



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

WYOMING NATIVE PLANT SOCIETY

Box 1471
Cheyenne, WY 82003

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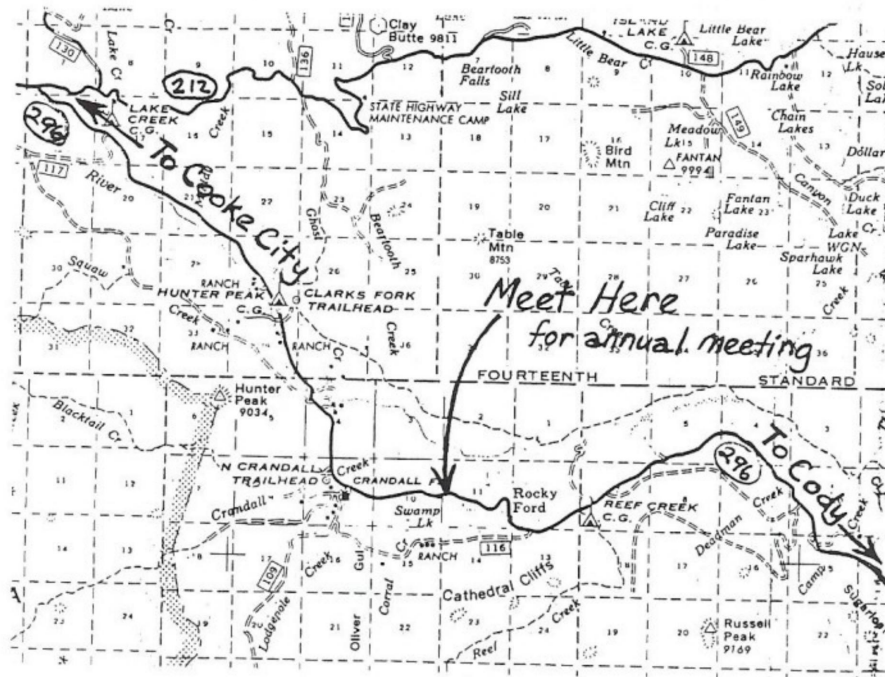
Treasurer's Report - Balance as of February 15, 1989: \$480.49; deposits: dues \$13.50; disbursements: newsletter printing \$16.17, Annual Report to Secretary of State \$3.00, scholarship \$200.00; new balance as of May 8, 1989: \$274.82. RD

Scholarship - The Board met on March 22, 1989, in Laramie and voted to award a scholarship of \$200.00 to Nancy Kastning of the University of Wyoming. Nancy's project is a "Floristic Inventory of the Park/Sierra Madre Range." The other application was withdrawn prior to the Board Meeting. RD

ANNUAL MEETING 1989 - The annual meeting will be held in the Absaroka Mountains and Yellowstone National Park on June 24 and 25, 1989. We will meet at 8:00 a.m. on Saturday, June 24 at the Scenic Turn-Out along the south side of Wyo. Hwy. 296 (Sunlight Basin Rd.), opposite the Cathedral Cliffs about 2 miles west of Reef Creek Campground. The meeting place is about 50 miles northwest of Cody or about 25 miles southeast of Cooke City, Montana. For those arriving Friday, there are three developed National Forest Campgrounds near the meeting place: (1) Reef Creek, 2 miles east; (2) Hunter Peak, 4 miles west; and (3) Dead Indian, 13 miles east. Undeveloped camping places are available in the National Forest short distances from Hwy. 296. Be sure to fill your gas tank at Cody or Cooke City.

Schedule for Saturday: 1. Business meeting at the Scenic Turn-Out. 2. Visit Cathedral Cliffs-Swamp Lake Botanical Area and observe a number of rare boreal species including *Primula egalikensis*, *Arctostaphylos rubra*, *Orchis rotundifolia*, *Scirpus pumilus*, *Salix myrtillofolia*, *Carex livida*, and others. 3. Visit a superb natural rock garden on Rattlesnake Mountain, if road is passable, and observe a number of regional endemics and calcareous cliff specialists including *Aquilegia jonesii*, *Shoshonea pulvinata*, *Lomatium attenuatum*, *Trifolium haydenii*, *Pedicularis cystopteridifolia*, *Kelseya uniflora*, *Telesonix heucheriformis*, *Carex rupestris*, and others.

Schedule for Sunday (Optional): 1. Visit Yellowstone National Park or Shoshone National Forest along Hwy. 14, 16, & 20 and observe 1988 forest fire sites. EE



Dues - Dues are due by the annual meeting. Unless you have paid in advance, a dues notice is enclosed with the newsletter. The enclosure of a dues notice began last year and has resulted in a more timely return of dues but has created the problem of making a quorum difficult to achieve at the annual meeting. Some of the problem can be remedied by voting for officers when you return your dues. In order to conduct other business, we may need to amend the bylaws to lower the quorum or else put certain business items out to the entire membership for a mail vote. The Board can act on many of the business items if necessary. RD

Election of Officers - Our nominees for officers are: President - George Jones; Vice-President - Neil Snow; Secretary-Treasurer - Robert Dorn; Board Member - Ernie Nelson, Hollis Marriott. Neil is currently a Board Member. His election to Vice-President would create a vacancy for Board Member. In that case, whoever receives the most votes for Board Member will get the regular 2 year term and the other will finish the 1 year term for the seat occupied by Neil. If you do not plan to attend the annual meeting, please vote by mail when you return your dues (if before the annual meeting, June 24). Write-ins are welcome for any office. RD

Grasses - The grass family, Poaceae or Gramineae, is the second largest family in Wyoming in terms of number of species. Over 200 grass species are known from the state. The grasses are likely the most important economic plants in the state because of their importance for grazing. Grasses have the capability for withstanding grazing better than most plants because of their intercalary meristem at the base of the leaf blade which allows the leaf to continue to grow from the base after the top has been removed.

An early interest in grasses by the U. S. Department of Agriculture helped finance some early plant collection work by Aven Nelson and Per Axel Rydberg among others. The interest was still there in the 1930's to provide summer jobs for botany students like Louis Williams and Marion Ownbey. After the appearance of A. S. Hitchcock's Manual of the Grasses of the United States in 1935, financial support began to slowly disappear for taxonomic work on grasses.

Grasses began to invade Wyoming at least as far back as the Oligocene some 30 million years ago. The invasion coincided with the uplift of the Rocky Mountains which cut off the warm, moist Pacific air which had earlier supported subtropical vegetation in the state. As the grasslands evolved, so did grazing animals. Wyoming grazers included the camel, horse, and bison. The horse and camel disappeared about 7000 years ago as did the prehistoric bison which was replaced by our smaller, modern bison.

As is the case with our other vegetation, grass species are adapted to different habitats. On our eastern prairies where the moisture is adequate and the soils are well developed, the deep rooted, taller grasses predominate unless they are reduced by heavy grazing. These include Western Wheatgrass, Needle and Thread, Big Bluestem, and Junegrass. In the drier, shallow soil areas, the shorter and shallow rooted grasses are more common. These include Sandberg Bluegrass, Blue Grama, and Galleta. Other grasses are adapted to specialized habitats from bogs to alpine tundra.

One of our grasses, Agrostis rossiae, is known only from the Geyser Basins of Yellowstone Park. A grass with such a restricted distribution is very unusual.

In recent years, some of our native grasses have been promoted for lawns to help conserve water. The most popular are Buffalo Grass, Buchloe dactyloides, and Blue Grama, Bouteloua gracilis. The main drawback is that these species are "warm-season" grasses so they do not green up very early in the spring. RD

Montana Native Plant Society Field Trip - The MNPS is planning a field trip to the Pryor and Big Horn Mountains along the Montana-Wyoming border on May 26-29, 1989. They will camp Friday night at Palisades campground on the West Fork of Rock Creek west of Red Lodge and meet at 9 AM on Saturday morning at the IGA parking lot on the north end of Red Lodge. Bring plenty of food, water, and warm clothing. Let trip leaders know you are coming by May 22 (Steve Harvey 586-1348 or 994-4212 [work], or Jan Nixon 587-2532 or 587-0120 [work], telephone area code is 406 if outside Montana).

Request for Grass Seed - The Soil Conservation Service Plant Materials Center in Aberdeen, Idaho, is in need of small amounts of seed of Sandberg Bluegrass, Poa secunda, and the related taxa of Canby Bluegrass, Poa canbyi, Nevada Bluegrass, Poa nevadensis, and Big Bluegrass, Poa ampla. If you are interested in gathering some seed for them, write the Secretary-Treasurer for collecting details.

Wyoming Endemics

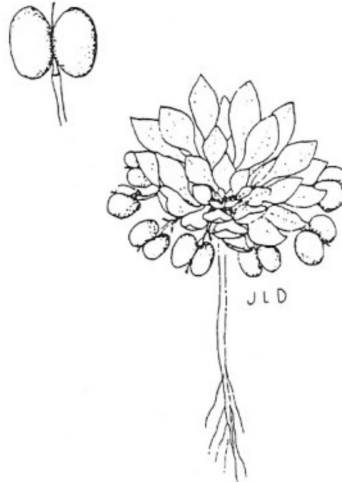
Physaria eburniflora Rollins

Ivory-flowered Twinpod
This member of the mustard family was first collected by Robert Dorn on May 7 and June 18, 1977, at Muddy Gap in Carbon County. Reed Rollins collected material in May of 1979 in adjacent Natrona County and described the species in 1981. The plants average about 2 inches high with several stems arising from the base and subtended by a rosette of leaves. The petals are creamy in color and average about 3/8 of an inch long. The plants grow on calcareous or granitic slopes and ridges in Carbon, Natrona, and Fremont counties. They are most common around the Ferris Mountains.

Physaria dornii Lichvar

This member of the mustard family was first collected by Robert Dorn on June 27, 1979, near Sage Junction in Lincoln County. Robert Lichvar collected it at the same locality in May of 1980 and again in 1981 and 1982 and described the species in 1983. The plants average about 5 inches high with several stems arising from the base surrounded by a rosette of leaves. The petals average about 1/2 inch long and are yellow. The plants grow on a white shale in a small area in Lincoln County. RD

Dorn's Twinpod



Wildflower Symposium - A symposium on Wyoming wildflowers is planned for September 8 and 9, 1989, in Cheyenne. This will include information on growing wildflowers. For registration information write Wildflowers, P. O. Box 1003, Cheyenne, WY 82003, or phone 307-634-8816.

Wyoming Botany in the 30's (continued) - Louis Williams received his Ph. D. in June of 1936 in the old field house at Washington University in St. Louis. "Like most students graduating that year I had put out feelers for a job that might use the "knowledge" I had acquired. The economy still was depressed and we all knew that "positions" were not in every university. Dr. Elmer D. Merrill had indicated to me that there was a very slim possibility of an opening in the Ames Orchid Herbarium at Harvard. That at least was one hope."

"Mid-June, right after commencement, was the best time to collect montane plants in the Wyoming Big Horn Mountains. Louis had advance orders for twelve sets of plants to be collected from that region. He and his wife hurried out to the Big Horn Mountains with plant presses, sleeping bags, a 2-burner gasoline stove, groceries and fishing gear. Trout were the main course of many of their meals. Fish, in those days, were abundant in high mountain streams and a few casts by a good fly fisherman brought enough trout for a meal."

"Our source of supplies, other than fish, was the little town of Dayton down at the base of the mountains. We could go down there, stock up on our food supply, spend a night in a cabin where the bed was not down on a bit of rocky ground, and get our mail. There was a letter from Dr. Greenman to say that he had been advised by Dr. Merrill that the position at Harvard was open for me and that I was to be there to begin being an "Orchidologist" on September first."

"The following summer they collected botanical specimens in the Beartooth Mountains in Wyoming and adjacent Montana, setting camp up at 9,000 feet on the lake at the base of Beartooth Butte. Tiny plants covered the rugged mountain summits above them. Collecting was good and plants dried quickly in that rarified atmosphere. Mosquitos were abundant!"

"For seven years Louis did research and identification of orchids in the Ames Orchid Herbarium of Harvard University in Cambridge, Massachusetts."

"When World War II came along Louis was too old for military service but was "recruited," as were many botanists, to work in plant procurement programs. The Rubber Development Corporation, a United States Government Corporation, asked Louis to go to Brazil to work in the wild rubber program." Thus ended his work in the Rocky Mountains and began his long distinguished work in South and Central America as well as Africa.

Contributors This Issue - RD = Robert Dorn, EE = Erwin Evert.

Wyoming Native Plant Society T-Shirts are still available for \$9.00 per shirt plus \$2.00 for shipping. Sizes are S, M, L, and XL. Make checks payable to Mary Neighbours and mail to her at Box 3165, University Station, Laramie, WY 82071. The original design, Penstemon caryi, is still being used.

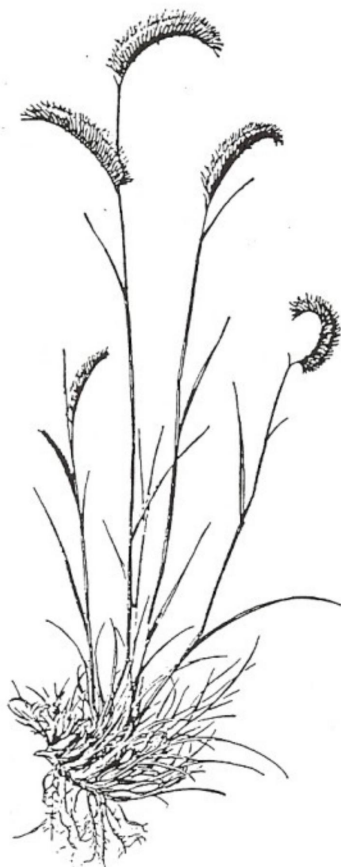


FIGURE 788.—*Bouteloua gracilis*. Plant, X $\frac{1}{4}$:

Blue Grama, illustration from **Manual of the Grasses of the United States** by A. S. Hitchcock, 2nd edition revised by Agnes Chase, 1950.

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