

ANNUAL BOTANY REPORT FISCAL YEAR 1993

Prineville District
Bureau of Land Management

I. STAFFING

Ron Halvorson (NRS-PFT), Susan Massey (Student Trainee, Botany -), Gail Smith (NTE Biotech), Sherrie Williams (NTE Biotech)

II. MAJOR ACCOMPLISHMENTS

A. INVENTORY

Approximately 7,190 acres were inventoried: 400 acres for *Astragalus diaphanus* var. *diurnus*, 320 acres for *Luina serpentina*, 20 acres for *Mimulus washingtonensis*, 370 acres for *Oryzopsis hendersonii*, 1,040 acres for *Thelypodium eucosmum*, 2,040 acres for *Talinum spinescens* and 3,000 acres for *Astragalus howellii*.

Inventory continued for *Astragalus diaphanus* var. *diurnus* (FC-Cat.2) along the South Fork of the John Day River. BLM is the primary agency involved with managing the Category 2 endemic. One new population was found and one known population was significantly expanded. The species did very well this year, responding to the excellent moisture. Inventory will continue a little bit each year.

Inventory of the remaining potential habitat for *Luina serpentina* (FC-Cat.1), south of Mount Vernon, failed to locate any additional populations. This is primarily a species of the Malheur National Forest with BLM having some peripheral plants north of the forest boundary.

The inventory for *Mimulus washingtonensis* (FC-Cat.2) was incidental to other work. All in all, a total of 19 new populations were found this year in Grant and Wheeler counties. This annual monkeyflower did extremely well this year and it is questionable if it should be a special status species.

One day was spent near the North Fork Crooked River looking for *Oryzopsis hendersonii*, a Bureau Sensitive. An accidental find several years ago led to this day in the field. The grass was found to be locally common in the area searched with seven new locations identified.

Thelypodium eucosmum (FC-Cat.2) inventory continues to result in new populations. Seven more were found this fiscal year, again, in remote, nearly inaccessible tributaries to the John Day River.

Inventory for *Talinum spinescens* (Bureau Sensitive) was initiated above Trout Creek, near the Deschutes River. Seven locations were identified containing a total of more than 10,000 plants. Known populations still occur in very limited area.

Several areas along the Deschutes River were inventoried for *Astragalus howellii* (Bureau Sensitive). Based on the nine new locations found, the non-specific habitat it occurs in, and the number of plants observed (15-20,000), recommendations will no doubt be made

to downlist this species.

B. OTHER NEW POPULATIONS FOUND

A revisit to a parcel proposed for land exchange in FY 1992 yielded a new population of *Calochortus longebarbatus* var. *peckii*, (FC-Cat.2). The exchange will no doubt continue as planned since this is not a critical population, based on the species as a whole (primarily of Ochoco National Forest).

Three new populations of *Astragalus tyghensis* (FC-Cat.2) were found in the Criterion Ranch area. This is significant as these populations are out of the previously known range for this species.

Finally, one population of *Pilularia americana* (Assessment Species) was found near Hampton. This is the first observation of this species in the Prineville District.

C. MONITORING

Qualitative monitoring occurred on several populations of *Astragalus diaphanus* var. *diurnus*, *Calochortus longebarbatus* var. *peckii*, *Mimulus washingtonensis*, *Thelypodium eucosmum*, *Castilleja chlorotica* and *Botrychium pumicola*. No problems were noted and most were doing quite well this year.

Quantitative monitoring occurred on a population of *Lomatium laevigatum* (FC-Cat.2) near Biggs Jct. Using a method gleaned from Caryl Elzinga (Salmon D.O.), a transit was used to locate individual plants on the sheer rock wall. This worked quite well and the population appears to be recovering from the drought. A Forest Service employee from the Columbia River Gorge NSA accompanied us.

Qualitative monitoring of *Astragalus succumbens* (tracking species) occurred near Arlington. One of two paired populations was sprayed as part of a yellow starthistle (*Centaurea solstitialis*) control. All *Astragalus succumbens* plants succumbed.

Qualitative monitoring of three *Astragalus diaphanus* var. *diurnus* populations along the South Fork John Day showed a tremendous increase in seedling survival as a result of the wet year.

In November, ten randomly-selected quadrats within a population of *Calochortus longebarbatus* var. *peckii* were burned. This was an interesting process in itself. The assumption was that the buildup of thatch (this population is excluded from grazing) was detrimental to the plants. Burned and unburned quadrats were sampled in July. Data is yet to be tabulated but it doesn't appear that there will be significant results.

The second year of initial long-term monitoring was accomplished for *Astragalus peckii*. This is continuation of a study initiated by The Nature Conservancy under a CCS in 1992.

Contribution of time and travel was made to Susan Massey (student trainee - botany) in support of her research on the seed banks and genetics of two FC-Cat.2 species endemic to the Prineville District: *Astragalus diaphanus* var. *diurnus* and *Astragalus tyghensis*.

D. CLEARANCES

A total of 50 projects were inventoried for the presence/absence of special status plants, encompassing 13,547 acres (see pages 4-5). This also involved input/review of associated environmental assessments. Of these clearances, 10 resulted in botanical "finds" of one sort or another, requiring little or no modification to the project as proposed.

One exception was *Botrychium pumicola* found in timber sales in the LaPine area, which will necessitate substantial changes in the way the trees are harvested (winter logging, frozen soils, etc.). Instead of excluding all *Botrychium pumicola* from logging, it was decided to log one population under strict criteria and monitor to see the results. Field clearance was waived on an additional 34 projects.

III. OTHER ACCOMPLISHMENTS

A. NATURAL AREA MANAGEMENT

A draft management plan was prepared for the Horse Ridge ACEC/RNA. Defensibility monitoring occurred in three ACEC/RNAs: Horse Ridge, Benjamin and Powell Butte. Two miles of perimeter fence around the Benjamin ACEC/RNA were reconstructed under contract with 8100 funds. A proposed ACEC/RNA, Ferris Creek, was field evaluated.

B. CHALLENGE COST SHARE/COOPERATIVE EFFORTS

Two projects occurred: The third year of a four-year study of *Astragalus tyghensis* (ODA) and contribution to a wildflower viewing guide for the Big Summit Prairie area (completion to be FY 1994).

In addition, field assistance was given to Ed Florance (Lewis and Clark College) to collect seed from two FC-Cat. 2 species: *Thelypodium eucosmum* and *Astragalus diaphanus* var. *diurnus*. Two days were spent in the field with a couple who are preparing wildflower talks for the State Parks system.

C. OTHER PROGRAM SUPPORT

Botanical expertise was given to the Sutton Mtn. CRMP effort, the John Day and White River Wild and Scenic River plans, a major OHV race near Brothers, the Urban Interface Plan Amendment, several allotment evaluations and a post-burn look at a prescribed fire. Nearly 1,000 acres of the Criterion Ranch acquisition were grossly evaluated for botanical resources.

Three volunteers and a RAPS (Resource Apprenticeship Program for Students) student assisted the Botany program this year. We also welcomed a field visit from Cathy Cushman, ecologist from the Burns District.

D. ATTENDANCE AT TRAINING/CONFERENCES

Ron attended the PTC Course "Inventory and Monitoring of Special Status Plants" in Medford, during March. It was an excellent course, especially as related to statistical sampling of plant populations. In addition, he participated in the biannual Rare Plant Conference in Eugene. This is the meeting of agency, academic and private botanists where plant status is decided.

BOTANICAL CLEARANCES - FISCAL YEAR 1993

Central Oregon Resource Area

| PROJECT CLEARANCE | ACRES | SPECIAL STATUS | PLANTS FOUND |
|--------------------------------|-------|----------------|--------------|
| WAIVED? | | | |
| BURNT RANCH RECREATION SITE | 40 | NONE | |
| CLARNO AGRICULTURAL FIELDS | 0 | NONE | Y |
| CLINE FALLS PX - N FK TRACT | 40 | CALOP | |
| CORRAL CREEK PRESCRIBED BURN | 160 | NONE | |
| DELLES CREEK FENCE | 0 | NONE | Y |
| DIXIE CK. ROAD R/W EXTENSION | 20 | NONE | |
| DRIFT JUNIPER CUT | 210 | NONE | |
| EAST FORK FENCE AND RESERVOIR | 1 | NONE | Y |
| ED RHODES MINING CLAIM BRIDGE | 0 | NONE | Y |
| GERRY MTN. BURN | 5500 | NONE | |
| GRANT CO. R&PP LEASE (BRANSON) | 60 | MIWA, CHNE | |
| GRANT CO. WEEDS | 0 | NONE | Y |
| GRASS VALLEY CANYON RIP. FENCE | 0 | NONE | Y |
| HAY TIMBER RD. USE AGREEMENT | 0 | NONE | Y |
| KNAPWEED RESEARCH | 20 | NONE | Y |
| MILE POST 99 RECREATION SITE | 5 | NONE | |
| MONUMENT MATERIAL SITE | 15 | MIWA2 | |
| MONUMENT RECREATION SITE | 20 | MIWA2 | |
| MURDERER'S CREEK ROAD | 10 | NONE | |
| NORTH FORK W/S RIVER SIGN | 0 | NONE | Y |
| PAULINA CAVE RE-OPEN AND GATE | 1 | NONE | |
| PHILLIPS SPRING | 1 | NONE | |
| PINE HOLLOW FENCE | 5 | NONE | Y |
| PRIEST HOLE RECREATION SITE | 5 | NONE | |
| RICK GAARDE ACCESS ROAD | 1 | NONE | |
| ROAD CLOSURE SIGNING | 0 | NONE | Y |
| SERVICE CREEK RECREATION SITE | 10 | NONE | |
| ST. CLAIRE JUNIPER THINNING | 60 | NONE | |
| ST. CLAIRE RIPARIAN FENCE | 0 | NONE | Y |
| STUBBLEFIELD FENCE | 0 | NONE | Y |
| TROUT CREEK EXCLOSURE | 0 | NONE | Y |
| WIDOWS CREEK NEGOTIATED TMP | 40 | NONE | |
| WINDY POINT BURN #2 | 1000 | PESI | |
| WOELPERN EXCHANGE TRACT | 125 | NONE | |

TOTAL ACRES

7349

Deschutes Resource Area

| PROJECT CLEARANCE | ACRES | SPECIAL STATUS | PLANTS FOUND |
|--------------------------------|-------|------------------|--------------|
| WAIVED? | | | |
| BELSHE AG. PERMIT OR-45093 | 0 | NONE | Y |
| BENJAMIN ACEC/RNA FENCE RECON. | 0 | NONE | Y |
| BILL BRIDGES DRIVEWAY R/W | 0 | NONE | Y |
| BULL RUN CANYON SPRING | 1 | NONE | |
| CANAL FENCE | 0 | NONE | Y |
| CEC - HINSHAW SERVICE | 1 | NONE | |
| CEC DISTRIB. LINE | 1 | NONE | Y |
| CEC OR-18220 (AMENDMENT) | 0 | NONE | Y |
| CEC POWERLINE OR-18220 | 0 | NONE | Y |
| CEC POWERLINE OR-18439 | 0 | NONE | Y |
| CHIMNEY ROCK ELECTRIC FENCE | 0 | NONE | Y |
| CHUKAR SPRING | 1 | NONE | |
| CODY PIPELINE | 10 | NONE | |
| CONROY SPRING | 1 | NONE | |
| CROOKED RIVER RANCH ROADS | 0 | NONE | Y |
| CULTURAL SPRING | 1 | NONE | |
| DESC. CO. DEPT. PUBLIC WORKS | 7 | NONE | |
| DESCHUTES RIVER RIPARIAN ENH. | 290 | NONE | |
| DILLIGAS SPRING | 1 | ASHOH | |
| DOUG CALDWELL R/W | 0 | NONE | Y |
| FERRY CANYON PASTURE FENCE | 0 | NONE | Y |
| FERRY CANYON RIPARIAN FENCE | 0 | NONE | Y |
| FREIGHT WAGON OR-49075 | 6 | NONE | Y |
| GEORGE WARD JUNIPER CONTROL | 100 | ASHOH | |
| GOLDEN BASIN BURN | 1000 | CACH | |
| HUNTINGTON SALVAGE SALE | 5 | NONE | Y |
| LAPINE FIREWOOD/FOREST HEALTH | 3730 | BOPU2 | |
| LAPINE REC AREA ESCAPE ROAD | 2 | NONE | |
| LOCKIT SPRING | 1 | NONE | |
| OAK/FERRY CANYON THISTLE CTRL. | 0 | NONE | Y |
| ODOT BARR ROAD USE GRANT | 0 | NONE | Y |
| ODOT HIGHWAY WIDENING OR-48824 | 15 | NONE | |
| RATTLESNAKE SPRING | 1 | NONW | |
| RICHARD REEVES DRIVEWAY | 0 | NONE | Y |
| SANFORD CREEK LAND EXCHANGE | 160 | NONE | |
| SHANTY SPRING | 1 | NONE | |
| STEAMER (HEATER) FLAT SPRING | 1 | NONE | |
| THE COVE SPRING | 1 | NONE | |
| TWIN FAWN SPRING | 1 | CAIN, CABE, JUTO | |
| SUSPECTED | | | |
| WAGON RD. ACEC INTERP. TRAIL | 0 | NONE | Y |
| WASCO CO. PX - CHERRY HEIGHTS | 40 | NONE | |
| WASCO CO. PX - DUTCH FLAT | 40 | NONE | |
| WASCO CO. PX - FIVEMILE CK. | 40 | NONE | |
| WASCO CO. PX - MT. HOOD FLAT | 40 | NONE | |
| WASCO CO. PX - N.FK.FIVEMILE | 40 | NONE | |
| WASCO CO. PX - SEWARD FLAT | 80 | NONE | |
| WASCO CO. PX - THE HOGBACK | 80 | NONE | |
| WICKIUP JCT. IMPROVEMENT | 0 | NONE | Y |
| YREKA BUTTE JUNIPER CONTROL | 500 | NONE | |

TOTAL ACRES

6198