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Endangered and Threatened Plants of Idaho

A Summary of Current Knowledge

D.M. Henderson
F.D. Johnson
P. Packard
R. Steele

Rare and Endangered Plants
Technical Committee,
Idaho Natural Areas Council



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College of Forestry, Wildlife and Range
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DEDICATION

To the hundreds of plant collectors who have had the energy and patience to collect and preserve the knowledge summarized herein and to future collectors with ambition to improve upon it.

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All are members, and Steele is chairman, of the Rare and Endangered Plants Technical Committee of the Idaho Natural Areas Council.

We are most anxious for participation in our committee and for input from people in the field. The author for the write-up on each species is noted at the end of each write-up as compiler. Questions on specific taxa may be addressed to the chairman or to the taxon author.

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9	<i>Cirsium davisii</i>	T	9
10	<i>Erigeron latus</i>	E	10
11	<i>Grindelia howellii</i>	T	11
12	<i>Haplopappus aberrans</i>	T	12
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21	<i>Cardamine constancei</i>	E	21
22	<i>Draba apiculata</i> var. <i>daviesiae</i>	T	22
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27	<i>Halimolobos perplexa</i> var. <i>perplexa</i>	T	27
28	<i>Lepidium davisii</i>	E	28
29	<i>Lesquerella carinata</i>	T	29
30	<i>Physaria alpestris</i> var. <i>lyrata</i>	T	30
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32	<i>Thelypodium repandum</i>	E	32
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34	<i>Silene spauldingii</i>	E	34
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35	<i>Carex aboriginum</i>	E	35
	FABACEAE (Leguminosae)		
36	<i>Astragalus amnis-amissi</i>	E	36
37	<i>Astragalus atratus</i> var. <i>inseptus</i>	E	37
38	<i>Astragalus lentiginosus</i> var. <i>latus</i>	T	38
39	<i>Astragalus mulfordiae</i>	T	39
40	<i>Astragalus purshii</i> var. <i>ophiogenes</i>	E	40
41	<i>Astragalus sterilis</i>	E	41
42	<i>Astragalus vexilliflexus</i> var. <i>nubilus</i>	T	42
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Plant Number	Listing follows the <i>Federal Register</i>	Proposed Federal Status	Page
	FUMARIACEAE		
44	<i>Corydalis caseana</i> var. <i>hastata</i>	T	44
	GENTIANACEAE		
45	<i>Frasera idahoensis</i> (<i>F. albicaulis</i> var. <i>idahoensis</i>)	T	45
	LILIACEAE		
46	<i>Allium aaseae</i>	E	46
47	<i>Allium madidum</i>	T	47
48	<i>Allium tolmiei</i> var. <i>persimile</i>	T	48
49	<i>Calochortus nitidus</i>	T	49
50	<i>Tofieldia glutinosa</i> var. <i>absona</i>	E	50
	LOASACEAE		
51	<i>Mentzelia mollis</i>	T	51
	NYCTAGINACEAE		
52	<i>Mirabilis macfarlanei</i>	E	52
	ONAGRACEAE		
53	<i>Oenothera psammophila</i> (<i>O. caespitosa</i> var. <i>psammophila</i>)	E	53
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54	<i>Calamagrostis tweedyi</i>	T	54
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55	<i>Phlox idahonis</i>	E	55
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56	<i>Claytonia flava</i>	T	56
57	<i>Lewisia columbiana</i> var. <i>wallowensis</i>	T	57
	POLYGONACEAE		
58	<i>Eriogonum thymoides</i>	T	58
	PRIMULACEAE		
59	<i>Primula cusickiana</i>	E	59
60	<i>Steironema laevigatum</i> (<i>Lysimachia ciliata</i>)	E	60
	ROSACEAE		
61	<i>Rubus bartonianus</i>	T	61
62	<i>Waldsteinia idahoensis</i>	T	62
	SCROPHULARIACEAE		
63	<i>Castilleja christii</i>	E	63
64	<i>Castilleja oresbia</i>	T	64
65	<i>Penstemon elegantulus</i>	T	65
66	<i>Penstemon lemhiensis</i>	T	66
67	<i>Synthyris hendersonii</i> (<i>S. pinnatifida</i> var. <i>canescens</i>)	T	67
68	<i>Synthyris platycarpa</i>	T	68

Note: E = Endangered, T = Threatened

Endangered and Threatened Plants of Idaho

D. M. Henderson, F. D. Johnson, P. Packard and R. Steele

INTRODUCTION

Public Law 93205, called the Endangered Species Act of 1973, has provided for protection of endangered and threatened plants. The list of plants proposed for endangered status (*Federal Register*, June 16, 1976) includes 23 taxa that occur in Idaho. Those plants recommended for threatened status (*Federal Register*, July 1, 1975) include 45 taxa that occur in Idaho. We have treated herein only the 68 taxa in Idaho that are candidates for endangered or threatened status by the Federal Government through the Office of Endangered Species.

This list of proposed endangered and threatened plants was developed by a limited number of well-known plant taxonomists from various parts of the country. They were called to a workshop at the Smithsonian Institute in September of 1974, where they gave their opinion as to the status of certain species. Other taxonomists were also consulted. Refinements from this input generated the first Endangered and Threatened Plants list (House Document 94-51, 1975). Although these participants included many national leaders in plant taxonomy, it is noteworthy that, insofar as we can determine, not a single Idahoan helped select the species deemed endangered or threatened in Idaho. As a result, none of the authors of this publication contributed to any of the lists thus far published in the *Federal Register*, or Congressional documents. Yet through several ongoing field studies and various herbarium searches we have accumulated substantial information on a few plants listed herein and have some new data on many others. This information provides a basis for changing the proposed status of some taxa and reinforcing the assigned status of others. Because the Endangered Species Act has a far reaching impact on land management and related activities, we feel that these data, though admittedly sparse in some cases, are timely and will help guide those involved in managing our endangered and threatened plants.

According to criteria in the *Federal Register*, an endangered species is one considered to be in danger of extinction throughout all or a significant portion of its range. Loss or repeated disturbance of habitat, exploitation,

disease, or predation are the common causes of contemporary extinction. Any plant confined to a limited or fragile habitat is usually considered endangered. Threatened species are those likely to become endangered within the foreseeable future. This category includes rare species, those that maintain a small population within their range. Rare species may be restricted to a small geographic region or may occur sparsely over a wider area.

We believe that plants whose existence is truly in jeopardy should be protected. But we also know that in Idaho hundreds of less-than-common species exist in remote areas where access is often difficult. These plants should be carefully evaluated before final designation as endangered or threatened is made in the *Federal Register*.

METHODS

The four authors chose from the list those plants with which each was most familiar. The remaining species were then assigned to whomever was most familiar with the geographic area in question. Joint and specific herbarium searches were conducted, often by mail. Information was then summarized, a rough draft circulated among the authors, and after agreeing on interpretations, the authors prepared this draft. Many people have helped in this undertaking and we hope all are recognized in the acknowledgments inside of the back cover.

We found that the problem of plant distribution was paramount. In many instances locations cannot be pinpointed from herbarium labels. Information that was speculative or thought to be in error was discarded. As a result of our appraisal of these plant distributions, we were convinced that many taxa on the endangered and threatened lists are merely seldom collected and that further field work will fill gaps in some of these populations and help complete their distribution picture.

The knowledge of the autecology and synecology of these species is very poor. For most, we have repeated and interpreted herbarium label data which are notoriously

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brief in ecologic description. Of particular interest is the reaction of these plants to disturbance — fire, grazing, logging and browsing. Again we have tried to interpret label data, but feel that for most species these interpretations are very tentative.

We offer this listing merely as a current display of known facts, punctuated with interpretations by the authors and a modicum of personal observation on certain plants. We hope it will aid all persons interested in some of the rare plants of Idaho.

EXPLANATION OF FORMAT

The data summary for each species follows the outline below. Species summaries are arranged alphabetically by genus.

Scientific Nomenclature

Scientific nomenclature follows Hitchcock and Cronquist (1973). In a few cases, plant names in the *Federal Register* did not agree with the above reference so we added synonymy that reflects our current usage. A more nearly complete treatment of synonymy is available in Hitchcock et al. (1955, 1959, 1961, 1964, 1969), or in some cases references are cited for a specific taxon.

Location

Locations given reflect summarization of our herbaria search data and field notes. All counties in Idaho are printed in capital letters; those from other states are in lower case. Any taxa noted as endemic are known only from Idaho.

Land Ownership

Land ownership in many instances is an educated guess based on the authors' knowledge of the area. It is quite possible that some of these plants grow on ownerships not listed. It is also possible that the listed ownership is incorrect in some cases.

Vegetation Type

The vegetation type generally denotes the major plant cover, zone or climax tree series for the area.

Habitat

Habitat notations attempt to reflect the actual site requirements of the plant. Many habitat notations are quoted from herbarium labels. Notations out of quotes are either a synopsis of herbaria data or reflect the authors' own experience with that plant.

Hazards

The hazards given are usually the most likely form of disturbance that may jeopardize survival of that particular taxon. In some cases this evaluation was based on actual field examination by the authors or by people known to the authors. In other cases it is merely our best guess based on knowledge of the area and inferences from herbarium labels.

Herbarium Data

Herbarium data show the number of different sites within a county and number of different collections within each herbarium searched. Explanations of the various herbarium acronyms are listed inside the back cover. Plant identifications were generally accepted as correct except for obvious errors or exceptional cases; these exceptions are noted under remarks. It is probable that some misidentifications were inadvertently included, but we feel it is a relatively small percentage.

Remarks

The remarks are generally an elaboration of the compiler's field observations and knowledge of the plant or its habitat.

Recommendations

Recommendations reflect assessments by the authors based on their own experience and available data. The status suggested for each taxon may agree with or differ from that listed in the *Federal Register*. But in either case it reflects the combined opinion of all four authors.

References

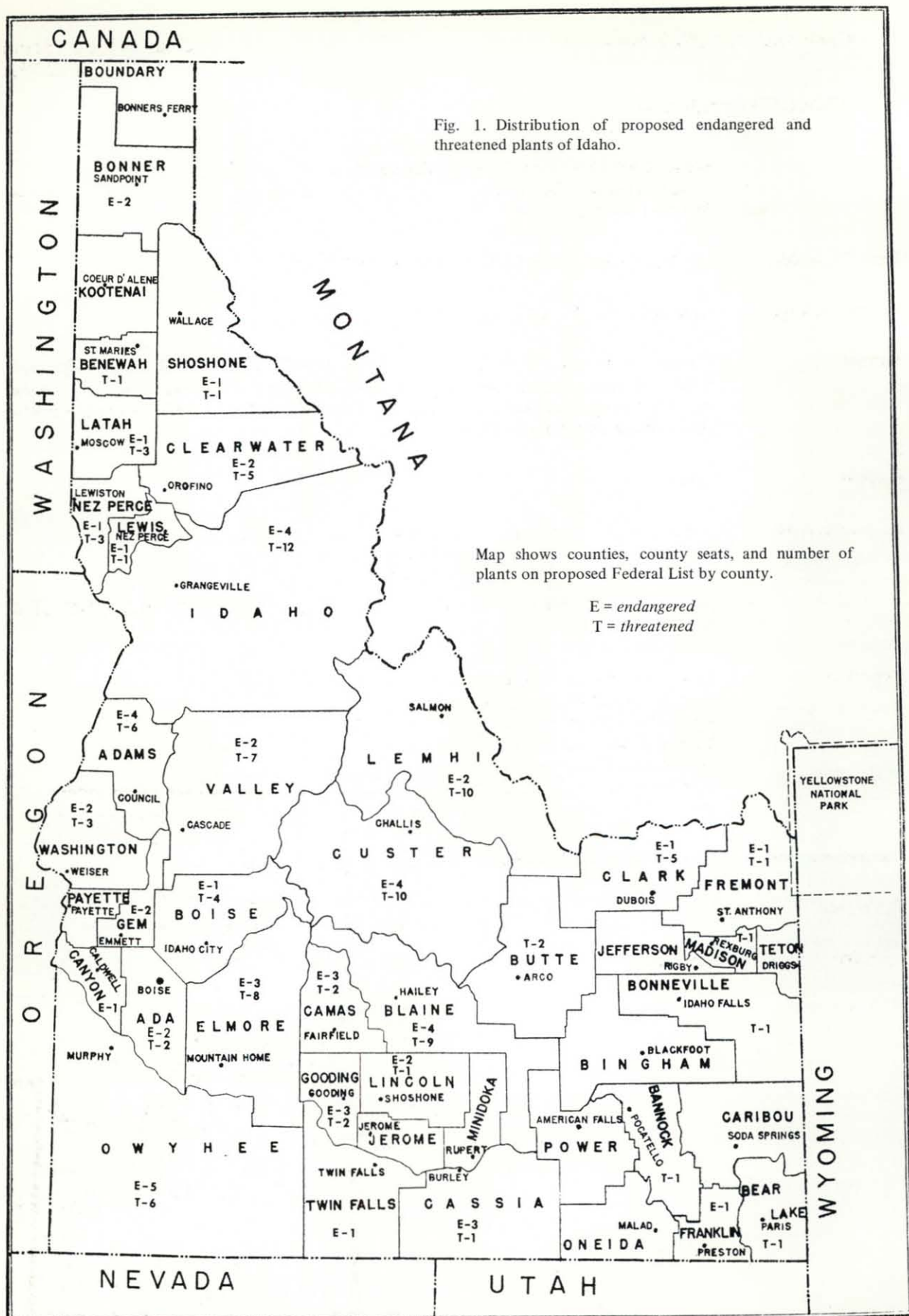
References noted provide specific information that is unavailable in standard floristic treatments (Hitchcock et al. 1955, 1959, 1961, 1964, 1969; Hitchcock and Cronquist 1973; Peck 1961; Davis 1952).

Compiler

The compiler is one of the four authors responsible for data summary and write-up of that particular taxon. In most cases it is the person most familiar with that plant and any specific queries should be sent directly to that individual. Addresses are provided inside the front cover.

Map

The map is deliberately lacking in detail to obscure exact locations of taxa that are truly endangered. Locations are available to qualified individuals upon written request. Usually each dot represents a collection site recorded in an herbarium. In a few cases, sites peripheral to Idaho are mapped, but large populations in adjacent states are not. A county map of Idaho is provided (Fig. 1, page vi) to help orient the reader to areas within the state.

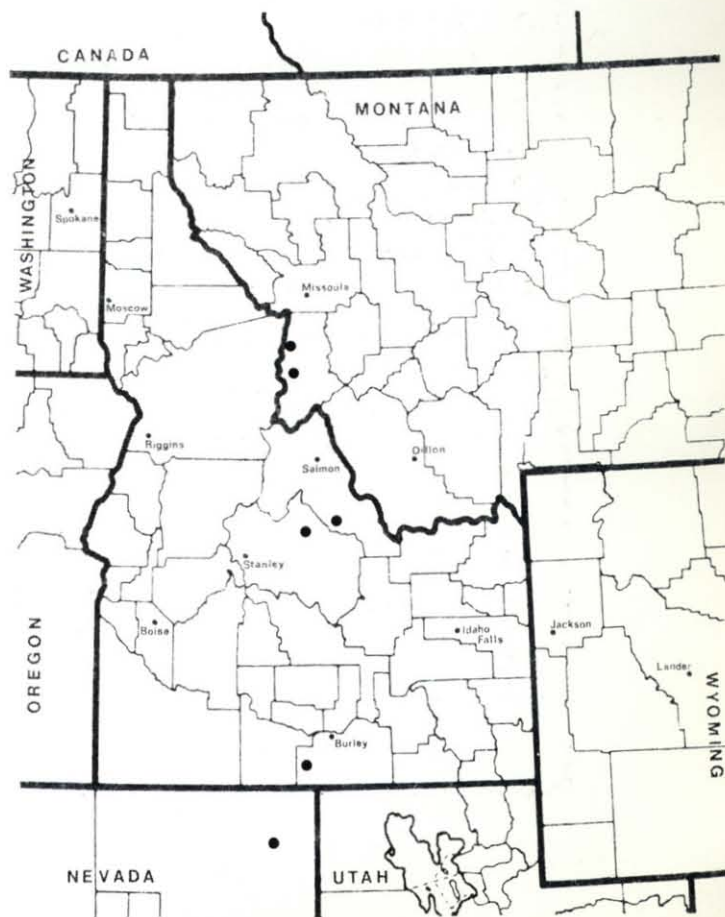


1. *Cymopterus nivalis* S. Wats.

Proposed Federal Status
ENDANGERED

APIACEAE (Umbelliferae)

Location	Idaho: CASSIA, CUSTER and LEMHI counties Nevada: Nye and Elko counties Montana: Ravalli County
Land Ownership	USFS (Challis, Salmon, Sawtooth and Humboldt N.F.)
Vegetation Type	Alpine, 9000 to 11,550 ft
Habitat	Rocky places (on limestone in Lemhi County, Idaho). Seen with <i>Polemonium viscosum</i> , <i>Ivesia gordonii</i> , <i>Sibbaldia procumbens</i> , <i>Agropyron scribneri</i> , <i>Polystichum scopulinum</i> , and <i>Haplopappus macronema</i> . Rocky rim (quartzite and mica schist in Cassia County) above cirque wall (Phillips 1976)
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—CASSIA-1, CUSTER-3, LEMHI-1 Nevada—Nye-1, Elko-1 Montana—Ravalli-4 Number of collections in herbaria searched: BOIS-1, ID-4, IDF-0, IDS-1, MONTU-6, RENO-5, WS-2
Remarks	This plant appears to be extremely rare although it ranges across three states. Until more is known about possible hazards, or additional stations are encountered, it is recommended that its status remain unchanged.
Recommendations	RETAIN AS ENDANGERED.
References	Mathias 1930
Compiler	Henderson



2. *Lomatium hendersonii* Coult. & Rose

Proposed Federal Status
THREATENED

APIACEAE (Umbelliferae)

Location	Idaho: OWYHEE County Oregon: Crook, Jefferson, Wasco and Wheeler counties Washington: Spokane County
Land Ownership	BLM
Vegetation Type	Sagebrush/grass
Habitat	Fairly good, not clayey, soil at about 5000 ft on ridge tops
Hazards	Range improvement programs
Herbarium Data	Number of sites by county: Idaho—OWHYEE-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-1, ID-1, IDF-0, INT-1
Remarks	The Owyhee County population may not be <i>Lomatium hendersonii</i> , and probably is a rare, endangered and endemic species of <i>Lomatium</i> . It is being studied now. Apparently there is only one site known for the Idaho population, but the area is poorly collected. There is another collection reported from western Idaho, probably in the Adams-Washington county area, but it has not been seen by the compiler.
Recommendations	Wait until Bert Brehm finishes his study of the Idaho population and recommend for endangered list if it is a new species. In the meantime RETAIN ON THREATENED LIST.
References	Mathias 1938
Compiler	Packard



3. *Lomatium rollinsii* Math. & Const.

Proposed Federal Status
THREATENED

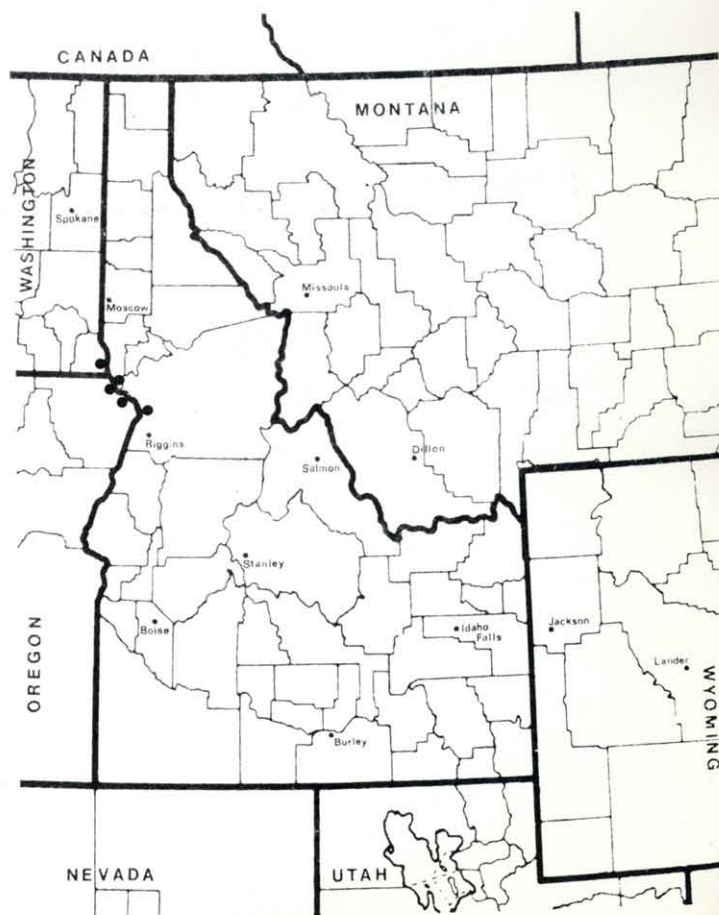
APIACEAE (Umbelliferae)

Location	Idaho: IDAHO and NEZ PERCE counties Oregon: Wallowa County Washington: Asotin County
Land Ownership	USFS (Nezperce, Payette and Wallowa-Whitman N.F.), BLM and private
Vegetation Type	Not firmly established but probably <i>Festuca idahoensis</i> / <i>Agropyron spicatum</i> , and <i>Agropyron spicatum</i> / <i>Poa sandbergii</i>
Habitat	"Open slopes in and near the canyon"
Hazards	Other than its apparent limited range, it may be affected by grazing
Herbarium Data	Number of sites by county: Idaho—IDAHO-1, NEZ PERCE-2 Oregon—Wallowa-3 Washington—Asotin-1 Number of collections in herbaria searched: BOIS-0, CIC-0, ID-0, IDF-0, WS-1, WTU-1, UC-5, (3 additional sites indicated above from communication with OSC)

Remarks Due to limited number of collections available it is suggested that its present status remain until a better understanding of this taxon can be gained. This species is one of several presently under investigation biosystematically by Schlessman (WTU). He collected this species recently in Asotin County, Washington, where the populations appeared to be in good shape and were composed of numerous individuals.

Recommendations *RETAIN AS THREATENED.*

Compiler Henderson



4. *Lomatium serpentinum* (M.E. Jones) Math.

Proposed Federal Status
THREATENED

APIACEAE (Umbelliferae)

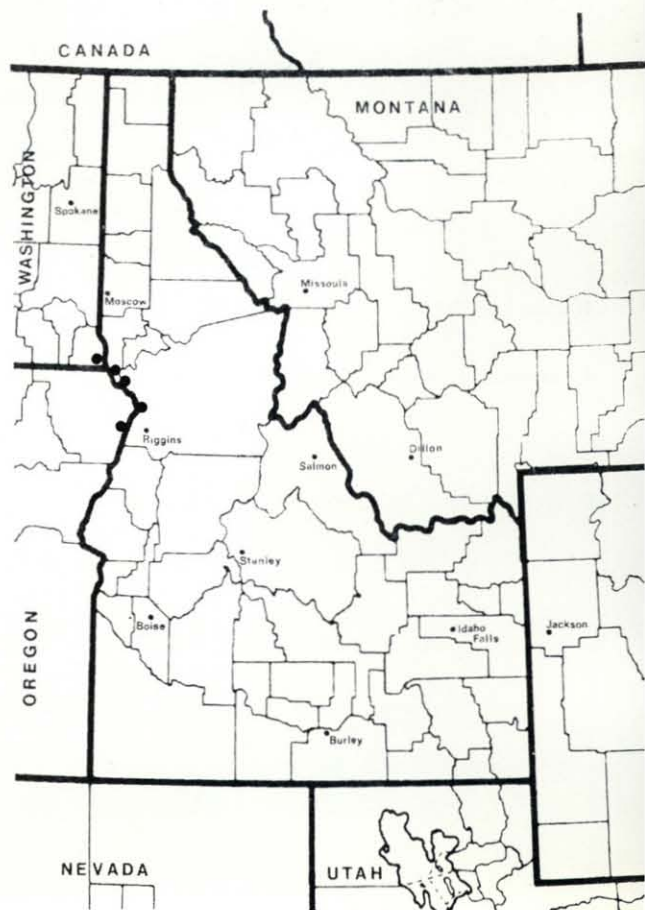
Location	Idaho: IDAHO and NEZ PERCE counties Oregon: Wallowa and Malheur counties Washington: Asotin County Mainly Snake River Canyon, Hell's Canyon vicinity (One reported location in Oregon along Columbia River Gorge)
Land Ownership	USFS (Wallowa-Whitman and Nezperce N.F.), BLM and perhaps some private
Vegetation Type	<i>Agropyron spicatum</i> / <i>Poa sandbergii</i>
Habitat	Mostly basalt talus and rocky outcrops, 1200 to about 7000 ft
Hazards	Uncertain
Herbarium Data	Number of sites by county: Idaho—IDAHO-7, NEZ PERCE-2 Oregon—Malheur-1, Wallowa-4 Washington—Asotin-3 Number of collections in herbaria searched: BOIS-0, CIC-0, ID-3, IDF-0, IDS-1, RENO-10, UT-1, UTC-1, WS-11, WTU-7

Remarks From our own investigation and those of Oregon researchers (C. Johnson, USFS, pers. comm.) this species appears to be common along the Snake River in the region of Hell's Canyon, and even abundant in many places. Although it may be subject to grazing, man's present activities do not appear to threaten its existence. Its rocky habitat makes accessibility to grazing animals even somewhat limited. It is therefore recommended this species be removed from the list of threatened species.

Recommendations REMOVE FROM
THREATENED LIST.

References Mathias 1938

Compiler Henderson

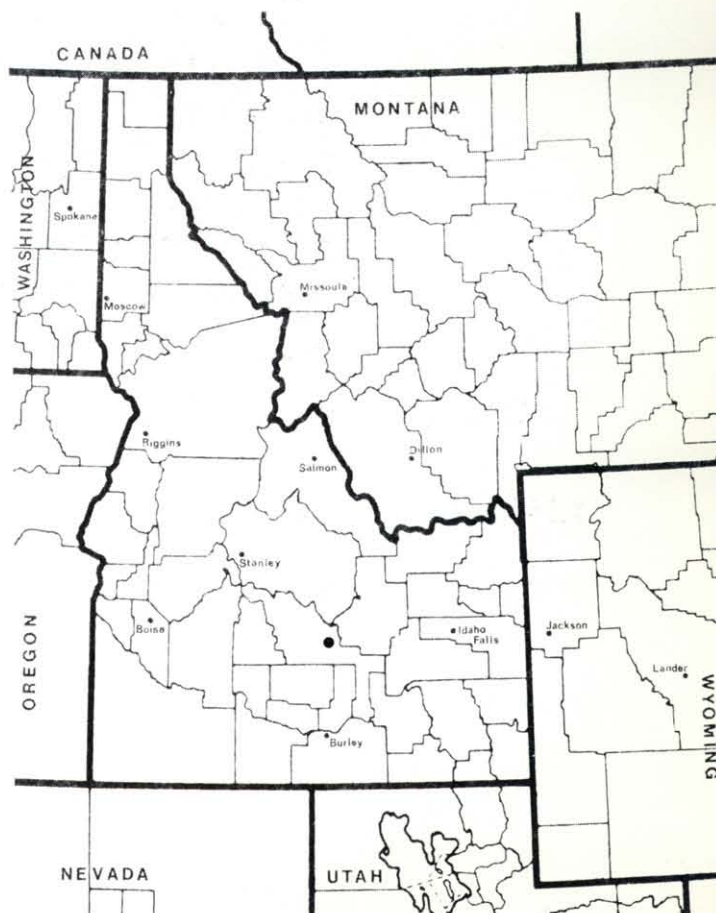


5. *Antennaria arcuata* Cronq.

Proposed Federal Status
ENDANGERED

ASTERACEAE (Compositae)

Location	Idaho: BLAINE County Wyoming: southwestern portion, location unknown Nevada: northeastern portion, location unknown Oregon: Steens Mountain
Land Ownership	BLM
Vegetation Type	Sedge-grass meadow
Habitat	Small, bare or lichen covered spots of soil among grasses, 5250 ft
Hazards	Some grazing trespass occurs on the site but appears to have little impact. Increased grazing may jeopardize the population.
Herbarium Data	Number of sites by county: Idaho—BLAINE-1 (type locality) Oregon—Steens Mountain-1 Number of collections in herbaria searched: BOIS-1, BS-0, CIC-0, ID-0, IDF-0, IDS-0, INT-1, RENO-0, UC-0, UTC-2, WS-0, WTU-0
Remarks	Study of how this plant becomes established is needed before protective management can be applied.
Recommendations	<i>RETAIN AS ENDANGERED.</i>
References	Steele 1975
Compiler	Steele

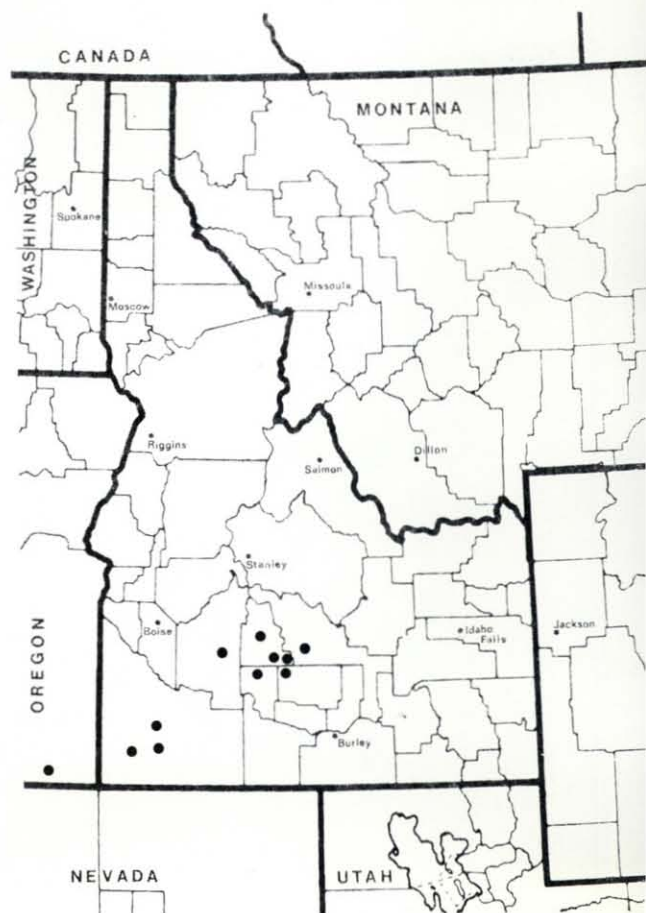


6. *Artemisia papposa* Blake & Cronq.

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

Location	Idaho: BLAINE, CAMAS, ELMORE, GOODING, LINCOLN and OWYHEE counties Oregon: Malheur County
Land Ownership	BLM, private and possibly Idaho Department of Lands
Vegetation Type	<i>Artemisia tridentata</i> - <i>A. arbuscula</i> mosaics or <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i>
Habitat	Grows with or replaces <i>A. arbuscula</i> in shallow, stony, clayey, often alkaline soil that receives drainage from surrounding areas, 4500 to 6000 ft
Hazards	Grazed by sheep. Range improvement programs
Herbarium Data	Number of sites by county: Idaho—BLAINE-1, CAMAS-3, ELMORE-2, GOODING-1, LINCOLN-1, OWYHEE-3 Number of collections in herbaria searched: BOIS-1, CIC-2, ID-6, IDF-3, UTC-1, WS-3, WTU-1
Remarks	This plant has a fairly broad range but a highly discontinuous distribution. It is abundant in one area on the north end of its range but rare and apparently decreasing in Owyhee County (Eidemiller 1976). It is confined to one habitat, making it vulnerable to anything affecting that habitat.
Recommendations	RETAIN AS THREATENED until we know more about its ecology.
References	Eidemiller 1976 Steele 1975
Compiler	Packard



7. *Aster jessicae* Piper

Proposed Federal Status
ENDANGERED

ASTERACEAE (Compositae)

Location	Idaho: LATAH County Washington: Whitman County
Land Ownership	Private
Vegetation Type	No specific data. Assumed in disturbed areas, in Palouse Prairie edges and forest margins.
Habitat	"R.R. bank near Pullman," "gravel on road edge," "roadside," "basalt talus"
Hazards	Limited distribution in an agricultural area
Herbarium Data	Number of sites by county: Idaho—LATAH-3 Washington—Whitman-2 Number of collections in herbaria searched: BOIS-1, BS-0, CIC-0, ID-3, IDF-1, IDS-0, WS-3, WTU-0
Remarks	The paucity of collections in an area near two universities, the normal disturbance connected with farming operations, private ownership, and the unknown habitat and successional status all dictate that more knowledge is needed before changing status.
Recommendations	<i>RETAIN AS ENDANGERED.</i>
Compiler	Johnson

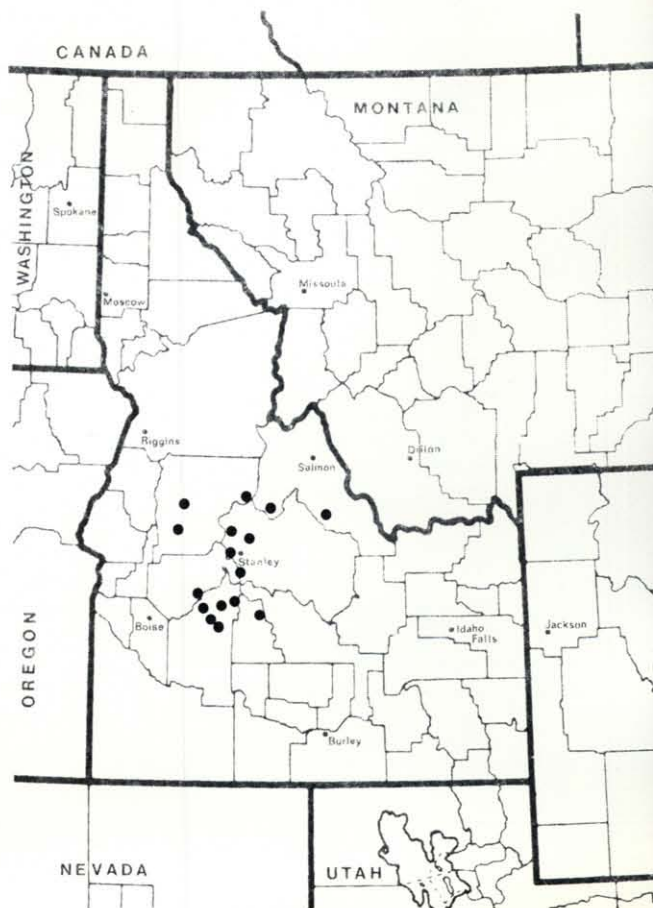


8. *Chaenactis evermannii* Greene

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

Location	Idaho: BLAINE, BOISE, CUSTER, ELMORE, LEMHI and VALLEY counties Almost entirely within southern portion of Idaho Batholith. Idaho endemic
Land Ownership	USFS (Boise, Challis and Sawtooth N.F.), possibly Idaho Department of Lands
Vegetation Type	Varies from open <i>Pseudotsuga menziesii</i> / <i>Carex geyeri</i> communities to <i>Pinus albicaulis</i> - <i>Abies lasiocarpa</i>
Habitat	Usually on shifting granitic talus
Hazards	Because this plant prefers a disturbed unstable site, it faces little danger from man or his livestock and may be favored by road construction.
Herbarium Data	Number of sites by county: Idaho—BLAINE-1, BOISE-2, CUSTER-4, ELMORE-6, LEMHI-2, VALLEY-3 Number of collections in herbaria searched: BOIS-5, BS-1, CIC-1, ID-8, IDF-0, IDS-1, INT-3, RENO-8, UT-1, UTC-5, WS-9, WTU-7
Remarks	Wide distribution and adaptability to unstable soils suggest that this species is not in jeopardy. One site is an old depleted sheep driveway (Phillips 1976).
Recommendations	REMOVE FROM THREATENED LIST.
Compiler	Steele

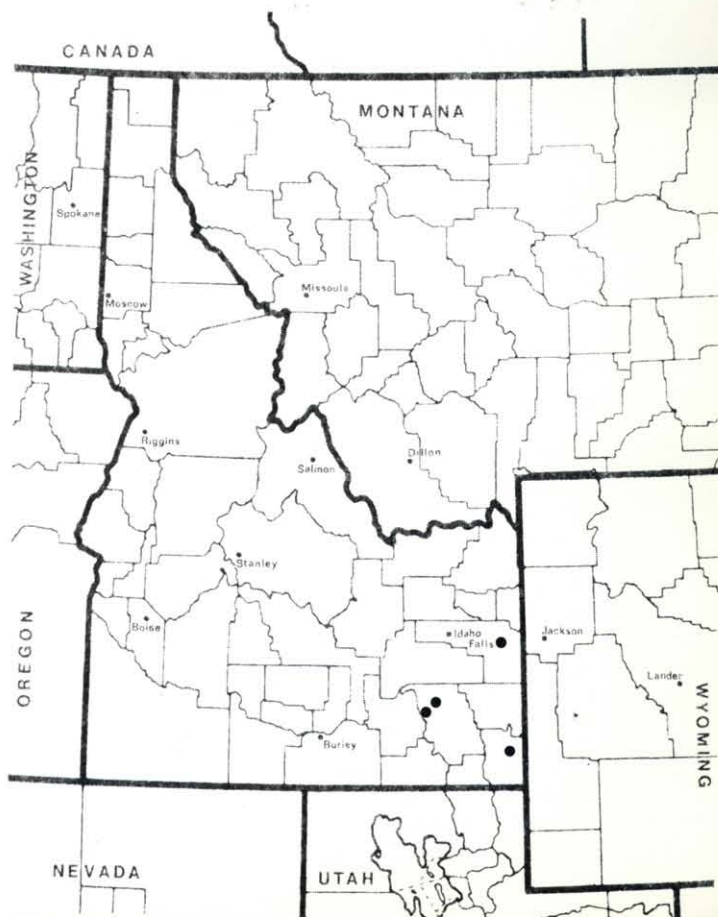


9. *Cirsium davisii* Cronq.

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

Location	Idaho: BANNOCK, BEAR LAKE and BONNEVILLE counties Idaho endemic
Land Ownership	USFS (Caribou N.F.), University of Idaho, and possibly BLM and private
Vegetation Type	Probably in sagebrush/grass communities
Habitat	Listed as dry foothills (Davis 1952)
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—BANNOCK-1, BEAR LAKE-1, BONNEVILLE-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-3, INT-0, RENO-0, UT-0, UTC-1
Remarks	Similar to <i>C. utahense</i> . This species needs further investigation.
Recommendations	RETAIN AS THREATENED.
Compiler	Steele

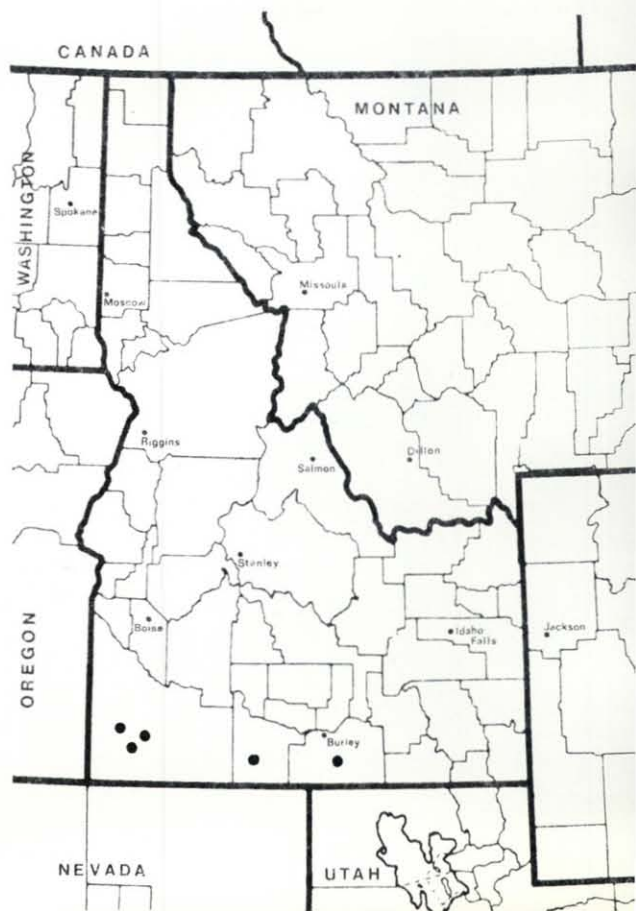


10. *Erigeron latus* (Nels. & Macbr.) Cronq.

Proposed Federal Status
ENDANGERED

ASTERACEAE (Compositae)

Location	Idaho: OWYHEE, possibly CASSIA and TWIN FALLS counties Idaho endemic
Land Ownership	BLM, possibly private and Idaho Department of Lands
Vegetation Type	<i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i>
Habitat	Rocky soil derived from lava
Hazards	Range improvement programs
Herbarium Data	Number of sites by county: Idaho—CASSIA-1, OWYHEE-3, TWIN FALLS-1 Number of collections in herbaria searched: BOIS-0, CIC-1, ID-2, IDF-0, RENO-1, UTC-1, WS-3
Remarks	This has been collected twice for certain. The material deposited at CIC was poorly preserved and although it has the characteristics of the species, identification is uncertain. Some herbaria have a collection of <i>Erigeron</i> from Blaine County. This is not <i>E. latus</i> . The collections from Cassia and Twin Falls counties have not been verified, but these locations are in keeping with the presently known habitat and range.
Recommendations	RETAIN AS ENDANGERED until the material from Cassia and Twin Falls counties is verified. If its range is of that extent, it should be reduced to threatened status.
References	Cronquist 1947
Compiler	Packard

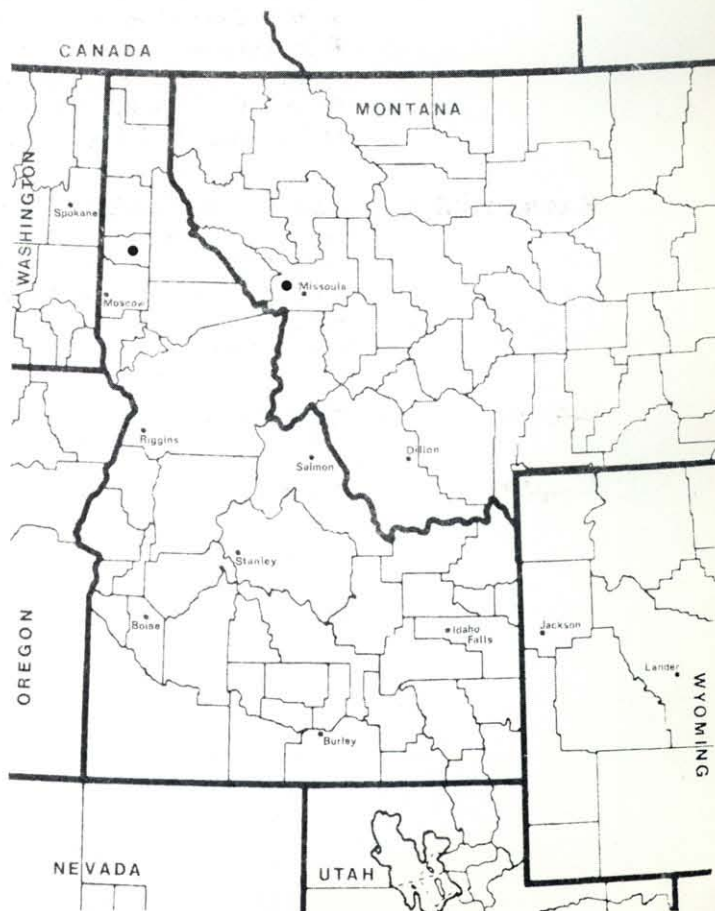


11. *Grindelia howellii* Steyerm.

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

Location	Idaho: BENEWAH County Montana: Missoula County Bipartite endemic. (The type location is KOOTENAI County, on bluffs of the St. Maries River. We assumed the county was wrong and the river was correct and thus in BENEWAH County.)
Land Ownership	Unknown, likely private
Vegetation Type	Unknown
Habitat	"Dry bluff tops" on the lower St. Maries River, Idaho — thus likely on basalt balds
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—BENEWAH-1 Number of collections in herbaria searched: BOIS-0, BS-0, ID-0, IDF-0, MONTU-2, WS-0
Remarks	Very rare and possibly extinct in Idaho. Gerald Ownbey (1972 pers. comm.) said he had not seen or heard of an Idaho collection since the type collection. There is an extant population in western Montana.
Recommendations	Search for Idaho population; base recommendations on Montana data. <i>RETAIN AS THREATENED.</i>
Compiler	Johnson

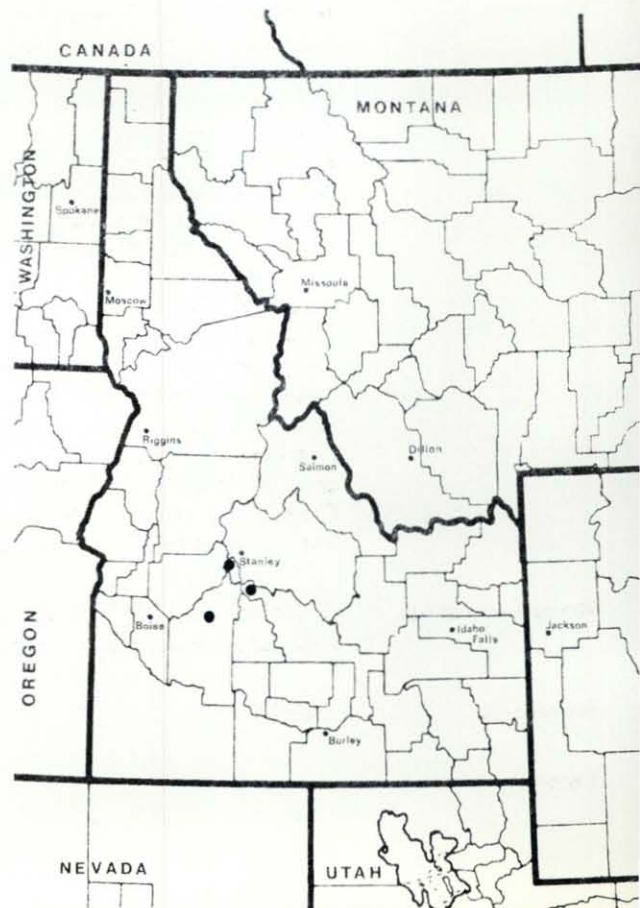


12. *Haplopappus aberrans* (A. Nels.) Hall

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

Location	Idaho: BLAINE, BOISE and ELMORE counties Idaho endemic
Land Ownership	USFS (Boise and Sawtooth N.F.)
Vegetation Type	Upper <i>Abies lasiocarpa</i> zone
Habitat	Rock crevices in granitic outcrops
Hazards	Apparently in little danger due to its rock crevice habitat and rather inaccessible location
Herbarium Data	Number of sites by county: Idaho—BLAINE-1, BOISE-1, ELMORE-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-1, IDS-2, INT-0, RENO-2, UC-0, UTC-0, WS-0, WTU-1
Remarks	Known distribution is fairly restricted.
Recommendations	<i>RETAIN AS THREATENED</i> until more sites are found.
Compiler	Steele



13. *Haplopappus liatrifolius* (Greene) St. John

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

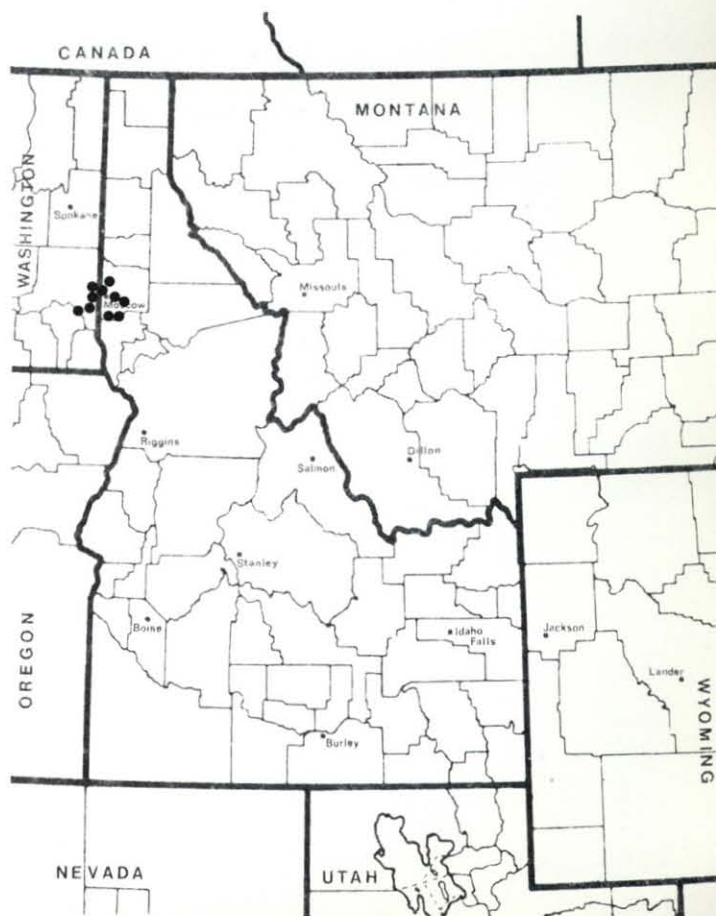
Location	Idaho: LATAH County Washington: Whitman County
Land Ownership	Apparently all private
Vegetation Type	Palouse Prairie — Pacific bunchgrass zone
Habitat	"Virgin fescue/wheatgrass prairie," "along highway, dry soil," "open areas on the ridge top and along upper parts of the slope," "rocky slope"
Hazards	Unknown, but the plant is apparently very scarce
Herbarium Data	Number of sites by county: Idaho—Idaho—LATAH-6 Washington—Whitman-5 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-6, IDF-0, IDS-0, WS-5

Remarks The paucity of specimens of an endemic local to Washington State University and University of Idaho is striking. One could suspect the plant not to be very competitive in secondary successions. Of the 11 collection sites, 3 were apparently taken in roadside habitats, 3 were in areas described or implied as undisturbed and 5 were unspecified. St. John (1937) raised *H. liatrifolius* from a subspecies of *H. integrifolius* to specific status. He states "This plant is treated by Hall as a subspecies of *H. integrifolius* of Montana, Idaho and Wyoming . . ." Current floras (Hitchcock et al. 1955; Hitchcock and Cronquist 1973) follow St. John's opinion. However, the material at WS was annotated by R.A. Mayes (University of Texas) in 1976 as *Pyrrocoma liatrifolius* Greene, thus changing the genus but recognizing the species.

Recommendations *RETAIN AS THREATENED*
until successional role is known.

References Lee 1968

Compiler Johnson

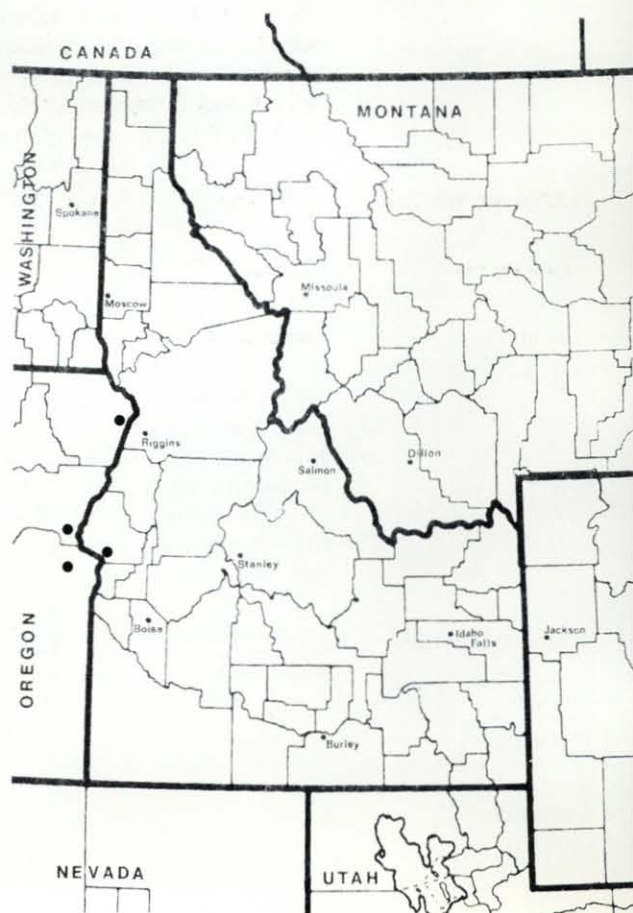


14. *Haplopappus radiatus* (Nutt.) Cronq.
Syn. *H. carthamoides* (Hook.) Gray var. *maximus* Gray

Proposed Federal Status
ENDANGERED

ASTERACEAE (Compositae)

Location	Idaho: WASHINGTON County Oregon: Baker, Malheur and Wallowa counties "South end of Snake River Canyon in Oregon and Idaho"
Land Ownership	Judging from locations and general description, mostly private but some BLM is likely and USFS (Payette N.F.) possible
Vegetation Type	Grasslands or sagebrush/grass communities
Habitat	Undetermined, much may have been inundated by Snake River reservoirs
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—WASHINGTON-1 Oregon—Baker-1, Malheur-1, Wallowa-1 (reported) Number of collections in herbaria searched: BOIS-0, BS-0, CIC-1, ID-1, IDF-0, IDS-0, WS-1
Remarks	The WS and ID material was filed under <i>H. carthamoides</i> var. <i>maximus</i> and <i>H. radiatus</i> ; thus herbaria could be missing this taxon when asked to search for <i>H. radiatus</i> . Certainly very uncommon in Idaho, although the type collection was probably made right across the state line (Snake River) in Oregon.
Recommendations	RETAIN AS ENDANGERED.
References	Lee (1968) does not recognize this taxon.
Compiler	Johnson



15. *Hymenopappus filifolius* Hook.
var. *idahoensis* Turner

Proposed Federal Status
THREATENED

ASTERACEAE (Compositae)

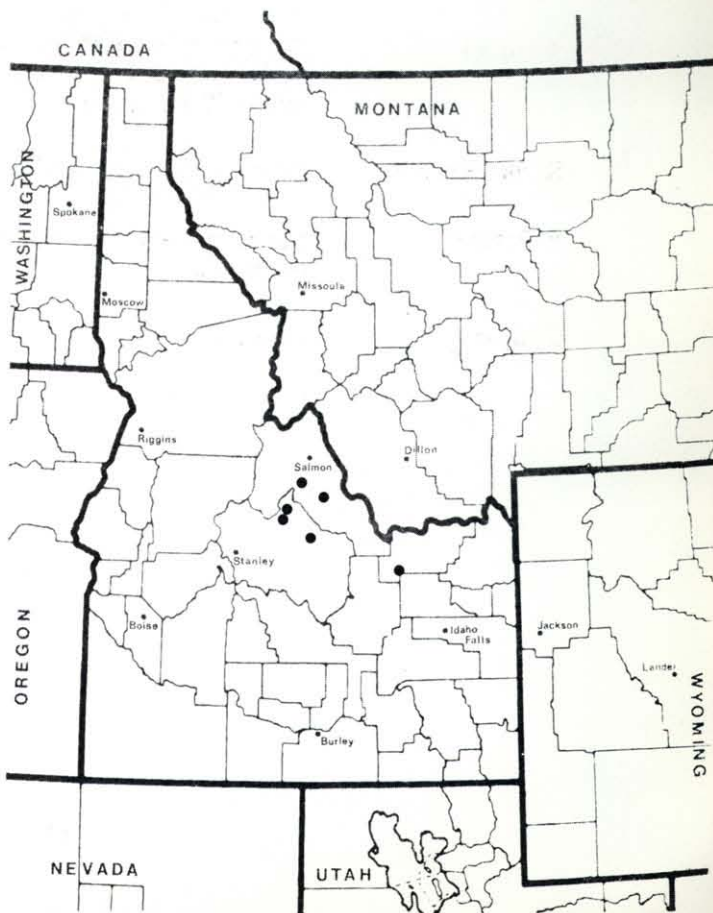
Location	Idaho: CLARK, CUSTER and LEMHI counties Idaho endemic variety
Land Ownership	Mostly BLM, some USFS (Challis, Salmon and Targhee N.F.), private, and possibly Idaho Department of Lands
Vegetation Type	Apparently restricted to sagebrush/grass zone
Habitat	Sandy or gravelly areas, washes, and low hills. Scabland sites with <i>Artemisia spinescens</i> , <i>Oryzopsis hymenoides</i> , <i>Phlox muscoides</i> , and <i>Enceliopsis nudicaulis</i> (Phillips 1976)
Hazards	Possibly grazing
Herbarium Data	Number of sites by county: Idaho—CLARK-1, CUSTER-11, LEMHI-3 Number of collections in herbaria searched: BOIS-3, CIC-0, ID-7, IDF-0, RENO-4, WS-5, WTU-2

Remarks It appears that distribution of this variety is limited to east-central Idaho, and nowhere does it appear to be abundant. It has only recently been encountered in Clark County, and population density there was low. Until more information can be gained about this taxon, it is recommended that its status remain unchanged.

Recommendations *RETAIN AS THREATENED.*

References Turner 1956

Compiler Henderson



16. *Cryptantha hypsophila* Johnst.
Syn. *C. nubigena* (Greene) Pays.

Proposed Federal Status
THREATENED

BORAGINACEAE

Location	Idaho: BLAINE, BUTTE, CLARK and CUSTER counties Montana: Carbon County Oregon: eastern portion California: Tulare County
Land Ownership	USFS (Challis, Sawtooth and Targhee N.F.)
Vegetation Type	Mainly alpine
Habitat	Loose rocky slopes
Hazards	Probably very few
Herbarium Data	Number of sites by county: Idaho—BLAINE-3, BUTTE-1, CLARK-1, CUSTER-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-1, IDF-0, IDS-0, INT-0, RENO-4, UTC-3, WS-5, WTU-4
Remarks	This taxon is considered synonymous with <i>C. nubigena</i> which ranges from western Montana to eastern Oregon and south to the Sierra Nevada (Hitchcock et al. 1959). It is probably not threatened. Our distribution map only reflects locations of specimens filed under <i>C. hypsophila</i> which, even separately, does not appear threatened.
Recommendations	REMOVE FROM THREATENED LIST.
Compiler	Steele



17. *Cryptantha interrupta* (Greene) Pays.

Proposed Federal Status
THREATENED

BORAGINACEAE

Location	Widespread on Snake River Plain and valleys of east-central Idaho, from Oregon to Montana and Saskatchewan
Land Ownership	Mainly BLM, some Idaho Department of Lands, USFS (Salmon, Challis and Targhee N.F.) and private
Vegetation Type	Sagebrush/grass
Habitat	Dry, open slopes
Hazards	Very few
Herbarium Data	None sought
Remarks	The basis for this species being on the threatened list apparently results from plants in the type locality being morphologically and geographically peripheral to the main population. As a result some botanists have made taxonomic separations which delineated <i>C. interrupta</i> as a local endemic in northeastern Nevada, the type area. Our current floristic works (Hitchcock et al. 1959, Hitchcock and Cronquist 1973) do not recognize any meaningful differences in this population, combining <i>C. interrupta</i> with <i>C. spiculifera</i> Pays.
Recommendations	REMOVE FROM THREATENED LIST.
Compiler	Steele

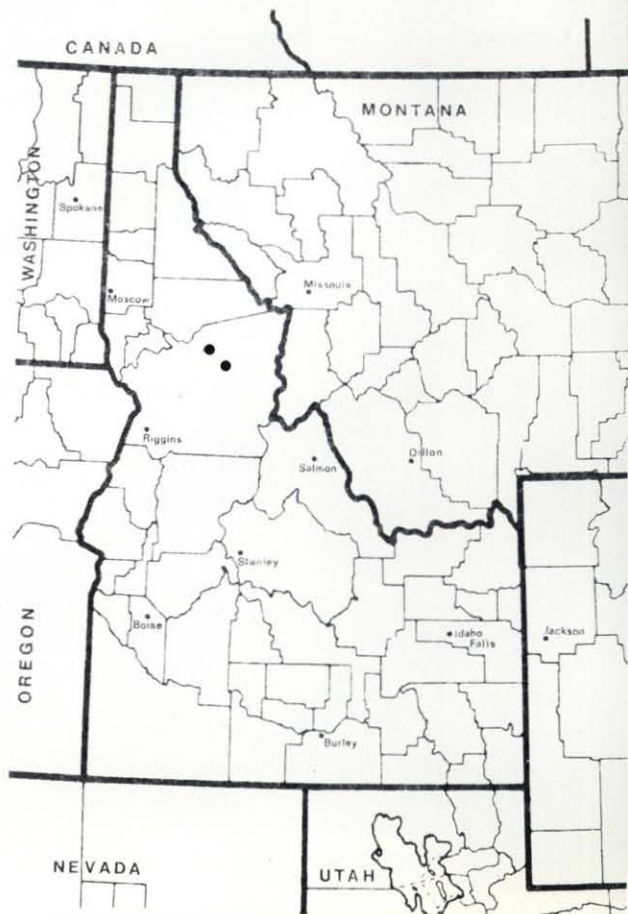
Map omitted — no data taken on this species

18. *Dasynotus daubenmirei* Johnst.

Proposed Federal Status
ENDANGERED

BORAGINACEAE

Location	Idaho: IDAHO County Two small population centers. Idaho endemic
Land Ownership	USFS (Clearwater and Nezperce N.F.)
Vegetation Type	Upper <i>Thuja plicata</i> and <i>Abies grandis</i> climax areas and in lower <i>Abies lasiocarpa</i> zone. (<i>Abies lasiocarpa</i> / <i>Pachistima myrsinites</i> h.t.) 3900 to 4600 ft
Habitat	"near springs, edge of brush," "openings in forests." "It occurs in vigorous clumps on both road cuts and fills in clearcut areas."
Hazards	Very limited distribution; attractive flowers for garden enthusiasts
Herbarium Data	Number of sites by county: Idaho—IDAHO-3 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-2, IDF-1, IDS-0, UTC-2, WS-1
Remarks	Occurrence in forest openings marks it as a successional species. However, with such a very restricted range, some particularly limiting biological or environmental factor must be expected.
Recommendations	RETAIN AS ENDANGERED — biology of plant and reaction to fire, grazing and shading must be evaluated.
Compiler	Johnson

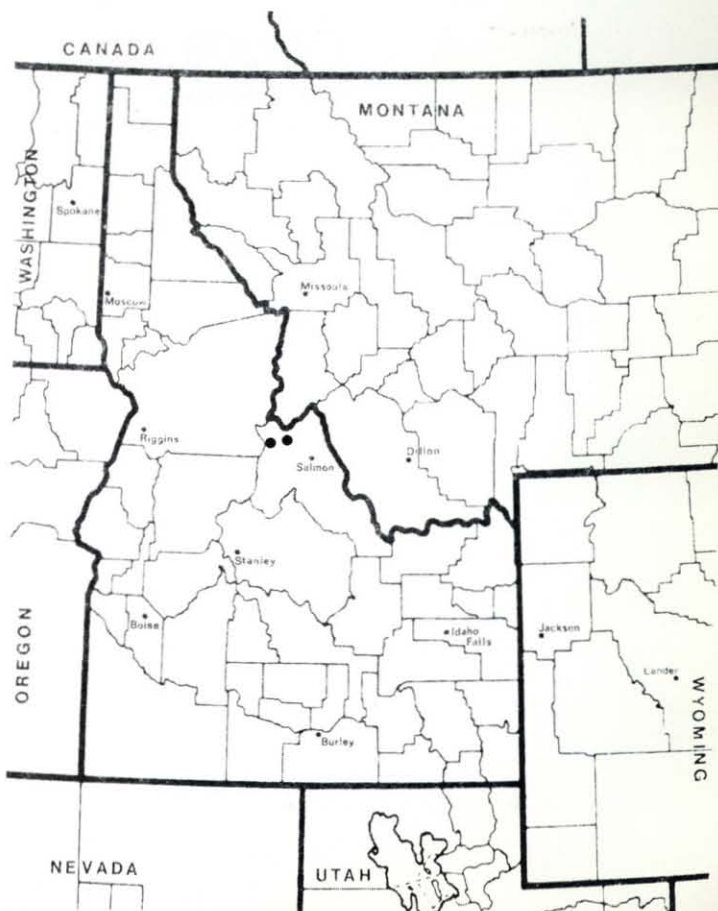


19. *Hackelia davisii* Cronq.

Proposed Federal Status
ENDANGERED

BORAGINACEAE

Location	Idaho: LEMHI County Idaho endemic
Land Ownership	USFS (Salmon N.F.)
Vegetation Type	Probably <i>Pinus ponderosa</i> zone
Habitat	Moist crevices in limestone cliff. Cliff walls and ledges; associated with <i>Clematis ligusticifolia</i> , <i>Philadelphus lewisii</i> , and <i>Physocarpus malvaceus</i> (Phillips 1976)
Hazards	Very few because of cliff habitat; widening of adjacent road is probably the main threat
Herbarium Data	Number of sites by county: Idaho—LEMHI-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-2, IDF-0, INT-0, UTC-1, WS-2, WTU-1
Remarks	Distribution is very limited.
Recommendations	RETAIN AS ENDANGERED.
Compiler	Steele



20. *Hackelia hispida* (Gray) Johnst.

Proposed Federal Status
THREATENED

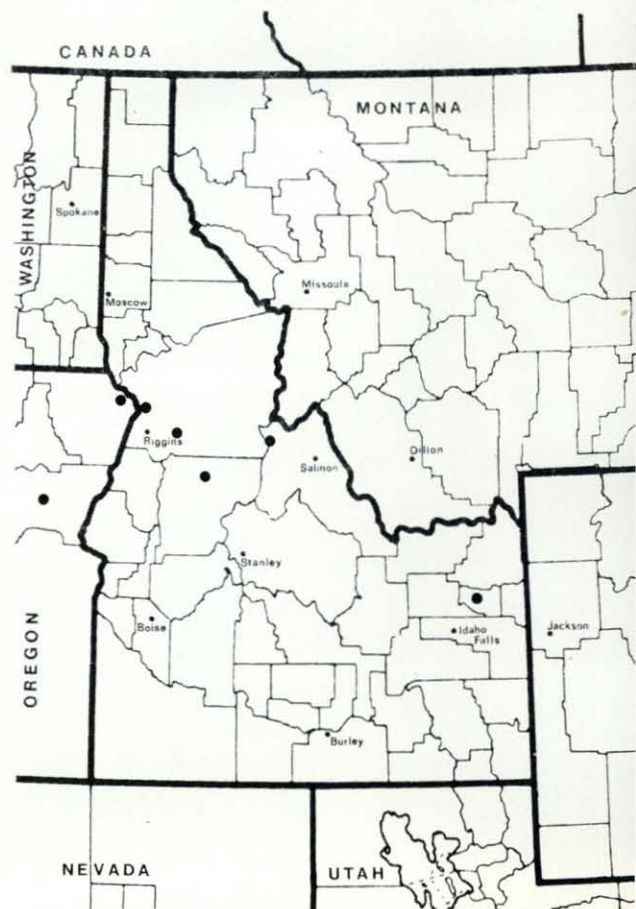
BORAGINACEAE

Location	Idaho: IDAHO, LEMHI, MADISON and VALLEY counties Oregon: Baker and Jefferson counties Washington: Grant County
Land Ownership	USFS (Nezperce, Payette, Salmon and Wallowa-Whitman N.F.), Idaho Department of Lands, and private
Vegetation Type	Probably associated with <i>Agropyron spicatum</i> / <i>Poa sandbergii</i> communities
Habitat	Basalt talus slopes and other rocky habitats
Hazards	Uncertain
Herbarium Data	Number of sites by county: Idaho—IDAHO-5, LEMHI-1, MADISON-1, VALLEY-1 Oregon—Baker-1, Jefferson-1 Washington—Grant-2 Number of collections in herbaria searched: BOIS-0, CIC-0, ID-7, IDF-0, ORE-0, OSC-1, RENO-9, UTC-3, WILLU-1, WS-7, WTU-2

Remarks This species is relatively widely distributed and in some places (Snake River Canyon) is abundant. Although the species may be subject to grazing, man's present activities in its habitat do not appear to present problems. It is therefore suggested that this taxon be removed from the list of threatened species.

Recommendations *REMOVE FROM THREATENED LIST.*

Compiler Henderson

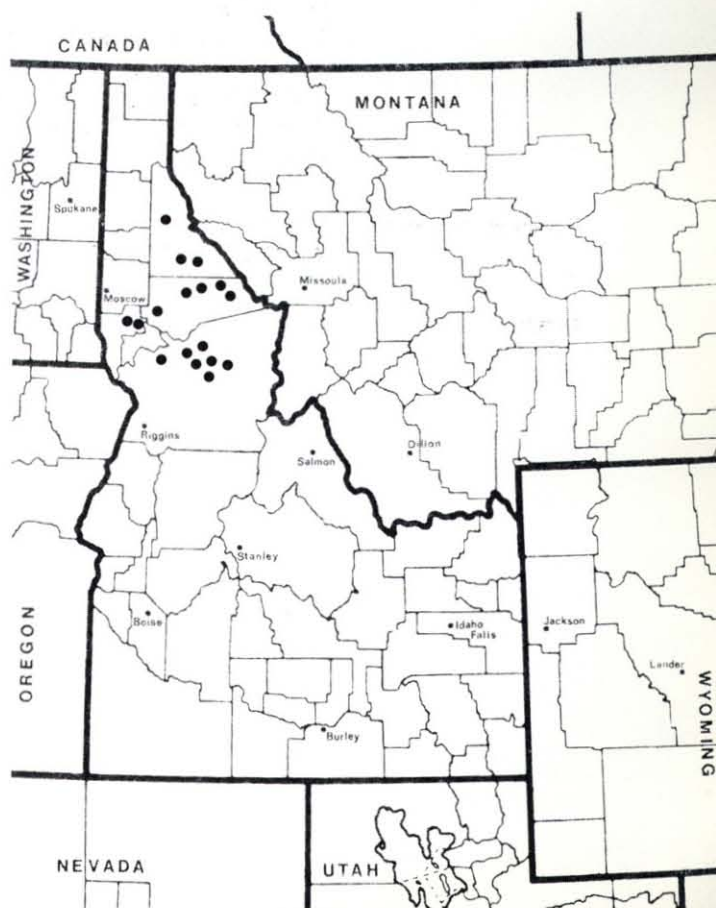


21. *Cardamine constancei* Detl.

Proposed Federal Status
ENDANGERED

BRASSICACEAE (Cruciferae)

Location	Idaho: SHOSHONE, CLEARWATER, IDAHO and NEZ PERCE counties Idaho endemic
Land Ownership	Private, some on USFS (Nezperce and Clearwater N.F.) and some likely on USFS (St. Joe and Coeur d'Alene N.F.), possibly Idaho Department of Lands
Vegetation Type	Lower elevation <i>Thuja plicata</i> forests
Habitat	Apparently in partial shade, open forests, frequently (always?) in moist ground — chiefly beneath <i>Thuja plicata</i> and associated conifers; "moist wooded creek bottom"
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—CLEARWATER-8, IDAHO-9, NEZ PERCE-2, SHOSHONE-6 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-7, IDF-4, IDS-3, WS-11
Remarks	The extent of the population indicates that the species is not endangered. Knowledge of successional status is needed.
Recommendations	CHANGE STATUS TO THREATENED.
Compiler	Johnson



22. *Draba apiculata* Hitchc.
var. *daviesiae* Hitchc.

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Montana: Ravalli and Missoula counties in the Bitterroot Mountains
Land Ownership	USFS (Bitterroot N.F.)
Vegetation Type	Alpine
Habitat	Moist meadows to granitic talus, various alpine associations
Hazards	Unknown
Herbarium Data	Number of sites by county: Montana—Ravalli-8, Missoula-1 reported Number of collections in herbaria searched: BOIS-0, BS-0, ID-0, IDF-0, MONTU-8, UTC-1, WS-0
Remarks	This species is listed for Idaho in the <i>Federal Register</i> but is known only from a few sites in the Montana Bitterroots. To date, it has not been collected in Idaho, although it is to be expected. Hazards to this alpine plant are not known, but its limited distribution demands consideration.
Recommendations	RETAIN AS THREATENED.
Compiler	Henderson

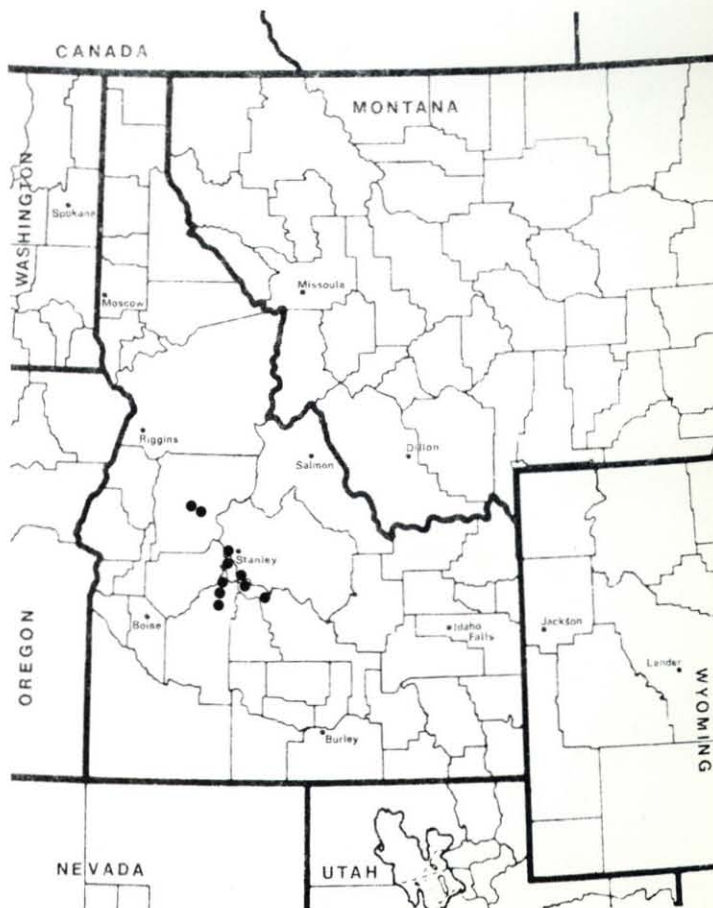


23. *Draba argyraea* Rydb.

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: BLAINE, BOISE, CUSTER, ELMORE and VALLEY counties Idaho endemic
Land Ownership	USFS (Boise, Challis and Sawtooth N.F.)
Vegetation Type	Upper subalpine
Habitat	In crevices and gravels of granitic rock
Hazards	Very few due to type of habitat and inaccessibility
Herbarium Data	Number of sites by county: Idaho--BLAINE-3, BOISE-1, CUSTER-2, ELMORE-5, VALLEY-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-1, ID-2, IDF-0, INT-0, RENO-8, UTC-7, WS-10, WTU-3
Remarks	Relatively wide distribution, threatened status appears unnecessary.
Recommendations	<i>REMOVE FROM THREATENED LIST.</i>
Compiler	Steele

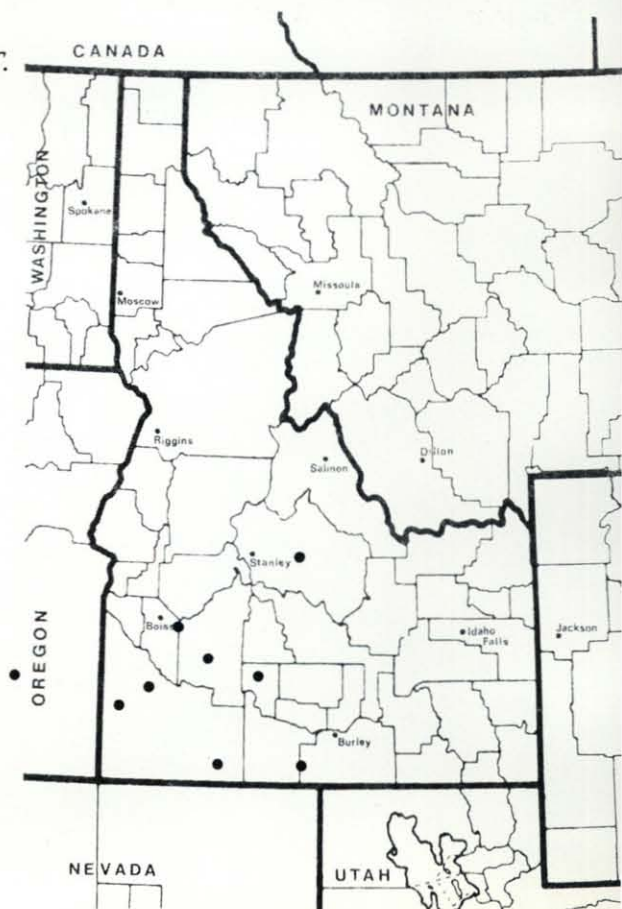


24. *Draba douglasii* Gray

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: ADA, CASSIA, CUSTER, ELMORE, GOODING and OWYHEE counties Oregon: Baker, Grant, Harney, Lane, Malheur and Union counties Nevada: Clark, Elko, Humboldt, Lauder, Ormsby, Storey, Washoe and White Pine counties California: Mendocino, Modoc, Plumas and San Bernardino counties Washington: Klickitat County
Land Ownership	BLM, private and probably Idaho Department of Lands
Vegetation Type	<i>Artemisia tridentata</i> / <i>Poa sandbergii</i>
Habitat	Dry, bare spots where there is little competition from other plants. Soil type may vary from sand to clay, 4000 to 11,000 ft
Hazards	Range improvement programs
Herbarium Data	Number of sites by county: Idaho—ADA-1, CASSIA-1, CUSTER-1, ELMORE-1, GOODING-1, OWYHEE-3 Number of collections in herbaria searched: BOIS-2, CIC-5, ID-4, IDF-0, INT-1
Remarks	Distribution is highly discontinuous but it ranges from southern Washington to San Bernardino County, California.
Recommendations	REMOVE FROM THREATENED LIST.
References	Hitchcock 1941
Compiler	Packard

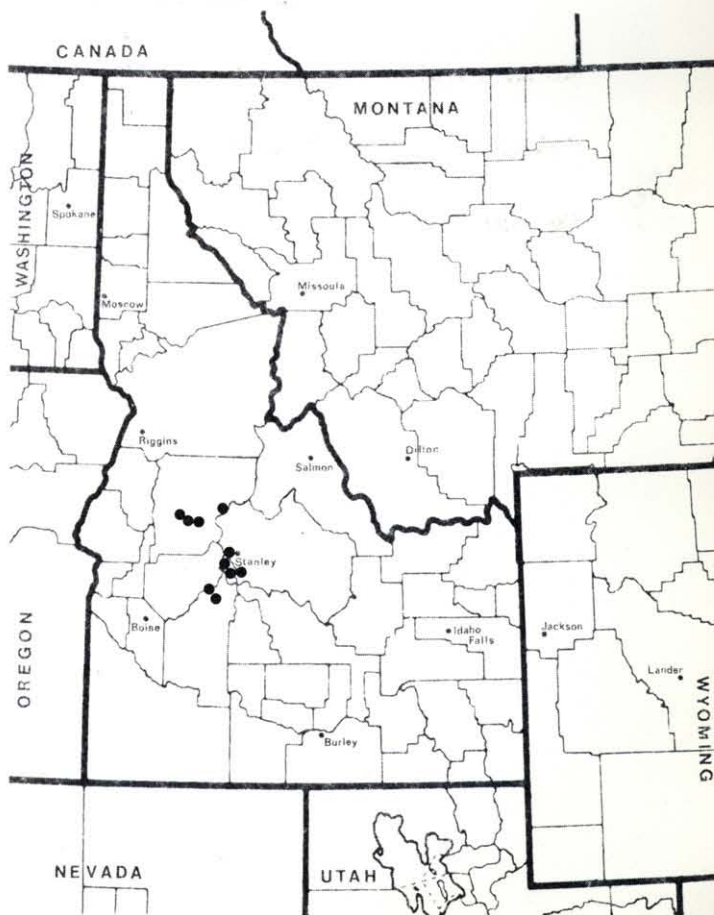


25. *Draba sphaerocarpa* Macbr. & Pays.

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: BOISE, CUSTER, ELMORE and VALLEY counties Idaho endemic
Land Ownership	USFS (Boise, Challis and Sawtooth N.F.)
Vegetation Type	Mostly subalpine to alpine, one site <i>Pinus ponderosa</i> / <i>Purshia tridentata</i>
Habitat	Gravel bars and ridges and talus. Scree slopes on ridges and on sliding debris of Challis volcanics (Phillips 1976)
Hazards	Probably very few because of habitat and location
Herbarium Data	Number of sites by county: Idaho—BOISE-4, CUSTER-4, ELMORE-2, VALLEY-5 Number of collections in herbaria searched: BOIS-1, BS-0, CIC-2, ID-2, IDF-0, IDS-1, INT-0, RENO-7, UTC-5, WS-9, WTU-12
Remarks	This plant has a relatively wide distribution and occupies sites seldom disturbed by man. Threatened status appears unnecessary.
Recommendations	REMOVE FROM THREATENED LIST.
Compiler	Steele

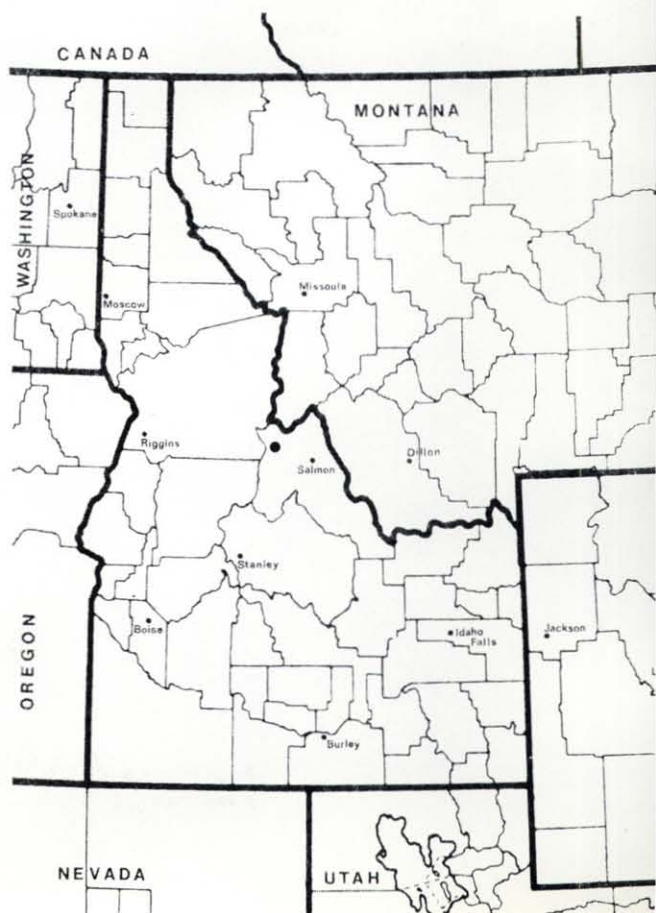


26. *Halimolobos perplexa* (Hend.) Rollins
var. *lemhiensis* Hitchc.

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: LEMHI County, local along Salmon River in north end of county Idaho endemic variety
Land Ownership	USFS (Salmon N.F.), possibly BLM
Vegetation Type	Apparently restricted to <i>Pinus ponderosa</i> / <i>Agropyron spicatum</i> zone
Habitat	Talus and gravel along river
Hazards	Extremely limited range; possibly grazing
Herbarium Data	Number of sites by county: Idaho—LEMHI-3 Number of collections in herbaria searched: BOIS-1, ID-0, IDF-0, RENO-2, UTC-1, WS-2, WTU-2
Remarks	All specimens are from one relatively small area. Plants are apparently reproducing from seed but exact capability of regeneration is unknown.
Recommendations	RETAIN AS THREATENED.
Compiler	Henderson

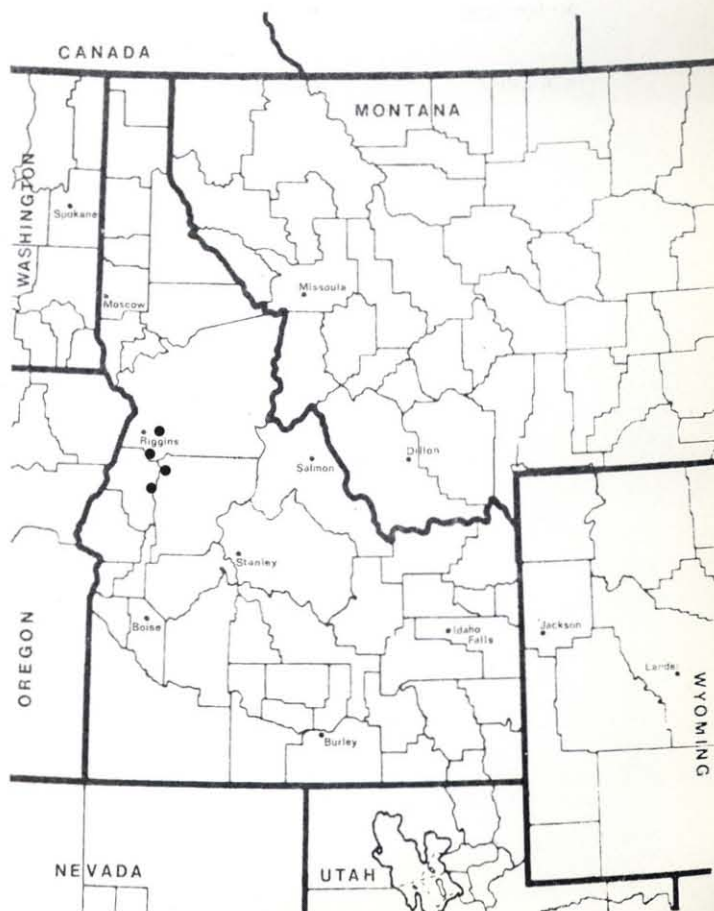


27. *Halimolobos perplexa* (Hend.) Rollins
var. *perplexa*

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: ADAMS, IDAHO, VALLEY counties, near Little Salmon River Idaho endemic variety
Land Ownership	USFS (Payette N.F.), BLM, private, and possibly Idaho Department of Lands
Vegetation Type	Apparently <i>Pinus ponderosa</i> zone
Habitat	Talus and gravel banks (some basalt). In ledges above river (Phillips 1976)
Hazards	Possibly road maintenance and construction, logging and grazing
Herbarium Data	Number of sites by county: Idaho—ADAMS-2, IDAHO-2, VALLEY-1 Number of collections in herbaria searched: BOIS-0, CIC-0, ID-1, IDF-1, RENO-3, WS-1, WTU-4
Remarks	Distribution is limited and increased activities could jeopardize the habitat. Plants are apparently producing seed but extent of regeneration is unknown.
Recommendations	RETAIN AS THREATENED.
Compiler	Henderson

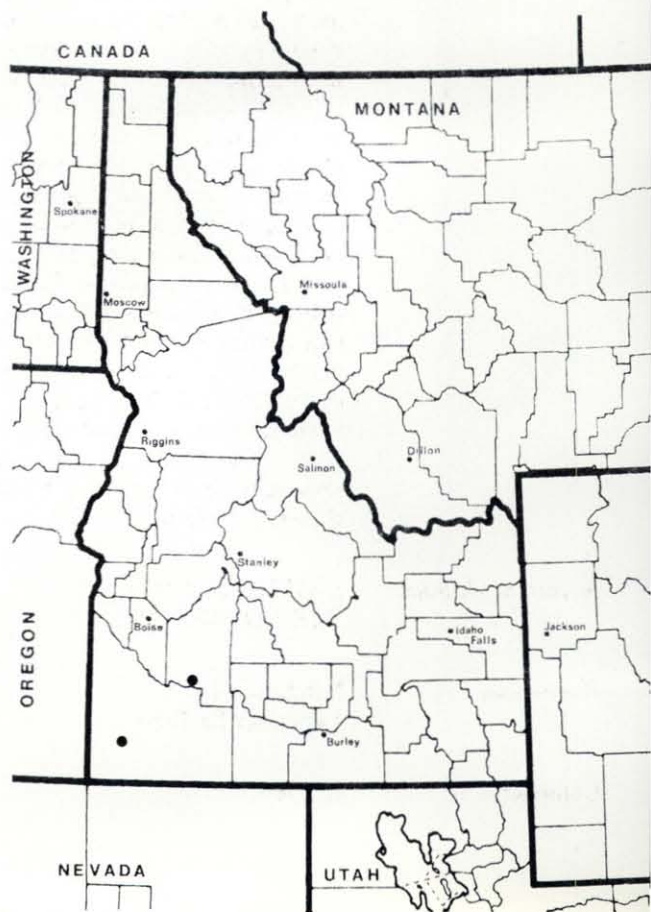


28. *Lepidium davisii* Rollins

Proposed Federal Status
ENDANGERED

BRASSICACEAE (Cruciferae)

Location	Idaho: ELMORE and OWYHEE counties Oregon: Malheur County
Land Ownership	BLM, possibly private and Idaho Department of Lands
Vegetation Type	<i>Atriplex-Artemisia</i> zone
Habitat	Hard bottom playas
Hazards	These playas are being used for race tracks, stock watering ponds, and water reservoirs. Their shape and locations make them very vulnerable to disturbance.
Herbarium Data	Number of sites by county: Idaho—ELMORE-1, OWYHEE-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-2, ID-1, IDF-0
Remarks	Only three sites are known for this plant even though it ranges from Elmore County, Idaho, to Malheur County, Oregon. The many highly destructive uses which the habitat receives makes this a very vulnerable species in spite of its range. It is doubtful that more than a few other sites will be found; these will not likely affect the endangered status of this species.
Recommendations	RETAIN AS ENDANGERED.
References	Rollins 1948
Compiler	Packard



29. *Lesquerella carinata* Rollins

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

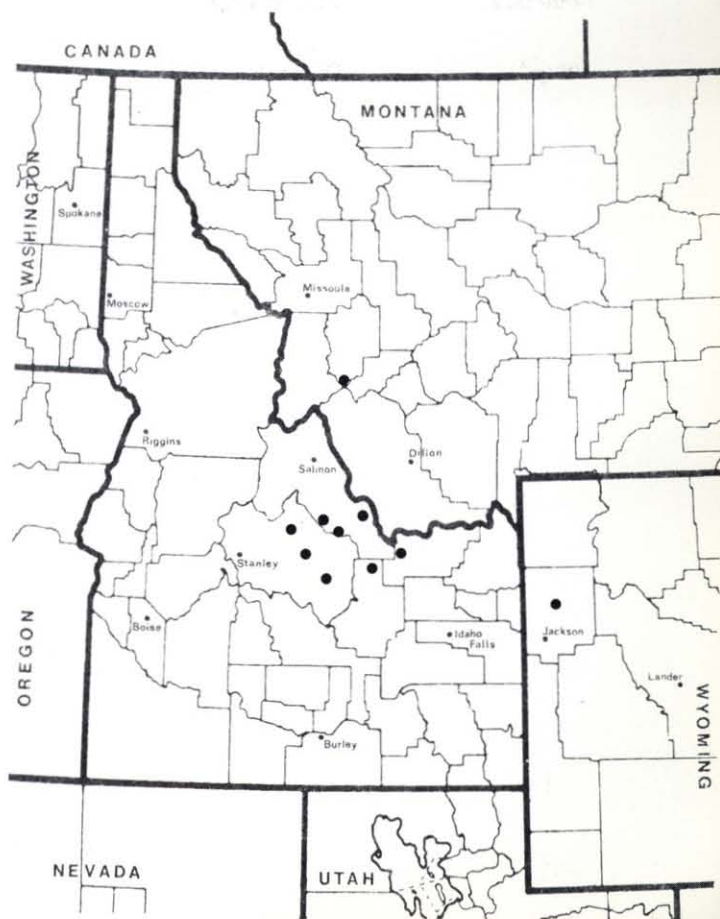
Location	Idaho: BUTTE, CLARK, CUSTER and LEMHI counties Montana: Granite County Wyoming: Teton County
Land Ownership	BLM, USFS (Challis, Salmon, Targhee and Beaverhead N.F.), and probably Idaho Department of Lands
Vegetation Type	Sagebrush/grass to alpine
Habitat	Gravelly soils derived from limestone, 6000 to above 10,000 ft
Hazards	None apparent (see remarks)
Herbarium Data	Number of sites by county: Idaho—BUTTE-3, CLARK-2, CUSTER-6, LEMHI-12 Montana—Granite-1 Wyoming—Teton-1 Number of collections in herbaria searched: BOIS-1, ID-(more than 20), IDF-0, MONTU-2, UTC-1, WS-0, WTU-4

Remarks This plant has been considered rare, but it grows in a region that until recently received little detailed floristic study. Field investigations in east-central Idaho have shown this plant to be abundant over a wide elevational range, and in several vegetation types. Apparently it is restricted to limestone or related substrates. Sites near its lower elevational limits are frequently grazed, yet this plant appears to be common here and, in some places, even abundant. In the alpine, it is one of the most commonly encountered plants in this region and occurs wherever soils are derived from limestone. It is recommended, therefore, that this species be removed from the list of threatened plants.

Recommendations *REMOVE FROM THREATENED LIST.*

References Henderson 1977
Lackschewitz 1976

Compiler Henderson



30. *Physaria alpestris* Suksd.
var. *lyrata*
Syn. *P. didymocarpa* (Hook) Gray
var. *lyrata* C.L. Hitchc.

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: LEMHI County Idaho endemic variety
Land Ownership	USFS (Salmon N.F.)
Vegetation Type	Unknown
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—LEMHI-1 (Hitchcock et al. 1964) Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-0, WS-0
Remarks	This variety appears intergradient with variety <i>didymocarpa</i> near Malad, Idaho and north-central Montana. It is assumed to be the variety listed under <i>P. didymocarpa</i> in current treatments.
Recommendations	RETAIN AS THREATENED until hazards can be evaluated.
Compiler	Steele

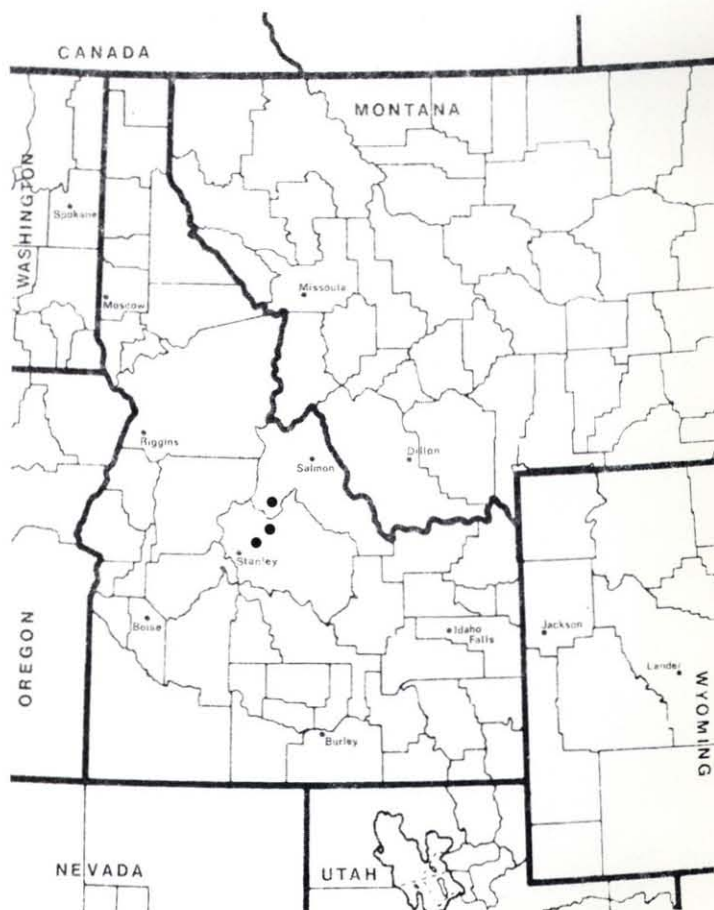


31. *Physaria alpestris* Suksd.
var. *purpurea*
Syn. *P. geyeri* (Hook) Gray var. *purpurea* Rollins

Proposed Federal Status
THREATENED

BRASSICACEAE (Cruciferae)

Location	Idaho: CUSTER and LEMHI counties Idaho endemic variety
Land Ownership	USFS (Challis N.F.)
Vegetation Type	<i>Pseudotsuga menziesii</i> zone
Habitat	Talus
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—CUSTER-2 (Rollins 1939), LEMHI-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, INT-1
Remarks	This variety is listed under <i>P. geyeri</i> in most references.
Recommendations	RETAIN AS THREATENED until hazards can be evaluated.
References	Rollins 1939
Compiler	Steele



32. *Thelypodium repandum* Rollins

Proposed Federal Status
ENDANGERED

BRASSICACEAE (Cruciferae)

Location	Idaho: CUSTER County Idaho endemic
Land Ownership	Mostly BLM, possibly Idaho Department of Lands
Vegetation Type	Sagebrush/grass zone
Habitat	Shale banks and talus. Rocky knoll with loose grey soil; associated with <i>Hymenopappus filifolius</i> var. <i>idahoensis</i> , <i>Oryzopsis hymenoides</i> , <i>Atriplex confertifolia</i> , <i>Artemisia spinescens</i> , <i>Sarcobatus vermiculatus</i> and <i>Sporobolus cryptandrus</i> (Phillips 1976)
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—CUSTER-4 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-0, INT-0, RENO-2, UTC-2, WS-2, WTU-5
Remarks	Should remain on endangered list because of limited range and unknown hazards.
Recommendations	RETAIN AS ENDANGERED.
Compiler	Steele



33. *Silene scaposa* Robins
var. *lobata* Hitchc. & Mag.

Proposed Federal Status
THREATENED

CARYOPHYLLACEAE

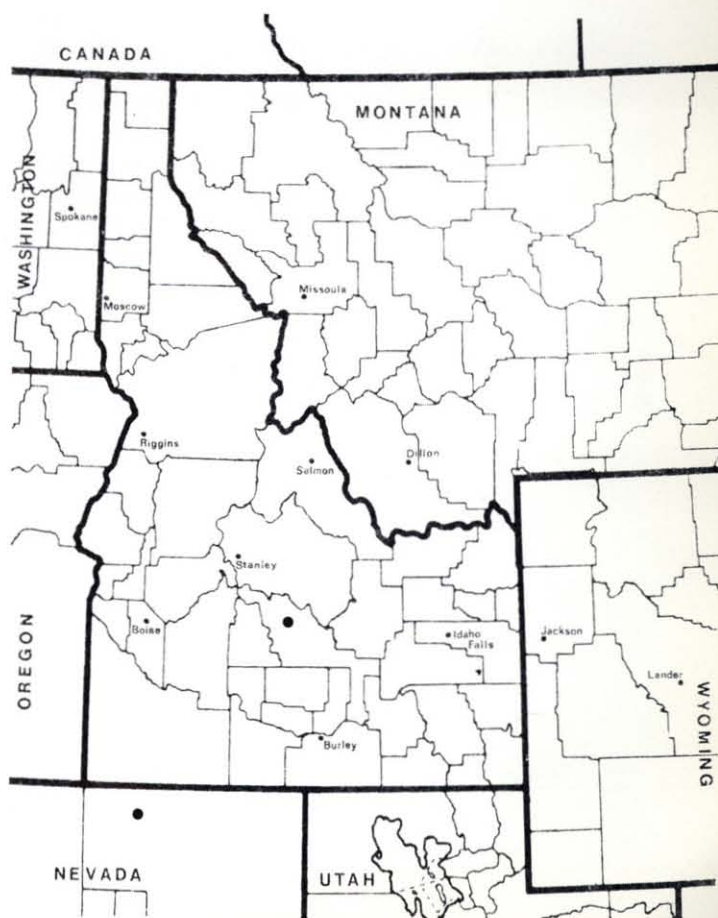
Location	Idaho: BLAINE County Oregon: Harney County also northern Nevada
Land Ownership	USFS (Sawtooth N.F.), probably BLM in Oregon and Nevada
Vegetation Type	Reported to occur in meadows, sagebrush, and pinyon-juniper
Habitat	With <i>Juniperus occidentalis</i> / <i>Artemisia tridentata</i> (in Oregon); deep loam soil with <i>Artemisia tridentata</i> ; meadows and hillsides; 7500 ft and probably lower
Hazards	Uncertain, but probably greatest threat is from grazing animals
Herbarium Data	Number of sites by county: Idaho—BLAINE-1 Oregon—Harney-2 Nevada—(1 site apparently in northern part of state) Number of collections in herbaria searched: BOIS-0, CIC-0, ID-0, IDF-0, RENO-2, WS-0, WTU-0

Remarks Because of its disjunct distribution and limited abundance throughout its range, it is suggested that the status remain unchanged. Although the most recent herbarium material seen is dated 1946, Kruckeberg (1961) re-collected one of the Oregon populations. If additional field studies confirm its present distribution and abundance, it may be appropriate to place this taxon on the endangered list.

Recommendations *RETAIN AS THREATENED.*

References Kruckeberg 1961

Compiler Henderson



34. *Silene spauldingii* Wats.

Proposed Federal Status
ENDANGERED

CARYOPHYLLACEAE

Location	Idaho: ADAMS (?) and LEWIS counties Montana: Flathead and Sanders counties Oregon: Wallowa County Washington: Spokane and Whitman counties
Land Ownership	Private, possibly BLM if plant occurs in lower canyons. If the Adams County, Idaho, specimen is correctly placed — then possibly USFS (Payette N.F.)
Vegetation Type	Pacific bunchgrass and shrub communities — Palouse Prairie: not known from lower canyons
Habitat	“virgin <i>Festuca idahoensis</i> prairie”; “deep grass” (presumably in a meadow in conifer zone at 5000 ft); “ <i>Crataegus/Symphoricarpos</i> thicket”; “fescue/wheatgrass zone — dense herbaceous, dominants <i>Festuca idahoensis</i> , <i>Agropyron spicatum</i> , loessal hills, locally abundant ”
Hazards	Probably in jeopardy from farming disturbance
Herbarium Data	Number of sites by county: Idaho—ADAMS (?) -1, LEWIS-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-0, MONTU-2, RENO-2, WS-7, WTU-1

Remarks Though widespread, this plant seems very rare. Two collections with good habitat data stress the undisturbed nature of the prairie. There is little undisturbed Palouse Prairie left. A population should be located and assured preservation before considering a change in status. Most of the population appears to be in Washington with some fragments in Montana. The Adams County location is “2 mi. N. of McCall.” Since there is no McCall known in Adams County, Washington, and since 2 miles north of McCall, Idaho, would be in Adams County, I chose to map this location. The habitat, however, is atypic, being a meadow (deep grass) in *Abies grandis* forest at 5000 ft.

Recommendations *RETAIN AS ENDANGERED.* Montana and Washington data are needed.

Compiler Johnson

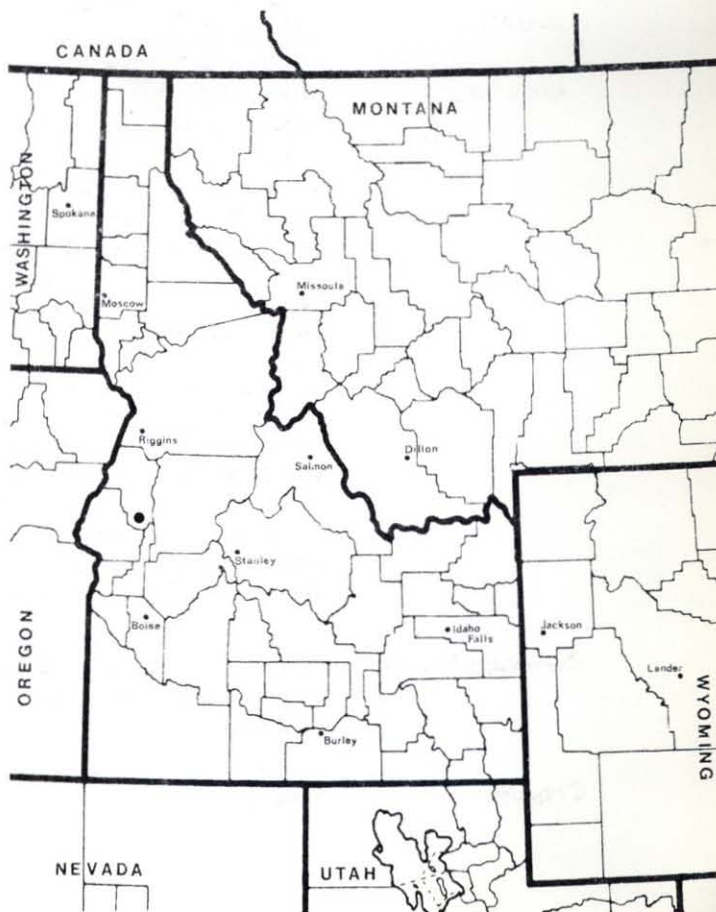


35. *Carex aboriginum* M.E. Jones

Proposed Federal Status
ENDANGERED

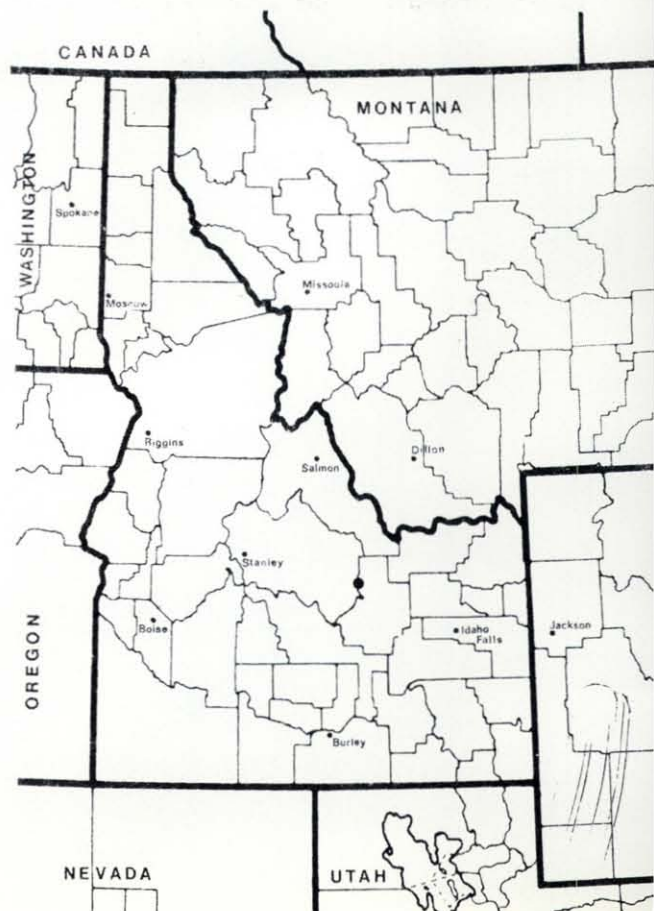
CYPERACEAE

Location	Idaho: ADAMS County Idaho endemic
Land Ownership	Private or possibly BLM
Vegetation Type	Sagebrush/grass zone
Habitat	Meadows of dry gumbo soil, wet in spring; 2300 ft
Hazards	Probably subjected to grazing disturbance
Herbarium Data	No data, known only from type collection
Remarks	Species needs field investigation; may be extinct
Recommendations	<i>RETAIN ON ENDANGERED LIST.</i>
Compiler	Steele



FABACEAE (Leguminosae)

Location	Idaho: CUSTER County, known only from Pass Creek Gorge, Lost River Mountains, in an area perhaps 0.5 mile square Idaho endemic
Land Ownership	USFS (Challis N.F.)
Vegetation Type	With <i>Pseudotsuga menziesii</i> , <i>Cercocarpus ledifolius</i> , and <i>Artemisia tridentata</i>
Habitat	Steep limestone cliffs and talus at base of cliffs. Crevices in cliff wall (Phillips 1976)
Hazards	Possibly grazing at base of cliffs
Herbarium Data	Number of sites by county: Idaho—CUSTER-1 Number of collections in herbaria searched: BOIS-0, CIC-0, ID-1, IDF-0, WS-0
Remarks	Recent visits to Pass Creek Gorge indicate this species is maintaining its population (perhaps 40 individual plants were observed near bases of cliffs and more were seen above on vertical cliffs). The plant is being grazed but with no apparent harm. Due to its highly restricted nature, it is strongly recommended that this species remain on the endangered list.
Recommendations	RETAIN AS ENDANGERED.
References	Barneby 1964
Compiler	Henderson

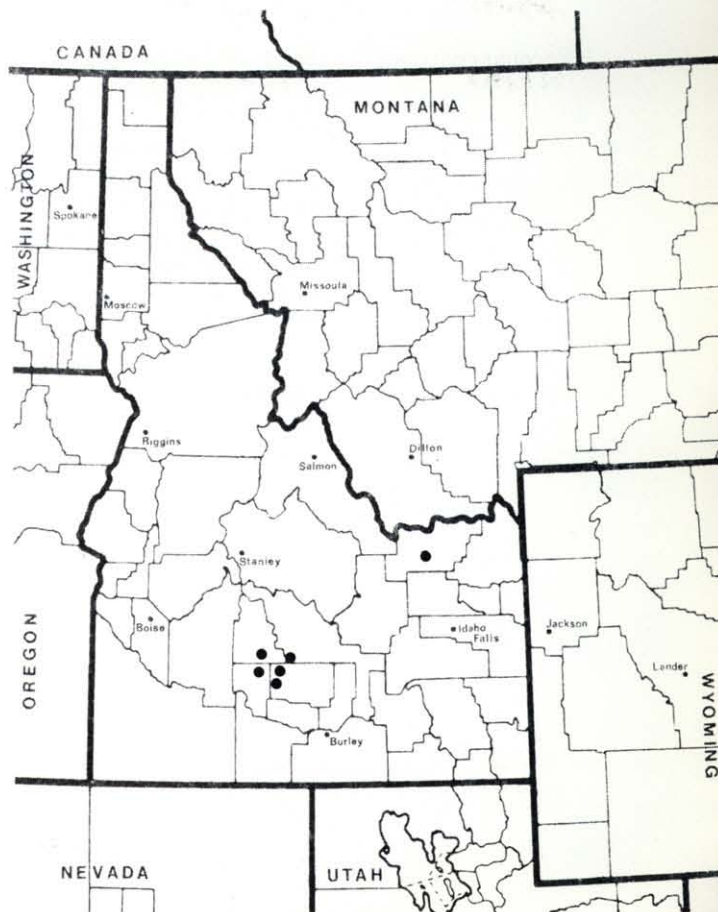


37. *Astragalus atratus* Wats.
var. *inseptus* Barneby

Proposed Federal Status
ENDANGERED

FABACEAE (Leguminosae)

Location	Idaho: BLAINE, CLARK (?), CAMAS, GOODING, LINCOLN and possibly ELMORE counties Idaho endemic variety
Land Ownership	BLM, possibly Idaho Department of Lands and some private
Vegetation Type	Sagebrush/grass
Habitat	Stony flats moist in the spring
Hazards	Range improvement programs; possibly heavy grazing pressure
Herbarium Data	Number of sites by county: Idaho—BLAINE-1, CAMAS-1, CLARK-1(?), GOODING-1, LINCOLN-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-2, ID-1, IDF-1, WS-0
Remarks	Plants are abundant in areas where they grow, but the range is fairly restricted. Anything affecting this one habitat in a restricted area could wipe out this variety. Eidemiller (1976) considers this plant to be seral. One herbarium (IDF) is reported to have a specimen from Clark County, an unlikely location, but the identification has not been verified. More information is needed on ecology and successional relationships. Possibly some grazing tends to improve the seral conditions reportedly needed by this plant.
Recommendations	<i>CHANGE TO THREATENED.</i>
References	Barneby 1964 Eidemiller 1976
Compiler	Packard



38. *Astragalus lentiginosus* Dougl. ex Hook
var. *latus* (M.E. Jones) M.E. Jones

Proposed Federal Status
THREATENED

FABACEAE (Leguminosae)

Location	Idaho: CLARK County (?)
Land Ownership	Probably BLM or USFS (Targhee N.F.)
Vegetation Type	Unknown
Habitat	Unknown
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—CLARK-1 (?) Number of collections in herbaria searched: BOIS-0, ID-0, IDF-0, IDS-1
Remarks	This is a variety generally considered endemic to limestone in central Nevada. It is possible, however, for some plants to display an adaptive set of morphological characteristics that become fixed in distant areas and which become formally recognized taxonomically. This may be the situation with the Clark County collection.
Recommendations	Field check the Clark County site for material approaching this variety and have Barneby confirm the identification. Review collections of this species in area herbaria; much of this material has not been updated since this species was revised. Until then RETAIN AS THREATENED.
References	Barneby 1964
Compiler	Packard



39. *Astragalus mulfordiae* M.E. Jones

Proposed Federal Status
THREATENED

FABACEAE (Leguminosae)

Location	Idaho: ADA, BLAINE, OWYHEE and WASHINGTON counties Oregon: Malheur County
Land Ownership	BLM, private and possibly Idaho Department of Lands
Vegetation Type	Sagebrush/grass
Habitat	Grows on old river deposits or in sandy places near rivers, 2000 to 3000 ft
Hazards	Housing developments, agriculture
Herbarium Data	Number of sites by county: Idaho—ADA-1, BLAINE-1, OWYHEE-2, WASHINGTON-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-1, ID-2, IDF-0, UTC-3
Remarks	This plant is known from a total of six sites in Idaho and Oregon; one site is near Boise in an area being developed. It is seldom abundant where it occurs and the sites are usually very small in area.
Recommendations	<i>CHANGE TO ENDANGERED STATUS.</i> It has a fairly broad range but is very infrequent.
References	Barneby 1964
Compiler	Packard



40. *Astragalus purshii* Dougl.
var. *ophiogenes* Barneby

Proposed Federal Status
ENDANGERED

FABACEAE (Leguminosae)

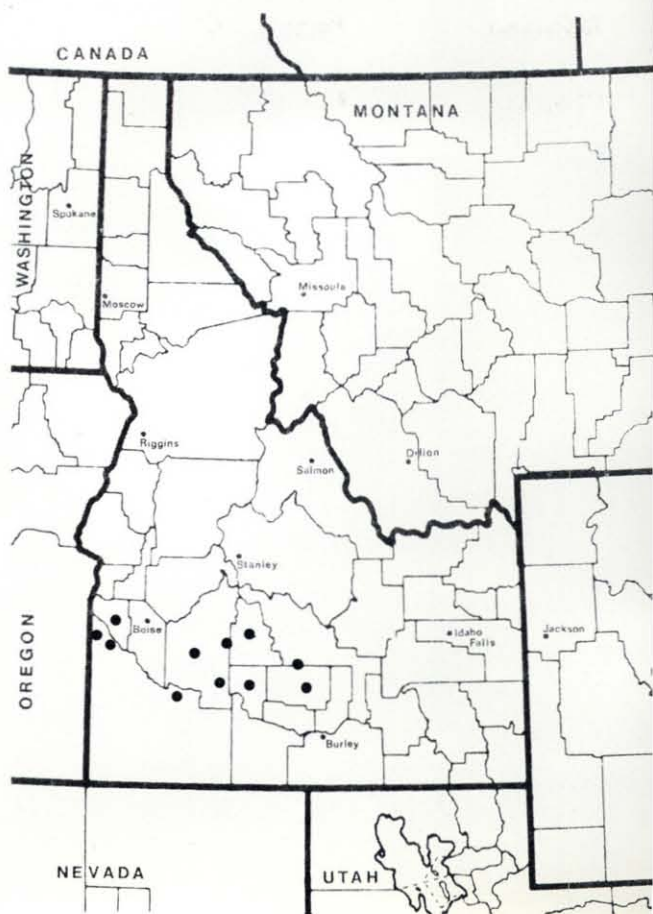
Location	Idaho: BLAINE, CAMAS, CANYON, ELMORE, GOODING, LINCOLN and OWYHEE counties Oregon: Malheur County
Land Ownership	BLM, private and possibly Idaho Department of Lands
Vegetation Type	<i>Artemisia tridentata</i> / <i>Poa sandbergii</i>
Habitat	Eroded, dry rocky or sandy river terraces and bluffs or dunes, 2500 to 4000 ft
Hazards	Range improvement programs
Herbarium Data	Number of sites by county: Idaho—BLAINE-1, CAMAS-1, CANYON-1, ELMORE-3, GOODING-1, LINCOLN-1, OWYHEE-3 (Barneby 1964) Number of collections in herbaria searched: BOIS-0, CIC-5, ID-2, IDF-0, WS-2

Remarks This variety has a fairly wide range and is probably of fair abundance in that range. There are four to five forms of *A. purshii* in this area and only three varietal names available for use which leads to filing herbarium material without varietal identification. Also, since one of the key differences is flower color which fades on drying, one soon learns to leave them all in the field. These situations may account for the sparsity of herbarium data.

Recommendations One season of collecting should be adequate for this variety. If possible, Barneby should verify the identifications. Herbaria should be reviewed for unlabeled varieties. This variety is probably **NEITHER THREATENED NOR ENDANGERED** in spite of the scarcity of herbarium material.

References Eidemiller 1976
Barneby 1964

Compiler Packard



41. *Astragalus sterilis* Barneby

Proposed Federal Status
ENDANGERED

FABACEAE (Leguminosae)

Location	Idaho: OWYHEE County Oregon: Malheur County
Land Ownership	BLM, possibly private and Idaho Department of Lands
Vegetation Type	<i>Artemisia tridentata</i> / <i>Poa sandbergii</i> and shrubby chenopods
Habitat	Bare clay soil
Hazards	Recreationists with off-road vehicles
Herbarium Data	Number of sites by county: Idaho—OWYHEE-1 (Barneby 1964) Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0
Remarks	Barneby collected this species on the western border of Owyhee County but apparently it has not been collected there since. It is very rare in Owyhee County, and it has a discontinuous distribution in adjacent Malheur County, Oregon. The species has a range of about 30 x 15 miles but is quite infrequent even there.
Recommendations	RETAIN AS ENDANGERED.
References	Barneby 1964
Compiler	Packard



42. *Astragalus vexilliflexus* Sheld.
var. *nubilus* Barneby

Proposed Federal Status
THREATENED

FABACEAE (Leguminosae)

Location	Idaho: CUSTER County Idaho endemic variety
Land Ownership	USFS (Challis N.F.)
Vegetation Type	Alpine
Habitat	Open stony ridgetops
Hazards	Very few, possibly some mining activity
Herbarium Data	Number of sites by county: Idaho—CUSTER-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-1, INT-0, RENO-0, UTC-1, WS-2, WTU-1
Remarks	A collection from Lemhi County (C.L. Hitchcock 25 June 1947, IDS) appears similar to var. <i>nubilus</i>
Recommendations	<i>RETAIN AS THREATENED</i> because of very limited distribution.
Compiler	Steele



43. *Trifolium plumosum* Dougl.
var. *amplifolium* Martin

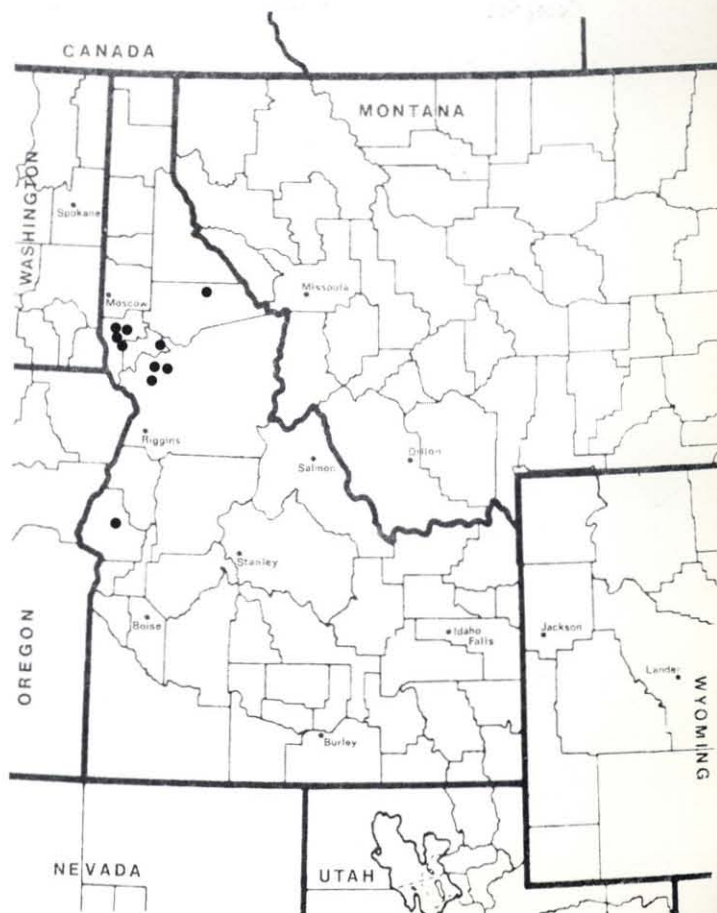
Proposed Federal Status
THREATENED

FABACEAE (Leguminosae)

Location	Idaho: IDAHO, NEZ PERCE, LEWIS, CLEARWATER and WASHINGTON counties Idaho endemic variety
Land Ownership	Uncertain. Private, primarily, one collection from USFS (Clearwater N.F.), and several peripheral to USFS (Nezperce and Payette N.F.), possibly Idaho Department of Lands
Vegetation Type	In middle elevation grasslands (2000 to 4000 ft) and in open <i>Pinus ponderosa</i> forests
Habitat	"low places in meadow areas," "dry grassy flat," "dry, open slopes," "open forest with <i>Pinus ponderosa</i> and <i>Symphoricarpos</i> " " <i>Festuca/Agropyron</i> . . . zone"
Hazards	Undetermined, but most of the sites are in areas with a long history of grazing
Herbarium Data	Number of sites by county: Idaho—CLEARWATER-1, IDAHO-3, LEWIS-2, NEZ PERCE-4, WASHINGTON-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-4, IDF-0, IDS-0, RENO-5, UTC-2, WS-7. (From the above, seven separate collections are from a single area along US 95 in Idaho County.)
Remarks	Much more widespread than indicated in Hitchcock et al. (1961) or Hitchcock & Cronquist (1973)

Recommendations While not common, the extent of the population seems to indicate that removal from threatened status would be possible with either a more extensive herbarium search and/or a small amount of field work, particularly to note the impact of grazing. For now, **RETAIN AS THREATENED.**

Compiler Johnson



44. *Corydalis caseana* Gray
var. *hastata* (Rydb.) Hitch.

Proposed Federal Status
THREATENED

FUMARIACEAE

Location	Idaho: CLEARWATER, IDAHO, LATAH and SHOSHONE counties Idaho endemic variety Clearwater, upper St. Maries and upper Palouse River drainages
Land Ownership	Private (Potlatch Corporation, Diamond International likely), USFS (Clearwater and Nezperce N.F.), Idaho Department of Lands
Vegetation Type	Primarily <i>Thuja plicata</i> zone — middle elevations. Generally in <i>T. plicata</i> climax forests. Also in lower <i>Abies lasiocarpa</i> zone.
Habitat	Strictly riparian, in small streams or on margins; also near springs and/or lake margins (rarely). 3000 to 5500 ft
Hazards	Unknown
Herbarium Data	Number of sites by county: Idaho—CLEARWATER-8, IDAHO-4, LATAH-1, SHOSHONE-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-2, IDF-4, IDS-0, WS-10
Remarks	Despite more than a few collection sites this is a rather narrow endemic. In view of its unknown reaction to disturbance, and unknown autecology, retention as threatened seems justified; however, the large percentage of sites are on small streams where USFS ownership and reasonable streamside protection exist.
Recommendation	RETAIN AS THREATENED.
Compiler	Johnson



45. *Frasera idahoensis* (St. John) Hitchc.
 Syn. *F. albicaulis* Dougl.
 var. *idahoensis* (St. John) Hitchc.

Proposed Federal Status
THREATENED

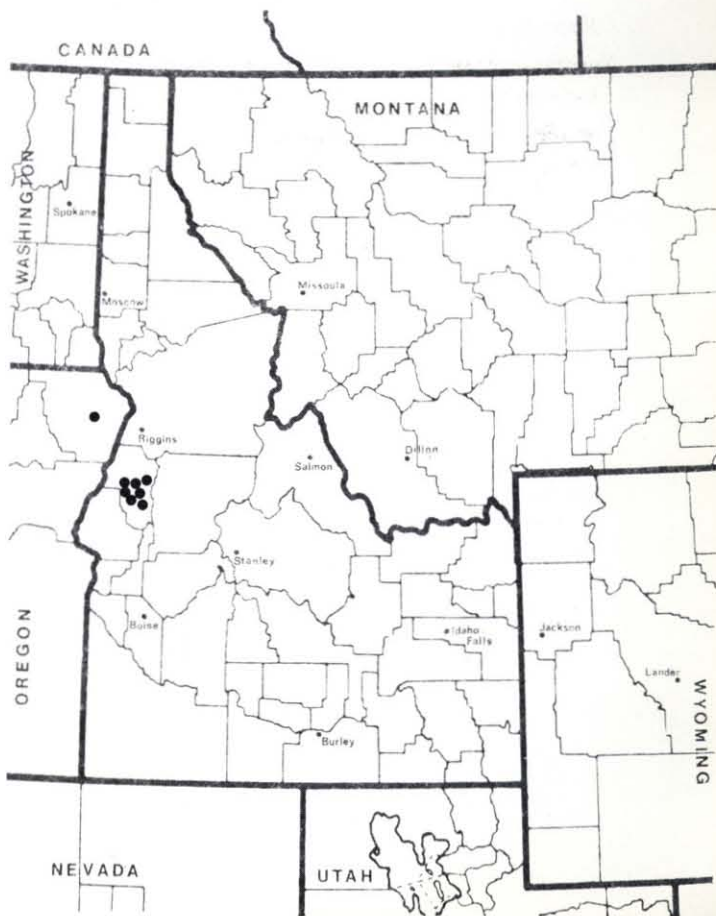
GENTIANACEAE

Location	Idaho: ADAMS County Oregon: Wallowa County
Land Ownership	USFS (Payette and Wallowa-Whitman N.F.), possibly Idaho Department of Lands and some private
Vegetation Type	"plains and lower mountains," grassland, and open <i>Pinus ponderosa</i> or <i>Pseudotsuga menziesii</i> forests
Habitat	"basalt scablands" " <i>Pseudotsuga menziesii</i> / <i>Symphoricarpos albus</i> h.t.," "dry, open <i>ponderosa</i> pine forest," "grassy slopes," "open brush-covered slopes just below rocky ridge"
Hazards	Unknown
Herbarium Data	Difficult to judge. ID has 39 sheets of <i>F. albicaulis</i> none to variety <i>idahoensis</i> , while WTU has only one of this variety. Number of sites by county: Idaho—ADAMS-10 Number of collections in herbaria searched: BOIS-3, BS-0, CIC-1, ID-0, IDF-1, IDS-0, WS-4, WTU-1

Remarks *Swertia idahoensis* was named a new species by St. John (1941). D.M. Post recognized *S. idahoensis* as a subspecies of *Frasera albicaulis*. Hitchcock et al. (1959) reduced *idahoensis* to a variety. *Frasera albicaulis* is a widespread taxon in British Columbia, Washington, Oregon, California, Nevada, Idaho and Montana. There are five varieties of *F. albicaulis* recognized in Hitchcock and Cronquist (1973); two of these (from word descriptions) could overlap with the variety *idahoensis* populations. Thus the geographic and morphologic limits and intergradations of the three varieties native to Idaho (*idahoensis*, *cusickii* and *albicaulis*) clearly need study.

Recommendations **RETAIN AS THREATENED.**
 This entire species needs taxonomic study. Ecology and distribution need considerable field work.

Compiler Johnson



LILIACEAE

Location	Idaho: ADA, GEM and possibly ELMORE counties — small isolated sites within an area about 20 miles long and 5 miles wide Idaho endemic
Land Ownership	Almost entirely by private individuals, one site is in a Boise City Park; possibly BLM and Idaho Department of Lands
Vegetation Type	Found mainly in a depauperate <i>Purshia/Eriogonum</i> association within sagebrush/grass zone
Habitat	Steep southerly aspects with fine gravel on the surface. Soils of sedimentary origin, 2850 to 4400 ft
Hazards	Large animals easily disturb this plant by trampling. Land development is the greatest threat; much of this <i>Allium</i> 's habitat is adjacent to and within suburban areas. Some sites have been destroyed.
Herbarium Data	Number of sites by county: ADA-7, ELMORE-1 (resembles <i>A. simillimum</i>), GEM-3 Number of collections in herbaria searched: BOIS-5, BS-3, CIC-8, ID-4, IDF-2, WS-1, WTU-1
Remarks	Plants usually abundant on proper habitat but these sites are very restricted. Plants produce seed; viability unknown.
Recommendations	RETAIN ON ENDANGERED LIST.
References	Steele 1975
Compiler	Steele



47. *Allium madidum* Wats.

Proposed Federal Status
THREATENED

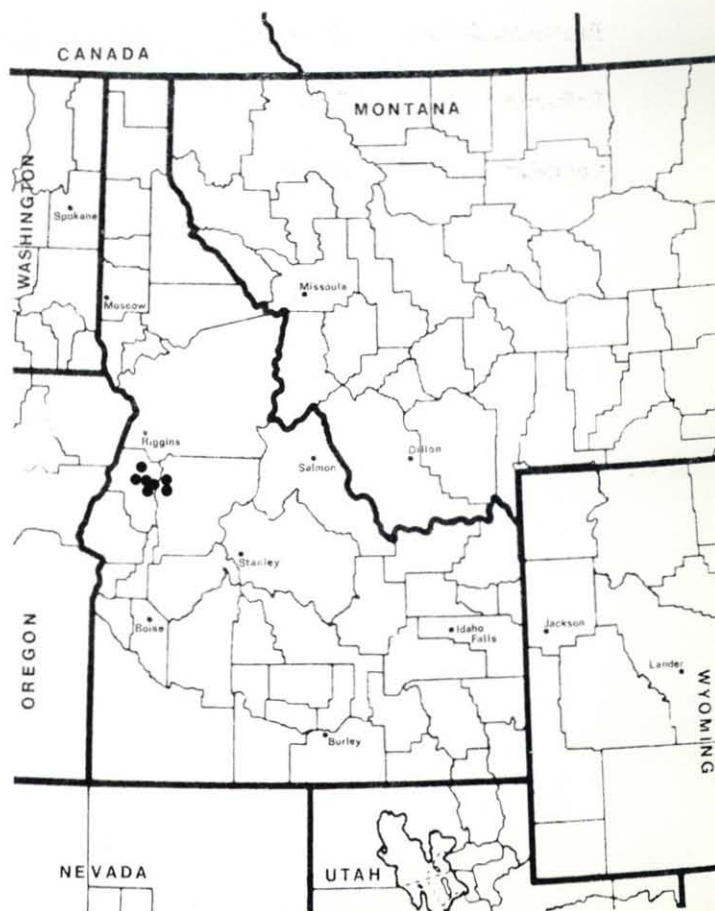
LILIACEAE

Location	Idaho: ADAMS, VALLEY and possibly ADA counties Oregon: Grant, Wallowa, Wheeler and Umatilla counties
Land Ownership	USFS (Payette, Malheur and Wallowa-Whitman N.F.), some private land and possibly Idaho Department of Lands
Vegetation Type	Conifer forest zones, 4000 to 5500 ft
Habitat	Vernal wet spots in moist meadows near McCall — "gravelly seepy slope"; Blue Mountains — disturbed soil with annuals on edge of meadow
Hazards	None evident
Herbarium Data	Number of sites by county: Idaho—ADAMS-5, VALLEY-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-2, ID-4, IDF-3, IDS-0, RENO-0, UTC-1, WS-3, WTU-0
Remarks	Abundant in certain wet meadows near McCall, Idaho, some heavily used by sheep and/or cattle and in one instance heavy use by motor bikes. Also found in soil overturned by pocket gophers.

Recommendations If Oregon data corroborate those of Idaho, then the wide range, numerous collections and apparent resistance to disturbance suggest that with a little more data on distribution and ecology, this species may be removed from the threatened list. Until then, **RETAIN AS THREATENED.**

References Ownbey 1950
Steele 1975

Compiler Johnson

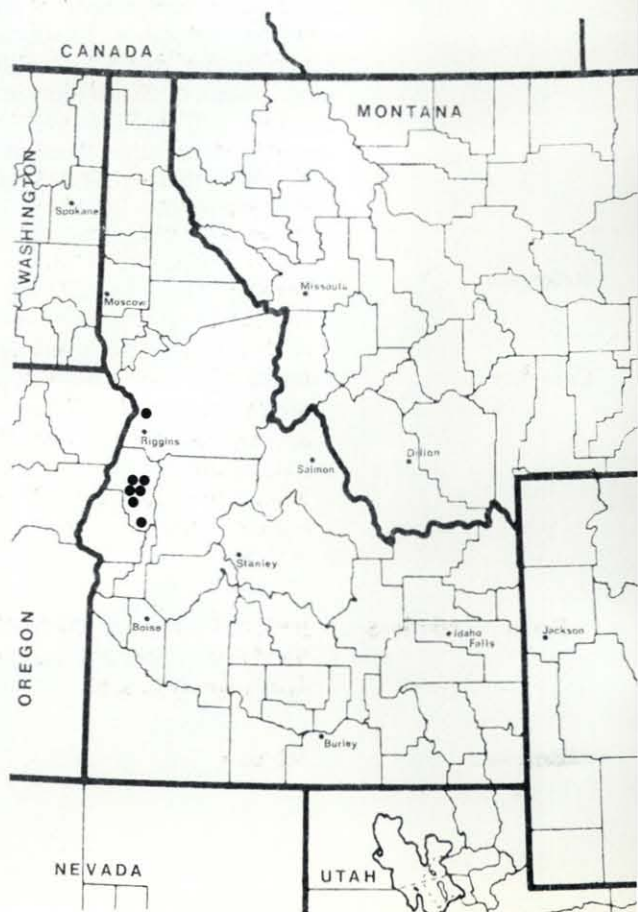


48. *Allium tolmiei* Baker
var. *persimile* Ownbey

Proposed Federal Status
THREATENED

LILIACEAE

Location	Idaho: ADAMS and IDAHO counties Collections from north and south end of Seven Devils Mountains – likely at intermediate points Idaho endemic variety
Land Ownership	Primarily USFS (Nezperce and Payette N.F.) – also expected in Hell's Canyon National Recreation Area (Seven Devils Wilderness)
Vegetation Type	One collection in Idaho County – given as <i>Cercocarpus ledifolius</i> / <i>Agropyron spicatum</i> community
Habitat	"Rocky, gravelly or clayey soils" – (Hitchcock et al. 1955); "sandy soil along seasonal watercourses" (Ownbey 1950); "sparse cover." Largely confined to seasonal seep area in road cut (Phillips 1976).
Herbarium Data	Number of sites by county: Idaho—ADAMS-6, IDAHO-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-1, ID-1, IDF-0, IDS-0, RENO-0, UTC-0, WS-2, WTU-0
Remarks	The variety <i>persimile</i> is a tetraploid ($n=21$) of <i>A. tolmiei</i> ($n=7$). The range of the variety <i>persimile</i> overlaps or is immediately adjacent to the more widespread variety <i>platyphyllum</i> ; micro-habitat data for the two varieties are lacking.
Recommendations	RETAIN AS THREATENED. Distributional and ecological data needed, as well as a clear view of taxonomic position.
References	Ownbey 1950
Compiler	Johnson



LILIACEAE

Location	Idaho: LATAH, NEZ PERCE, IDAHO and possibly CLEARWATER counties "South to Salmon/Clearwater divide (near Grangeville) – west to Seven Devils Mountains near Riggins" (Hitchcock et al. 1955) Washington: Whitman County
Land Ownership	Uncertain. From general distribution and habitat data probably mostly small private owners. Should be on USFS (Nezperce N.F.) near Seven Devils – possibly BLM in lower Salmon River Canyon, possibly Idaho Department of Lands
Vegetation Type	Little data but apparently a grassland plant. Maybe in forest/grassland ecotone
Habitat	"Shallow soil over lava," "rocky slope," "open grassy slopes on hillsides," "on rocky slopes in prairie vegetation"
Hazards	Unknown
Herbarium Data	Only collections recently annotated by Ownbey are cited and mapped. (See remarks.) Number of sites by county: Idaho–CLEARWATER-1, IDAHO-2, LATAH-2, NEZ PERCE-1 Number of collections in herbaria searched: ID-6, WS-6

Remarks *Calochortus nitidis* is easily confused with *C. eurycarpus*, *C. macrocarpus* and possibly other species. Ownbey (1940) reports a wide distribution (Montana, Wyoming, Idaho, Oregon, Washington) and notes many collection sites. The location described at the top of this page is Ownbey's more recent interpretation – a much more restricted range. Specimens annotated by Ownbey since his 1940 paper are not common. I can give no credence to unannotated specimens. For example, the University of Nevada (Reno) lists 35 collections from five of six states noted in Ownbey's 1940 monograph and thus I must assume follows the 1940 criteria.

Recommendations *RETAIN AS THREATENED.*
Validated collection and field data urgently needed.

Compiler Johnson



50. *Tofieldia glutinosa* (Michx.) Pers.
var. *absona* (Hitchc.) Davis

Proposed Federal Status
ENDANGERED

LILIACEAE

Location	Idaho: BONNER and VALLEY counties Idaho endemic variety
Land Ownership	USFS (Kaniksu and Payette N.F.); possibly Idaho Department of Lands
Vegetation Type	Bogs in <i>Abies lasiocarpa</i> zone
Habitat	On sphagnum moss mats in openings at bog edges
Hazards	Unknown. But this type of plant community is slow developing and on a very specialized habitat. Any activity which would promote drainage or a rise in water level would jeopardize this taxon.
Herbarium Data	Number of sites by county: Idaho—BONNER-1, VALLEY-1 Number of collections in herbaria searched: BOIS-0, CIC-0, ID-0, IDF-1, WS-1
Remarks	<p>This plant is a phytogeographic and taxonomic riddle. Piper collected it first near Priest Lake, Bonner County in 1901. Apparently no one else has collected it until recently when it was found in Valley County north of McCall, Idaho. The more widespread variety <i>montana</i> is found throughout the northern Rockies. Re-collection at the Valley County site revealed that the variety <i>absona</i> and the variety <i>montana</i> are apparently mixed. The pattern of distribution (Valley & Bonner counties) is one which we (Steele & Johnson) have not encountered in studying the ranges of hundreds of disjunct and endemic plants. We expect, even from data this meager, that intermediate stations probably exist.</p>
Recommendations	<p>RETAIN AS ENDANGERED. Taxonomic work is needed to validate the varietal status of <i>absona</i>. Obviously more populations should be sought and the ecology of the variety described.</p>
Compiler	Johnson

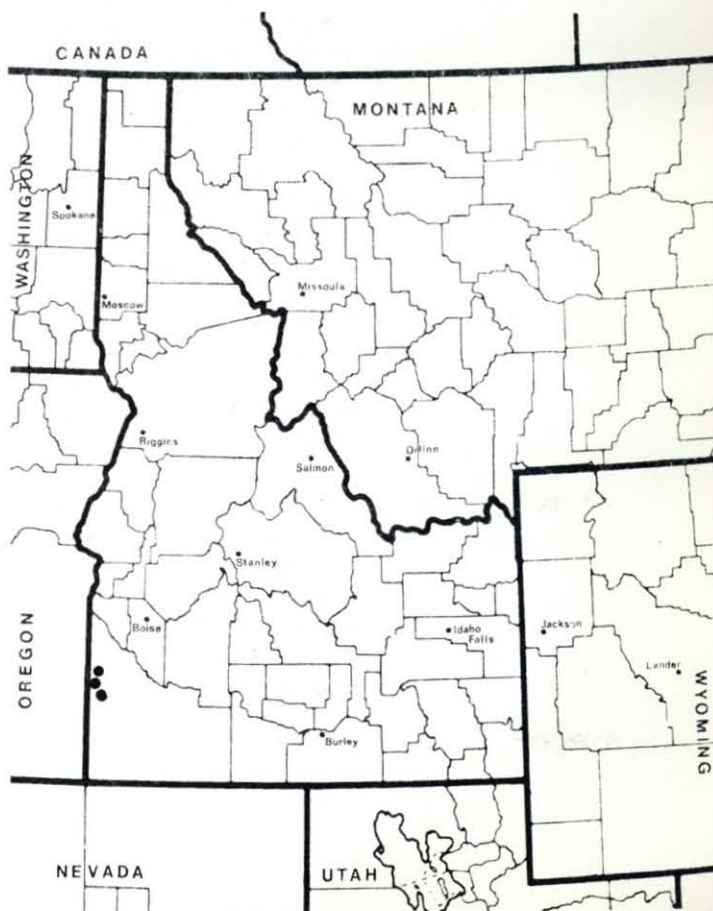


51. *Mentzelia mollis* Pack

Proposed Federal Status
THREATENED

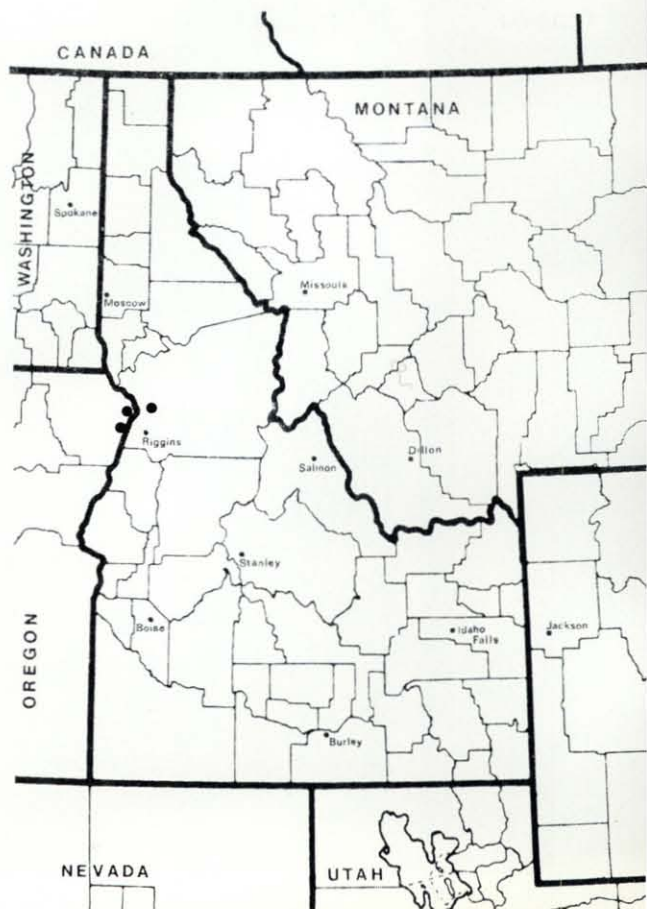
LOASACEAE

Location	Idaho: OWYHEE County Oregon: Malheur County
Land Ownership	BLM, private, and possibly Idaho Department of Lands
Vegetation Type	Desert shrub
Habitat	Volcanic ash
Hazards	Recreationists with off-road vehicles (ORVs). Range improvement programs
Herbarium Data	Number of sites by county: Idaho—OWYHEE-3 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-6, ID-2, IDF-0
Remarks	This plant is very abundant where it occurs, but its habitat is highly restricted and attracts ORV use. Its range is about 30 x 15 miles. It has not been successfully germinated or grown in greenhouse or garden. Range improvement programs have disturbed several sites.
Recommendations	Its small range, restricted habitat and active impact of land use make this plant most vulnerable. Therefore its status should be CHANGED TO ENDANGERED .
References	Glad 1976
Compiler	Packard



NYCTAGINACEAE

Location	Idaho: IDAHO County Oregon: Wallowa County Hell's Canyon endemic "Snake River Canyon and lower Salmon River"
Land Ownership	Primarily USFS (Payette and Wallowa N.F.), mainly in Hell's Canyon National Recreation Area, possibly some BLM in Salmon River Canyon, and some private
Vegetation Type	Canyon bottoms, bunchgrass or included shrub communities
Habitat	"rocky slopes"
Hazards	Unknown but in little jeopardy; it is primarily within Hell's Canyon National Recreation Area.
Herbarium Data	Number of sites by county: (Idaho collections only) Idaho—IDAHO-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-1, RENO-0, UTC-0, WS-0, WTU-0
Remarks	Two collections are from Oregon, but investigation of similar habitat on the Idaho side of the Snake River will likely reveal more of this species. Inaccessibility of the total range makes population projections very uncertain. Constance & Rollins (1936) note that the nearest relative to this species is <i>M. greenii</i> of southern Oregon and northern California, located some 350 miles southwest.
Recommendations	RETAIN AS ENDANGERED. Rely heavily on Oregon data. Investigate distribution and habitat requirements.
References	Constance & Rollins 1936
Compiler	Johnson



53. *Oenothera psammophila* Nels. & Macbr.
 Syn. *O. caespitosa* Nutt.
 var. *psammophila* (Nels. & Macbr.) Munz

Proposed Federal Status
ENDANGERED

ONAGRACEAE

Location	Idaho: FREMONT County Idaho endemic variety
Land Ownership	BLM and possibly Idaho Department of Lands
Vegetation Type	Sagebrush/grass
Habitat	Sand dunes
Hazards	Possibly subjected to grazing disturbance and off-road vehicles
Herbarium Data	Number of sites by county: Idaho—FREMONT-1 Number of collections in herbaria searched: BOIS-0, ID-0, IDF-0, RENO-1, WS-0
Remarks	Needs field evaluation of susceptibility to disturbance factors.
Recommendations	<i>RETAIN AS ENDANGERED.</i>
Compiler	Steele



54. *Calamagrostis tweedyi* (Scribn.) Scribn.

Proposed Federal Status
THREATENED

POACEAE (Gramineae)

Location	Idaho: IDAHO County Washington: Wenatchee Mountains
Land Ownership	USFS (Payette N.F.)
Vegetation Type	Subalpine fir zone
Habitat	Timbered slopes with <i>Carex geyeri</i>
Hazards	Possible conflict with logging activities
Herbarium Data	Number of sites by county: Idaho—IDAHO-1, Washington—Wenatchee Mts.-5 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-2, IDS-1, WS-0, WTU-3
Remarks	The Idaho population may be endangered and should be investigated.
Recommendations	<i>RETAIN AS THREATENED.</i>
Compiler	Steele



55. *Phlox idahonis* Wherry

Proposed Federal Status
ENDANGERED

POLEMONIACEAE

Location	Idaho: CLEARWATER County, one meadow of several acres Idaho endemic
Land Ownership	Potlatch Corporation owns all of the land
Vegetation Type	<i>Thuja plicata</i> climax area
Habitat	Open, cut-over shrub and forb/grass meadow at 3200 ft
Hazards	Possibly very sensitive to grazing
Herbarium Data	Number of sites by county: Idaho—CLEARWATER-1 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-1, IDF-5, IDS-2, RENO-1, WS-1 (all collections from the same meadow)

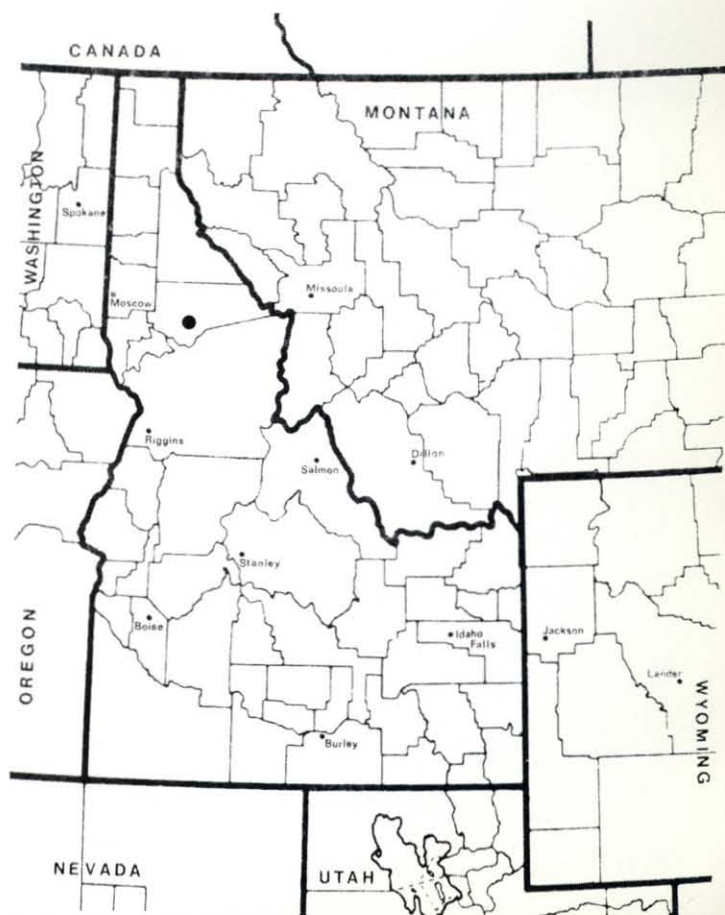
Remarks

Plants form rhizomatous colonies in openings between shrubs. Some plants are infected by an unknown leaf rust; impact on population is unknown. This meadow was timbered at one time, but now only a few small conifers are present. Grazing by cattle in adjacent meadows is moderate to heavy but in this meadow is very light and occasional. Potlatch Corporation has set aside the major portion of this meadow and has agreed to whatever protection or management is necessary to maintain a healthy population.

Recommendations

RETAIN AS ENDANGERED. Reaction of this plant to fire, grazing and shade must be determined as well as reproductive capacity and other aspects of its autecology. An intensive and systematic survey for additional populations is needed. Evaluation of the nature and impact of the leaf rust is also imperative.

Compiler Johnson



56. *Claytonia flava* A. Nels.
 Syn. *C. lanceolata* Pursh var. *flava*
 (A. Nels.) C.L. Hitchc.

Proposed Federal Status
THREATENED

PORTULACACEAE

Location	Idaho: FREMONT County Idaho endemic
Land Ownership	USFS (Targhee N.F.), Idaho Department of Lands, and some private
Vegetation Type	<i>Pinus contorta</i>
Habitat	Moist meadows
Hazards	Possibly grazing disturbance
Herbarium Data	Number of sites by county: Idaho—FREMONT-2 Number of collections in herbaria searched: BOIS-0, BS-0, CIC-0, ID-0, IDF-0, IDS-1, WS-0, WTU-1
Remarks	Should investigate possible hazards.
Recommendations	<i>RETAIN AS THREATENED.</i>
Compiler	Steele

