

From: [Holt, Bryon](#)
To: [Grizzle, Betty](#)
Subject: Re: Questions re "small population size", genetic diversity, etc.
Date: Wednesday, May 3, 2017 8:43:43 AM

Thanks Betty. These seem fine to me. I have no suggestions or edits.

Bryon

On Tue, May 2, 2017 at 1:57 PM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:

Here are some key questions I developed after reviewing previous rules. **Feel free to edit these and/or provide others.**

I would like to send these to AK researchers.

Thanks.

(1a) Do genetic studies indicate that there is a loss of connectivity between wolverines in the northern Rocky Mountains (or the Cascades region) and Canada?

(1b) Relatedly, how does immigration of wolverines from Canada influence the genetic diversity of wolverines in the contiguous United States?

(2a) Does the contiguous U.S. population of wolverines exhibit a reduction in genetic diversity?

(2b) Relatedly, is there evidence of genetic drift in wolverines in the contiguous US population?

(2c) If either (2a) or (2b) are true, what, if any, "adverse effects" have been documented in the US population of wolverines?

(3) What is the "effective population size" of wolverines in contiguous United States, AND across it's entire North American range?

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