

U.S. Fish and Wildlife Service (USFWS) Utah Field
Office Guidelines for Conducting and Reporting
Botanical Inventories and Monitoring of Federally
Listed, Proposed and Candidate Plants



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Barstow ridge-cress
Joni Brunson, USFWS



Jones cycladenia
Daniela Roth, USFWS



Hologram milk-vetch
Daniela Roth, USFWS



Utah Basin hookless cactus
Rebecca Hootce, USFWS



Dunsmuir hoar-peppy
Daniela Roth, USFWS



Last chance tozerensis
Daniela Roth, USFWS

Utah Fish and Wildlife Field Office Guidelines for Inventory and Monitoring And VFO Reporting Requirements

Purpose

- Minimum standards for plant surveys for “target” species
- To improve data and reporting

Format of guidance

- I. Personnel Qualifications
- II. Survey Guidelines
- III. GPS Data
- IV. Reporting Guidelines

I. Personnel Qualifications

- Send resumes (if new or new contract)
 - A. Field Crew leaders
 - Degree in botany and 2 field seasons (recommended) or
 - Education and experience
 - B. Technicians/assistants
 - 1 year biological coursework, plant taxonomy

II. Survey Guidelines

- A. General guidelines
- B. Clearance surveys (most pertinent)
- C. Status surveys (not discussed; see agencies for guidance if appropriate)
- D. Monitoring surveys (not discussed; see agencies for guidance if appropriate)

A. General guidelines

- Must maximize likelihood of finding target species (usually during flowering)
 - If outside recommended survey date, should receive prior approval from USFWS / BLM
- May need to make multiple site visits
- Reference populations

Species Survey Period

APPENDIX A: SPECIES SPECIFIC SURVEY PERIOD AND TRANSECT WIDTH

<i>SPECIES</i>	<i>SURVEY PERIOD</i>	<i>TRANSECT WIDTH</i> ^a
<i>Arctomecon humilis</i>	Mid April – May	10 – 20 ft
<i>Asclepias welshii</i>	June – September	25 – 50 ft
<i>Astragalus anserinus</i>	May – June	10 – 20 ft
<i>Astragalus ampullarioides</i>	April – May	10 – 20 ft
<i>Astragalus desereticus</i>	May – June	10 – 20 ft
<i>Astragalus holmgreniorum</i>	April – May	10 – 20 ft
<i>Astragalus montii</i>	July – August	10 ft
<i>Carex specuicola</i>	May – September	N/A, habitat not suitable for transects
<i>Cycladenia humilis</i> var. <i>jonesii</i>	April – June	10 – 20 ft
<i>Eriogonum corymbosum</i> var. <i>nilesii</i>	September - October	10 – 20 ft
<i>Eriogonum soledium</i>	Mid June - July	10 – 20 ft
<i>Lepidium barnebyanum</i>	May – June	10 – 20 ft
<i>Lepidium ostleri</i>	Mid June - July	5 ft
<i>Lesquerella tumulosa</i>	May – June	5 – 10 ft
<i>Pediocactus despainii</i>	April – May	3 ft
<i>Pediocactus sileri</i>	April – June	3 – 6 ft
<i>Pediocactus winkleri</i>	March – April	3 ft
<i>Penstemon scariosus</i> var. <i>albifluvis</i>	May – June	10 – 20 ft
<i>Penstemon grahamii</i>	May – June	10 ft
<i>Phacelia argillacea</i>	June	10 ft
<i>Primula maguirei</i>	May	N/A, habitat not suitable for transects
<i>Ranunculus aestivalis</i>	July	5 ft

- Document:
 - biological setting (including)
 - Underlying geology
 - Soils in the project area
 - Dominate vegetation communities
 - level of survey effort
 - If a habitat assessment is performed:
 - A description of the methodology used to perform the assessment
 - The criterion used to deem a portion of the project area as non-suitable habitat
 - In areas of intensive surveys:
 - Provide the spacing between surveyors

- Vouchers (or photos)
 - Look alike
 - Potential threats
- ... for complete list, see guidance

Introduction or Methodology

- Provide a discussion on which TES plant species are found to have potential habitat in the project area
- Provide a discussion on the data/expert information used to come to the conclusion

B. Clearance Surveys

- Objective: cover 100% of project area plus buffer
- Usually done with belt transects, good for 1 year (unless otherwise specified)
- If target species not found, indicate whether or not surveyed habitat suitable via photos

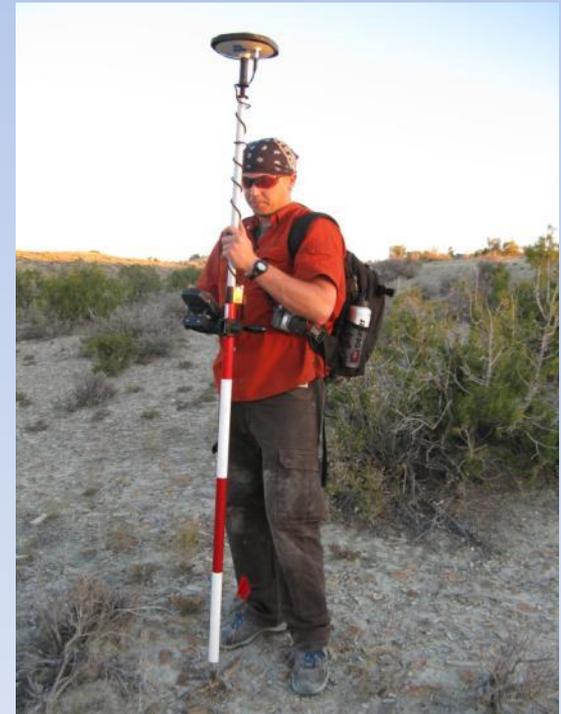
- Adverse conditions (disease, drought, predation, herbivory)—discuss with agency personnel!



III. GPS data collection and reporting

- UTM Zone 12 NAD 83
 - Electronic file format, easily imported into GIS:
 - Feature class, shapefile, etc.
- Include info about make, model, precision of GPS; differentially correct

- Data to include:
 - Which target species present
 - Date of observation
 - Waypoint accuracy (meters)
 - Photo identifier
 - Number of plants (separate
Alive/dead counts)
 - Threats
 - Vigor
 - Positive and negative data



IV. Reporting

A. General guidelines

- All reports should include basics (who, what, when, where, why)
- Send copy of report to UNHP, land owner or manager (BLM, BIA, Ute Tribe, private), USFWS



The Basics

- On the cover page or similar intro info
 - The company the survey was contracted by and contact information
 - The project name
 - The legals for the project
 - TES species discussed in the report
 - The survey date
 - The lead surveyor/crew leaders that conducted the survey
 - Surveyor contact information

Results

- For cactus surveys within the potential habitat polygon
 - State clearly that the proposed project is located within the potential habitat polygon
- For all other T&E plant surveys
 - Provide the acreage of suitable habitat identified
 - Provide the acreage of occupied habitat identified
- For all T&E surveys
 - Provide the total acreage of survey/habitat assessment

Result continued

- Provide a list of dominate plant species found at the project site
- Identify if the species in question was identified and if so how far from the disturbance area
- Identify any other observed disturbance
- **Do Not Make An Effect Determination**

MAP

- A map of the survey area is required for each species discussed in the report, each requiring
 - Base layer of aerial imagery or topographic map
 - If survey crosses multiple jurisdictions, landownership
 - The project
 - The total survey area
 - The identified suitable habitat (if applicable)
 - The location of identified individual points or polygons

UNHP Requirements

- For all species except for *Sclerocactus*, the surveyor needs to complete a plant field form and submit the findings to UNHP directly

Submittal Requirement

- Submit a digital copy of reports as completed to the BLM Botanist