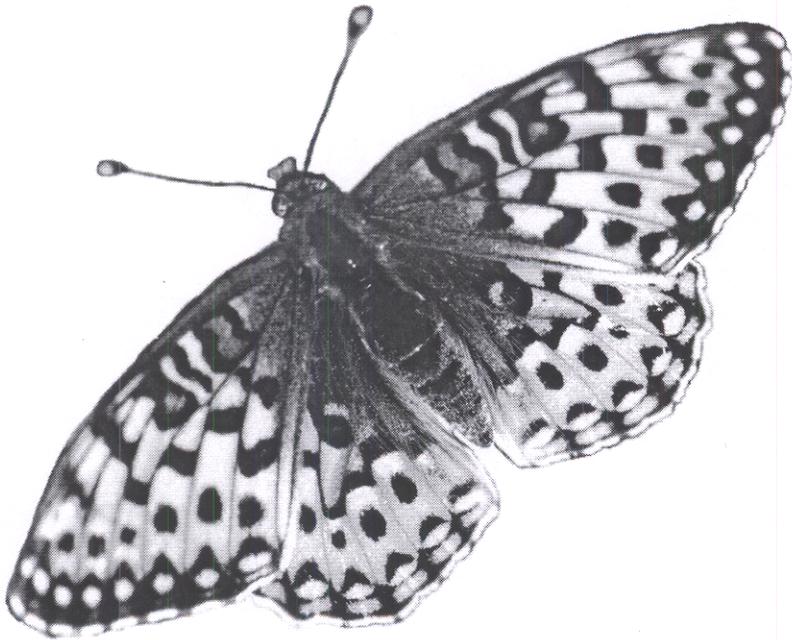


Revised Recovery Plan for the Oregon Silverspot Butterfly (*Speyeria zerene hippolyta*)



As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island Territories under U.S. administration.

DISCLAIMER

Recovery plans delineate reasonable actions which are believed to be required to recover and/or protect listed species. Plans are published by the U.S. Fish and Wildlife Service (Service), sometimes prepared with the assistance of recovery teams, contractors, State agencies, and other affected and interested parties. Recovery teams serve as independent advisors to the Service. Plans are reviewed by the public and submitted to additional peer review before they are adopted by the Service. Objectives of the plan will be attained and any necessary funds made available subject to budgetary and other constraints affecting the parties involved, as well as the need to address other priorities. Recovery plans do not obligate other parties to undertake specific tasks and may not represent the views nor the official positions or approval of any individuals or agencies involved in the plan formulation, other than the Service. They represent the official position of the Service *only* after they have been signed by the Regional Director or Director as *approved*. Approved recovery plans are subject to modification as dictated by new findings, changes in species status, and the completion of recovery tasks.

Literature citation of this document should read as follows:

U.S. Fish and Wildlife Service. 2001. Oregon silverspot butterfly (*Speyeria zerene hippolyta*) revised recovery plan. U.S. Fish and Wildlife Service, Portland, Oregon. 113 pp.

Additional copies may be purchased from:

Fish and Wildlife Reference Service
5430 Grosvenor Lane, Suite 110
Bethesda, Maryland 20814-2158
1-800-582-3421 or 301-492-6403
FAX: 301-564-4059
E-mail: fwrs@mail.fws.gov
<http://fa.r9.fws.gov/r9fwrs/>

The fee for the plan varies depending on the number of pages of the plan.

Primary Authors

The Oregon Silverspot Butterfly Revised Recovery Plan was prepared by:

The Oregon Silverspot Butterfly Recovery Team

Dr. Paul Opler, Team Leader
Department of Bioagricultural Sciences
Colorado State University
Fort Collins, Colorado 80523

Dr. Michael Clady
Siuslaw National Forest
P.O. Box 1148
Corvallis, Oregon 97339

Catherine Macdonald
The Nature Conservancy
821 Southeast 14th Avenue
Portland, Oregon 97214

Dr. Paul Hammond
2435 E. Applegate
Philomath, Oregon 97370

Dr. Dennis Murphy
Department of Biology
University of Nevada
Reno, Nevada 89557

EXECUTIVE SUMMARY OF THE REVISED RECOVERY PLAN FOR THE OREGON SILVERSPOT BUTTERFLY

Current status: This species is listed as threatened, and occurs at disjunct sites near the Pacific coast from Del Norte County, California, north to Long Beach Peninsula, Washington. The species has been extirpated from 11 localities and is currently known to occur at only 6 sites. Populations of Oregon silverspot butterflies are declining or below historic levels at all sites.

Habitat Requirements and Limiting Factors: The Oregon silverspot butterfly occupies an early successional¹, coastally-influenced grassland habitat that contains the caterpillar host plant, early blue violet (*Viola adunca*), adult nectar sources, and adult courtship areas. Soil and climatic conditions, salt-spray or mist, and disturbance regimes (such as fire) historically contributed to maintaining low, open grasslands within the species' range by suppressing encroaching trees and shrubs. Invasion by exotic species, natural succession, fire suppression, and land development have resulted in loss and modification of the species' habitat. Land use practices have altered disturbance regimes needed to maintain existing habitats and create new habitats for species expansion. Management is needed to maintain sufficient habitat to sustain the species, curtail vegetative succession, and reduce other threats to the species and/or its habitat. Other threats include off-road vehicles, grazing, erosion, road kill, and pesticides. The Oregon silverspot butterfly is also sought after by butterfly collectors.

Recovery Objective: To recover the species to the point where it can be delisted.

Recovery Criteria:

Delisting can be considered when all of the following conditions have been met:

¹

Succession is change in vegetation due to environmental variables or the intrinsic nature of the plants themselves. In this plan, "succession" often means encroachment into grassy sites by trees and shrubs. A glossary is provided on page 93.

1) At least two viable Oregon silverspot butterfly populations exist in protected habitat in each of the following areas: Coastal Mountains, Cascade Head, and Central Coast in Oregon; and Del Norte County in California; and at least one viable Oregon silverspot butterfly population exists in protected habitat in each of the following areas: Long Beach Peninsula, Washington and Clatsop Plains, Oregon. This includes development of comprehensive management plans.

2) Habitats are managed long-term to maintain native, early successional grassland communities. Habitat management maintains and enhances early blue violet abundance, provides a minimum of five native nectar species dispersed abundantly throughout the habitat and flowering throughout the entire flight period, and reduces the abundance of invasive non-native plant species.

3) Managed habitat at each population site supports a minimum viable population of 200 to 500 butterflies for at least 10 years.

Actions needed:

1. Protect habitat.
2. Manage habitat.
3. Monitor populations.
4. Reduce take.

Date of Recovery: Delisting may occur no sooner than 2016, provided that management plans for each of the six habitat conservation areas are developed, implemented, and successfully establish minimum viable populations by 2006, and management has effectively maintained recovery criteria for at least 10 consecutive years.

Estimated Costs (in thousands of dollars):

Year	Need 1	Need 2	Need 3	Need 4	Need 5	Total
2001	213	68	180	18	5	483
2002	2,446	167	142	26	5	2,785
2003	4,406	211	36	42	5	4,699
2004	4,025	180	41	16	5	4,267
2005	5	133	39	19	5	201
2006	–	56	36	26	5	123
2007	–	56	36	10	5	107
2008	–	50	39	10	5	104
2009	–	63	35	10	5	113
2010	–	50	31	10	5	96
2011	–	61	39	10	5	115
2012	–	56	35	10	5	106
2013	–	56	36	10	5	107
2014	–	57	39	10	5	111
2015	–	50	35	10	5	100
2016	–	61	31	10	5	107
2017	–	62	39	10	5	116
2018	–	50	35	10	5	100
2019	–	57	35	10	5	107
Totals	11,095	1,544	939	277	95	13,950

Total Estimated Cost of Recovery: \$13,950,000

The table above includes land acquisition costs and operational costs for management of lands. Additional land acquisition costs may be required. Law enforcement costs to the Fish and Wildlife Service are not included.