

From: [Guinotte, John](#)
To: [Grizzle, Betty](#)
Cc: [Stephen Torbit](#); [Shoemaker, Justin](#)
Subject: Re: Adaptation Partnership assessments
Date: Monday, January 30, 2017 1:04:07 PM
Attachments: [den_sites_modis.jpg](#)

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

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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

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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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