



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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Treasurer's Report -Balance as of October 15, 1990: \$310.65; deposits: dues \$95.50, T-shirt sales \$30.00, scholarship fund \$117.00; disbursements: stamps \$54.60, newsletter printing \$27.46; new balance as of February 20, 1991: \$471.09. RD

Correction - In the book review of *Colorado Flora: Eastern Slope* in the last issue of the newsletter, I indicated that "Schrader's publication of *Eritrichum* was not valid. The earliest validation used the spelling *Eritrichium*, correctly given in *Index Nominum Genericorum*." Bill Weber has since sent me information on Schrader's publication and I have rechecked the original and find that Bill is apparently correct and that *Index Nominum Genericorum* and I are incorrect. Schrader's publication using the spelling *Eritrichum* is indeed valid for the genus, although the combination for the species *E. nanum* was not valid there. RD

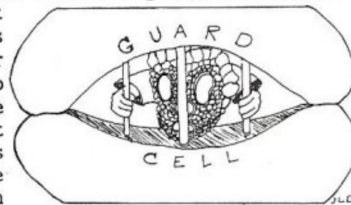
Scholarship - One application has been received for our annual scholarship. The Board will likely be acting on the application in the next month. RD

*** BOTANICAL DRAGNET ***

My name is Joe Friday. I was born in Raceme, Wisconsin. My buddy Spike and I are just umbel cops, but we can go anywhere a catkin, and we always get our man.

It was warm in Los Angeles. It was so warm that Spike and I were beginning to drupe, and we were about to go to Abies bar and get plastid when a call came in that a supermarket had been held up. We drove down there and talked to a checker. She was palea and nervous. "Don't panicle, Ma'am," I said, "I just want the FAX." "Well, lemme see," she said, "this guy came in with a pistil, and I knew he meant to stigma up, so I gave him all the cash. Then I watched him pedicel away on his pericycle. It had one petal missing."

I could tell by the style of the caper that it was the work of Pericycle Pete, the notorious supermarket bandit. We spent a week looking for apetalous pericycle, with no success. We were deep in glume. Then one day there was a knock awn the door. "Come in," I said, and who should walk in but Sadie the Shoplifter, a gal whose favorite trick was to Caryophyllaceae bit of feminine apparel from some display counter. "Boys," said Sadie, "I've stolon my last bit of lingerie--I'm going straight. And to prove I'm Cereus, I'm going to lead you to Pericycle Pete's hangout."



We hoped that Sadie's change of heartwood mean that she wouldn't stele anymore. She took us to Pete's hideout, a sleazy apartment that he had rented from those notorious slumlords, Phil O. Dendron and his wife, Rhoda Dendron. "Culm awn out, Pete," I yelled, "You ought to see the nice nucellus fellows have for you. Yew won't pine away--yew'll spruce up fir a change when you cedar cell."

His only anther was to fire a pistil from a window. We let him rachis with fire for a while, then we broke down the door. He had exhausted his ammunition, and the floor was littered with Brassicaceae. "Boys," he said, "I'm glad it's over. I lost my shoes, and mitosis cold."

Sadie warned us that the sapwood try to escape, so we took him to the station and locked him up in a guard cell. Later she cracked up, so we sent her to the insane xylem. Then our Irish police chief, Luke O'Plast, gave me a raise* so now I have a funiculus to jingle in my pocket. I also have my name over my office door inflorescence lights, and I feel quite superior over the whole thing. ----Ament----

*Later the chief was talking promotions. I thought, "Is he Cereus, or is epigynous a curve?"----J"B"B

Wyoming Plant Families

Family 3: Brassicaceae (alternate name Cruciferae), Mustard Family

This is the third largest family of flowering plants in Wyoming with 142 species. Common representatives include mustard, horseradish, wallflower, water cress, radish, cabbage, and broccoli. The latter two are normally only cultivated and do not persist in the wild. The primary identifying characteristic is the four separate petals in each flower. They resemble a cross which accounts for the alternate family name of Cruciferae. There are usually 6 stamens. The fruit (called a silicle or silique) is unique usually having two seed chambers separated by a membranous partition. The outer covering usually falls away when mature leaving only the membranous partition with an opaque outer border. The superior ovary will distinguish the family from some other families with four petals but an inferior ovary. In summary, the four separate petals, usually 6 stamens, superior ovary, and two chambered ovary and fruit will separate the Brassicaceae from our other families. Look for plants with flowers of four petals and the characteristic mustard fruit (see Figure). Flowers and fruits will often both be present on the same plant. Some of our species are weeds or cultivated flowers and vegetables, so check disturbed and cultivated areas as well as undisturbed sites.

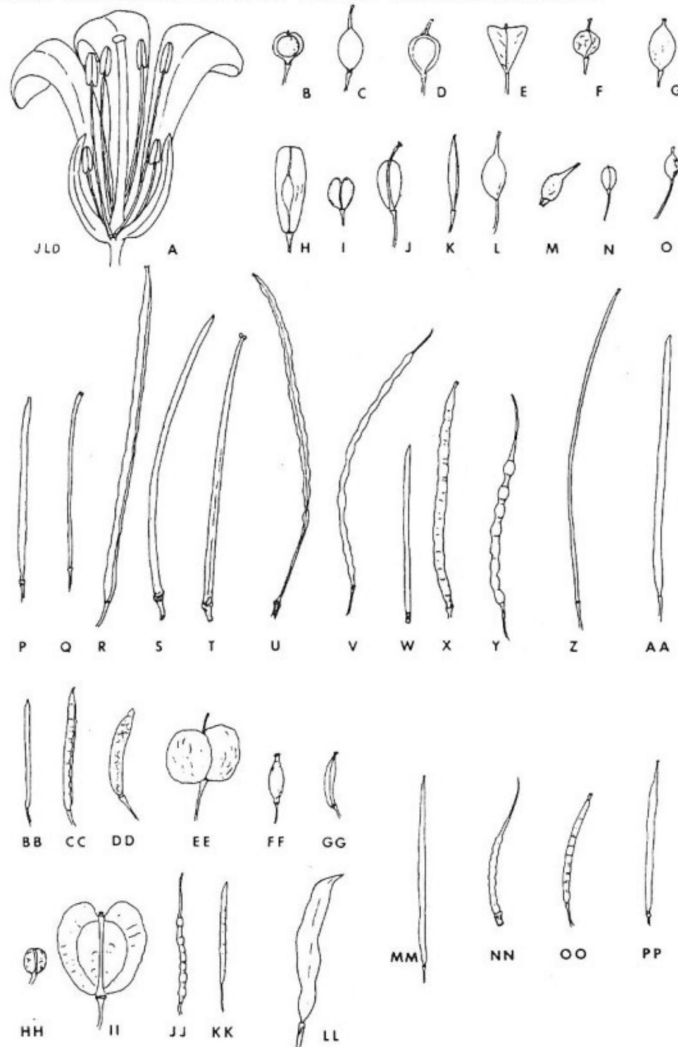


Figure. Brassicaceae. A. Generalized flower with one petal removed (x 13). B-O. Fruits (x 1.5): B. *Alyssum*; C. *Berteroa*; D. *Camelina*; E. *Capsella*; F. *Cardaria*; G. *Draba*; H. *Isatis*; I. *Lepidium*; J. *Thlaspi montanum*; K. *Descurainia*; L. *Lesquerella*; M. *Euclidium*; N. *Hutchinsia*; O. *Lobularia*; P-CC. Fruits (x 0.9): P. *Thelypodium*; Q. *Thelypodopsis*; R. *Conringia*; S. *Caulanthus*; T. *Erysimum*; U. *Stanleya*; V. *Hesperis*; W. *Malcolmia*; X. *Streptanthus*; Y. *Raphanus*; Z. *Sisymbrium*; AA. *Arabis*; BB. *Halimolobos*; CC. *Barbarea*. DD-II. Fruits (x 1.5): DD. *Hasturtium*; EE. *Physaria*; FF. *Rorippa*; GG. *Smelowskia*; HH. *Subularia*; II. *Thlaspi arvense*; JJ-PP. Fruits (x 0.9): JJ. *Brassica*; KK. *Cardamine*; LL. *Parrya*; MM. *Schoenocrambe*; NN. *Chorispora*; OO. *Erucastrum*; PP. *Streptanthella*.

Family 4: Cyperaceae, Sedge Family

This is the fourth largest family of flowering plants in Wyoming with 138 species of which 105 are in one genus, *Carex*. *Carex* (sedges) is our largest genus with almost twice as many species as our next largest genus. Members of this family are grass-like or rush-like with sheathing, usually 3-ranked leaves. They are often mistaken for a grass but each flower is subtended by a single chaffy bract rather than 2 or more. Unlike grasses, the stem is often 3-sided. In *Carex*, the ovary (which becomes the fruit called an achene) is enclosed in a sac called the perigynium. Other members of the family include cotton grass and bulrushes. Find a sedge in flower and with triangular stems (usually grow in wet places) and find a grass in flower and compare the two. Also compare the leaves. Refer back to the Grass Family, Family 2. RD

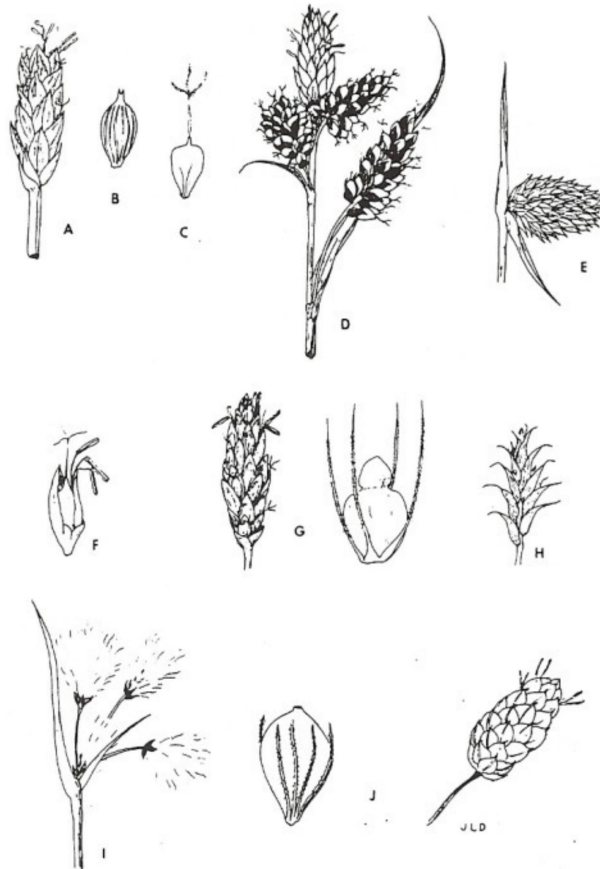


Figure. Cyperaceae. A. Spike of *Carex nardina* (x 3). B. Perigynium of *Carex* (x 3). C. Achene of *Carex* (x 3). D. One staminate and three pistillate spikes of *Carex raynoldsii* (x 1.4). E. Spike of *Hemiarpha* (x 4). F. Spikelet of *Kobresia* (x 3). G. Spikelet (left x 3) and achene and perianth (right x 6) of *Eleocharis palustris*. H. Spikelet of *Cyperus aristatus* (x 3). I. Four spikelets of *Eriophorum* (x 0.9). J. Achene and perianth (left x 8) and spikelet (right x 3) of *Scirpus*.

Annual Meeting - The annual meeting is scheduled for the Big Horn Canyon - Pryor Mountains area on June 22 and 23, 1991. The tentative schedule is to meet at 8:00 am on June 22 at the Big Horn Canyon National Recreation Area Visitor Center at the junction of highways 14A and 789-310 on the east side of Lovell. Further details will appear in the next newsletter. RD

Contributors This Issue -- J"B"B = John "Barney" Baxter, JLD = Jane L. Dorn, RD = Robert Dorn, NK = Nancy Kastning.

Floristic Survey of the Sierra Madre Mountains - The floristic survey of the Sierra Madre was conducted in 1988 and 1989. I was very concerned about the state of the environment in the Sierra Madre. New dead-end roads had been built all over the range indicating that massive logging is being planned. Communities already appear to be depauperate from logging which has been done in the past. The construction to provide a new and improved, paved east-west highway was destroying considerably sized areas of vegetation in 1989. I think environmental action needs to be taken in the Sierra Madre to protect the few unique areas left there, including some of the massive aspen stands on the west side, the Quercus gambelii habitat present along Battle Creek, and the bogs on the north side of Blackhall Mountain. Communities which contain Erigeron pinnatisectus on the summit of Blackhall Mountain also need to be preserved. Further studies should be done on the Ipomopsis aggregata ssp. weberi occurring on the west side of Battle Mountain and preservation plans should be drafted. The Huston Park and Encampment River wilderness areas need to be protected from overgrazing. Following is a description of the vegetation patterns and sensitive species found within the Sierra Madre.

The Sierra Madre range is covered by a combination of Picea engelmannii/Abies lasiocarpa, Pinus contorta, and Populus tremuloides forests [spruce-fir, lodgepole pine, and aspen] at elevations ranging from 7,000 to 11,000 feet and are interspersed by mountain meadows and riverine communities. At around 10,000 feet, subalpine meadows are present, while in the foothills, Artemisia tridentata [big sagebrush] communities predominate. Pseudotsuga menziesii, Pinus flexilis, and Quercus gambelii stands [Douglas-fir, limber pine, and Gambel's oak] are very restricted in occurrence. The sagebrush community requires well-drained, deep soils (G. Jones, unpubl.). The lodgepole pine forest thrives best on moderately acidic sands or gravelly well-drained loams. Spruce-fir forests survive best in colder, more mesic sites (Alexander et al., 1986). Trillium ovatum and Cypripedium fasciculatum are infrequently found sensitive species which occur in the shade of the trees. The aspen forest favors lower slopes and alluvial benches with poorly drained soils. Lakes in the Sierra Madre are glacially derived. A few of the smaller ones contain yellow water lily. Bogs are common in the Sierra Madre. A notable one is in the Huston Park area. This was the only place that Carex limosa (a sensitive species for Wyoming) and Menyanthes trifoliata were encountered. The Sierra Madre range contains a few rare species. One state and one county record were collected, Ipomopsis aggregata ssp. weberi and Carex egglestonii, respectively. Other sensitive species collected were Carex limosa, Cryptantha caespitosa, Cypripedium fasciculatum, Erigeron elatior, Erigeron pinnatisectus, and Trillium ovatum [Others known to occur here include Haplopappus coloradoensis, Gymnocarpium dryopteris, and Polystichum lonchitis].

Literature Cited

- Alexander, R. L., G. R. Hoffman and J. M. Wirsing. 1986. Forest vegetation of the Medicine Bow National Forest in south-eastern Wyoming. A habitat type classification. USDA, Rocky Mtn. For. & Range Exp. Sta. Res. Paper RM-271. 39 pp.
- Jones, G. (In prep.) Wyoming plant community classification. Wyoming Natural Heritage Program, The Nature Conservancy. NK
- [Note: This article was edited to reduce its length and some material was added, mostly that in brackets. RD]

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