

**Conservation Agreement for Pale Blue Eyed Grass (*Sisyrinchium sarmentosum*),
in Oregon and Washington**

Gifford Pinchot, Mt. Hood, and Okanogan-Wenatchee National Forests

I. SPECIES ADDRESSED

Sisyrinchium sarmentosum (Pale blue eyed grass)

II. INVOLVED PARTIES

Janine Clayton, Forest Supervisor
Gifford Pinchot National Forest
10600 N.E. 51st Circle
Vancouver, WA 98682

Chris Worth, Forest Supervisor
Mt. Hood National Forest
16400 Champion Way
Sandy, OR 97055

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Okanogan-Wenatchee National Forest
215 Melody Lane
Wenatchee, WA 98801

III. AUTHORITY, PURPOSE, OBJECTIVES, AND GOALS

A. Authority

The Gifford Pinchot, Mt. Hood, and Okanogan-Wenatchee National Forests (Forests) have the authority to enter into this voluntary Conservation Agreement from Endangered Species Act of 1973 (Act) as amended and the National Forest Management Act of 1976, as amended. The Forests also have manual direction and policies that provide for the conservation of rare and threatened plant species. The signatories understand that implementation of this Conservation Agreement is intended to conserve the species.

B. Purpose

The purpose of this Conservation Agreement is to formally document the intent of the parties involved to protect and contribute to the conservation of *Sisyrinchium sarmentosum* by implementing conservation actions for the species and its habitat on federal lands within Oregon and Washington. This Conservation Agreement represents a program-level agreement that outlines how conservation actions will be approached, and what research needs to be done in support of these efforts. Site-specific management will occur as described in the Conservation Strategy (USDA 2011).

C. Objectives

The Conservation Strategy documents the most updated information on *Sisyrinchium sarmentosum*, and describes the range-wide conservation objective, which is to maintain or increase the numbers, genetic diversity, and distribution of individuals and occurrences throughout the range of the species with the purpose of sustaining viable populations such that there are estimated numbers and distribution of reproductive individuals to insure their continued existence in the long term.

D. Goals

The Conservation Strategy describes the management actions necessary to maintain a high likelihood of well-distributed populations across the species' range, on Federal lands administered by the Gifford Pinchot, Mt. Hood, and Okanogan-Wenatchee National Forests, and avoid a trend toward federal listing under the Endangered Species Act.

For Region 6 of the Forest Service, Sensitive Species policy requires the agency to maintain viable populations of all native and desired non-native wildlife, fish, and plant species in habitats distributed throughout their geographic range on national Forest System lands. Management actions taken now should also preclude a trend towards federal listing, for any identified Sensitive Species.

IV. STATUS AND DISTRIBUTION

Sisyrinchium sarmentosum is a Forest Service Region 6 Sensitive Species, and a Bureau of Land Management Bureau Sensitive Species in both Oregon and Washington. The U.S. Fish and Wildlife Service (USFWS, also referred to as the Service) has identified *S. sarmentosum* as a Species of Concern (see Glossary); in addition, on August 18th, 2009, the Service announced a 90-day finding on a petition to list *S. sarmentosum* as threatened or endangered under the Endangered Species Act of 1973, as amended (Federal Register 74(158) pp. 41650-41663). This finding determined that "...the petition presents substantial information to indicate that listing of this species may be warranted ...". Upon publication of the 90 day finding the Service initiated a status review to make a final determination on the status of this species.

S. sarmentosum is a narrow endemic known from south-central Washington (Skamania and Klickitat Counties), central Washington (Yakima County), and north-central Oregon (Clackamas and Marion Counties). There are twenty-four confirmed, documented occurrences of *S. sarmentosum*, worldwide. Habitat for *S. sarmentosum* consists of open meadow or meadow-like environments that are seasonally wet.

The majority of *S. sarmentosum* populations and individuals occur on national forest land on Gifford Pinchot and Mt. Hood National Forests. Of fifteen Washington occurrences, nine are located on Gifford Pinchot National Forest, and two on the Okanogan-Wenatchee National Forest, while all nine of the Oregon occurrences are on Mt. Hood National Forest. Only five occurrences across the species' range are considered to be self-sustaining (Raven 2003a)*. In

addition, as of 2006 Raven estimated that approximately 80% of all known individuals were concentrated at two sites, and between 82 - 90% of all individuals were found within a single grazing allotment on the Gifford Pinchot National Forest (Raven 2006a). Based on population size estimates from sources including Washington Natural Heritage Program (WNHP 2008), Oregon Natural Heritage Information Center (ORNHIC 2010), Raven (2003a), and Gamon (1991), at least 3 occurrences appear to be in decline. At least seven additional occurrences may be in decline due to hybridization, most involving hybridization of *S. sarmentosum* with *S. idahoense*, a closely related, more common species (Raven 2003a, Raven 2006a).

* The occurrences on the Okanogan-Wenatchee National Forest have not been evaluated for sustainability.

V. THREATS

Many *S. sarmentosum* sites are presently subject to ongoing, documented and identified threats, including habitat loss and fragmentation, livestock grazing, woody plant succession, encroachment of invasive plants, motor vehicle and recreation impacts to sites, routine road maintenance, and treatment of adjacent invasive species. Hybridization of *S. sarmentosum* with *S. idahoense*, a closely related, more common species, may also threaten this species at many sites.

VI. CONSERVATION ACTIONS TO BE CARRIED OUT

The Forests agree to:

1. Adopt and implement the final Conservation Strategy for Pale Blue Eyed Grass (*Sisyrinchium sarmentosum*) which identifies conservation and restoration management actions at all known populations of the species on federal land. Populations will be managed to protect their significant biological and ecological values, consistent with current law, regulations, policies, existing and future management plans. Some specific actions identified in the Conservation Strategy include:
 - a. Conducting invasive species control efforts in or adjacent to occupied habitat, using an adaptive management strategy that monitors and updates activities to maximize their efficacy.
 - b. Discouraging camping and recreation within occupied habitat through public education (signing) and by restricting motor vehicle access to occupied habitat. If camping and recreation has occurred or occurs in the future within occupied habitat, remove evidence such as fire rings, in order to discourage future use.
 - c. Avoiding or mitigating activities with potential to alter the water table in occupied habitat. Activities such as road projects, stream projects and water developments should be evaluated for impact to pale blue eyed grass. For roadside plants, roadside brushing would occur in the fall, so that plants are able to set and release seeds prior to brushing.
 - d. Consideration of habitat restoration projects that maintain the open conditions of occupied habitat by removing small trees and shrubs. Avoid seeding non-native species in or adjacent to occupied habitat. Light prescribed burns may also help maintain open habitat conditions favorable to pale blue eyed grass; however, this

activity does pose a risk to the species, and habitat restoration projects involving fire should carefully consider risk vs. benefit.

- e. Conducting monitoring to evaluate ungulate grazing impacts on extant populations and developing appropriate actions to mitigate adverse impacts such as exclusion of domestic livestock and management of wildlife impacts.
2. Practice ex-situ range-wide conservation to help insure against loss of populations/occurrences/genetic information, by maintaining a regular regime of seed collection and banking. Collected seed will be stored in a Center of Plant Conservation facility. This conservation action will also allow for future consideration of plant re-establishment in the event of a catastrophic disturbance, or a desire to introduce/re-introduce the species into suitable habitat.
3. Develop a range-wide monitoring plan in FY11, for implementation beginning in FY12 (or sooner).
4. In support of Adaptive Management, a review of this Conservation Strategy will be conducted every five years, where new species knowledge, science findings, habitat information, and strategy implementation are evaluated. Revision of the Conservation Strategy may follow the 5-year reviews to refine the plan or address emerging issues if deemed necessary by the cooperating parties.
5. Between the 5-year reviews, the following changes may trigger an immediate review:
 - a. A substantial range change or extension has occurred, or
 - b. A substantial change in Forest Service land-use allocations, or management direction, within the area covered by the Conservation Strategy, or
 - c. A substantial change (20% or more) in population or habitat conditions due to large-scale fire or disturbance that may change our assumptions as to the amount of habitat available and contributing to the persistence of occurrences identified within Conservation Strategy, or
 - d. New scientific findings that substantially change our understanding of the species or its habitat.
 - e. Management or monitoring objectives and/or activities require modifications in order to meet the species conservation objective.
6. Identify research needs for the conservation of the species.

VII. FUNDING AND IMPLEMENTATION OF CONSERVATION MEASURES

This Conservation Agreement is subject to available funding and staffing. This does not impose financial obligations beyond appropriations. The parties to this agreement are committed to seeking funding to implement this conservation agreement each year.

VIII. DURATION OF AGREEMENT

This agreement shall become effective with the signature of the last approving agency official and shall remain in effect until terminated. It can be terminated in writing at any time that the Forests determine that the agreement is no longer necessary, with a 30 day written notice to all parties.

IX. SIGNATURES

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|-----------------------------------------------------------------------------------|---------------|
|  | 22 July 2011 |
| Janine Clayton, Forest Supervisor, Gifford Pinchot National Forest | Date |
|  | Aug 3, 2011 |
| Chris Worth, Forest Supervisor, Mt. Hood National Forest | Date |
|  | July 28, 2011 |
| Rebecca Heath, Forest Supervisor, Okanogan-Wenatchee National Forest | Date |

REFERENCES CITED

- Oregon Natural Heritage Information Center (ORNHIC) Database. 2010. Element occurrences of *Sisyrinchium sarmentosum* in Oregon State.
- Raven, A. 2006a. Draft report resulting from 2005 Forest Service Competitive Challenge Cost Share project: *Sisyrinchium sarmentosum* Conservation and Management.
- Raven, A. 2003a. A Summary of Five Years of Research on Pale Blue-eyed Grass, *Sisyrinchium sarmentosum*, on the Gifford Pinchot National Forest. Berry Botanic Garden. Unpublished Report prepared through Challenge Cost Share Agreement with Gifford Pinchot National Forest. 62pp.
- Washington Natural Heritage Program (WNHP) Database. 2008. Element occurrences of *Sisyrinchium sarmentosum* in Washington State. Database maintained by Washington Department of Natural Resources. Olympia, WA.

Appendix A. Conservation Strategy for Pale Blue Eyed Grass (*Sisyrinchium sarmentosum*)