

From: [Grizzle, Betty](#)
To: [Guinotte, John](#)
Subject: Re: info needed on Idaho dens from the 90s.
Date: Tuesday, April 18, 2017 1:54:44 PM

That was my original thought, but I had assumed that finding temperature data for these remote areas was not likely.

On Tue, Apr 18, 2017 at 12:49 PM, Guinotte, John <john_guinotte@fws.gov> wrote:

Thanks Betty. One alternative, since we don't have a hard number for days above freezing, would be to reverse engineer it and look at the temperatures in the run up to date of abandonment to see if we can determine a consistent pattern across the natal dens.

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 Tue, Apr 18, 2017 at 1:13 PM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:

Message from Audrey:

The Idaho den abandonment temperatures were taken from a SNOTEL site near where the den occurred (Banner Summit). The Alaska den abandonment occurred while I was in the field watching the dens and spring temperatures. I don't recall how many days; it was >20 years ago!!! In any event, it would probably be variable how many days would be required before den snow tunnels would begin to slump or dripping would occur in boulder/avalanche debris dens.

I sent a reply back, but I can look in her dissertation and Copeland's thesis to see what dates they saw young out of the natal dens. That will take some time, though. I'll let you know what I hear back from her. FYI - she had not heard about the Belgium wolverine.

On Tue, Apr 18, 2017 at 8:40 AM, Guinotte, John <john_guinotte@fws.gov> wrote:

Hi Betty,

I read through the Magoun and Copeland 1998 paper and need some information from them to do the temp analysis we spoke about yesterday.

See highlights in Table 1 of attachment. I need to know the lat/long and year for each of these natal dens so I can pull the daily temperature data for those locations. I also need some clarification on the statement "*In both Alaska and Idaho, abandonment of natal dens coincided with a period when maximum daily temperatures rose above freezing for a number of days for the first time since denning commenced.*" I need to know how many days above freezing.

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

--

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

--

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