

IDAHO RARE PLANT OBSERVATION REPORT

Fill out the form by tabbing through and completing the fields. Some fields contain check boxes and drop-down menus. If you do not have information for the field, leave it blank. Use F1 for help in any shaded field. E-mail completed form to scooke@idfg.state.id.us or send to Botany Information Manager, Idaho Conservation Data Center, Idaho Department of Fish and Game, PO Box 25, Boise, ID 83707.

Species: Lewisia sacajaweana

Date of Observation: 10 July 2012

Company: American CuMo Mining Corporation, John R. Moeller Ph.D. JMoeller@Forsgern.com

Address: 415 S. 4th Street, Boise, ID 83702

Phone: (208) 863 7343

Observer(s): Conservation Seeding and Restoration, Inc. Allison Dubenezic, Kent Fothergill

County: Boise

Quad: Eightmile Mountain

Township: 010N Range: 009E SW 1/4 of NW 1/4 of Section 26

Township: 010N Range: 009E SE 1/4 of NE 1/4 of Section 27

GPS Information: Enter either UTM's or latitude/longitude coordinates from GPS, as well as datum, way points (optional) and accuracy information in the table below. If you did not take GPS readings, please leave this table blank.

Have your GPS Coordinates been differentially corrected? Yes No Unsure

Do you have this report location digitized already? Yes No

If yes, you may send shape-files in lieu of a paper map. Did you submit shape-files with this form? Yes No.

If yes, list projection of shape-files:

Please give the parameters if the projection is not standard:

Datum	Way Point	UTM Northing	UTM Easting	Latitude	Longitude	Accuracy
Datum	WP#	631584.5	4891773	44.167311	115.354147	+/- 2/5
Datum	WP#					+/-

If you have more coordinates, please list them under Additional Comments.

Minimum Elevation: n/a ft.

Maximum Elevation: 7871 ft.

Stand # or other identification #: _____

Directions (be specific): Eightmile Mountain, accessed via Trail #148, approximately 2.5 miles NW of Warm Springs Campground and Warm Springs Landing Strip, located off Highway 21. Subpopulation 3 is located just N (8 meters) of the summit of Eightmile Mountain (marked with a rock mound).

Is this a new location? Yes No Unsure? Give occurrence # if known: 30 (SP3)

Mapping Instructions:, If submitting paper maps, complete A - C. If submitting shape-files complete parts B and C.

A) Please attach a photocopy of the appropriate part of the USGS 7.5 minute quad (or comparable map) and delineate the population and all subpopulations (if present) on the map using the guidelines listed below. Label subpopulations if you have population and/or habitat information for them.

- * If the population/subpopulation area is < 12.5 meters (40 ft.) in diameter, place a single point on the map marking its location. If necessary, indicate these point locations with an arrow so they are easier to see.
- * If the population/subpopulation area is >12.5 meters (40 ft.) in diameter, draw a polygon on the map marking its location.
- * If the population/subpopulation follows the boundary of a trail, lake, stream, road, etc., draw the boundary on the edge of this feature. Where needed, add notes on where boundary lines are.

B) How accurately do you feel you mapped or digitized the population compared to its actual location on the ground? Use the guidelines to determine how many meters (m) or miles on the ground correspond to millimeters (mm.) or inches (in.) on a 1:24,000 scale map. Within 25 m (0 - 1 mm. on map) Custom:

C) I sent a hard-copy map via U.S. mail. Other:

Population Information - Please fill in this section with the information for the entire population. If subpopulations exist and you have information for them, complete the subpopulation information forms on the last page.

Total # of individuals in the population(s) is 29 Actual Estimated

What was counted? Genets Ramets N/A (non-vascular etc.) Unknown

Phenology: _____% seedling 14 % non-reproductive 86 % reproductive _____% dormant _____% unknown

The size of the population area is: 5m²

Population vigor is excellent good fair poor

Do you feel you mapped the full extent of the population? Yes No Unsure

Is there more potential habitat in the area that hasn't been surveyed? Yes No Unsure

The survey was: very thorough somewhat thorough cursory incidental observation

Additional population comments: The survey consisted of a thorough area search for all three subpopulations (based upon the 2003 IRPOR description), in addition to reading five (1m²) plot frames within subpopulation 3 (5m² area) for density and phenology. Density of subpopulation 3 ranged from 1 plant per m² to 14 plants per m² (with an average of 5.8 plants per m²). Other potential habitat in the area (open ridgelines and slopes) to the N (0-800m), E (0-20m), S (0-20m), and W (0-20m) of Eightmile Mountain summit was surveyed for individuals. Soils in these areas were generally deeper and less rocky (though well-drained).

Habitat Description – Please fill in this section with information for the entire population, using ranges where appropriate. If subpopulations exist and there is specific habitat information or threats that need noting, use the forms on page 4. Please avoid abbreviations if possible, thanks!

General habitat description: Open rocky, ridgeline N of Eightmile Mountain summit (elev 7871'). Recent fire activity on NE to NW side of mountain has burned a large portion within and around the known population area. The canopy and ground level fire killed a large swath of ABLA/PSME and vegetation cover in this area. This fire appears to have occurred within the last year (large areas of bare ground with ash are still present- Chamerion angustifolium, Lupinus sp, Camissonia sp are growing in some areas and some Symphoricarpos is re-sprouting). Subpopulations 1 and 2 appear to have been affected by this disturbance, as they could not be located based upon the 2003 site description.

Aspect: 355

Slope: 3 %

Substrate/soil: rocky, granitic

Light regime: full sun

Community type: Abies lasiocarpa/ Carex geyeri

Associated Species include: *Artemisia tridentata* ssp *vaseyana*, *Phlox* sp., *Lomatium* sp., *Viola purpurea*, *Balsamorhiza sagittata*, *Hieracium scouleri*, *Eriogonum heracleoides*, *Melica bulbosa*, *Castilleja* sp., *Stenotus acaulis*, *Cymopterus glauca*, *Lupinus* sp

Look-alike species that are present: Claytonia lanceolata

Comment on threats to the population and its immediate habitat including level and imminency of threat if known.

Include factors such as land use, disturbance, disease or predation, invasive weeds, etc:

Trail #148 (motorcycle use allowed) provides immediate access to this population. Subpopulation 1 (North) existed within 1 foot of this trail, but could not be accounted for after the recent fire activity (14 individuals observed in 2003).

Subpopulation 2 was located upslope from the trail, and also could not be located after the recent fire. This subpopulation had potential to be disturbed by hikers who would hike off-trail to reach the summit of Eightmile Mountain. While other species (*Calochortus*, *Melica*, *Balsamorhiza*) have survived the ground level fire, it is uncertain at this time whether subpopulations 1 and 2 were affected long-term by this fire disturbance (it is unknown whether the plants were in a dormant state underground when observation took place or if the fire destroyed the tuberous root system).

CONDITION is an integrated measure of the quality of biotic and abiotic factors, structures, and processes within the occurrence, and the degree to which they affect the continued existence of the occurrence. Condition has the following components: reproduction and health for species, ecological processes, species composition and biological structure, and abiotic/chemical factors.

Briefly comment on the CONDITION of the occurrence: Non-reproductive plants were senescent in subpopulation 3. The possibility that other senesced plants were in the area cannot be discounted (for all three subpopulations).

Overall condition is: A-B (good to excellent)

LANDSCAPE CONTEXT is an integrated measure of the quality of biotic and abiotic factors, structures, and processes surrounding the occurrence, and the degree to which they affect the continued existence of the EO. Components of Landscape Context are: landscape structure and extent, including genetic connectivity, and condition of the surrounding landscape.

Briefly comment on the LANDSCAPE in the area surrounding the population. Include factors such as current and past land use (farmland, residential area etc.), disturbance factors, and fragmentation: The surrounding area contains pockets

of potential habitat. Rocky ridgelines and rocky, open slopes are limited in size and distribution, with deeper, loose soils surrounding the rockier pockets. The recent fire has opened up the canopy significantly on the N side of the mountain. Overall landscape is: B (good)

Land Owner/Managers (forest/ranger district/BLM/ or private land owner if known): Boise National Forest (Lowman RD)

Owner Comments: _____

Management, Monitoring, and Research Needs (include any steps that you think should be taken to protect the population):

An official trail to the summit of Eightmile Mountain would reduce the haphazard foot traffic that may impact subpopulation 3. Subpopulations 1 and 2 should be re-visited to evaluate any potential survival that was not observed in this report. The ability of the species to survive a ground level fire (of varying intensity) is not well understood.

Collector/Collection #: _____

Herbarium: _____

Photo Attached? Yes No

Other knowledgeable individuals: _____

Additional Comments (anything you think is important that did not fit in any other space on the form):

Subpopulation Information

Subpopulation # 1

Subpopulation area: Northern subpopulation

The total # of individuals in subpopulation is 0 Actual Estimated

Population vigor is excellent good fair poor

Habitat information: The area described in the 2003 observation report was extensively burned in a recent fire. Very blackened, bare ground with ash is present along Trail #148 where we think the population had been located.

Threats to this subpopulation: Unable to locate Subpopulation 1 due to recent fire activity that has occurred on Eightmile Mountain and Trail #148 (14 individuals reported in the 2003 observation report).

Subpopulation Information

Subpopulation # 2

Subpopulation area: Middle subpopulation

The total # of individuals in subpopulation is 0 Actual Estimated

Population vigor is excellent good fair poor

Habitat information: The location described in the 2003 observation report was extensively burned in a recent fire. Below the summit of Eightmile Mountain, the burn was patchy, with some areas left untouched. These areas were closely searched for individual plants

Threats to this subpopulation: Unable to locate Subpopulation 2 due to recent fire activity that has occurred below the summit of Eightmile Mountain (21 individuals reported in the 2003 observation report).

Subpopulation Information

Subpopulation # 3

Subpopulation area: Southern subpopulation

The total # of individuals in subpopulation is 29 Actual Estimated

Population vigor is excellent good fair poor

Habitat information: Rocky, open ridgeline within 8 meters of Eightmile Mountain summit (elev 7871'), 355 degree azimuth. *Artemisia tridentata* ssp *vaseyana*, *Eriogonum heracleoides*, *Melica bulbosa*, *Lomatium* sp, *Balsamorhiza sagittata*, *Viola purpurea*, *Phlox* sp., *Stenotus acaulis*, *Hieracium scouleri*, *Cymopterus glauca*, *Lupinus* sp.

Threats to this subpopulation: This population sits just N (8 meters) of the rock mound at Eightmile Mountain summit. The open, rocky area is likely to be utilized as an easy pathway by hikers who may visit the summit.

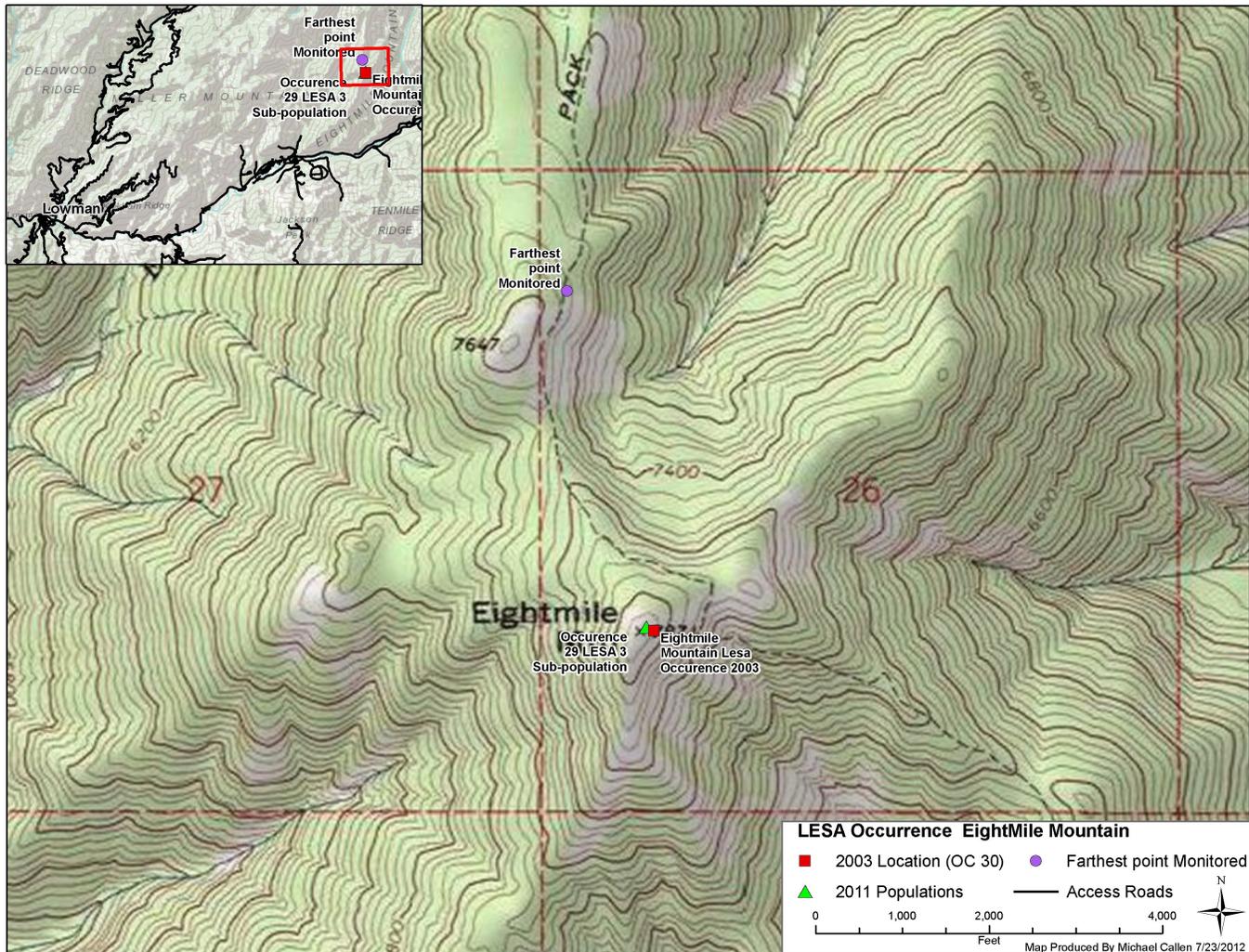




Figure 1. General habitat view, *Lewisia sacajawean* (Occurrence #30, subpopulation #3), looking S towards summit of Eightmile mountain (rock mound), 10 July 2012.



Figure 2. *Lewisia sacajaweana* (Occurrence #30, subpopulation 3) in growth stage 65 (full flowering, 50% of flowers open) of the BBCH scale, 10 July 2012.



Figure 3. *Lewisia sacajaweana* (Occurrence #30, subpopulation 3) in growth stage 90 (senescent) of the BBCH scale, 10 July 2012.



Figure 4. Recent fire disturbance on Eightmile Mountain (along trail #148, looking S towards the summit) where *Lewisia sacajaweana* (Occurrence #30, subpopulation 3) was located in an unburned area near the top (elev. 7871').

Eight Mile Mountain

Occurrence 30

Subpop '0' 3

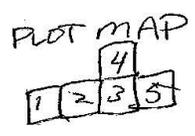
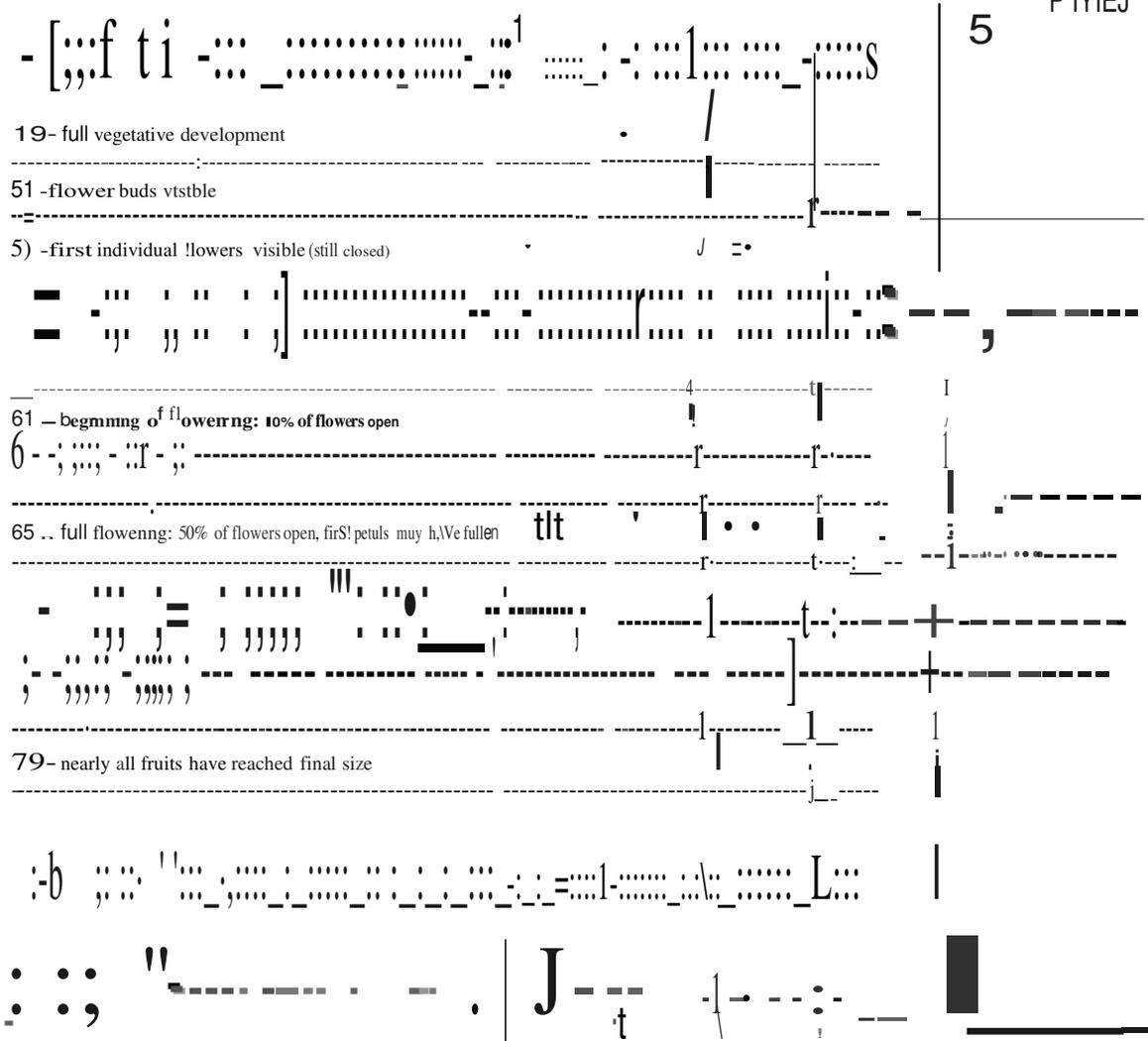
Task E. 2012 LESA phenology plots

Location: ow... Date: 10/10/11 Time: 11:15 Personnel: KF/A;D

Temp: 60-70 F Cloud Cover: 0% Wind: light air Precip: none

Habitat: N

BBCH growth scale tally number of plants (6...)



7

;) C l-otcl\

Figure 5. Phenology Data for Lewisia sacajawana (Occurrence #30, subpopulation 3)