DYERIUM NAME PLATE, A WYOMING PLANT IDENTIFIED BY THOMAS HAVIT IN HIS JOURNEY ACROSS WYOMING IN 1834

WYOMING NATIVE PLANT SOCIETY
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WYOMING NATIVE PLANT SOCIETY NEWSLETTER, Vol. 3 #3
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DUES RENEWAL TIME: The 1984-85 WNPS dues are due when you submit your ballot for new officers. The cost is $3.00 annually. The dues can also be paid at the annual meeting before the votes are counted. RWL

Treasurer's Report: The balance as of the last newsletter was $360.00. Deposits=$17.00; cost of newsletter $3.24 and $3.00 to State of Wyoming for non-profit corporation tax; new balance=$352.76. New members include New York Botanical Garden and Ramona Osburn from Jacksonville, Oregon. WV

Preliminary Classification of Wyoming Plant Communities: The "Preliminary Classification of Wyoming Plant Communities" has been published by the Wyoming Natural Heritage Program. This flora classification is based primarily on published accounts and original field work. It is a preliminary document because most of the communities have not been field checked. As further field work is completed, new communities will undoubtedly have to be added and others deleted. The bibliography that provides the basis for this document is: Collins, E.I. 1984. A bibliography of Wyoming plant communities. Prairie Naturalist 16 (1): 25-38. Copies of both can be obtained from the WNHPP, 1603 Capitol Ave. #325, Cheyenne, WY 82001 for $2.25 (duplication and postage costs). Make checks payable to WY Natural Heritage Program. EC

1983 Field Work: Ellen Collins and Bob Lichvar, under the auspices of Dennis Knight at the University of Wyoming Botany Dept., did an initial inventory and checklist of the vascular flora of Big Horn Canyon National Recreation Area (BCNRA). This area is located at the northern terminus of the Big Horn Mts. on the Wyoming-Montana state border. Approximately 1,750 collections in triplicate were made from throughout the area. Specimens were identified in our Cheyenne office and then some collections were checked at the Rocky Mountain Herbarium. Later, specimens were checked and annotated by E. Nelson and R. Hartman for proper identification.

A total of 73 families of vascular plants are found, with 320 genera and 656 taxa of specific or subspecific rank. It is our intent to submit this checklist for publication so it will be available at a later date. There is, however, a report that has been submitted to the BCNRA that could be xeroxed and used until the checklist is published. Please contact R. Lichvar if you're interested.

Just to mention in passing - a few names of some interesting taxa from the area: Penstemon cariyi, Sullivantia hampelii, Muskoneum vaginatum, Townsendia spathulata, Ligusticum porteri, Logania arvensis, Brittlechium howardii, Rorippa calycina, Polyanthus longifolia, Primmera albovaria, Cryptanthus canus, Tetradanis leptophylla, Solidago philadelphica, Juglans cinerea, Celtis occidentalis, and Snailax herbacea. RWL

Notes on Some Plants Occurring in the Beartooths II. This time we shall discuss the remaining rare or otherwise interesting mostly non-alpine species that occur on or near the Beartooth Plateau. It should be a real challenge to locate all of these species this summer on our annual field trip.

Three of Wyoming's rarest grasses, Poo lettermanii, Agrostis borealis, and Helicotrichon hookeri have been collected on the Beartooth Plateau and in very few other places in the state. Poo lettermanii, one of the smallest bluegrass species, is seldom collected in Wyoming or for that matter, in any other part of its range. This species is found in alpine areas in the western cordillera from British Columbia south to California, Nevada, and Colorado. Poo lettermanii was first collected from the Beartooths by P. Johnson in 1960. This western American endemic is known in Wyoming also from the Wind River Range and from a recent collection in the Big Horns. Agrostis borealis, a widespread arctic-alpine species, is scarce in Wyoming and is known from only three or four collections: 1955 A. Cronquist collection from the MT side of the plateau, one from Pat O'Hara Peak in the Absarokas, a recent one from the Beartooths, and a report by A. Bestle (1971) of its occurrence in the Medicine Bow Range. Distinguishing characters of this seldom collected species are the open panicle, obsolete pales, panicles forking below the middle, and awned lemma. Helicotrichon hookeri was first collected from the plateau by P. Johnson in 1960. This native perennial oat grass is known from the Dead Indian Hill area just south of the plateau and it occurs rather abundantly above 10,000 feet on the open rolling expanses of Carter Mt. south of Cody. Strictly speaking, this is not an alpine species but rather a species of the plains, and ranges from Alaska south and east to Minnesota and New Mexico. Finding these three grasses on the plateau this summer should be a real challenge.

Two interesting composites, one odiferous and conspicuous and the other just the
opposite, are found on the plateau. These two are *Hulsea alpida* and *Erigeron humilis*. *Hulsea alpida* is a plant of usually high elevation rock slides and talus. It is intensely glandular and once collected its overpowering if not sickening odor is not easily forgotten. This showy western cordilleran species ranges from California north and east across Washington and Oregon south to southwestern Montana and northwestern Wyoming. The Abarokas are the southern terminus of its somewhat peculiar range. *H. alpida* was apparently first collected from the plateau by R. Scott in 1965. Much earlier collections from around the turn of the century exist from Yellowstone Park and the Abarokas.

*Erigeron humilis* was first collected by J. Beanman and K. Stone in 1957 from Beartooth Butte presumably while searching for *Townsendia* species. This specimen, Beanman & Stone 1554 deposited at AY, was initially misidentified as *E. melanocephalus*, a southern, Rocky Mountain alpine endemic, but was later (1958) correctly identified as *E. humilis* by A. Cronquist. It appears that in addition to the Big Horn collections of L. Oldgren and my several collections from the Abarokas during the last few years, thought to be the only other occurrences in the state, this clay arctic-alpine *Erigeron* is, not surprisingly, found also in the Beartooths. Hopefully, we will be able to relocate this species this summer among the limestone crags of Beartooth Butte.

Three members of the Cyperaceae that plateau visitors should be aware of are the two *Kobresia*, *K. bellardi* and *K. macrocarpa*, and the seldom collected Carex New Mexico. Three of these species were first collected from the plateau by P. Johnson in 1960. Both *Kobresia* species show wide ranging arctic-alpine distributions while *Carex nelsonii* is apparently a middle and southern Rocky Mountain alpine endemic ranging from northwestern Wyoming south to Utah and Colorado. *Carex nelsonii* has been collected in the state only from the Beartooths and from the Medicine Bow Range. *K. bellardi* occurs in addition to the plateau in the Abarokas, where it is most abundant in the east, in the Wind Rivers, and only in the Big Horns where last summer I found it very sparsely in the Lost TWIN Lakes. *K. macrocarpa* is found in the state only in the Beartooths and in the Abarokas. Both *Kobresia* species are much more abundant in Colorado particularly *K. bellardi*, a dominant species which forms a series of distinctive and extensive alpine tuff community types there. All three of these interesting members of the Cyperaceae can be seen growing together right along the Beartooth Highway and should be readily observable this summer provided the flocks of Ovis aries don't get their feet. Johnson and Billings in 1962 speculated that the reason for the low abundance of *K. bellardi* on the plateau was due to the presence of a scent which infected about 1/3 of the plants seen in 1960. My experience with *Kobresia* in Wyoming indicates that where domesticated sheep are grazed (Beartooth, Big Horns, Carter Mts.), *Kobresia* is scarce or nonexistent. The low abundance of *K. bellardi* on the plateau is probably due rather to sheep than to smut.

*Saxifraga chrysanthra*, collected for the first time on the plateau by P. Johnson in 1960 and collected from the Medicine Bow over fifty years ago by E. and L. Fayson, is certainly one of Wyoming's rarest plants. This seldom collected species is rather commonly encountered in the Colorado alpine, where I have seen it in some abundance near the summit of Mt. Elbert, and ranges from southwestern Montana south to New Mexico. The possibility exists that this entity is synonymous with the curculopolar arctic-alpine *S. carpocryphioides*. This diminutive saxifrage should be searched for in open, rocky alpine areas throughout Wyoming.

*Draba pectiniloba* and *D. nivalis* var. *brevicauda* are two species found in the state only on the alpine slopes and rock crevices of Clay and Beartooth Buttes. Both were described by R. Rollins from material collected in 1951 from these locations. *D. pectiniloba* a Rocky Mountain alpine endemic, is also found in Colorado and British Columbia while var. *brevicauda* of the wide ranging arctic-alpine *D. nivalis* is apparently endemic to Clay and Beartooth Buttes in northwestern Wyoming. The Beartooth Plateau harbors 12 of the 15 alpine Drasbas currently listed from the state, only *D. crusiana*, *D. flavinervis*, and *D. ventosa* not having been collected. As Rollins remarked over 30 years ago, the Beartooth Plateau, particularly Clay Butte, is indeed "a real mecca for anyone interested in the genus Draba."

Finally, we should be aware of three interesting southwestern Montana and/or northwestern Wyoming endemics that occur on or near the plateau. These are *Castilleja nives*, *Antennaria aromatica*, and *Shoshonea pulvinata*. *C. nives* was first collected by P.N. Pennell and F. Ombey from the Montana end of the plateau "during driving squalls of snow" in 1938; this is the type locality the "bleak northern exposure" on the south side of Rock Creek at 9,000-9,700 feet. The first Wyoming collection from the plateau was by F. Ombey in 1948. Pennell & Ombey described this unusual *Castilleja* in 1955. The first Wyoming collection was that of P. Koch from Hoodoo Peak in Yellowstone Park in 1897. This species is characteristically found in loose, often unstable soil usually near or above timberline but is found as low as 6,000 feet on limestone on the north side of Sheep Mts. west of Cody. This unique yellowflowered *Castilleja* with its snow-like tumultose inflorescence and shaggy-villous flowers has been found as far south as the Kernan area in the Abarokas. *Antennaria aromatica*, which I have recently described, is also a southwestern Montana - northwestern Wyoming endemic. The type locality of this species is also from Carbon Co., Montana along the highway near the head of Quad Creek at 9,500 feet. This uniquely aromatic *Antennaria* is usually found on limestone, the type locality being an exception. *A. aromatica* was apparently first collected from the Montana end of the plateau in 1955 by A. Cronquist with a mixture of *A. alpina* and *A. unbrinella*. G.L. Stebbins and R. Bayer being aware of this collection revisited this locality in 1980, specifically looking for this *Antennaria* and found it. In the same year, unaware of any
previous collections, I collected the same undescribed Antennaria from Sheep Mt. west of Cody and later in the year (August), collected it in the same area along Quad Creek where Stebbins and Bayer had been a month before! This summer, we shall visit the type locality of this most recently described Antennaria.

The recently described Shoshonea pulvinata, I discovered growing on Rattlesnake Mt. west of Cody in 1979. This unique umbellifer is known from several localities in Park Co. — all on limestone — and has recently been found by R. Lichvar on limestone formations in Fremont Co. It has not yet been found in Montana or north of the Clarke Fork River in Wyoming. The possibility exists that S. pulvinata might occur on the limestone outcroppings along the lower reaches of the Beaverhead fault block north of the Clarke Fork River and on north into Montana. We shall try to visit this summer the type locality of S. pulvinata on Rattlesnake Mt. and observe it along with the other interesting calciphilous that it associates with in this impressive rock garden.

REFERENCES


Botanical Novelties: Marcus E. Jones was one of the more outspoken botanists of the period from 1880 to about 1930. He was born in Ohio in 1859 and came West in 1872 where he collected in Colorado in that year. He probably collected in Wyoming along the railroad in 1879 on his way to Salt Lake City. He did extensive collecting in the Great Basin from 1880 to 1923 where he discovered many new species. His main contribution was a Revision of the North American Species of Astragalus, 1923. He published his own journal, Contributions to Western Botany, where he frequently wrote scathing remarks about other botanists of that time. He died at the age of 82 when
his old Ford collided with another in San Bernardino while returning from a collecting trip in 1934. He maintained that "All botanists are fools; it is only a degree of difference between them."

Frank Tweedy was a topographic engineer with the U. S. Geological Survey and was singly responsible for the last major Survey contribution to Wyoming botany. He collected plants as a sideline while doing survey work. His collections were from the Yellowstone Park area in 1884–85, the Teton Forest in 1897, the Buffalo–Sheridan area in 1899, and the Encampment area in the early 1900’s. He wrote the first Flora of Yellowstone National Park in 1886. A number of his discoveries were named after him: Erigeron tweedyi, Gilia tweedyi, Salix tweedyi, Plantago tweedyi, Juncus tweedyi, and others. 

ANNUAL MEETING AND FIELD EXCURSIONS–BEARTOOTH AND ABSAROKA MOUNTAINS, AUG. 10-12 (13) 1984

The annual WNPS meeting and camping place will be on the Beartooth Plateau, Park Co., Wyoming (T37N R105W S11 NE4) elev. 9,660 ft. in the Shoshone National Forest along a small road (not shown on maps but marked with a USFS white arrow at junction with 212) about 0.3 mi. ne of Hwy 212; this road is 1.5 mi. e of Island Lake Campground and 0.2 mi. w of Long Lake outlet (Canyon Creek bridge). This is an undeveloped high altitude camping spot and visitors are urged to dress appropriately and bring supplies for 2 days primitive camping and marching!

SCHEDULE:

Aug. 10 (Friday)
7AM Business Meeting
8AM Visit Sawtooth Pen-palsa
12PM Visit type localities of Antennaria aromatica and Castilleja nivea
2PM Visit Wymont Peak-Head of Wyoming Creek area and observe Junci, Carex, Kobresia, Phippia, Koenigia, Eriophorum, etc.
5PM Return to camp

Aug. 11 (Saturday)
7AM Business Meeting
8AM Visit Clay Butte and Beartooth Butte to observe Braya, Farrya, Erigeron humilis, etc.
1PM Leave Beartooth Plateau and head for Rattlesnake Mt. to observe Shoshonea pulvinata, Kelseyia uniflora, Aquilegia jonesii, Britricium howardii, etc.

Aug. 12 (Sunday)
8AM Visit Butress Mt. 40 mi. w of Cody on an all day (8mi.) hike to see some of WY’s rarest plants including Carex incurvifolia, Ranunculus vescencus, Antennaria flagellaria, and Erigeron humilis. EPE

This is it!

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