

From: "Jeff Copeland" <jcopeland224@gmail.com>
Subject: Re: FW: 2007 paper
Date: Fri, February 15, 2013 12:13 pm
To: amagoun@ptialaska.net

Myrberget suggests the 10th of May for abandonment but reports den use as late as the 12th. I attached the paper but found that for some reason my pdf is missing the first page? Not sure what that's about.

The Aubry et al. paper states that we choose those dates to represent snow distribution during the "latter portion of the denning period," while the Copeland et al. paper equivocated even more by stating that this period "generally corresponds to the period of wolverine den abandonment." The citations, in both cases, were added to direct the reader to references for the time of den abandonment. They were not to suggest that our dates corresponded precisely with the time of den abandonment. I think that is pretty clear in both papers.

jeff

On Fri, Feb 15, 2013 at 1:44 PM, <amagoun@ptialaska.net> wrote:

Thanks, Jeff. Just wanted to know how the dates were arrived at because both the Aubry et al. 2007 and the Copeland et al. 2010 paper cited the Magoun and Copeland 1998 paper (and Keith also cited the Myrberget 1968 paper) as the source of the dates and the Magoun and Copeland 1998 paper does not appear to suggest a May 15 date for either Alaska or Idaho. I do not have my hard copy of Myrberget with me in Oregon? Would you happen to have that one in electronic form that you could send to me?

Thanks
Audrey

> When we developed this, we considered that weaning occurs 9-10 weeks
> post-parturition. If parturition occurs late Feb to early Mar, on average,
> then that puts weaning out towards mid-May. In Glacier we always planned
> our kit capture attempts for around the end of the first week of May. We
> always found the female and kits still in the den at that time. The 14 or
> 15th of May date was a bit arbitrary but I think it generally matches the
> time of den abandonment. As I mentioned earlier, if I was going to error,
> I wanted to do so toward estimating too late rather than too early and I
> did consider this as inclusive of both natal and maternal. Are you
> concerned that we should have went with a later date?

>
> On Fri, Feb 15, 2013 at 1:18 PM, <amagoun@ptialaska.net> wrote:

>
>>
>>
>> Thanks for the reply and explanation, Jeff. I realize the need for using
>> multiple
>> days because of cloud cover but what I was hoping to understand better was
>> why
>> start at 14 May and work backwards from there. You stated below that: "we
>> wanted to
>> go as late as we felt comfortable that females might still be associated
>> with the
>> reproductive den." This is actually the crux of why I initially asked the
>> question
>> of Keith. Why were you comfortable with the May 14 (May 15) date as the
>> latest date
>> that females would be associated with the reproductive den (I assume you
>> mean both
>> natal and maternal combined?). What was the source of this date? I can't
>> find any
>> reference for a reproductive den that was used until May 14, with the
>> possible

>> exception of remnant snow drifts used as maternal dens (or rendezvous sites) and

>> since they were "remnant" snowdrifts/snow patches, one can assume that snow was not

>> completely covering all the area that was around the den. So how did you specifically arrive at 14 May (or 15 May as is stated in the Copeland et al. 2010 paper)?

>>

>>

>> > The beginning and ending dates have no specific link to wolverine ecology other than they were meant to be inclusive of when we would expect the cessation of denning. We tended toward choosing a relatively late date on

>> > the latter end (May 14) because doing so would provide a more conservative estimate for the distribution of snow. The earlier the ending date the more snow would be represented and the better the model would fit so we wanted to go as late as we felt comfortable that females might still be associated with the reproductive den.

>> >

>> > When using snow data you cannot select a specific date for the analysis because of the potential for cloud cover. A cloudy day will obscure the satellites view of the earth's surface and as such will leave data gaps. Although most of my experience is with MODIS data as I did not do the snow cover analysis for the historical distribution paper I would assume the same would be true for the EASE data. As such, you have to develop the snow layer (or at least we had to at the time) from a multi-day time period

>> > in order to avoid the cloud cover issue.

>> >

>> > Jeff

>> >

>> > On Wed, Feb 13, 2013 at 6:27 PM, Aubry, Keith -FS <kaubry@fs.fed.us> wrote:

>> >

>> >> Jeff or Kevin,

>> >> Can you provide the information that Audrey is looking for here??

>> >> Thanks,

>> >> k .

>> >>

>> >> *****

>> >> Keith B. Aubry, Ph.D.

>> >> Research Wildlife Biologist

>> >> USDA Forest Service

>> >> Pacific Northwest Research Station

>> >> 3625 93rd Ave. SW

>> >> Olympia, WA 98512

>> >>

>> >> e-mail: kaubry@fs.fed.us

>> >> Phone/voicemail: (360) 753-7685

>> >> FAX: (360) 753-7737

>> >> *****

>> >>

>> >>

>> >> -----Original Message-----

>> >> From: Aubry, Keith -FS

>> >> Sent: Wednesday, February 13, 2013 5:26 PM

>> >> To: 'amagoun@ptialaska.net'

>> >> Subject: RE: 2007 paper

>> >>
>> >> Audrey
>> >> Actually, I think Jeff was primarily responsible for selecting the final
>> >> dates, so I will have to check with him to answer your question. Also,
>> >> I'm
>> >> away from home right now and am leaving for Hawaii early tomorrow
>> >> morning,
>> >> returning on Wed the 20th, so I really can't answer your question right
>> >> now, anyway. I'll be back in touch with you on this next week.
>> >> Aloha...
>> >> k.
>> >>
>> >> *****
>> >> Keith B. Aubry, Ph.D.
>> >> Research Wildlife Biologist
>> >> USDA Forest Service
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>> >> Phone/voicemail: (360) 753-7685
>> >> FAX: (360) 753-7737
>> >> *****
>> >>
>> >> -----Original Message-----
>> >> From: amagoun@ptialaska.net [/src/compose.phpamagoun@ptialaska.net]
>> >> Sent: Wednesday, February 13, 2013 2:10 PM
>> >> To: Aubry, Keith -FS
>> >> Subject: 2007 paper
>> >>
>> >> Hi Keith
>> >> I am reviewing the proposed rule for listing the wolverine that you sent
>> >> to me. I have a question regarding the Aubry et al 2007 paper. In that
>> >> paper the authors
>> >> state:
>> >>
>> >> "We chose the time period from 15 April to 14 May to represent snow
>> >> cover
>> >> present during the latter portion of the wolverine denning period
>> >> (Myrberget 1968, Magoun and Copeland 1998)."
>> >>
>> >> I can't see where you (others?) arrived at the 14 May date from the
>> >> literature that you cited here. Can you tell me specifically why you
>> >> used
>> >> 15 April to 14 May, especially the latter part of that period, 1 May -
>> >> 14
>> >> May?
>> >> Thanks as always
>> >> Audrey
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