

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

WYOMING NATIVE PLANT SOCIETY
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WYOMING NATIVE PLANT SOCIETY NEWS LETTER, Vol 2 #1

New Members (Also dues renewal time): Since the last newsletter (Vol. 1 #4) we have gained three new members. They are: Andy Warren (Rawlins), Katie Grenier (Jackson), and Timothy Messick (Arcata, CA). This brings the total to 53 members. All members that joined with Newsletter Vol. 1. #1 must renew their dues now. The cost is $3.00 for renewal. All of these people will find a black dot behind their names (this is an indication of what will happen if you don't renew your membership). RWL

Treasurer's Report: The last balance was $297.25. Deposits = $435.00. Expenses: typing = $10.00, Letterhead and paper = $14.56, $59.80, Tax for non-profit status to state = $3.00, Postage = $5.17, Cost of last newsletter = $41.70. New balance = $198.02. PR

Other Names on our Mailing List: We are exchanging newsletters with other native plant societies, they are: Colorado and Nevada. Other people that will receive this newsletter are: Faith Campbell (NRDC) and Jim Miller (FWS-OES).

Annual Plant Meeting: This year the annual meeting of the WNPS will be held in the Black Hills. The date has been set for the weekend of July 24-25. The meeting place will be along Sand Creek, south of Beulah (east of Sundance along I-90). The gathering area is approximately 5 miles south of Beulah along Sand Creek in the access areas owned by the Game and Fish Department.

Early in July a short letter along with a map will be sent to members with the site designated. As usual, it will be a camping weekend. There are privies provided in the area. Field trips will include a tour of Dugout Gulch and to a well-known collecting area near the summit between Alva and Aladdin.

The agenda will also cover business of the Society, progress reports, rare plant bills, etc. We hope to see you all there in July. Oh, Sand Creek is rated as a Blue Ribbon trout stream. RWL

News That's Making News: Probably the biggest piece of action lately has been efforts by The Nature Conservancy (TNC) to obtain a conservation easement for Sphaeromeria simplex (Laramie False Sagebrush). TNC has been attempting to protect the species for over 3 years. The ball got rolling recently when Phyllis Roseberry and R. Lichvar wrote Sen. Malcolm Wallop as representatives of WNPS. We asked Wallop to attempt persuading the Fish and Wildlife Service (FWS) to list the species as Endangered.

Malcolm passed the letter onto the FWS after receiving it from us. But, this letter was also sent to about 10 other people around the country. This got TNC geared back up to go after an easement with the mining company in the Laramie area. The land that the species inhabits (260 acres) has already been partially mined. This is the only location in the world. The easement will cover only 30 acres of the species habitat, but this will protect 90% of the individuals. The easement has not been signed yet, but it has gone through the final stages of review. Let's cross our fingers.

The plant society was also in the news dealing with other Endangered species. R. Lichvar acting as spokesman for WNPS did a press release through WNPS-member Philip White of the Casper Star Tribune on Gaura neomexicana ssp. coloradensis (Colorado Butterfly Plant). (See article on following page.)

Also, comments were made pertaining to Agrostis rossiae (Ross Bentgrass). All of these comments are geared towards education of people in Wyoming about its unique flora. White has done a great job of reducing the scientific garble and conveying that message. (See article on following page.)

The Endangered Species Act Reauthorization has finally made it into the last stages of consideration. The House subcommittee on Fisheries, Wildlife, Conservation and the Environment has passed its version of a reauthorization. The bill, sponsored by John Breax and Edwin Forsythe, proposes to remove the economics from the final determination in the listing process.

The bill (H.R. 6133) also amends the requirement that critical habitat be designated at the time of listing by adding the word "determinable". This means, essentially, that if the critical habitat of a species is simply not known, or undeterminable, at the time of listing, that fact will not prevent the species from being listed, as it has in the past.

News That's Making News (cont.)

Both the Senate and the House bills call for full funding of the act ($27 million) and Section 6 grants ($4 million). Keep in mind, however, that these are the authorizing committees and not the appropriations committees so those figures are only recommendations. The Senate subcommittee is scheduled to consider its bill on Wednesday, May 5. The next step after that will be both the House and Senate full committees.

An article that was sent to The Wyoming Heritage Program by TNC follows on page 3. This article sums up the situation. RWL

Antennaria endangeri: No news is good news, as they say. But this might be a good time to throw out some other topics. For any input on development, the best comments are based upon sound facts. If we hope to have some remnant of the flora of Wyoming left after the boom, we better get started soon in trying to save it. We should set up a conservation committee who could handle development problems when they involve the flora. Other native plant societies have committees that deal with different topics. Right now, the WNPS is wearing out the seat of its pants because we haven't gotten off our duffs. Let's discuss this at the meeting in July. RWL

Casper Star – 20 March '82

Groups agree to protect rare plant at air base

By PHILIP WHITE
Star-Tribune staff writer

CHEYENNE — Warren Air Force Base and the U.S. Fish and Wildlife Service have agreed to protect a rare plant that still survives in relative abundance along two creeks inside the base.

The agreement is a history-making event in Wyoming, according to Wyoming Native Plant Society President Robert Lichvar of Cheyenne.

"This is the first agreement of any kind in Wyoming to protect a federally-proposed endangered species," he said.

In an agreement signed in January and released this week, the WAFB combat commander and the FWS regional director in Denver have committed their agencies to implement protective measures for the Colorado butterfly-weed. The tall, white-flowered member of the evening primrose family is known to science as *Gaura neomexicana* subspecies *Coloradensis*.

Lichvar said Friday the plant was first collected in Colorado in 1895 and four years later was found at Pine Bluffs.

"It has been collected only rarely during the past century," Lichvar said. Although it once ranged from Fort Collins to Pine Bluffs and into the Cheyenne area, it is now known to survive in only three small populations in Wyoming and one in Colorado.

The agreement states that Warren officials will confer with FWS experts and the Nature Conservancy on a weed management plan that will not harm the plant.

Lichvar said Warren has been a preserve for the plant which has been harmed by housing development, haying, overgrazing and other human activities outside the base.

HE SAID SCIENTISTS know of about 5,000 individual plants on the base, which he called "quite a healthy population." He said only about 500 plants still survive off the base, including the one to three plants that remain in the last Colorado population.

Lichvar said part of the Warren population and the populations west and south of the base were discovered by Robert Dorn, a mine land reclamation specialist with the Department of Environmental Quality, in 1977 and 1978. Lichvar found more of the plants on base last year. Dorn and Lichvar are experts on the native Wyoming flora.

The agreement "is a good example of how agencies and other interested parties can protect sensitive species without locking up the land," Lichvar said. "Only in the most extreme cases of near-extinction should lands be withdrawn from development to protect a species."

Lichvar said Gaura is one of three native plants proposed for listing with the Fish and Wildlife Service as endangered species. He said five others have been proposed for listing as threatened species.

Casper, Star-Tribune 6 May 1981

Yellowstone plant will be protected

By PHILIP WHITE
Star-Tribune staff writer

MAMMOTH HOT SPRINGS — An unusual plant that flowers in March on warm ground around a Yellowstone National Park thermal feature will be protected under a special agreement signed recently by federal officials.

Don DeSpain, park botanist, said Tuesday the Ross bentgrass (*Agrostis rossiae*) is probably the rarest plant in Yellowstone. DeSpain said the plant is interesting scientifically because "it appears to exist only near thermal features and is geared to grow and flower at a time when everything else is totally dormant."

He said an agreement signed in April by the National Park Service and the U.S. Fish and Wildlife Service will mean "we will put more focus on the plant so we can better understand its ecological requirements." He said the bentgrass is the first Yellowstone plant to be covered by a special protective agreement.

The first botanist to actually collect the plant in flower is Robert Lichvar, a botanist with The Nature Conservancy's Wyoming Natural Heritage Program in Cheyenne. He said he and botanists at the University of Wyoming have succeeded in growing the plant under greenhouse conditions and "we obtained 100 seeds this year which we intend to try to grow both in the greenhouse and in experimental trials in Yellowstone."

Lichvar said the plant is the second most-endangered plant in Wyoming.

"We know of only 50 individuals still surviving from only one location of less than a quarter acre," he said. The plant once grew in at least seven locations in the Firehole River basin and was first collected in 1890, he said.

HE SAID THE plant was unseen from 1906 until 1955, when University of Wyoming botanist A.A. Beetle collected it. But no one had collected the plant in bloom until Lichvar went by snowmobile to the area in March 1980.

Lichvar said botanists have searched other thermal areas in the park, but have not been able to locate any other populations of the plant.

He described the plant as an annual grass about six inches high with inconspicuous flowers and fruits. He said botanists have asked the Fish and Wildlife Service to designate the plant an endangered species because of its extreme rarity.

"The plant is probably going to be extinct," he said, noting that scientists will try to bring the plant back from the brink through reintroduction of seeds produced in the greenhouse.

DAY, APRIL 23, 1982 The Washington Post A29

VIEWS

James J. Kilpatrick

Keep Protecting The Snail Darters

A Senate subcommittee is holding hearings this week on extension of one of the truly enlightened laws of recent years, the Endangered Species Act of 1973. The distressing report on Capitol Hill is that the act itself is now endangered. A quiet coalition is forming among mining interests, the wood products industry, furriers and land developers to gut the act of its key provisions. This cannot be permitted to happen. If there is one cause that should unite true conservatives, it is the extension of this protective law for another three years, without weakening amendments.

The two key sections of the law are Section 7 and Section 9. Under Section 7, federal agencies are prohibited from taking any official action likely to jeopardize an endangered or threatened species. Under Section 9, it is unlawful for any person to take, possess or transport such species. It was Section 7 that led to the Supreme Court's 1978 decision holding up completion of the TVA's Tellico dam in Tennessee. Ichthyologists had determined that the dam would endanger the tiny snail darter, a previously unknown species of perch. A six-man majority on the court held that "Congress has spoken in the plainest of words." The challenged section was stoutly upheld. Construction halted.

Superficially, thoughtlessly, it may have appeared ridiculous to delay a $60 million dam in order to save an insignificant fish. After all, as [illegible]enting Justice Lewis Powell observed in a footnote, there are some 130 species of darters already identified and new species are regularly discovered. What's one darter more or less? Good question. Why should we strive to prevent the extinction of species? The current list of protected domestic species includes 55 mammals, 69 birds, 25 reptiles, 45 fish, 23 clams, 61 plants, 13 insects and a handful of snails and amphibians. Why protect the Indiana bat, the willow warbler, the mission blue butterfly and the dwarf bear-poppy? The answer is, we do not know. We may never know. But we must not be prevented from ever finding out. We protect them because they are there.

The 1973 act passed the Senate 92-0 and drew only 12 opposing votes in the House. The law was preceded by committee findings that natural species were disappearing from our planet at an alarming rate. The near unanimity of the Congress provided a remarkable and gratifying example of [illegible] partisan concern manifested in [illegible]ghted law.

We must not be shortsighted now. The [illegible]nding Senate bill (S. 2899) would extend [illegible] for three years. It would make some sensible modifications in the procedure by which exemptions may be obtained; it would reduce the long delays that have frustrated several desirable projects.

While the basic act is being extended, Congress ought [illegible] to restore some of the funds that overly zealous budget-cutters have cut out. It makes little sense to have "the most comprehensive legislation for the preservation of endangered species ever enacted by any nation," to quote Chief Justice Warren Burger, and to withhold the few million dollars required for effective enforcement.

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Field Work 1981: Both Ann Aldrich (BLM - Rock Springs) and Bob Lichvar (Wyoming Natural Heritage Program-The Nature Conservancy)(see Appendix I) have submitted comments from last year's collecting season. If you have some information dealing with the flora of Wyoming, please send it in so our information network can grow.

Also, Meribeth Patrick (Sheridan) has sent R. Lichvar numerous prints of orchids photographed in the Big Horn country. These photos are just beautiful and reflects her interest in orchids. She also grows orchids in her greenhouse. Hopefully, she will attend the annual meeting and pass on some tips to all of us with brown thumbs. Here is the list of orchid photos she sent: Habenaria hyperborea, Spiranthis romanzoffiana, Goodyera oblongifolia, Corallorhiza striata, Habenaria viridis, Corallorhiza mertensiana, Calypso bulbosa, Corallorhiza maculata, Habenaria unalascensis, H. dilatata var. albiflora, Cypripedium montanum, C. calceolus, Corallorhiza trifida, and C. wisteriana. RWL

Botanical Novelties

Joseph Burke briefly entered southwest Wyoming in May of 1845. He was employed by the Earl of Derby to collect plants and animals and traveled with Hudson's Bay Company personnel. They briefly visited Smith's Fork and Thomas' Fork but it is not known if any plants were collected there. Burke is remembered from Delphinium burkei which he collected along the Snake River in Idaho. RDD

Howard Stansbury of the Corps of Topographical Engineers of the United States Army crossed Wyoming in 1849 on a journey to Salt Lake City and back. Most of the plants collected during this trip were made on his return trip. He is also remembered as discovering a new trail that "cut-off" to the travel for either the Oregon or California routes. This trail goes through the canyon leading to Ogden, Utah. The railroad used this route a decade later.

Stansbury is remembered botanically by Cowania mexicana var. stanburiana. He also collected the types for Caulanthus urassicaulis, Astragalus utahensis, Heuchia rubescens, and Lapharmia stanburii. Another talent that Stansbury had was his ability to record observations of his travels. Below are a few paragraphs from his journal. It sounds like the Oregon Trail would have been a trash-hounds treasure. RWL

"After a halt of six days at Fort Laramie the Stansbury party moved on towards Fort Bridger. At Fort Laramie the emigrants were less than half way on their journey. Many had learned-by the bitter lesson of experience-many things which they should have been told by the well-informed before they started on their way.
July 19: "... We passed to-day the nearly consumed fragments of about a dozen wagons that had been broken up and burned by their owners; and near them was piled up in one heap, from six to eight hundred weight of bacon, thrown away for want of means to transport it farther. Boxes, bonnets, trunks, wagon-wheels, whole wagonbodies, cooking utensils, and, in fact, almost every article of household furniture, were found from place to place along the prairie, abandoned for the same reason..."
July 21: "The road, as usual, was strewn with fragments of broken and burnt wagons, trunks, and immense quantities of white beans... thrown away by the sackful, their owners having become tired of carrying them farther, or afraid to consume them from danger of the cholera. The commanding officer at Fort Kearny had forbidden their issue at that post on this account. Stoves, gridirons, moulding-planes and carpenters' tools of all sorts, were to be had at every step for the mere trouble of picking them up."
July 22: "... A considerable change has taken place in the flora as the country begins to ascend. Since leaving Fort Laramie, a variety of geranium has been frequent upon the borders of the streams. A small-leaved Enothera, white, and the blue Digitalis, were also found. On the north side of the ridge, some plants were seen which we had not met with before; Azalea; a small white Enothera, on a tall stem, with flowers not more than a line and a-half in diameter; two species of Potentilla, yellow, and two or three varieties of Campanula."
July 27: "To-day we find additional and melancholy evidence of the difficulties encountered by those who are ahead of us...we passed eleven wagons that had been broken up, the spokes of the wheels taken to make pack-saddles, and the rest burned or otherwise destroyed. The road has been literally strewn with articles that have been thrown away. Bar-iron and steel, large blacksmiths' anvils and bellows, crow-bars, drills, augers, gold-washers, chisels, axes, lead, trunks, spades, ploughs, large grindstones, baking-ovens, cooking-stoves without number, kegs, barrels, harness, clothing, bacon, and beans, were found along the road in pretty much the order.. enumerated. The carcasses of eight oxen, lying in one heap...explained a part of the trouble. I recognized the trunks of some of the passengers who had accompanied me from St. Louis to Kansas...an excellent rifle was found in the river, thrown there by some desperate emigrant... In the course of this one day the relics of seventeen wagons and the carcasses of twenty-seven dead oxen have been seen. Day's march, twenty-four miles."
August 6: "I witnessed, at the Pacific Springs, an instance of no little ingenuity on the part of some emigrant. Immediately alongside of the road was what purported to be a grave, prepared with more than usual care, having a headboard on which was painted the name and age of the deceased, the time of his death, and the part of the country from which he came. I afterward ascertained that this was only a ruse to conceal the fact that the grave...had been made a safe receptacle for divers casks of brandy, which the owner could carry no farther. He afterward sold his liquor to some traders farther on, who, by his description of its locality, found it without difficulty."
On August 11 the Stansbury expedition reached Fort Bridger and were received "...with great kindness and lavish hospitality by the proprietor, Major James Bridger, one of the oldest mountain-men in this entire region, who has been engaged in the Indian trade, here, and upon the heads of the Missouri and Columbia, for the last thirty years."
At Fort Bridger the trail to Oregon turned northwest to Fort Hall and Stansbury's comments upon the migrations cease. Many diaries and reminiscences written by participants in these migrations have been published. Stansbury, who was obviously highly intelligent, and thoroughly experienced in the art of overland travel, wrote as an observer rather than as a participant and his descriptions are factual and dispassionate. I have read none that are more convincing. I have quoted but a fraction of what he relates.
With the assistance of Bridger, Stansbury was now to investigate a new route to the head of Great Salt Lake-what he calls a "cut-off" to the travel for either Oregon or California." They turned southwest and reached their destination on August 29. "

Literature

McKelvey, S.D. 1955. Botanical explorations of the trans-Mississippi west, 1790-1850. Arnold Arboretum of Harvard University, Jamaica Plains.

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RWL = Robert Lichvar
RDD = Robert Dorn
PR = Phyllis Roseberry

Special thanks to Philip White for editing this edition.

Appendix I

New Species:
Physaria dornii

State records:
Elymus giganteus (probably planted by SCS)
Astragalus coltonii moabensis

Federally considered species removed from list:
Astragalus proimanthus
Lesquerella macrocarpa
Stanleya pinnata (gibberosa)
Rorippa calycina

Rare species surveyed:
Gaura neomexicana spp. coloradensis (T)

Endemics (New locations)
Cryptantha caespitosa
Astragalus proimanthus "Colorado"
Trifolium barnebyi Penstemon yampaensis
Astragalus drabelliformis
A. gilviflorus (shoshoensis)
Townsendia spathulata
Bolophyta alpina (near endemic)
Eriogonum acaule
Oxytropis nana

Rare species (Disjuncts and peripherals)
Erigeron tener
E. rydbergii
Haplopappus macronema
Thelesperma marginatum
Erigeron flabelifolius
Lomatium juniperinum
Penstemon mucronatus
Pectocarya linearis
Lesquerella prostrata
Cymopteris bipinnatus (1st specimen)(Fruiting)

BLM Contract
Astragalus proimanthus
Lesquerella macrocarpa
Stanleya pinnata (gibberosa)
Physaria condensata
Rorippa calycina

(Appendix I cont. on opposite pg

Nominations for 1982-83 Officers

Ron Hartman, the head of the nominating committee, has provided the following list of names to be voted upon for new officers. We will have a mail-in election prior to our annual meeting. This way everybody will have the chance to vote and it will eliminate the possibility of losing your vote because of not attending the meeting. RWL

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The candidates for each office are as follows:

President
Robert Dorn _____
Phyllis Roseberry _____

Vice President
Ann Aldrich _____
Bob Giurgevich _____

Secretary-Treasurer
Robert Lichvar _____
Dave Martin _____

Board Member
Ron Hartman _____
B.E. Nelson _____

Please cut this ballot out and return it as soon as possible!

Appendix I (cont.)

Interesting places & plants

Ferris Mountains:

Artemisia michauxiana- summit
Potentilla response to high winds
Physaria eburniflora- limestone and granite
Oxytropis nana
Polemonium brandegia
Cryptantha stricta

Owl Creeks (west end):

Erigeron tener
Cymopteris bipinnatus
Lynchis apetala
Douglassii montana
Draba incerta
Haplopappus macronema
Spraguea umbellatum
Cryptantha caespitosa
Arenaria obtusiloba
Carex obtusata
Trifolium dasyphyllum
Erigeron rydbergii
Oxytropis nana
Astragalus gilviflorus (shoshoensis)
Thelesperma marginatum

Oregon Buttes:

Pectocarya linearis
Gilia tweedyi
Lesquerella macrocarpa
Phacelia demissa

Non-Wyoming Places collected in 1981

Caribou Range- Idaho
Price- Utah
Sunset- Colorado
Gates of Ladore- Colorado
Browns Park- Colorado
Uintah Mountains- Utah
Pyror Mountains- Montana
Vernal- Utah
Red Lodge- Montana
Circle West- Montana
Lake Peak- Montana

Plus "1" log cabin built in Dubois, Wyoming.

Ann Aldrich- Reports that the BLM has located Deschampsia danthanoides from along the Sweetwater River at South Pass.

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