorhiza maculata

Platanthera dilatata (var. not mentioned)

Platanthera sparsiflora

Spiranthes romanzoffiana

Platanthera stricta (specified county by Correll)

The following orchids are found in the herbarium from the following counties:

Corallorhiza maculata:

Douglas, Washoe, White Pine, Nye, Elko

Epipactis gigantea:

Clark, Douglas, Humboldt, Nye

Listera convallarioides:

Douglas, Ormsby/Carson, Washoe, White Pine

Listera cordata:

White Pine

Platanthera dilatata (no variety listed):

Elko, Douglas, Lyon, Washoe, White Pine

Platanthera dilatata var. *leucostachys*:

Carson, Douglas, Elko, Lander, Storey, Washoe, White Pine

Platanthera sparsiflora:

Carson City, Clark, Lincoln, White Pine, Elko, Esmeralda, Humboldt, Nye, Washoe

Spiranthes infernalis:

Nye

Spiranthes romanzoffiana:

Elko, Washoe, Nye

