

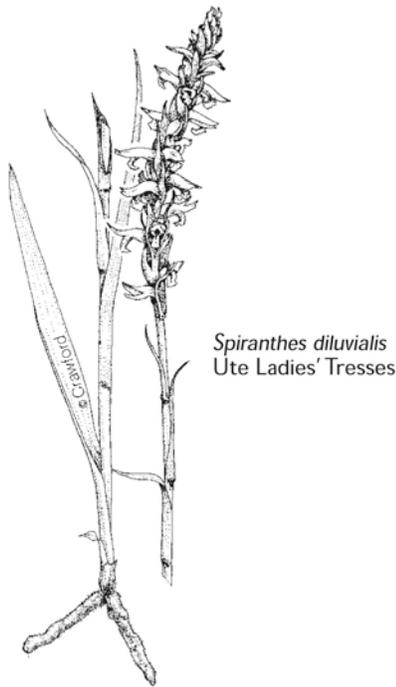
# Ute ladies'-tresses

## *Spiranthes diluvialis*

### Natural Resources Conservation Service

## Fact Sheet

April 2011



### Official Status: Threatened.

Threatened species are species that are likely to become endangered species within the foreseeable future throughout all or a significant portion of their range.

### Listed

57 Federal Register 2053; January 17, 1992.

### Historical Status

Ute ladies'-tresses was probably much more widely distributed prior to European settlement of the West. Disruption of natural flooding events and other anthropogenic influences have likely limited the distribution of this orchid.

### Present Status

Ute ladies'-tresses are known to occur in eight states: Nevada, Utah, Colorado, Idaho, Washington, Nebraska, Wyoming and Montana. There are ten

known locations in four Montana counties: Jefferson, Madison, Gallatin and Beaverhead. The largest Montana population consists of about 500 plants.

### Habitat

Montana populations seem restricted to low elevation, calcareous microhabitats within old river meanders that are temporarily inundated and remain moist throughout the growing season. The plant is adapted to relatively sparse vegetation, possibly as a result of grazing, but not season-long grazing. It also appears to be adapted to disturbance from flooding.



Present range of Ute Ladies' Tresses

### Life History

Ute ladies'-tresses is a native, perennial, white-flowered orchid that grows up to 20 inches tall from tuberous roots. It blossoms from late July to early September. The plant relies on insects for pollination. The seeds are short-lived. Flowering stem numbers fluctuate from year to year; some non-flowering plants seem to be able to persist underground in season long dormancy. This orchid usually produces an overwintering rosette of basal leaves.

### Aid to Identification

White or ivory colored flowers clustered in a spike of 3-ranked spirals at the top of the stem. The sepals and petals are oriented perpendicular to the stem.



The upper stem is sparsely to densely glandular-pubescent. The persistent leaves are mostly restricted to the base of the stem; upper leaves are reduced to bracts.

## Reasons for Decline

This orchid depends on natural stream processes and probably on the type of nomadic grazing typical of native ungulates. Dams and diversions have interrupted stream flooding cycles. Urbanization has also eliminated habitat characterized by periodic flooding. Grazing prior to flower stem formation may be beneficial because it limits competition from taller, more aggressive species. Season-long grazing, however, is detrimental. Heavy recreational use of riparian habitats can result in trampled plants. Weed infestations are a serious threat to Ute ladies'-tresses. This species has a very low reproductive rate, which makes it even more vulnerable to the above threats.

## Recommendations

Restrict the use of herbicides in Ute ladies'-tresses habitat. Avoid livestock grazing during the flowering-fruiting period. Short grazing periods followed by relatively long rest periods are desirable.

## Comments

The presence of Ute ladies'-tresses can be an indicator of watershed health. Traditional agricultural land uses appear to be compatible with maintenance of this species if some consideration is given to its life history requirements.

## References

*Conservation Status of Spiranthes diluvialis Sheviak in Montana*, by Bonnie Heidel, 1998, available from the Montana Natural Heritage Program. Ute ladies'-tresses (*Spiranthes diluvialis*) Recovery Plan is in preparation by the U.S. Fish and Wildlife Service.

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