

From: [Guinotte, John](#)
To: [Grizzle, Betty](#)
Cc: [Stephen Torbit](#); [Shoemaker, Justin](#)
Subject: Re: Adaptation Partnership assessments
Date: Tuesday, January 31, 2017 2:58:00 PM

Hi Betty,

You are correct. Two different efforts here. I have only looked at the US den sites that were given to me by Ed. We have not obtained the original USFS data you write about below and NOAA hasn't either. I'm happy to chat on the phone if needed. I'm open tomorrow am and Thurs am, but the rest of the afternoons and Friday are bad.

Best, John

On Tue, Jan 31, 2017 at 2:47 PM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:

John - I think (maybe) we are talking about two different efforts.

It was suggested to me that the Service look at USFS's original data to tease out the den sites (N America and Europe) by year, rather than the summed metric used in Copeland et al. analysis. I wasn't sure if you (or NOAA) had already obtained these data sets (for N Am or Europe) in efforts to duplicate some of the previous modeling.

For the U.S. den sites, that Ed and I have collected and mapped, I believe you asked for those last week in an effort to see what NOAA (or others) might be able to evaluate relative to snow cover from these data.

So, I think there might still be a need to go back to the original data.

That said, from your message, it appears that there are 22 den sites that could be evaluated for "meltout" and this information might also be of value.

It might be easier to talk about this in joint phone call.

Betty

On Mon, Jan 30, 2017 at 12:04 PM, Guinotte, John <john_guinotte@fws.gov> wrote:

Hi All,

I spoke to NOAA about the modis data on Friday. The high resolution (500m) modis data only goes back to 2000. The only other den sites (n=8) we have data for are the light blue dots in the map attached. These 8 are in addition to the 14 dens I pulled data for already in Glacier.

The processing for calculating melt out date from the daily modis data for the 8 additional sites is time consuming and isn't feasible (lots of noise in the daily data as well). What I can do on relatively short order is pull the first 8-day image post den site documentation date to see if there was snow at that site when the den was recorded. We don't have very precise date info for the den site only month and year so I would pull the first 8 day image in June for a den site that was recorded in May.

Let me know if this is something you think is worth doing or not.

Thanks John

John Guinotte
Fish and Wildlife Biologist
Ecological Services
U.S. Fish and Wildlife Service
Mountain Prairie Region 6
134 Union Blvd., Lakewood, CO 80228
303-236-4264
john_guinotte@fws.gov

On Fri, Jan 27, 2017 at 11:56 AM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:
I would like to know if this can or cannot be done. If the latter, Ed and I will request from the USFS their original data sets (that is, the den data on the snow layer (by the den date) along with the MODIS snow that was detected for that year by pixel).

On Fri, Jan 27, 2017 at 10:40 AM, Stephen Torbit <stephen_torbit@fws.gov> wrote:
John, let's be careful not to delay completion of the Modis component of our work to look at the additional den sites. Many should be covered.

Sent from my iPhone

On Jan 27, 2017, at 11:26 AM, Guinotte, John <john_guinotte@fws.gov> wrote:

Thanks Betty,

NOAA/CU calculated melt out date from historical Modis data for our two study sites for the future snow pack work in Glacier and Rocky Mountain national parks. I'm going to ask them this this afternoon what level of effort it would take to calculate melt out dates for the rest of the den sites.

Best., John

On Fri, Jan 27, 2017 at 11:02 AM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:
I am attaching two of the three references cited in the comment letter. I haven't been able to find (yet) a 2017 draft document being prepared as a chapter for a GTR from Rocky Mtn Research Station.

Regarding your preliminary analysis, how did you determine the melt out date? Also, it will be important to also look at southern den sites. Thanks for sharing this.

On Fri, Jan 27, 2017 at 9:53 AM, Guinotte, John <john_guinotte@fws.gov> wrote:
Hi Betty,
No I haven't seen the site. Can you share the two documents? I just

had a closer look at the 13 den sites in Glacier where I have historic Modis snow cover data. Spreadsheet is attached. Looks like melt out date was well after the dates Copeland recorded for all sites.
Best, John

John Guinotte
Fish and Wildlife Biologist
Ecological Services
U.S. Fish and Wildlife Service
Mountain Prairie Region 6
134 Union Blvd., Lakewood, CO 80228
303-236-4264
john_guinotte@fws.gov

On Fri, Jan 27, 2017 at 10:42 AM, Grizzle, Betty
<betty_grizzle@fws.gov> wrote:

John - Have you seen the following website?
<http://adaptationpartners.org/nrap/>

I received a comment letter today referencing 3 documents produced by this collaborative partnership (identified as drafts). I am reviewing these now, but it looks like two of them are vulnerability assessments related to climate change effects - essentially generated scenarios - and wolverine is one of 20 species considered.

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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

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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

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Betty J. Grizzle, D.Env.
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U.S. Fish and Wildlife Service
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Betty J. Grizzle, D.Env.
Fish and Wildlife Biologist
U.S. Fish and Wildlife Service
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2177 Salk Ave, Suite 250
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760-431-5901 fax