

**Report of
Calochortus nitidus Inventory**

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2008
Wallowa-Whitman National Forest**

Introduction

The objective of this project was to inventory suitable habitat for the presence of *Calochortus nitidus* and enter the survey results into the corporate data system, NRIS TESP.

Calochortus nitidus is a regional endemic plant extending from the Palouse Prairie of eastern Washington and adjacent Idaho south to west-central Idaho. *Calochortus nitidus* is a Forest Service sensitive plant in Oregon, Washington and Idaho (in Regions R-6, R-1 and R-4). The conversion of prairie grasslands to intensive agriculture is assumed to have extirpated large historic populations in the northern portion of the plant's range. In the southern portion of its range in Idaho, *Calochortus nitidus* inhabits canyon grasslands composed of Idaho fescue (*Festuca idahoensis*) and prairie junegrass (*Koeleria macrantha*). The steep topography of the canyon grasslands has prevented their conversion to agricultural farmland, but these slopes have been grazed by sheep and cattle for over one century.

In Oregon, only two sites have been reported, one from southwestern Oregon in Jackson County¹ and the second from Jim Creek Butte in extreme northeastern Oregon. No voucher exists for either of the Oregon populations. The Oregon Natural Heritage Information Center and the Oregon Flora Project both desire vouchers from the Oregon populations. The NE Oregon population was reported by Frank Callahan from plants in the bud stage during the last week of June. This site, near Jim Creek Butte, lies within a Forest Service administrative horse pasture - outside the Hells Canyon Wilderness Area - although horses are not reported to use the area inhabited by the plant. Forest Service botanists attempted to relocate the population in 2002 but did not detect *C. nitidus*. Their July 4 visit date may have been too early in the season to detect *C. nitidus*. At similar elevations in Idaho *C. nitidus* blooms from mid to late July. With this survey, we revisited the Jim Creek Butte location in late July and surveyed suitable habitat in Oregon and the Table Lands area near known populations of *C. nitidus* between the Snake and Salmon Rivers in Idaho.

¹ No voucher exist was collected for the southwest Oregon site, also reported by Frank Callahan. Callahan did photograph plants in bloom.

Study Area

The study area is found in northern Wallowa County and adjacent Idaho. See the attached map of surveyed areas in the Appendix.

Methods

Suitable habitat was surveyed by between July 24 and July 31, 2008. Jerry Hustafa and Paula Brooks joined Gene Yates on the survey of the Jim Creek Butte area July 24. The entire expanse of the ridge leading to Jim Creek Butte was inventoried including the GPS coordinates provided by Callahan in his report. Gene Yates surveyed the Idaho Table Lands between July 28 and July 31, 2008.

Results

A total of 535 acres of habitat was searched. Several new sites of *Calochortus nitidus* were found in the Idaho Table Lands vicinity. One site in the Table Lands was expanded by more than double. *Calochortus nitidus* was not located at Jim Creek Butte. At the reported coordinates 45deg. 55'46" 116 deg 56'07" we located only *C. macrocarpus* var. *maculosus*. We did not locate *C. eurycarpus* which was reported in vicinity, though not closely sympatric with *C. nitidus*. No *Calochortus* species were located at the second set of map coordinates (45 deg 56'11" 116 deg. 56'07". *Calochortus macrocarpus* var. *maculosus* was located within 200 m farther down a ridge to the northeast of the peak. Survey results have been entered into NRIS TESP (Survey ID: 061604S0011).

Six new *Calochortus nitidus* sites were located and one site (0616042322) was revisited and expanded in the Table Lands vicinity of Idaho. Population sizes ranged, based on estimates, from a 200-2000. Population counts are estimates, and very conservative. The larger populations of could easily be an order of magnitude greater (5,000-20,000) Table 1 below summarizes basic EO data. These data have been entered into NRIS – TESP.

Table 1. Summary Data for New *Calochortus nitidus* EO's

SITE ID	EO_DATE	CODE	SCIENTIFIC NAME	COUNT (est.)	ACRES
0616040352	2008-07-29	CANI	<i>Calochortus nitidus</i>	2000	48.3
0616040350	2008-07-28	CANI	<i>Calochortus nitidus</i>	500	22.0
0616042322	2005-07-07	CANI	<i>Calochortus nitidus</i>	200	10.6
0616040355	2008-07-30	CANI	<i>Calochortus nitidus</i>	200	9.4
0616040351	2008-07-30	CANI	<i>Calochortus nitidus</i>	2000	70.6
0616040354	2008-07-30	CANI	<i>Calochortus nitidus</i>	1000	37.7
0616042322	2008-07-31	CANI	<i>Calochortus nitidus</i>	2000	46.6
0616040356	2008-07-31	CANI	<i>Calochortus nitidus</i>	500	8.8

Discussion

Jim Creek Butte: The Jim Creek Butte area was thoroughly inventoried and *Calochortus nitidus* was not located. At the locations reported by Frank Callahan, we did not detect *C. nitidus*. The 1997 report by Callahan was based on plant specimens in bud, not in flower. At this stage *C. nitidus* could easily be confused with *C. eurycarpus*; both have a long, wide basal leaf and a solitary, much reduced cauline leaf. Curiously, we saw *C. eurycarpus* on the approach, but not near the reported area of *C. nitidus*. On Jim Creek Butte, *C. macrocarpus* var. *maculosus* was prevalent. However, this plant has several cauline leaves; we believe one should easily distinguish *C. nitidus* (or *C. eurycarpus*) from *C. macrocarpus* in the bud stage. A survey performed 2002 survey also did not detect *C. nitidus*. We are, therefore, highly skeptical of the Callahan report of *C. nitidus*.

Recommendations:

I will recommend to the Oregon Natural Heritage Information Center to remove the record of *Calochortus nitidus* for the Wallowa-Whitman National Forest. Additional surveys of *C. nitidus* in Idaho may establish that this plant is relatively abundant in its restricted range.

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Calochortus nitidus Survey - 2008



