

**From:** Fortin-Noreus, Jennifer  
**To:** [Haroldson, Mark](#)  
**Cc:** [van Manen, Frank](#)  
**Subject:** RE: response to peer review and public comments  
**Date:** Tuesday, June 28, 2016 9:40:50 AM

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When it comes up in while we're working on initial responses on the 14th I will say the end of July for the whitebark pine analysis if that works for both of you?

I think the deterministic life tables will help but it would also nice to be able to combine that with the ability to detect a decline. For example, at a starting population size of 747 and a 10% independent female mortality rate the estimate is a population of 668 after 6 years. Does the current trend estimate have the power to detect that rate of decline in that short of a period of time? I hope that makes sense! How long to put that information together?

Thank you!

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**From:** Haroldson, Mark [[mharoldson@usgs.gov](mailto:mharoldson@usgs.gov)]  
**Sent:** Tuesday, June 28, 2016 9:31 AM  
**To:** Fortin-Noreus, Jennifer  
**Cc:** van Manen, Frank  
**Subject:** Re: response to peer review and public comments

Jenn,

I'm in CPR/AED training this AM so I am only checking email on breaks. Frank has the input files for the MARK analyses. We will need to determined WBP covariates already in the input files and if they will work partition bears between those with and without WBP. Might not get to that for a couple of days when Frank is back.

Mark

On Tue, Jun 28, 2016 at 8:29 AM, Fortin-Noreus, Jennifer <[jennifer.fortin-noreus@mso.umt.edu](mailto:jennifer.fortin-noreus@mso.umt.edu)> wrote:

Mark,

Thank you for the spreadsheet. That will help start the conversation as we review comments. Do you have a rough estimate of how long it would take to do the whitebark analysis? Hopefully we can talk about the necessity of it a little more when I'm there on the 12th.

Thanks!

Jennifer

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From: Haroldson, Mark [[mharoldson@usgs.gov](mailto:mharoldson@usgs.gov)]  
Sent: Tuesday, June 28, 2016 7:58 AM  
To: Fortin-Noreus, Jennifer  
Cc: van Manen, Frank  
Subject: Re: response to peer review and public comments

Jennifer,

Frank is at meetings in Boise most of the week and I am going to be travelling most of next week (The 4th). I think we also have a meeting of the 12th. So I don't doubt we can get your list done by the 13th. Estimating vital rates for bears without WBP will require the greater effort, and will depend a lot on the whether or not we will have to develop additional covariates or can get at the question with those already developed and in the MARK Input files.

As to modeling the higher mortality rates we have done some of that using deterministic life tables analyses at the request of Matt Hogan last December. See the attached spreadsheet.

Sincerely,

Mark

On Mon, Jun 27, 2016 at 3:47 PM, Fortin-Noreus, Jennifer <[jennifer.fortin-noreus@mso.umt.edu](mailto:jennifer.fortin-noreus@mso.umt.edu)><mailto:[jennifer.fortin-noreus@mso.umt.edu](mailto:jennifer.fortin-noreus@mso.umt.edu)>> wrote:  
Hi Mark and Frank,

I am working on summarizing the peer review and public comments. As we briefly discussed in Anchorage there are two issues (so far) that additional calculations/modeling was recommended for. The first is an assessment of the vital rates of grizzly bears that feed on whitebark pine compared to those that do not. The second is modeling of the higher mortality limits (>7.6% for females and dependent young and >15% for males) set out in Table 1 of the rule. This issue came up in peer review and strongly in the IBA review. I am supposed to go to Denver on July 13th to discuss the Service's initial response to comments. It would be extremely helpful to have this information before then but I know that is asking a lot. Please let me know if that's possible.

Thank you!

Jennifer

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