**Shortstalk Sedge – *Carex podocarpa* R. Br.**

**Sedge Family – CYPERACEAE**

Account written by Ben Legler, 11 January 2021

**Conservation Status:**

\*NatureServe3: G3 SNR

INPS: Not yet ranked

BLM:

FS Reg 1:

FS Reg 4:

FS Reg 6:

FWS:

**Taxonomy:**

*Publication:*

App. Franklin Journey, p. 751. 1823.

*Synonyms:*

*Carex montanensis* Bailey

*Type Locality:*

Richardson 370 (BM); Isotypes: K, GH.

*\*Taxonomic key(s)7:*

Murray, D.F. 1970. *Carex podocarpa* and its allies in North America. *Canad. J. Bot.* 48: 313–324.

Flora of North America, Volume 23 (2003).

Flora of the Pacific Northwest, 2nd Edition (2018).

**Species Description:**

**Biology:**

**Similar species:**

*Carex macrochaeta* C. A. Meyer

*Carex microchaeta* Holm ssp. *nesophila* (Holm) D. F. Murray

*Carex paysonis* Clokey

*Carex spectabilis* Dewey

**Habitat:**

Subalpine and alpine meadows, often where moist or wet.

*\*Environmental Specificity10:* unknown

**Cultural and commercial values:** None

**Landownership:**  All three Idaho occurrences are on National Forest land.

**Distribution:**

*\*Range Extent6:* 606 km2

*Area of Occupancy:* Three 4 km2 grid cells.

*\*Idaho Counties9*: Clearwater, Shoshone

*Idaho Specimens and Element Occurrences*:

John B. Leiberg 1449, Aug 3, 1895

Idaho: Shoshone County: Stevens Peak. Elev. 1780 m.

OSC, Catalog: ORE17390

Duplicates at GH, NY, RM, US (Verified by D.F. Murray and cited as a paratype in Canad. J. Bot. 48: 313–324)

[Note: Specimen label does not indicate the county; on Aug 3, 1895, Leiberg was collecting on and around Stevens Peak in Shoshone County. The database record for the specimen at OSC incorrectly assigns specimen to Bingham County.]

Crista L. O'Connor 2827, Jul 22, 2016

Idaho: Clearwater County: Bitterroot Mountains: Fish Lake Trail 419 and 419a, about 8-11 air miles east of Osier Lookout and about 2 air miles north of Wapito [sic] Point. Elev. 4600-5890 ft. T40N R12E S11 South1/2; also SE1/4 S10, NW1/4 S15, NE1/4 S16, SW1/4 S9, NE1/4 S8, and S5. 48.8171N, 114.9052W to 46.8172N, 114.9356W to 46.8365N, 114.9737W. Datum: WGS 84. Coordinate Source: GPS.

Lush meadows, rich with Carex spp. and prolific Zigadenus elegans; marginated by dense thickets of Salix and Alnus.

WTU, Barcode: WTU-V-040017

[Note:specimen was tentatively identified as *C. podocarpa* by Peter F. Zika, who noted that plants are missing basal parts. I have examined an image of the specimen, and the plants fully match C. podocarpa, and have enough stem bases to unambiguously determine that they are aphyllopodic.]

Ben Legler 16330, Aug 15, 2020

U.S.A., Idaho, Clearwater County: Clearwater National Forest, proposed Rhodes Peak RNA: slope on east side of ridge 0.75 km NNE of Rhodes Peak. Site ID: BSL-2330. Elev. 2163 m.

46.681796° N, 114.782031° W. Datum: WGS 84. Coordinate uncertainty: 4 meters. Coordinate Source: GPS.

Small seep over rocky soil on northeast-facing subalpine slope, with Carex scirpoidea ssp. stenochlaena, Ligusticum grayi, Senecio triangularis, and Triantha glutinosa; surrounded by Phyllodoce empetriformis meadows. Female spikes nodding; scales uniformly black; perigynia dark, papillate; fertile stems aphyllopodic; plants locally common in wet to moist gravelly soil in seep.

ID, Barcode: ID188448

*Literature Records:* (no additional records)

**Abundance:**

*\*Number of Occurrences8:* 3

*Population Size:* ~100 stems at Legler 16330; population sizes for the other two collections are unknown. As a rough estimate, I am assuming total population size of several hundred plants.

*Number of Occurrences with Good Viability:* unknown

**Population trend:**

*Short:* unknown

*Long:* unknown

**Conservation concerns:**

*Threats (include scope, severity and timing, if known):*

* Changes in hydrology and snowpack due to climate change or drought. Low severity?

*Intrinsic Vulnerability:* low?

**Proposed rank information:**

*\*Date Ranked5:* Jan 11, 2021

*\*Proposed Rank:* S2

*\*Proposed INPS Status2*: Rare

*\*Overall Threat Rank11*: S2

\*Comments12:

The rare plant calculator worksheet assigns a rank of S2 if population size is estimated at 250-1000 individuals; if this is changed to 100-250 individuals then the rank drops to S1. A rank of S2 is retained here based on the following justification. Although I expect the species will be found only in a small area of Idaho (namely, along and near the crest of the Bitterroot Range near the ID/MT border from around I-90 south towards MacGruder Corridor), within this range there are substantial areas that remain uncollected or poorly collected. Additional survey work is expected to uncover additional populations within this area. Documenting even a few additional populations could change the calculated rank to S3.

**\*Recommended actions13:**

Add Carex podocarpa to the Idaho Rare Plant List with a rank of G5 S2. Additional collecting and survey work is recommended for poorly documented areas along the crest of the Bitterroots in the vicinity of the three known sites and southwards.

1”Scientific Name” and “Common Name” primarily refer to the scientific and common names used in [NatureServe Explorer](http://www.natureserve.org/explorer/), respectively. Names not used by NatureServe may be used under some circumstances (i.e., species not yet described, FNA accepted name not updated to NatureServe yet). Synonymous scientific names should be added to the “Synonym” column if applicable. In case when the “Scientific Name” is not the NatureServe name, where applicable, the NatureServe name will be provided under “Synonym” followed by “(NatureServe name)”.

2”INPS Status” is whether INPS has designated the species as “Rare” or “Review”.

3”NatureServe Rank” is the NatureServe rank designated in [NatureServe Explorer](http://www.natureserve.org/explorer/) (dark gray, not bolded), which is replaced by updated ranks (**black,** **bolded**) as IDNHP and INPS apply the [NatureServe Rank Calculator](http://www.natureserve.org/publications/ConsStatusAssess_RankCalculator-v2.jsp). A “+”follows the G and/or T rank if the species is an Idaho endemic and has the sole rank global and/or trinomial rank authority.

5”Date Ranked” is the date in month/year format, followed in parentheses by the NatureServe Rank Calculator version that was used for ranking the species.

6”Range Extent” incorporates thresholds from the NatureServe Rank Calculator and from Walt Fertig’s Rare Plant Ranking System for the Utah Native Plant Society (see table below for land area in each Idaho county):

 Local Endemic = <5,000 km² (ca 2,000 mi² or 2% of Idaho)

 Subregional Endemic = 5,000 to 20,000 km² (ca 2,000-8,000 mi² or 2-10% of Idaho)

 Regional Endemic = 20,000 to 200,000 km² (ca 8,000-80,000 mi² or 10-92% of Idaho)

Local, Subregional, and Regional Endemics are also designated as Core (≥50% of global range) or Edge (<50% of global range) for the part of the species’ distribution in Idaho.

Disjunct = Distribution in Idaho is isolated from the main, contiguous portion of a species’ range by a gap of more than 322 km (200 mi).

 Sparse = Distribution in Idaho is uncommon and scattered, but species otherwise has a wide range (e.g. occurs in multiple states).

Peripheral = Distribution in Idaho is at the margin of the species’ main, contiguous portion in an adjacent state or province.

Widespread = Species occurs widely across western North America (covering more than 200,000 km²) and across Idaho.

Values used for estimating Range Extent, Area of Occupancy, and Number of Occurrence should at minimum be based on review of IDNHP’s Plant Conservation Database, [Consortium of Pacific Northwest Herbaria](http://www.pnwherbaria.org/data/search.php), and the [Vascular Plant Catalog of the Intermountain Region of Western U.S.](http://sciweb.nybg.org/science2/hcol/intf/index.asp), and personal knowledge of documented occurrences.

7”Key(s)” include taxonomic key(s) species is described in. This includes Vascular Plants of the Pacific Northwest/Flora of the Pacific Northwest (PNW); Intermountain Flora (IMF); and [Flora of North America (FNA)](http://www.efloras.org/). If the name in a key is different than the “Species Name”, the synonymous scientific name used in the key should be added below the Species Name.

8”Number of Occurrences” are defined as the number of occurrences >1 km apart, and generally only include those for which there is reasonable certainty that still occur (e.g. excluding historical). If needed, the number of occurrences can be calculated by counting the number of species locations greater than 1 km edge-to-edge.

9”Counties” correspond to the Idaho counties the species is known to occur or have occurred. A list of county names, land area, and percent contribution is provided below. Questionable or historical counties should be indicated by having a “?” at the end of the county name.

10”Environmental specificity” corresponds to the Very Narrow, Narrow, Moderate, and Broad categories from the NatureServe Rank Calculator, and may include some key habitat descriptors in parentheses afterwards.

11”Overall Threat Rank” is the calculated threat level from the NatureServe calculator.

12” Comments” may include information needs, basis for species addition/deletion from list, and specific threat information.

13”Recommendation” is the recommendation to federal and state agencies based on consensus and/or new information shared at the RPC, followed after the month and year comment was made (e.g. Oct2011). Recommendations should be specific and tangible enough so they can be reasonably accomplished. If species is deleted or reviewed and not added, it should be maintained in a separate list of “Plants Previously Considered or Listed by INPS” (TBD). This list should include information in the table above, plus previous status (if applicable), reason for not being listed or being deleted, and date of determination.

**LAND AREA AND PERCENT CONTRIBUTION OF IDAHO’S COUNTIES:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **County** | **Area (mi²)** | **Area (%)** | **County** | **Area (mi²)** | **Area (%)** | **County** | **Area (mi²)** | **Area (%)** | **County** | **Area (mi²)** | **Area (%)** |
| Ada | 1060 | 1.21  | Butte | 2234 | 2.55  | Gem | 566 | 0.65  | Minidoka | 763 | 0.87  |
| Adams | 1370 | 1.57  | Camas | 1079 | 1.23  | Gooding | 734 | 0.84  | Nez Perce | 856 | 0.98  |
| Bannock | 1147 | 1.31  | Canyon | 604 | 0.69  | Idaho | 8502 | 9.71  | Oneida | 1202 | 1.37  |
| Bear Lake | 1049 | 1.20  | Caribou | 1799 | 2.06  | Jefferson | 1106 | 1.26  | Owyhee | 7697 | 8.79  |
| Benewah | 784 | 0.90  | Cassia | 2580 | 2.95  | Jerome | 602 | 0.69  | Payette | 410 | 0.47  |
| Bingham | 2120 | 2.42  | Clark | 1765 | 2.02  | Kootenai | 1316 | 1.50  | Power | 1443 | 1.65  |
| Blaine | 2661 | 3.04  | Clearwater | 2488 | 2.84  | Latah | 1077 | 1.23  | Shoshone | 2636 | 3.01  |
| Boise | 1907 | 2.18  | Custer | 4937 | 5.64  | Lemhi | 4570 | 5.22  | Teton | 451 | 0.52  |
| Bonner | 1920 | 2.19  | Elmore | 3101 | 3.54  | Lewis | 480 | 0.55  | Twin Falls | 1928 | 2.20  |
| Bonneville | 1901 | 2.17  | Franklin | 668 | 0.76  | Lincoln | 1206 | 1.38  | Valley | 3734 | 4.27  |
| Boundary | 1278 | 1.46  | Fremont | 1896 | 2.17  | Madison | 473 | 0.54  | Washington | 1474 | 1.68  |