

Scientific Name	Common Name	USGS QUAD						Range/Distribution	G Rank	T Rank	S Rank UT	S Rank WY	
		Logan	Ogden	Salt Lake	Pleasant Grove	Spanish Fork	Heber/Kamas	Mt. View/Evanston					
<i>Astragalus deserticetus</i> (Threatened)	Desert milkvetch				?				Potential habitat exists but none found on forest system lands.	G1	S1		
<i>Phacelia argillacea</i> (Endangered)	Clay phacelia				?				Potential habitat exists. Augmented populations located on forest system lands as per Recovery Plan.	G1	S1		
<i>Primula maguirei</i> (Threatened)	Maguire's primrose	X							Logan Canyon endemic, 14 populations located on the Laketown/Fishhaven dolomite formation in Logan Canyon.	G1	S1		
<i>Spiranthes diluvialis</i> (Threatened)	Ute Ladies' tresses	?	?		X				One known population in Diamond Fork, limited potential habitat elsewhere on forest. Habitat surveyed but no further populations found.	G1	S1		
<i>Angelica wheeleri</i>	Wheeler's Angelica	X	X	X	X	X			11 occurrences in six Utah counties: Cache, Salt Lake, Utah, Juab, Sevier, and Piute.	G2	S2		
<i>Astragalus jejunus var. <i>jejunus</i></i>	Starving milkvetch		?						Known populations near FS boundary. Potential habitat on forest surveyed, none found. Defer to Caribou-Targhee NF.				
<i>Botrychium crenulatum</i>	Crenulate moonwort	X		?	?	X	?		Saturated soils of seeps, spruce forests, stabilized margins of streams, among dense herbaceous vegetation, 3000-6000 feet.	G3	S1		
<i>Botrychium lineare</i>	Slender moonwort	?		X	?	?	?		Historic population on Salt Lake Ranger district has not been relocated, potential habitat across the entire forest in riparian areas above 9000 feet.	G1	S1		
<i>Corydalis caseana</i> spp. <i>brachycarpa</i>	Wasatch fitweed	?	X	X	X	?	?		Mid-mountain along streams anywhere on forest from 6200-10000 feet.	G5	T2	S2	
<i>Cypripedium fasciculatum</i>	Brownie lady's slipper	X	?	X	?	X	X		Highly shaded areas of conifer stands, less often in open rocky areas 8000-9600 feet.	G4	S1		
<i>Cypripedium parviflorum</i> ( <i>Cypripedium calceolus</i> var. <i>parviflorum</i> )	Lesser yellow lady's slipper		X						Shady moist soils 4400-5280 feet. Two known locations, only one on federal land.	G5	S1		
<i>Dodecatheon utahense</i>	Wasatch shooting star		X						Shady, moist places in cracks and crevices of rock outcrops, often in the spray of waterfalls.	G1	S1		
<i>Draba brachystylis</i>	Wasatch draba			X	X	?	?		Aspen and white fir/Douglas-fir communities, 5500 - 9800 ft.	G1G	S1		
<i>Draba burkei</i>	Burkes draba	?	X	?					Talus slopes in subalpine conifer communities in the Wellsville and northern Wasatch Ranges, 8400-9700 feet. Box Elder/Weber County.	G1	S1		
<i>Draba globosa</i> [= <i>D. densifolia</i> var. <i>apiculata</i> ]	Rockcress draba			X	X	X	X		Alpine tundra and meadows 11000-12500 feet, mainly in Uinta Mtn Range and in Cottonwood Canyons in Salt Lake County.	G3	S2		
<i>Draba maguirei</i>	Maguire's draba	X	X						Talus slopes, rocky outcrops, and meadows in the Bear River Range with Douglas-fir, mixed conifer and mountain brush. Cache, Box Elder, Weber Counties.	G1	S1		
<i>Draba santiaginensis</i>	Santquin draba				X	X			In crevices in limestone/dolomite on rock faces in Santquin and American Fork Canyons.	G1	S1		
<i>Erigeron conquistii</i>	Cronquist daisy	X							Crevices in limestone cliffs and talus. Bear River Range endemic, Cache County.	G2	S2		
<i>Erigeron garrettii</i>	Garrets fleabane			X	X				Moist cliff faces and crevices, mainly in limestone. Salt Lake and Wasatch Counties.	G2	S2		
<i>Eriogonum loganum</i>	Logan buckwheat	X	X						Sagebrush/ bunchgrass and rocky outcrop. Limestone soils. Cache, Morgan, and Rich Counties.	G2	S2		
<i>Ivesia utahensis</i>	Utah ivesia	?	X	X	?	X	X		Arid, steep, highly eroded and eroding slopes. Summit, Utah, Wasatch, Weber Counties.	G2	S2		
<i>Jamesia americana</i> var. <i>macrocalyx</i>	Wasatch Jamesia			X	X				Mountain brush and spruce fir, mostly on cliffs and rocky places.	G5	T2	S2	
<i>Lepidium montanum</i> var. <i>alpinum</i>	Wasatch pepperwort			X	?				Sagebrush and spruce-fir communities, Salt Lake County.	G5?	T1	S1	
<i>Lesquerella garrettii</i>	Garrets' bladderpod			X	X				Alpine tundra and spruce-fir, limestone. Often talus and rock outcrops. Salt Lake and Wasatch Counties.	G2	S2		
<i>Popaver radicum</i> ssp. <i>Kuanense</i>	Arctic poppy					X	X		Alpine tundra 9500 feet in Summit and Wasatch Counties.	G5	T3T	S1	
<i>Penstemon compactus</i>	Cache beardtongue	X	X						Mountain brush, spruce-fir, dolomitic/limestone, Cache County.	G2	S2		
<i>Potentilla cottamii</i>	Cottam cinquefoil	?	X						Rock crevices and ledges in quartzite. Box Elder and Toole Counties.	G1	S1		
<i>Thelesperma pubescens</i>	Uinta greenthread					X			Endemic to foothills of Southern Green River Basin and northern Uinta Range in southwest Wyoming (Uinta and Sweetwater counties) and reported for adjacent northeast Utah.	G1		S1	
<i>Tonestus kingii</i> var. <i>Barnybiana</i> *=( <i>Aster kingii</i> )	Wood Aster	X	X	X	X	X			Douglas-fir, mountain brush, and cottonwood communities 6000-10000 feet. Bear River Range and Wasatch Range.	G3	T3	S1	
<i>Viola frank-smithii</i>	Frank Smith violet	X							Endemic to Logan drainage of Bear River Range. Cottonwood canyon (outside Smithfield, UT).	G2		S2	
<i>Arabis glabra</i> var. <i>furcatipilis</i>	Tower Rockcress	X	X	?	?	?	?		Sagebrush, pinyon juniper, mountain brush, aspen and spruce-fir communities at 5000-9600 feet. Cache, Salt Lake, Weber, Tooele, Summit, Uintah, and Utah Counties.	G3/4			
<i>Artemisia norvegica</i>	Spruce wormwood	?		?	?	X			Spruce-fir, lodgepole pine, and alpine tundra 10700-1200 feet. Summit County.				
<i>Cymopterus lippoides</i>	Talus spring parsley					X			Sagebrush juniper and mountain mahogany at 5970-6128 feet.				
<i>Erigeron arenarioides</i>	Sand fleabane	X	X	X	X				Crevices in limestone and quartzite outcrops, in maple, oak, limber pine, <i>ivesia</i> , <i>eriogonum</i> communities . 4362-9216 feet. Box Elder, Weber, Salt Lake, Toole, Utah Counties.				
<i>Penstemon platyphyllus</i>	Broadleaf beardtongue	X	X	X					Mountain brush communities at Wasatch Range, 5000-8872 feet. Salt Lake, Utah, and Weber Counties.				

March 2010 update

INTERMOUNTAIN REGION (R4) THREATENED, ENDANGERED, PROPOSED,  
AND, AND SENSITIVE SPECIES  
KNOWN / SUSPECTED DISTRIBUTION BY FOREST

ENDANGERED		Uinta Planning Area	Wasatch-Cache Planning Area
<b>MAMMALS</b>			
Black-footed ferret 3/11/67	<i>Mustela nigripes</i>		o
<b>FISH</b>			
June sucker 3/31/86	<i>Chasmistes liorus</i>	o	o
Bonytail chub 4/23/80	<i>Gila elegans</i>	o	o
Humpback chub 3/11/67	<i>Gila cypha</i>	o	o
Colorado pike minnow 3/11/67	<i>Ptychocheilus lucius</i>	o	o
Razorback sucker 10/23/91	<i>Xyrauchen texanus</i> (ED 11/22/91)	o	o
<b>PLANTS</b>			
Clay phacelia 09/28/78	<i>Phacelia argillacea</i>	X	
<b>THREATENED</b>		UIN	WC
<b>MAMMALS</b>			
Canada lynx 4/15/00	<i>Lynx canadensis</i>	?	?
<b>PLANTS</b>			
Deseret milkvetch 10/20/99	<i>Astragalus desereticus</i>	?	
Maguire's primrose 8/21/85	<i>Primula cusickiana</i> var. <i>maguirei</i> ( <i>P. maguirei</i> )		X
Ute ladies' tresses orchid 1/17/92	<i>Spiranthes diluvialis</i> (2/18/92)	X	?
<b>SENSITIVE</b>		UIN	W-C
<b>MAMMALS</b>			
Bighorn Sheep Includes Rocky Mountain bighorn sheep California bighorn sheep, and desert bighorn sheep	<i>Ovis canadensis</i> – ( <i>O. c. canadensis</i> ), ( <i>O. c. californiana</i> ) ( <i>O. c. nelsoni</i> ) (7/29/2009)	X	X
Spotted bat	<i>Euderma maculatum</i>	X	X
North American wolverine	<i>Gulo gulo</i> ( <i>Iucus</i> )		X
Fisher	<i>Martes pennanti</i>	X	
Townsend's Western Big-Eared Bat	<i>Corynorhinus townsendii</i> <i>townsendii</i>	X	X
<b>BIRDS</b>			
Bald eagle	<i>Haliaeetus leucocephalus</i>	X	X
Boreal owl	<i>Aegolius funereus</i>		X
Greater sage-grouse	<i>Centrocercus urophasianus</i>	X	X
Peregrine falcon 3/20/84	<i>Falco peregrinus anatum</i>	X	X
Flammulated owl	<i>Otus flammelous</i>	X	X
Three-toed woodpecker	<i>Picoides tridactylus</i>	X	X
Great gray owl	<i>Strix nebulosa</i>		X
Columbian sharp-tailed grouse	<i>Tympanuchus phasianellus</i> <i>columbianus</i>		X
Northern goshawk	<i>Accipiter gentilis</i>	X	X
Yellow-billed cuckoo	<i>Coccyzus americanus</i>	X	X
<b>REPTILES AND AMPHIBIANS</b>			
Columbia spotted frog	<i>Rana luteiventris</i>	X	X
Boreal Toad	<i>Bufo boreas</i>	X	X
<b>FISH</b>			
Colorado River cutthroat trout	<i>Oncorhynchus clarki pleuriticus</i>	X	X
Bonneville cutthroat trout	<i>Oncorhynchus clarki utah</i>	X	X
Northern Leatherside Chub	<i>Lepidomeda copei</i>		X
Southern Leatherside Chub	<i>Lepidomeda aliciae</i>	X	
<b>PLANTS</b>			
Wheeler's angelica	<i>Angelica wheeleri</i>	X	X

Dainty moonwort	<i>Botrychium crenulatum</i>	X	
Slender moonwort	<i>Botrychium lineare</i>	?	X
Wasatch fitweed	<i>Corydalis caseana</i> spp. <i>brachycarpa</i>	X	X
Brownie ladyslipper	<i>Cypripedium fasciculatum</i>		X
Lesser yellow Lady's slipper	<i>Cypripedium parviflorum</i> ( <i>Cypripedium calceolus</i> var. <i>parviflorum</i> )		X
Wasatch shooting star	<i>Dodecatheon utahense</i>		X
Wasatch Draba	<i>Draba brachystylis</i>	?	X
Burke's draba	<i>Draba burkei</i>		X
Rockcress draba	<i>Draba globosa</i> (= <i>D. densifolia</i> var. <i>apiculata</i> )	X	X
Maguire draba	<i>Draba maguirei</i>		X
Santaquin draba	<i>Draba santaquinensis</i>	X	
Cronquist daisy	<i>Erigeron cronquistii</i>		X
Garrett's fleabane	<i>Erigeron garrettii</i>	X	X
Logan buckwheat	<i>Eriogonum loganum</i> (= <i>E. brevicaule</i> var. <i>loganum</i> )		X
Utah ivesia	<i>Ivesia utahensis</i>	X	X
Wasatch jamesia	<i>Jamesia americana</i> var. <i>macrocalyx</i>	X	X
Wasatch pepperwort	<i>Lepidium montanum</i> var. <i>alpinum</i>	?	X
Garrett bladderpod	<i>Lesquerella garrettii</i>	X	X
Arctic poppy	<i>Papaver radicatum</i> var. <i>pygmaeum</i>		X
Cache beardtongue	<i>Penstemon compactus</i>		X
Cottam cinquefoil	<i>Potentilla cottamii</i>		X
Uinta green thread	<i>Thelesperma pubescens</i>		X
Barneby woody aster	<i>Tonestus</i> (= <i>Aster</i> ) <i>kingii</i> var. <i>barnebyana</i>	X	
Smith violet	<i>Viola franksmithii</i>		X

**KEY:**

X = known distribution species and/or habitat  
 ? = suspected or potential habitat  
 \* = wild and naturally reproducing stocks  
 + = migration corridors only  
 o = offsite impacts (e.g. downstream)  
 r = reintroduced Central Idaho & Yellowstone populations, covered under ESA Section 10(j), and declared experimental non-essential populations, and thus are treated like "proposed" species  
 ## = no longer meet "sensitive" criteria (personal communication with Forest botanists and Dr. Duane Atwood), but no official list revision yet  
 Dates are dates the Final Rule was published in the *Federal Register*;  
 ED = Effective dates are about 30 days later if not listed.

***This list was compiled from the following sources:***

*R-4 Vertebrate Sensitive Species List* (August 13, 1990)  
*R-4 Sensitive Plant List* (April 29, 1994)  
*Endangered and Threatened Wildlife and Plants*, USDA-U.S. Fish & Wildlife Service (August 20, 1994)  
*Northern Goshawk - Listed as a Sensitive Species in R4* (October 31, 1991)  
*Miscellaneous Federal Registers*

*Blue=Added in March 2010*

---

**From:** Paul Chase [pchase@fs.fed.us]  
**Sent:** Friday, October 01, 2010 8:27 AM  
**To:** Michael Duncan; Lee, Susan  
**Subject:** RE: Uinta-Wasatch-Cache species list  
**Attachments:** 2010R4TesListUWCOnly.doc

Management Indicator Species (MIS) on the Wasatch-Cache portion of the Forest include:  
Beaver, Northern goshawk, snowshoe hare, and cutthroat trout (either Bonneville or Colorado River depending on location).

TES species are found in the attached document. If you have any questions, please let me know.

Paul Chase  
Fisheries Biologist  
Uinta-Wasatch-Cache National Forest  
(801) 625-5112 ext 114 (Ogden RD)  
(435) 755-3629 (Logan RD)  
[pchase@fs.fed.us](mailto:pchase@fs.fed.us)

Michael Duncan/R4/USDAFS  
10/01/2010 07:27 AM  
To "Lee, Susan" <[Susan.Lee@hdrinc.com](mailto:Susan.Lee@hdrinc.com)>  
cc Jennefer L Parker <[jenneferparker@fs.fed.us](mailto:jenneferparker@fs.fed.us)>, "Toler, Trent"  
<[Trent.Toler@hdrinc.com](mailto:Trent.Toler@hdrinc.com)>, Paul Chase/R4/USDAFS@FSNOTES  
Subject RE: Uinta-Wasatch-Cache species list [Link](#)

Paul Chase is the Fisheries Biologist on the North Zone of the UWCNF - he can also help with the MIS list.

Paul - I forwarded on our list of TES plants, can you help her out on the fish/wildlife and MIS.

"Lee, Susan" <[Susan.Lee@hdrinc.com](mailto:Susan.Lee@hdrinc.com)>  
09/30/2010 10:48 AM  
To Michael Duncan <[mduncan@fs.fed.us](mailto:mduncan@fs.fed.us)>  
cc "Toler, Trent" <[Trent.Toler@hdrinc.com](mailto:Trent.Toler@hdrinc.com)>, Jennefer L Parker  
<[jenneferparker@fs.fed.us](mailto:jenneferparker@fs.fed.us)>  
Subject RE: Uinta-Wasatch-Cache species list

Mike,

Thanks; this is very helpful. Is there a similar list for fish and wildlife (including management indicator species)? Or is there someone else in your office who we should contact for that?

Sue

*Sue Lee*

**HDR ONE COMPANY | Many Solutions**

3949 South 700 East, Suite 500 | Salt Lake City, UT | 84107  
Phone: 801.743.7811 | Fax: 801.743.7878  
[Susan.Lee@hdrinc.com](mailto:Susan.Lee@hdrinc.com)

**From:** Michael Duncan [<mailto:mduncan@fs.fed.us>]  
**Sent:** Thursday, August 19, 2010 8:45 AM  
**To:** Lee, Susan  
**Cc:** Toler, Trent; Jennefer L Parker  
**Subject:** Re: Uinta-Wasatch-Cache species list

Not sure how this is to be used but this list breaks the rare plants into groups.  
Federally listed are the ones that need a Biological Assessment and potential consultation with USFWS (for Logan - Maguires primrose is the main focus)  
Forest Service Sensitive are the ones requiring a formal Biological Evaluation - there are several Bear River Range endemics as well as others that may have potential habitat on the Logan RD.  
Watch List Species - these are species that are rare and we are always on the look out for - and if found we analyze the impacts/effects of the project on them. These are species that may be relatively common but we have to watch activities that may push them closer to becoming federally listed.

If you need more information please call/email -

---

~~~~~  
Mike Duncan  
Botanist  
Uinta Wasatch Cache NF  
(801) 236-3415 Work  
(801) 236-3472fax  
[mduncan@fs.fed.us](mailto:mduncan@fs.fed.us)

---

"Lee, Susan" <[Susan.Lee@hdrinc.com](mailto:Susan.Lee@hdrinc.com)>

08/16/2010 02:02 PM

To "mduncan@fs.fed.us" <[mduncan@fs.fed.us](mailto:mduncan@fs.fed.us)>  
cc "Toler, Trent" <[Trent.Toler@hdrinc.com](mailto:Trent.Toler@hdrinc.com)>  
Subject Uinta-Wasatch-Cache species list

Mike,

This email is a follow up to the voice mail I left for you on Monday, August 16. We (HDR) are working with NRCS on an EIS for reconstruction of the Logan Northern Canal in Cache County. At the agency scoping meeting for the project, Jennefer noted that you were the person to contact to get a copy of the latest special status species list for the forest. We can't find anything on line, and

would appreciate it if you could send us a copy via email.

Thanks in advance for your assistance.

Regards,

*Sue Lee*

**HDR ONE COMPANY | Many Solutions**

3949 South 700 East, Suite 500 | Salt Lake City, UT | 84107

Phone: 801.743.7811 | Fax: 801.743.7878

[Susan.Lee@hdrinc.com](mailto:Susan.Lee@hdrinc.com)

| Scientific Name                                                        | Common Name                  | Lodgepole | Ogden | Salt Lake | Pleasant Grove | Spanish Fork | Heber/Kamas | McMinnville/Evanston |
|------------------------------------------------------------------------|------------------------------|-----------|-------|-----------|----------------|--------------|-------------|----------------------|
| <b>Federally Listed</b>                                                |                              |           |       |           |                |              |             |                      |
| <i>Astragalus deserticola</i> (Threatened)                             | Desert milkvetch             |           |       | ?         |                |              |             |                      |
| <i>Phacelia argillacea</i> (Endangered)                                | Clay phacelia                |           |       | ?         |                |              |             |                      |
| <i>Primula maguirei</i> (Threatened)                                   | Maguire's primrose           | X         |       |           |                |              |             |                      |
| <i>Spiranthes diluvialis</i> (Threatened)                              | Ute Ladies's tresses         | ?         | ?     | X         |                |              |             |                      |
| <b>Forest Service Sensitive</b>                                        |                              |           |       |           |                |              |             |                      |
| <i>Angelica wheeleri</i>                                               | Wheeler's Angelica           | X         | X     | X         | X              | X            |             |                      |
| <i>Astragalus jejimus</i> var. <i>jejimus</i>                          | Starving milkvetch           |           | ?     |           |                | X            | ?           |                      |
| <i>Botrychium crenulatum</i>                                           | Crenulate moonwort           | X         |       | ?         | ?              |              |             | ?                    |
| <i>Botrychium lineare</i>                                              | Slender moonwort             | ?         | X     | ?         | ?              |              |             | ?                    |
| <i>Corydalis caseana</i> ssp. <i>brachycarpa</i>                       | Wasatch firweed              | ?         | X     | ?         | ?              |              |             | ?                    |
| <i>Cypripedium fasciculatum</i>                                        | Brownie lady's slipper       |           |       |           |                |              |             |                      |
| <i>Cypripedium parviflorum</i> ( <i>Cypripedium calceolus</i> )        | Lesser yellow lady's slipper | X         | ?     | X         | ?              |              |             |                      |
| <i>Dodecatheon utahense</i>                                            | Wasatch shooting star        |           |       |           |                |              |             |                      |
| <i>Draba brachystylis</i>                                              | Wasatch draba                |           |       | X         | X              | ?            |             | ?                    |
| <i>Draba burkei</i>                                                    | Burk's draba                 | ?         | X     | ?         |                |              |             |                      |
| <i>Draba globosa</i> [= <i>D. densifolia</i> var. <i>apiculata</i> ]   | Rockcress draba              |           | X     | X         |                | X            |             |                      |
| <i>Draba maguirei</i>                                                  | Maguire's draba              | X         | X     |           |                |              |             |                      |
| <i>Draba santquinensis</i>                                             | Santquin draba               |           |       | X         |                |              |             |                      |
| <i>Erigeron cronei</i>                                                 | Cronquist daisy              | X         |       |           |                |              |             |                      |
| <i>Erigeron garrettii</i>                                              | Garnett's fleabane           |           | X     | X         |                |              |             |                      |
| <i>Eriogonum loganum</i>                                               | Logan buckwheat              | X         | X     | ?         |                |              |             |                      |
| <i>Ivesia utahensis</i>                                                | Utah ivesia                  | ?         | X     | X         | ?              |              | X           |                      |
| <i>Jamiesonia americana</i> var. <i>macrocalyx</i>                     | Wasatch jamesia              |           |       | X         |                |              |             |                      |
| <i>Lepidium montanum</i> var. <i>alpinum</i>                           | Wasatch pepperwort           |           |       | X         | ?              |              |             |                      |
| <i>Lesquerella garrettii</i>                                           | Garnett's bladderpod         |           | X     | X         |                |              |             |                      |
| <i>Papaver radicatum</i> ssp. <i>Khanense</i>                          | Arctic poppy                 |           |       |           |                | X            |             |                      |
| <i>Pensamiento compactus</i>                                           | Cache beardtongue            | X         | X     |           |                |              |             |                      |
| <i>Potentilla coccinea</i>                                             | Cottam cinquefoil            |           | ?     | X         |                |              |             |                      |
| <i>Thelesperma pubescens</i>                                           | Uinta greenthread            |           |       |           |                |              |             | X                    |
| <i>Tonentus kingii</i> var. <i>Barnabyi</i> ** ( <i>Aster kingii</i> ) | Wood Aster                   | X         | X     | X         |                |              |             |                      |
| <i>Viola frank-smithii</i>                                             | Frank Smith violet           | X         |       |           |                |              |             |                      |

| Range/Distribution                                                                                                                                                   | G Rank |      | T Rank |    | S Rank |    | S Rank<br>WY |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------|--------|----|--------|----|--------------|
|                                                                                                                                                                      | UT     | WY   | UT     | WY | UT     | WY |              |
| Potential habitat exists but none found on forest system lands.                                                                                                      |        |      |        |    |        |    |              |
| Potential habitat exists. Augmented populations located on forest system lands as per Recovery Plan.                                                                 | G1     | S1   |        |    |        |    |              |
| Logan Canyon endemic, 14 populations located on the Laketown/Fishhaven dolomite formation in Logan Canyon                                                            | G1     | S1   |        |    |        |    |              |
| One known population in Diamond Fork - limited potential habitat elsewhere on forest. Habitat surveyed but no further populations found.                             | G1     | S1   |        |    |        |    |              |
| 11 occurrences 6 Utah counties; Cache, Salt Lake, Utah, Juab, Sevier, Piute                                                                                          | G2     | S2   |        |    |        |    |              |
| Known populations near FS boundary. Potential habitat on forest surveyed, none found. Deferr to Caribou-Targhee NF                                                   |        |      |        |    |        |    |              |
| Saturated soils of seeps, spruce forests, stabilized margins of streams, among dense herbaceous veg 3000-6000 feet                                                   | G3     | S1   |        |    |        |    |              |
| Historic population on SLRD has not been relocated. Potential habitat across the entire forest in riparian areas above 9000 feet acro                                | G1     | S1   |        |    |        |    |              |
| Mid mountain along streams anywhere on forest from 6200-10000 feet.                                                                                                  | G5     | T2   | S2     |    |        |    |              |
| Highly shaded areas of conifer stands, less often in open rocky areas 8000-9600 feet.                                                                                | G4     | S1   |        |    |        |    |              |
| Shady, moist soils 4400-5280 feet. 2 known locations, only one on federal land.                                                                                      | G5     | S1   |        |    |        |    |              |
| Shady, moist places in cracks and crevices of rock outcrops, often in the spray of waterfalls                                                                        | G1     | S1   |        |    |        |    |              |
| Aspen and white fir/Douglas-fir communities. 5500 - 9800 ft                                                                                                          | G1/G2  | S1   |        |    |        |    |              |
| Talus slopes in subalpine conifer communities in the Wellsville and northern Wasatch ranges 8400-9700 feet. Box Elder/Weber county.                                  | G1     | S1   |        |    |        |    |              |
| Alpine tundra and meadows 11000-12500feet mainly in Uinta Mtn Range and in Cottonwood Canyons in Salt Lake Counties.                                                 | G3     | S2   |        |    |        |    |              |
| Talus slopes, rocky outcrops and meadows in the Bear River Range with Doug fir, mixed conifer and mountain brush. Cache, Box Elder, Weber counties.                  | G1     | S1   |        |    |        |    |              |
| In crevices in limestone/dolomite on rock faces in Santquin and American Fork Canyons.                                                                               | G1     | S1   |        |    |        |    |              |
| Crevices in limestone cliffs and talus. Bear River Range endemic, Cache County.                                                                                      | G2     | S2   |        |    |        |    |              |
| Moist cliff faces and crevices, mainly in limestone. Salt Lake and Wasatch counties.                                                                                 | G2     | S2   |        |    |        |    |              |
| Sagebrush/bunchgrass and rocky outcrop. Limestone soils. Cache, Morgan and Rich Counties                                                                             | G2     | S2   |        |    |        |    |              |
| Arid, steep, highly eroded and eroding slopes Summit, Utah, Wasatch, Weber Counties                                                                                  | G2     | S2   |        |    |        |    |              |
| Mountain brush and spruce fir, mostly on cliffs and rocky places                                                                                                     | G5     | T2   | S2     |    |        |    |              |
| Sagebrush and spruce-fir communities, Salt Lake County                                                                                                               | G5?    | T1   | S1     |    |        |    |              |
| Alpine tundra and spruce-fir, limestone. Often talus and rock outcrops. Salt Lake and Wasatch Counties                                                               | G2     | S2   |        |    |        |    |              |
| Alpine tundra 9500 feet in Summit and Wasatch Counties                                                                                                               | G5     | T3T4 | S1     |    |        |    |              |
| Mountain brush, spruce-fir, dolomitic/limestone. Cache county                                                                                                        | G2     | S2   |        |    |        |    |              |
| Rock crevices and ledges in quartzite, Box Elder and Toole counties                                                                                                  | G1     | S1   |        |    |        |    |              |
| Endemic to foothills of Southern Green River Basin and northern Uinta Range in southwest Wyoming (Uinta and Sweetwater counties) and reported for adjacent northeast | G1     | S1   |        |    |        |    |              |
| Doug fir, mountain brush, and cottonwood communities 6000-10000 feet. Bear River Range and Wasatch Ranges                                                            | G3     | T3   | S1     |    |        |    |              |
| Endemic to Logan drainage of Bear River Range; Cottonwood canyon (outside Smithfield, Ut).                                                                           | G2     | S2   |        |    |        |    |              |