

From: [Shoemaker, Justin](#)
To: [Grizzle, Betty](#)
Subject: Re: Document you mentioned
Date: Thursday, March 9, 2017 9:36:37 AM
Attachments: [DRAFT Wolverine Recovery Outline for posting 020613b.docx](#)

I think it was the draft recovery outline we produced during the 2013 proposal.

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On Thu, Mar 9, 2017 at 9:31 AM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:

Justin - You showed me a hard copy document while I was in Denver that looked like a recovery plan and asked if I had this.

Was the document the 1998 *Draft Strategy for the Conservation and Re-establishment of Lynx and Wolverine in the Southern Rocky Mountains* (from Colo Div. of Wildlife), by Seidel et al.?

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DRAFT RECOVERY OUTLINE

North American Wolverine (*Gulo gulo luscus*) Contiguous United States Distinct Population Segment

Montana Ecological Services Field Office

February, 2013



Photo courtesy of the National Park Service

I. INTRODUCTION

The purpose of this draft recovery outline (and a subsequent final recovery outline, if the listing of the North American wolverine Distinct Population Segment (DPS) is finalized) is to provide an interim strategy to guide the conservation and recovery of North American wolverine in the contiguous United States, until a draft recovery plan is completed. At the time of writing, the wolverine is proposed for listing as threatened under the Endangered Species Act (Act). Concurrent with the proposed listing rule, we published a proposed nonessential experimental population area in the southern Rocky Mountains under section 10(j) of the Act. Publication of a draft recovery outline prior to final species listing is unusual; however, for wolverines, the threats to the species and the recovery needs are complex and will require cooperation among the U. S. Fish and Wildlife Service (Service) and other Federal and State agencies, Tribes, and the public. An outline of potential recovery actions for wolverine conservation at this point in time may help interested stakeholders understand how we envision wolverine conservation proceeding if the species is listed. This draft recovery outline should not be interpreted as predetermining the listing decision. Unless and until the listing is finalized, the wolverine is not on the Federal List of Endangered and Threatened Wildlife and Plants, and is not protected under the Act. Rather, the potential recovery actions outlined here should be viewed as tools that may be used to enhance wolverine conservation if listing is finalized.

The current proposed listing rule states that critical habitat is “not determinable” at this time due to our lack of understanding of the effects of a critical habitat designation. The “not determinable” finding allows us one year from the time of the proposed rule to either promulgate a proposed critical habitat rule or to determine that designating critical habitat would not be prudent. This draft recovery outline will be used to inform the critical habitat designation process. Recovery outlines are intended primarily for internal Service use; formal public participation will be invited upon release of the draft recovery plan.

The scope of this recovery outline is the North American wolverine DPS in the contiguous United States as determined in our 12-month Finding of December 14, 2010 (75 FR 78030). The proposed listing rule would list wolverines “where found” in the contiguous United States, meaning that if a wolverine roams outside of its usual range, it would be protected as long as it remained in the contiguous United States. All known, credible sources of information were reviewed and incorporated. Thus, the outline provides (by citation (78 FR 7864; 78 FR 7890) an overview of current and historical wolverine occurrence and population dynamics in the contiguous United States, as well as preliminary recovery objectives and actions needed for recovery. All recovery objectives and actions are based on the best available scientific and commercial information.

Throughout this and other Service documents regarding wolverines, we follow the evidentiary standards protocol proposed by McKelvey et al. (2008, entire) to

inform our determinations of what constitutes the best scientific and commercial information regarding wolverine occurrence records. Wolverines are a rare species wherever they occur because they exist in low density populations and are seldom observed, even by people who spend considerable time in their habitat. Wolverines may be easily mistaken for several other common species such as marmots and bears. Because these species are much more common than wolverines, opportunities to view them and make a mistaken identification as a wolverine are often abundant, whereas opportunities to observe wolverines and make a correct identification are uncommon. This leads to a situation where there are likely to be more mistaken records of wolverines than there are correct ones. Indeed, even in places where wolverines are completely absent, there may be a long history of anecdotal reports of the species' occurrence, making wolverines appear to be present in fair numbers (McKelvey et al. 2008, pp. 550-551).

We made some assumptions during this initial planning process. We based our assumptions on what was reasonable to infer given the best available scientific and commercial data. Our assumptions are clearly identified in the outline and accompanied by supporting rationale. Additionally, we identified data limitations and gaps in the scientific literature.

- LISTING AND CONTACT INFORMATION:

Common Name: North American wolverine

Scientific Name: *Gulo gulo luscus*

Listing Status: Proposed (insert date and FR citation if available)

Date listed: To be determined

Recovery Priority #:¹ To be determined

Lead Field Office: Montana Ecological Services Field Office
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II. RECOVERY STATUS ASSESSMENT

Please see the “background” section of our proposed rule to list the contiguous United States DPS of the North American wolverine (78 FR 7864) for information on wolverine biology, habitat, and distribution (Figure 1).

III. VULNERABILITY AND THREATS ASSESSMENT

¹ For background information on how recovery priority numbers are determined, see 48 FR 43098, September 21, 1983 as corrected in 48 FR 51985, November 15, 1983.

Please see the “summary of factors affecting the species” section in our proposed rule to list the contiguous United States DPS of the North American wolverine (78 FR 7890) for a comprehensive analysis of the factors affecting the wolverine.

IV. PRELIMINARY RECOVERY STRATEGY

A. RECOVERY PRIORITY NUMBER

A recovery priority number has not been assigned for this species. If the proposed listing is made final, a recovery priority number will be assigned.

B. RECOVERY VISION

If listing is finalized, we envision recovery for the North American wolverine DPS to require a functioning metapopulation composed of subpopulations with sufficient connectivity to one another to promote genetic and demographic health of the whole metapopulation. Given the vast distances between portions of this metapopulation, connectivity among subpopulations and with the larger wolverine population in Canada is important to the maintenance of wolverines in the contiguous United States. Our recovery vision includes acceptance that climate change is likely to reduce the availability of wolverine habitat across the DPS. We also acknowledge that wolverine populations can be made resilient to these changes through population expansion. We will work with our partners to

identify key areas within the wolverine's range that will be important to the long term conservation and recovery of the species. We appreciate that wolverine recovery cannot occur without voluntary partnerships across the range of the species.

C. INITIAL PROPOSED ACTION PLAN

In our proposed listing rule (78 FR 7864) we stated that: *“A determination to list the contiguous United States DPS of the North American wolverine as a threatened species under the Act, if we ultimately determine that listing is warranted, will not regulate greenhouse gas emissions. Rather, it will reflect a determination that the DPS meets the definition of a threatened species under the Act, thereby establishing certain protections for them under the ESA. While we acknowledge that listing will not have a direct impact on the loss of deep, persistent, late spring snowpack or the reduction of greenhouse gases, we expect that it will indirectly enhance national and international cooperation and coordination of conservation efforts, enhance research programs, and encourage the development of mitigation measures that could help slow habitat loss and population declines. In addition, the development of a recovery plan will guide efforts intended to ensure the long-term survival and eventual recovery of the lower 48 states DPS of the wolverine.”* Because we are unable to address the primary threat of climate change directly, wolverine recovery will be a matter of ensuring that the DPS is resilient to the changes that we expect to occur. The

following outline of potential recovery needs and actions is presented in this context.

Recovery needs for the wolverine DPS include: (1) monitoring of wolverine presence, numbers, and genetic health range-wide at a scale informative to management; (2) reducing human-caused mortality of wolverines; (3) working cooperatively with local, State, and Federal governments, Tribes, and other stakeholders to facilitate continued wolverine expansion in occupied areas and population expansion to isolated areas of suitable habitat that are needed for recovery; and (4) continued research into possible human impacts to wolverines and their habitat to ensure that human activities remain nonthreatening.

Surveys and Monitoring

- Establish a surveillance protocol that can be used to monitor wolverine presence/absence and genetic health in a geographic context across the DPS area.
 - Monitoring should inform management of large-scale changes in wolverine geographic range and numbers.
 - Monitoring of genetic health should inform management of connectivity so that assisted migration may be employed if needed.
 - Monitoring should be designed with utility in detecting likely climate change impacts in mind.

- Implement surveillance protocol focusing on public lands and partnerships with State and Federal agencies and Tribes.

Expansion into Additional Historic Range

- Identify areas of occupied wolverine range in the DPS that are thought to be occupied at critically low population densities.
 - Work cooperatively with State, Federal, and Tribal partners to stabilize current populations and identify areas where population expansion is needed.
- Identify areas of historic range that are thought to be currently unoccupied by wolverine populations, but are important for recovery of the DPS.
 - Determine whether identified areas are likely to be recolonized by wolverines naturally, or if assisted migration is needed for successful population establishment.
- For areas likely to be reoccupied by wolverines through natural expansion, work cooperatively with the public and State, Tribal, and Federal partners to prepare for recolonization in identified areas.
- For areas likely to require assisted migration or reintroduction to permit population expansion, work cooperatively with State, Tribal, and Federal partners to determine and prioritize needs. Establish voluntary partnerships to implement those prioritized needs for population expansion. For example, the proposed nonessential experimental population area in the southern Rocky Mountains (78

FR 7890) is the first step in a public decision making process that may lead to a State-led wolverine reintroduction program.

- Establish outreach and educational programs or materials for State and Federal agencies, Tribes, and members of the public to inform them of the ecology, threats, and importance of recovery of the wolverine.

Reduction of Human-caused Mortality Due to Trapping of Wolverines in the DPS

- Where necessary, work with State agencies to tailor trapping programs to minimize the risk to wolverines of incidental trapping while targeting other species.
- For States that have demonstrated sufficient control of incidental take that minimizes the risk to wolverine to the extent practicable, assist with compliance for these programs under the Act. The final version of the proposed section 4(d) rule will determine whether additional compliance measures are necessary.

Continued Support of Wolverine Research

- Continue to support research efforts into the factors limiting the expansion of wolverines to determine if unanticipated impacts are occurring. Areas of particular uncertainty include documenting any impacts to wolverines or their habitat from climate change.

- Proactively and collaboratively engage with State, Tribal, and Federal partners to identify and address risk factors for wolverines.

V. PREPLANNING DECISIONS

A. PLANNING APPROACH

If the listing of the North American wolverine DPS is finalized, a recovery plan will be prepared for the contiguous United States wolverine DPS pursuant to section 4(f) of the Act. The recovery plan will include objective, measurable criteria which, when met, will result in a determination that the species be removed from the Federal List of Endangered and Threatened Wildlife and Plants. Recovery criteria will address all threats meaningfully impacting the species. The recovery plan also will estimate the time required and the cost to carry out those measures needed to achieve the goal for recovery and delisting. This plan will be a single species plan.

Plan preparation will be under the stewardship of the Montana Ecological Services Field Office. The Service may appoint a recovery team to undertake development of the recovery plan. Alternatively, a plan may be developed internally by the Service and presented for comment to the public and stakeholders.

B. INFORMATION MANAGEMENT

General: All information relevant to recovery of the North American wolverine DPS will be housed in administrative files in our Montana Ecological Services Field Office in Helena, Montana. The Montana Ecological Services Field Office will be responsible for maintaining the official record for the recovery planning and implementation process. Copies of new study findings, monitoring results, records of meetings, comments received, products of the recovery team, and other relevant information should be forwarded to this office (see Listing and Contact Information section above).

Reporting Requirements: Information needed for annual accomplishment reports, the Recovery Report to Congress, expenditures reports, and implementation tracking should be forwarded to this office (see Listing and Contact Information section above). Copies of the completed reports can then be disseminated to all contributors upon request.

C. RECOVERY PLAN PRODUCTION SCHEDULE

A recovery plan schedule will be determined if the listing of the North American wolverine DPS is finalized.

D. STAKEHOLDER INVOLVEMENT IN THE RECOVERY PROCESS

Stakeholders will be involved during the formal recovery planning process.

Stakeholders may include, but are not limited to: States, U.S. Department of Agriculture Forest Service, Tribes, Bureau of Land Management, National Park Service, U.S. Geological Survey, U.S. Department of Agriculture Animal Plant Health Inspection Service-Wildlife Services, researchers, timber industry, trappers, non-governmental organizations, Canadian wildlife and land managers, recreational interests and other members of the public. At the local or regional level, stakeholders will be able to participate in wolverine conservation efforts.

Draft Recovery Outline for the North American Wolverine (*Gulo gulo luscus*)

Contiguous United States Distinct Population Segment

Approve: _____

Date _____

Regional Director, Region 6

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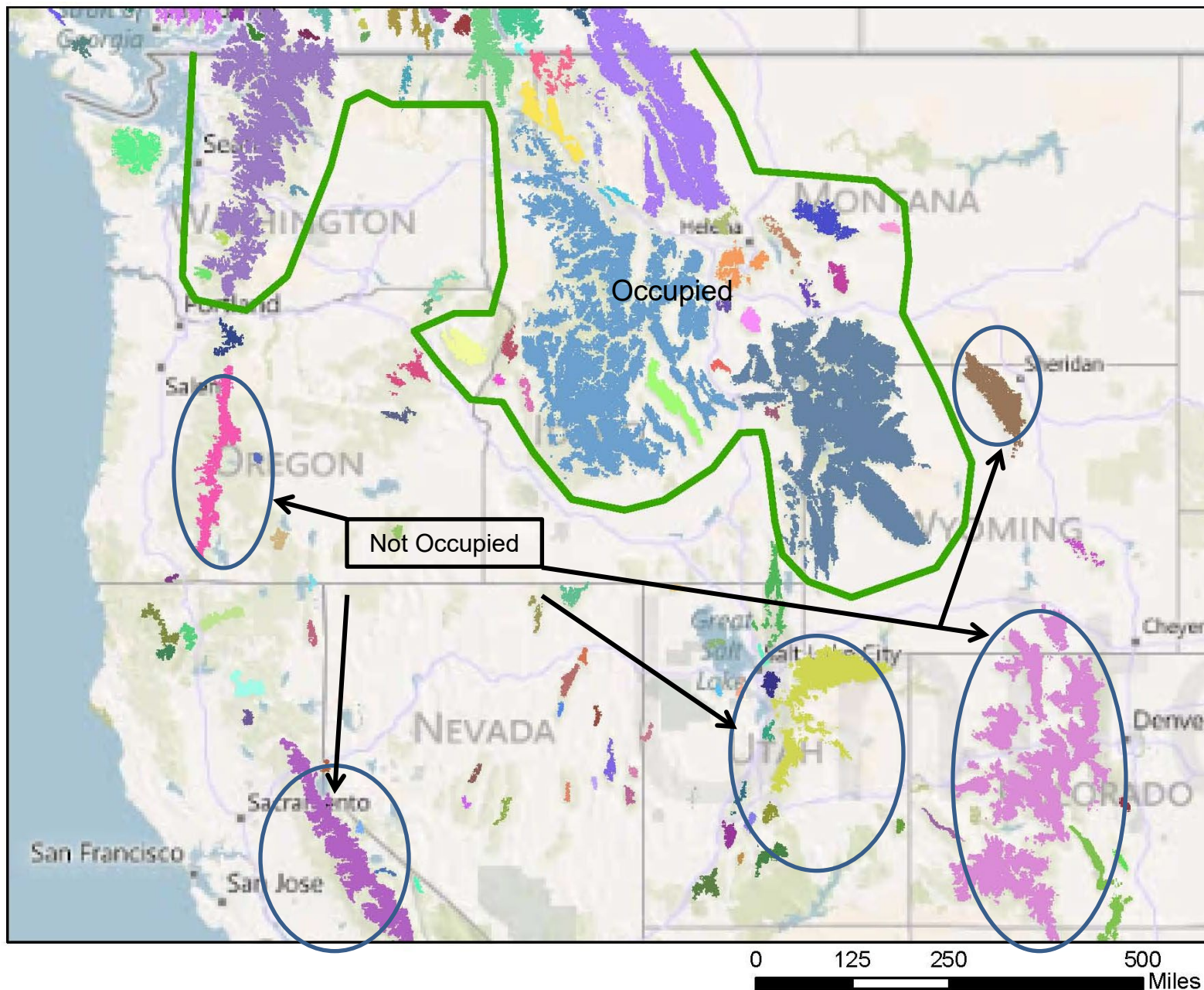


Figure 1. Occupied (green line) and unoccupied (blue ovals) wolverine habitat in the contiguous United States. Occupancy here refers to areas occupied by wolverine populations. All of the areas identified as unoccupied may occasionally be visited by dispersing wolverines. Areas depicted as occupied are based on verified wolverine records since 1995 and the presence of currently suitable habitat; however, some areas considered occupied may have very low population levels. The Sierra Nevada of California and the southern Rocky Mountains in Colorado each host a single known male wolverine that dispersed from the northern Rocky Mountain population.