

From: [Grizzle, Betty](#)
To: [Shoemaker, Justin](#)
Cc: [Jodi Bush](#); [Marjorie Nelson](#); [Guinotte, John](#); [Craig Hansen](#); [Caitlin Snyder](#)
Subject: Re: Wolverine briefing memo for RD
Date: Sunday, June 11, 2017 4:00:33 PM
Attachments: [Briefing Memo for RD Wolverine SSA update 20170611 BJG edits.docx](#)

Hi all - I came in today (Sunday) to review the briefing memo document since this is due Monday morning.

I worked from the original document that was sent to me by John Guinotte on June 9, though I realize that there have been a few subsequent reviews and changes made since then. **Please see attached file for a few minor and substantive changes.**

I will be back in the office on Monday if you have questions.

On Fri, Jun 9, 2017 at 7:45 AM, Shoemaker, Justin <justin_shoemaker@fws.gov> wrote:
Jodi and Marj,

We have prepared a briefing memo for our wolverine SSA update for the RD next Thursday. This memo needs to be to the RD's office by Monday per R6 RD briefing guidance from Stephanie Potter. Please take a look and let me know if you have edits. We will be quickly circulating a surname folder through RO ES for Mike's signature on Monday.

We are trying to put together a genetics options paper as Mike requested. It can be an attachment to this memo if we get the necessary info regarding costs by Monday. Steve is looking into it. If not, I'll drop reference to the options paper in this memo but leave the topic for discussion.

We can also attach the revised schedule to the RD memo if you think appropriate. The latest draft is attached.

Justin Shoemaker
Classification Biologist
U.S. Fish and Wildlife Service, Region 6
Phone: 309-757-5800 x214
Email: justin_shoemaker@fws.gov

--

Betty J. Grizzle, D.Env.
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
Carlsbad Fish and Wildlife Office
2177 Salk Ave, Suite 250
Carlsbad, CA 92008
760-431-9440, ext. 215
760-431-5901 fax

BRIEFING MEMORANDUM FOR THE REGIONAL DIRECTOR

DATE: June 7, 2017

FROM: Michael Thabault, Assistant Regional Director, Ecological Services

SUBJECT: North American Wolverine Species Status Assessment Update

To inform the Regional Director of the progress made on the North American wolverine (wolverine) Species Status Assessment (SSA) Report and the key information that will be of interest to the eventual wolverine listing decision. A briefing is scheduled for June 15.

BACKGROUND

In compliance with a Court order that remanded our previous withdrawal of a proposed rule to list the contiguous U.S. Distinct Population Segment (DPS) of the wolverine (79 FR 47522; August 13, 2014), we will prepare either a revised proposed rule to list or a revised withdrawal of the previous proposed rule (78 FR 7864; February 4, 2013). In October 2016, we published a notice to announce the vacature of the withdrawal rule to the public, announce the proposed status since the judge's ruling, and to reopen the public comment period on the February 4, 2013 proposed rule to list the wolverine as a threatened species.

DISCUSSION

Highlighted in Judge Christensen's Court order remanding the withdrawal were the Service's determinations regarding: (a) the threat posed to the wolverine by the effects of climate change at the reproductive denning scale, (b) the threat posed to the wolverine by small population size and lack of genetic diversity, and (c) application of the SPR Policy to the wolverine. In our SSA Report we are reviewing previously considered information and new information, to inform these points to, ensure we are using the best available science upon which to base our listing decision.

Range of the Species – using both previously considered and new information, we have revised our approach to delineate the range of the wolverine across North America and in the contiguous United States; to more accurately represent the species' range.

Trapping Data – we have collected additional trapping data not available to us in 2014 to inform the range of the species and the effect of trapping in Canada (British Columbia and Alberta); this information is directly relevant to informing our DPS determination.

NOAA/CU snow persistence model – High resolution snow pack models have been developed for Glacier and Rocky Mountain National Parks. These areas bracket the DPS range for the wolverine in the contiguous United States. The majority of model scenarios indicate significant future snow persistence through April and May for 1) elevations currently used for denning (Glacier) and 2) the inferred elevations where wolverines would be expected to den in Rocky Mountain National Park.

Deleted: B

Deleted: making every effort

Deleted: and

Deleted: most up-to-date

Deleted: s

Deleted: current

Deleted: ing

Deleted: range

Deleted: lower 48

Deleted: is different

Deleted: ,

Deleted: and we believe

Deleted: , than

Deleted: broader

Deleted: considered in the 2014 withdrawal

Deleted: gathered

Deleted: as it relates to an updated

Deleted: lower 48

New denning information – we have received several peer-reviewed publications and other information from wolverine researchers that were not available to us in 2014 documenting natal den sites and den site conditions that provide new insight into the timing and location of wolverine den sites; natal den sites have been documented in locations, outside of areas previously predicted by Copeland et al. (2010) snow model in North America and in Scandinavia.

Deleted: several records

Deleted: of

Deleted: found

Deleted: modeled snow habitat

Deleted: , as well as confirmation of successful wolverine dens outside of snow in Scandinavia

Deleted: on

Deleted: the

Deleted: lower 48

Population Viability Analysis (PVA) underway – we are coordinating with USGS to develop a PVA to inform minimum viable population size and to develop future scenarios that model the potential effects of demographic and habitat parameters on the wolverine population in the contiguous United States.

Genetics – see attached options paper.

NEXT STEPS

We plan to present the final SSA Report, with peer and partner review incorporated, to the RD and decision team by December 2017.

Deleted: have

Deleted: r

ATTACHMENTS

Schedule for preparation of the North American wolverine SSA Report and listing decision documents is attached.

Deleted: W

Deleted: schedule

Genetics options paper.

Commented [SJ1]: We can revise the paper we put together for Mike w/ actual \$ amounts.