**Baby Goldenrod, Dwarf Goldenrod – *Solidago nana* Nutt.**

**Aster family – Asteraceae**

Account written by Stephen L. Love, 29 Jan 2021

Edited by SIRPWG (5 Feb 2021)

Updated herbarium specimen records, Stephen L. Love (21 Feb 2022)

**Current Conservation Status:**

NatureServe: G5, SNR

2009 INPS rank²: Not listed.

BLM: None.

FS Reg 1: None.

FS Reg 4: None.

FS Reg 6: None.

FWS: None.

**Taxonomy:**

*Synonyms:* *Solidago nivea, Aster nanus*

*Other Subspecies/Varieties, if applicable:*  n/a.

*Type Locality:* United States, Rocky Mountains. Collection date not specified. Specimen held at the Harvard University Herbarium. (Note from SW Colorado Wildflowers web site: Thomas Nuttall discovered this plant in the "Rocky Mountain range, near Lewis' River of the Shoshonee" in 1834…)

*Taxonomic changes:* This name was first verified and published in 1840 by Thomas Nuttall. Otto Kuntze later renamed this species Aster nanus, but ultimately, this name was rejected. Axel Rydberg named a narrow-leaved variant of this species, collected in Montana, *Solidago nivea* in 1910, but this name was ultimately not accepted and merged back with *Solidago nana.*

*Taxonomic key(s):*

Flora of North America.

A Utah Flora

Flora of the Pacific Northwest

**Species Description:**

(From Montana Field Guides web site)

Plants from a short rhizome or branched caudex. Stems ascending, simple, 5–30 cm. Herbage densely puberulent. Leaves basal and cauline; basal petiolate; blades spatulate to oblanceolate, mostly entire, 15–35 mm long, usually 1-veined; cauline oblanceolate, reduced. Inflorescence corymbiform. Involucres campanulate, 4–6 mm high; phyllaries narrowly oblong, minutely ciliate. Rays 6 to 10; ligules 2–4 mm long. Disk flowers 8 to 20; corollas 4–5 mm long. Achenes 1–2 mm long, strigose (Lesica 2012. Manual of Montana Vascular Plants. BRIT Press. Fort Worth, TX).

**Biology:**

Perennial herb; spreads by means of underground rhizomes. The following animal species have been reported as pollinators of this plant species or its genus where their geographic ranges overlap: *Bombus vagans, Bombus appositus, Bombus bifarius, Bombus borealis, Bombus fervidus, Bombus flavifrons, Bombus huntii, Bombus melanopygus, Bombus mixtus, Bombus nevadensis, Bombus rufocinctus, Bombus ternarius, Bombus terricola, Bombus sitkensis, Bombus occidentalis, Bombus pensylvanicus, Bombus bimaculatus, Bombus griseocollis, Bombus impatiens, Bombus insularis, Bombus suckleyi, Bombus bohemicus, Bombus flavidus,* and *Bombus kirbiellus* (Plath 1934, Heinrich 1976, Thorp et al. 1983, Johnson 1986, Shaw and Taylor 1986, Mayer et al. 2000, Colla and Dumesh 2010, Colla et al. 2011, Koch et al. 2012, Williams et al. 2014, Tripoldi and Szalanski 2015).

**Similar species:**

*Solidago multiradiata, Solidago simplex, Solidago glutinosa*

**Habitat:** (From Montana Field Guides web site) Often stony soil of grasslands, sagebrush steppe, meadows, open forest; valleys to subalpine (Lesica 2012. Manual of Montana Vascular Plants. BRIT Press. Fort Worth, TX).

*\*֎Environmental Specificity10:* Moderate.

**Cultural and commercial values:**

None documented.

**Landownership:**

Most documented herbarium specimens were collected from BLM, USFS, or State of Idaho lands.

**Distribution:**

*Global Range*: US states of Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico.

*\*Range Extent Descriptor6:* Idaho - sparse. Scattered populations within south-central and southeast Idaho with a disjunct population in Boise County. *Solidago nana* is widespread in Utah and present to some degree in all states surrounding Utah. Idaho populations are, to a degree, peripheral to the main Utah populations, but would probably not qualify as being disjunct or being defined as peripheral.

֎*Rank Calculator Idaho Range Extent:* In Idaho, documented populations exist in southern and south-central Idaho. In a preliminary inspection, I was able to find herbarium samples representative of 39 (not including duplicate specimens or collection sites) specific sites for this species. One specimen reportedly collected from Shoshone County, and held by the University of Minnesota Herbarium, was not included in the total, due to the fact that the location is far outside the well-documented range extent, and thus needs further investigation. I measured the total suitable habitat that included collected specimens within the state and added these values to create a statewide total = 3,245 sq. miles (8,405 sq km). In addition, Beth Corbin supplied a Google Earth map that included a contiguous geographical area in which populations exist in Idaho. This resulted is a roughly triangular region encompassing 23,000 sq miles (59,570 sq km). I used the latter to compute a value in the rank calculator, resulting in a range extent category for Idaho of F= 20,000 to 200,000 sq km.

֎*Area of Occupancy:* Known populations include only:

*\*Idaho Counties9:* Known from Custer, Lemhi, Blaine, Clark, Fremont, Teton, Boise, Bonneville, Caribou, Franklin, Power, and Bear Lake.

*Idaho Specimens:* Summary of distinct Idaho collections from the Consortium of Pacific Northwest Herbaria, Rocky Mountain Herbarium, the New York Botanical Garden Herbarium, Brigham Young University Herbarium, and the Herbarium at the University of Kansas Biodiversity Institute and Natural History Museum.

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| --- | --- | --- | --- | --- | --- |
| **Record source (Herbarium, IFWIS, person)** | **Date observed/ collected** | **Observer** | **County** | **Location** | **Abundance, threats, habitat condition** |
| SRP: 74463 | 2021 | Pollock | Blaine | Loving Creek | Unknown  Grazing  Recreation |
| SEINet  956d6f37-3464-46e6-bda1-843faaf11924 | 2018 | Baker | Fremont | Mack’s Inn | Unknown  Development  Recreation |
| ID: 171794  ID: 177094 | 2013 | Mancuso | Lemhi | Pahsimoroi SE May | Common  Grazing |
| ID: 157183  ID: 153007 | 2008 | Mancuso | Lemhi | Pahsimoroi  SW May | Uncommon  Grazing |
| NY: 00717873 | 2003 | Holmgren | Caribou | Alexander Res.  Soda Springs | Unknown  Development  Recreation |
| BRYV0278022 | 2002 | Dorn | Caribou | Soda Springs | Unknown  Recreation |
| NY: 00717872 | 2001 | Holmgren | Caribou | Alexander Res.  Soda Springs | Unknown  Development Recreation |
| RM: 822130  RM: 0024101 | 1999 | Evert | Fremont | Island Park  Anderson Mill Canyon | Unknown  Limited |
| ID: 116364  ID: 153009 | 1999 | Bjork | Lemhi | Meadow Lake | Unknown  Limited |
| ID: 115767  ID: 153010 | 1998 | Mancuso | Blaine | Wilson Creek | Uncommon  Grazing |
| IDS: 2016.001 ID S0024899 | 1997 | Pyle | Bonneville | Big Corral | Uncommon  Unknown |
| KANU: 309814 | 1996 | Morse | Franklin | Franklin Basin | Unknown  Recreation  Grazing |
| ID: 104924  ID: 153014 | 1992 | Moseley | Lemhi | Birch Creek | Unknown  Grazing |
| NY: 2355149 | 1989 | Franklin | Franklin | Logan River | Unknown  Grazing  Recreation |
| BOIS: 1688  RMRS | 1989 | Kinney | Custer | Summit Creek | Unknown  Unknown |
| ID: 98695  ID: 153012 | 1988 | Henderson | Custer | Donkey Hills | Unknown  Grazing |

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| --- | --- | --- | --- | --- | --- |
| IDS: 1994.041  1994.41.128  IDS: 0051901 | 1988 | Glennon | Power | Bannock Peak | Unknown  Grazing |
| NY: 2355245 | 1987 | Atwood | Custer | Thousand Springs | Unknown  Grazing  Farming |
| CIC: 20885 | 1987 | Rosentretor | Lemhi | Birch Creek | Unknown  Grazing |
| SRP: 33532 | 1983 | Brunsfeld | Lemhi | Texas Springs | Common  Grazing |
| NY: 2355161 | 1982 | Neese | Caribou | Soda Point Reservoir | Unknown  Grazing |
| SRP: 45854 | 1977 | Whitehead | Fremont | Partridge Creek | Common  Limited |
| IDS: 2012.012  IDS: 0018555 | 1977 | Whitehead | Fremont | Lower Black Canyon | Unknown  Limited |
| IDS: 2012.012  IDS: 0018553 | 1977 | Whitehead | Fremont | Robinson Creek | Unknown  Limited |
| IDS: 2012.010  IDS: 0054127 | 1977 | Dieffenbach | Caribou | Caribou Mountain | Unknown  Grazing |
| WS: 321149 | 1973 | Grable | Caribou | Soda Spring, Alexander Reservoir | Unknown  Recreation |
| IDS: 2017.001  IDS: 0051903 | 1972 | Johnson | Boise | Grandjean | Unknown  Grazing |
| NY: 2355136 | 1972 | Morton | Caribou | Soda Springs | Unknown  Recreation |
| BRYV0278025 | 1972 | Lindsey | Fremont | Trude Siding, Island Park | Unknown  Recreation |
| WTU: 211612  WTU-V-036139 | 1959 | Cronquist | Clark | Kilgore | Unknown  Grazing |
| WTU: 297503  WTU-V-036146 | 1953 | Baker | Blaine | Bellevue | Unknown  Grazing  Development  Farming |
| WTU: 273536  WTU-V-036145 | 1953 | Baker | Bear Lake | Bear Lake marsh | Unknown  Development  Recreation |
| NY: 2355172 | 1952 | Baker | Bear Lake | Bear Lake marsh | Unknown  Grazing  Development  Recreation |
| WTU: 273012  WTU-V-036143 | 1952 | Baker | Caribou | Hooper Springs | Unknown  Development  Recreation |
| NY: 2355160 | 1946 | Christ | Caribou | Soda Springs | Unknown  Recreation |
| NY: 2355170 | 1937 | Christ | Caribou | Soda Springs | Unknown  Recreation |

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| --- | --- | --- | --- | --- | --- |
| NY: 2355164 | 1934 | Christ | Fremont | Big Springs | Unknown  Limited |
| NY: 2355165 | 1934 | Christ | Teton | Unknown | Unknown  Development  Farming |
| WS: 45008 | 1911 | Nelson | Bear Lake | Montpelier | Unknown  Recreation  Development |

*Literature Records:*

Nuttall, 1841, Trans. Amer. Philos. Soc. ser. 2, 7: 327.

*Databases/Herbaria consulted (and query date):*

Rocky Mountain Herbarium (1 Feb 2021) – Idaho specimens only

Consortium of Pacific Northwest Herbaria (1 Feb 2021) – Idaho specimens only

Consortium of Intermountain Herbaria (1 Feb 2021) – Idaho specimens only

New York Botanical Garden (1 Feb 2021) – Idaho specimens only

Brigham Young University Welsh Herbarium (18 Feb 2022) – (Idaho specimens only

University of Kansas Biodiversity Institute and Natural History Museum (1 Feb 2021) – Idaho specimens only.

*Research Notes:*  No erroneous reports detected.

**Abundance:**

*\*֎Number of Occurrences8:* At least 39 based on herbarium specimen records.

*֎Population Size:* Unknown.

*֎Number of Occurrences with Good Viability:* Unknown.

**Conservation concerns:**

*֎Threats (include scope, severity and timing, if known):* Having not seen the sites, but being familiar with the areas of specimen collection, I feel I can reasonably assume the threats to be primarily grazing for populations in Lemhi, Blaine, Power, and Bonneville Counties; agriculture in Custer and Shoshone Counties, development and agriculture in Teton County; and development and recreation in Fremont, Bear Lake, and Caribou Counties. Climate change may present a future threat to this species if moisture availability is lessened.

SIRPWG:

*\*֎Overall Threat Rank11:* High-Medium

*֎Intrinsic Vulnerability:* B (Optional; Used only if Threats unknown. A= highly, B=moderately, C=not intrinsically vulnerable.):

**Population trend:**

*֎Short:* Unknown for Idaho.

*֎Long:* Unknown for Idaho.

**Proposed rank information:**

*\*Date Ranked5:* 2/5/2021 by SI RPWG Calculated rank = S3.

*\*Proposed Rank:* S3

*\*Proposed INPS Status2:* Designate as “Rare”

*\*Comments12:* Most populations exist on lands with inherent federal protections.

**\*Recommended actions13:** Add to the INPS Rare Plant List. Encourage additional collections.