Wyoming Native Plant Society
1603 Capitol Ave., #325
Cheyenne, WY 82001



Oxytropis nana Nutt., a Wyoming endemic collected by Thomas Nuttall on his journey across Wyoming in 1834

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WYOMING NATIVE PLANT SOCIETY NEWSLETTER, Vol. #4 #1 November, 1984

ANNUAL MEETING MINUTES. The Wyoming Native Plant Society 1984 Annual Meeting was held on August 11 and 12 on the Beartooth Plateau. President Erwin Evert called the meeting to order at 7:40 AM. The first order of business was elections for 1984-85. The results were: President, Ann Aldrich; Vice President, Tom Wolf; Secretary-Treasurer, Ellen Collins; Board Members, Don Despain and Phil White; Conservation Chair, Erwin Evert.

Present at the meeting were Len Hendzel, Erwin Evert, Mara Evert, Bob Dorn, Jane Dorn, Dave Henry, Dave Martin, Ann Aldrich, Jim Olson, Don Despain, Ron Hartman, Rob Kirkpatrick, Bob Lichvar, Ellen Collins, Ton Wolf, and Virginia Wheeler.

Virginia Wheeler's Treasurer's Report:

$314.06	as of June 23, 1984
91.54	expenses
3.00	incorporation fee
105.00	incoming
30.00	rece
15.00	1984 dues in but not yet deposited
$359.00	new grand total

Old Business: Bob Lichvar reported on last year's resolution that the Society become active in nominating to federal land management agencies potential sites for protection. He reviewed the following efforts:

1) Preacher Rock Bog. On Bighorn National Forest, this is one of perhaps 5 or 6 sphagnum bogs in the state. Surveys by Society members show that there is a need to regulate grazing use during years or parts of the year when the site dries out. Nearby timber harvest may affect hydrology. Society members are urged to write the Bighorn National Forest Superviser, Ed Schultz, at 1969 Sheridan Ave., Sheridan, WY 82810, urging that this important site be officially protected in the forest plan. Deadline for comments is November 26, 1984. Research Natural Area or Special Botanical Interest Area designation should be recommended.

(A general discussion ensued about the propriety of the Society's involvement in commenting on land management plans. It was agreed that the Society should comment, but that its comments should be kept separate from those of The Nature Conservancy. Conservation Chair, Erwin Evert, will comment officially on behalf of the Society. Individual members are also urged to comment.)

2)Sawtooth Fen-Palsa. Lichvar reported on a meeting with Shoshone National Forest Supervisor, Steve Mealey, concerning this site. Dave Henry, the Shoshone Threatened and Endangered Species Biologist, reported that this site is being proposed for RNA status in the Shoshone Forest Plan, which is due out this fall. Since there is trespass grazing (cattle) from a nearby allotment, the site should be fenced. Due to the local District Ranger's health problems, this will probably not occur until next summer.

Len Hendzel, who is on the Forest Service's Region II RNA Committee, also reported that there are a total of 5 sites on the Shoshone that are being proposed for RNA status. Four of them are on this particular Ranger District. The other candidates are described later in this newsletter. When asked about the status of Billings' study area at the head of Wyoming Creek, Len reported problems with this area in terms of potential RNA status, as RNA stipulations require a candidate area to have been ungrazed for at least the past 50 years. This particular site is presently grazed by sheep.

3)Dugout Gulch. This is in the Spearfish District on the Black Hills National Forest. Len Hendzel said that we should recommend it for a Special Botanical Interest Area, since peripheral plants (even though they are considered rare in Wyoming) are not ordinarily protected by RNA designation. Lichvar says this is never-the-less, the best example of Black Hills flora and communities. (The hophornbeam community at the bottom of Dugout Gulch has been identified by the USFS as potentially the best example of this community in the Black Hills National Forest. EC) Furthermore, it is a whole drainage, which does suit RNA criteria. The Black Hills NF Plan has been filed, but it is under appeal by the National Wildlife Federation due to alleged conflicts between hardrock mining proposals and wildlife. This appeal gives us time to comment. It was decided that the Conservation Chair should explore the matter of which designation to recommend.

Addresses: James Mathers, Supervisor, Black Hills National Forest, P.O. Box 792, Custer, SD 57730
Steve Mealey, Supervisor, Shoshone National Forest, P.O. Box 2140, Cody, WY 82414

New Business: It was resolved that there should be more input from the general membership into the newsletter, whose compilers would particularly welcome news on activities and concerns from the University of Wyoming, the Forest Service, the National Park Service, and the Bureau of Land Management. Such networking could help members and others coordinate efforts, such as the collecting being done in the Absarokas by UW and Central Wyoming College. It was also resolved that the newsletter compilers should be careful not to offend anyone through personal comments, theirs or others.

Next Year's Meeting: Many members felt that meetings should be work-oriented and productive, with members out in the field collecting. Suggestions were: 1) southwest, perhaps Flaming Gorge area, 2) northwest, perhaps a joint UW/Yellowstone effort.

Ron Hartman of UW and Dave Martin of BLM (soon to be USFWS) both agreed to help with word processing and copying costs for the newsletter, since the Wyoming Natural Heritage Program has no secretarial/clerical help.

President Evert declared the meeting adjourned at 9:00 AM, and the group left for an extensive two day tour of the area. Stops, for viewing and collecting, included some of the candidate RNA sites, as well as the Cathedral Bluffs Bog near Crandall Creek, which everyone agreed was the highest quality bog they had seen. Erwin Evert, who first located the bog, will submit a report on the findings of Society members, which may include as many as 8 new state records. Minutes submitted by TW.

INCOMING TREASURER'S REPORT:	$314.06	balance as of June 23, 1984
	61.00	deposits
	0	debits
	$375.05	new total (EC)

Research Natural Areas on Shoshone National Forest. Dave Henry, Shoshone NF, provided the following information on proposed RNA's at the annual meeting. Five sites have been inventoried that merit possible designation. The sites are as follows:

1. Pickett's Knob, Wind River District. Whitebark Pine cover type. Located at T43N R109W S1, 2, 12, 13, approximately 300 acres in size. Whitebark pine is predominant, with various amounts of subalpine fir, Engelmann spruce, and lodgepole pine. Most of the area is surrounded by steep escarpment and would be easy to protect. The area is near the DuNoir area currently being studied for possible wilderness status.

2. Pat O'Hara Creek, Clark's Fork District. Douglas fir cover type. Located at T54N R103W S5, 6, 7, and 8, approximately 300 acres in size. Dry Fork of Pat O'Hara Creek. Mature Douglas fir stand (ca. 200 years old) with a few limber pines scattered through the stand.

3. Balde Ridge, Clark's Fork District. Limber pine cover type. Located at T56N R104W S25 and 36, approximately 200 acres in size. Limber pine forest which occurs in patches of 10-20 acres with bluebunch wheatgrass grassland between.

4. Twin Lakes Alpine Ecosystem, Clark's Fork District. Located at T58N R104W S 17, 19, 20, 21, 28, 29, and 30, approximately 722 acres in size. Establishment reports have been prepared and submitted to the Secretary of Agriculture for designation as a RNA. The report, however, was returned to the Forest to be included in the Plan. The area is a Rocky Mountain alpine tundra vegetation with associated cryopedogenic features. Extensive examples of alpine cushion plant, alpine turf, alpine meadow, and alpine bog vegetation in a late seral ecological stage are present. Cryopedogenic features include snowbeds, non-sorted circles and earth stripes, sorted circles and stripes, frost hummocks, frost boils, and solifluction terraces.

5. Sawtooth Peatbed-Permafrost (Sawtooth Fen-Palsa), Clark's Fork District. Located at T57N R104W S29, approximately 160 acres in size. Establishment reports have been prepared and submitted to the Secretary of Agriculture for designation as a RNA. The report, however, was returned to the Forest to be included in the Plan. The site is an extremely unique ecosystem, which consists of a palsamire (an elevated peatbed overlying permafrost) and surrounding subalpine wet meadow vegetation. In the palsa, the peat acts as insulation for the permafrost, which is found on this site at 15 inches below the surface. Information provided by DH.

Wyoming Natural Area Needs Workshop. The Nature Conservancy, U.S. Forest Service, U.S. Fish & Wildlife Service, National Park Service, Wyoming Game & Fish Department, and Bureau of Land Management are co-sponsoring a Wyoming natural area needs workshop. This multi-agency workshop will be held on November 14 and 15 in Riverton. Its purpose is to systematically identify those elements of Wyoming's natural diversity occurring on federal and state lands that require representation in some type of special management system. Specific workshop goals are:

1. The adoption of a classificatory and conceptual basis for selecting new natural areas in accordance with a coherent regional scheme;
2. Identification of elements (plants, animals, plant communities, geologic formations) requiring representation in a special management system (Research Natural Area, Area of Critical Environmental Concern, outstanding natural area, National Natural Landmark, etc.);
3. Development of a list of potential natural area sites to fill the needs identified; and
4. To acquaint scientists, administrators, and land managers with the concept of special management, the need for reserved areas, management and designation alternative, and planning and geographic frameworks involved in designation of new sites.

The workshop will address three broad categories; wildlife, geology and landforms, and botanical resources. Working groups comprised of researchers familiar with Wyoming's natural resources, land managers, and planners form the backbone of the workshop. Over 150 such participants have been invited to attend. The wildlife working group will focus on threatened and endangered species (excluding grizzly bears and black-footed ferrets), critical habitat, state species of concern, and what I call special habitats (rookeries, aeries, etc.). Little emphasis is expected to be placed on big game species. The geology and landforms working group will be concerned with identifying the best examples of geologic types or landforms and paleontological sites in the state. Botanical resources will be comprised of 5 working groups; alpine habitats, forests and woodlands, shrublands and grasslands, aquatic and riparian habitats, and rare plants. Each working group will address its own particular topic of concern.

The term "element of natural diversity" is meant to include typical, rare, or unique features, organisms, and communities found in Wyoming. Workshop participants will identify these elements, determine if they are presently included in a special management system, and recommend specific sites for inclusion for those elements that are not represented in existing special management systems. Recommendations will not be binding upon the agencies, however, the workshop proceedings will provide a scientifically sound, site-specific list of sites that can be used as a reference by land management agencies when developing or revising forest or resource area management plans. By this method, unique areas that require special management in order to preserve their integrity, can be identified and included in these plans at the outset. EC.

BIGHORN CANYON NATIONAL RECREATION AREA BOTANICAL INVENTORY. The botanical study of the Bighorn Canyon National Recreation Area, begun in 1983 under the direction of Dennis Kn ght of the University of Wyoming, continued last summer (1984). During 1983, Bob Lichvar and Ellen Collins of the Wyoming Natural Heritage Program, collected a large number of specimens and compiled a species list. The ecological phase of the study was initiated last summer, with Rich Myers and George Jones (from the University of Wyoming Department of Botany) recording quantitative data on vegetation, collecting soil samples, and describing topographic position for 70 stands in the southern part of the area. This work was restricted to upland (non-riparian) vegetation between the southern boundary of the area and Dryhead Creek, which is primarily grasslands, sagebrush (Artemisia nova and A. tridentata wyomingensis)- grasslands, and Juniperus osteosperma - Cercocarpus ledifolius stands. Jones and Myers, with Jim Jones of the Park Service, also collected data on density of trees and cored trees in the Douglas fir forests on the scarp face of East Pryor Mountain. The vegetation data (estimates of cover and frequency for plant species) will be used to identify plant communities and to make a map of the vegetation. The data on vegetation will also be compared to information on soils, topographic position, and geologic substrate to show how the environment affects the vegetation.

Plant specimens collected during 1983 are now in the Visitor Center in Lovell, and the species list is being revised to include information from last summer's work. Stands will be studied next summer in the uplands around Fort Smith and in riparian vegetation throughout the area. The vegetation map will also be completed next season. The National Park Service should find the results of this project useful both for interpretation and management of the Bighorn Canyon National Recreation Area. GJ

BOTANICAL NOVELTIES. Per Axel Rydberg was a native of Sweden who came to America in 1882. He taught at the Luther Academy in Wahoo, Nebraska from 1884 to 1893. His botanical collecting started in Nebraska in 1890. From 1891 to 1896 he was a field agent for the U.S. Department of Agriculture, Division of Botany, and in that capacity did an extensive botanical

survey of the Black Hills of South Dakota in 1892. His Flora of the Black Hills of South Dakota was published in 1896. In 1899 he became associated with the New York Botanical Garden where he remained until his death in 1931. He collected the Yellowstone Park area in 1899 and published a Flora of Montana and the Yellowstone National Park in 1900. Much of his collecting was in Montana and Colorado. In 1906 he published a Flora of Colorado. Between 1900 and 1916 he published about 30 papers on the Rocky Mountain flora wherein many new species were described. Also included was "Vegetative life zones of the Rocky Mountain region." All were brought together in 1917 in his Flora of the Rocky Mountains and Adjacent Plains. A second edition appeared in 1922. His final major work, which he did not live to see in print, was a Flora of the Prairies and Plains of Central North America, published in 1932. Rydberg was generally considered to be a "splitter." Many of his new species are no longer recognized as distinct. Nerertheless, a large number of our plant names include his name as the author. He is commemorated by Penstemon rydbergii, Arnica rydbergii, Erigeron rydbergii, and Toxicodendron rydbergii. RDD

(SOON TO BE) FAMOUS QUOTES: This one comes to us from the 10/22/84 issue of the Casper Star Tribune.

Algae said to be culprit

Pollution threatens recreational area in Flaming Gorge Reservoir

The culprit is algae, a plant-like substance that feeds on phosphate and sucks oxygen out of the water.

DUGOUT GULCH SAVED! Tom Wolf and I met with the Superviser and district rangers from Black Hills National Forest on October 30, 1984. The superviser informed us that due to input from both WNPS and The Nature Conservancy, the logging road through Dugout Gulch will not be built. The road was rerouted over the top and down Boundary Gulch. We also discussed future management guidelines for Dugout Gulch so that in the future it is not forgotten and logged or destroyed. Let's keep up the good work! RWL

MISCELLANEOUS NOTES. 1984-85 annual dues are due. If your name has a black dot behind it on the address label, you owe the NPS $3.00. Please pay up!

Articles for the next WNPS Newsletter are now being accepted. Remember, it was resolved at the annual meeting that there should be more input from the general membership into the newsletter.

Contributors: TW=Tom Wolf, DH=Dave Henry, GJ=George Jones, RWL-Robert Lichvar, RDD=Robert Dorn, VW=Virginia Wheeler, EC=Ellen Collins