

From: [Guinotte, John](#)
To: [Betty Grizzle](#)
Subject: Fwd: BC wolv trapping map
Date: Friday, October 6, 2017 10:35:29 AM
Attachments: [rich_new_bc_trapping.jpg](#)
[rich_new_bc_trapping2.jpg](#)

Hi Betty, The map you just sent Rich is not the most up to date one we have. The one attached is with all of the 0's. Those are management units with 0 take according to Rich. To me the question is why are there so many 0s within 100km of the border in BC. Particularly on the western side (N Cascades).

----- Forwarded message -----

From: **Guinotte, John** <john_guinotte@fws.gov>
Date: Thu, Aug 17, 2017 at 12:12 PM
Subject: Re: BC wolv trapping map
To: "Weir, Rich ENV:EX" <Rich.Weir@gov.bc.ca>, Betty Grizzle <betty_grizzle@fws.gov>

Hi Rich,

I just pulled up the new data you sent me with all the MUs. I'm not seeing any MU with a value of 40? The maximum number of animals taken in any MU 2007-2015 is 23 animals. Attached are a couple of maps of the data you just sent me. The two management units east of MU 4-20 have 0 values and they also don't have a MU identifier? If this is easier to discuss over the phone maybe the three of us can jump on a call this week.

Thanks John

John Guinotte
Spatial Ecologist
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On Thu, Aug 17, 2017 at 11:05 AM, Weir, Rich ENV:EX <Rich.Weir@gov.bc.ca> wrote:

Here is the data for MUs that are within 300 km of the border with the US. Note that there a number of MUs that don't have any harvest, which are the holes (zeros) in the harvest layer that you noted before.

Rich

Richard D. Weir, R.P.Bio. | Carnivore Conservation Specialist

Ecosystems Branch, Ministry of Environment and Climate Change Strategy

PO Box 9338 Stn Prov Govt | 4th Floor, 2975 Jutland Road

Victoria, BC | V8W 9M1 | New phone: 778.698.4390

From: Guinotte, John [mailto:john_guinotte@fws.gov]

Sent: Thursday, August 17, 2017 08:57

To: Grizzle, Betty; Weir, Rich ENV:EX

Subject: Re: BC wolv trapping map

Hi Rich,

I had a look at the original data you sent me, the shapefile of management units, and it looks like the management units you write about below were not included (see attachment). Is it possible to get an updated shapefile with those units included? We'd ideally like to have historical harvest data for all the units in close proximity (200 km) to the international border. This is important information regarding distinct population segment and the analysis we are doing.

Many thanks

John

John Guinotte
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On Wed, Aug 16, 2017 at 4:01 PM, Grizzle, Betty <betty_grizzle@fws.gov> wrote:

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From: **Weir, Rich ENV:EX** <Rich.Weir@gov.bc.ca>

Date: Wed, Aug 16, 2017 at 2:20 PM
Subject: RE: BC wolv trapping map
To: "Grizzle, Betty" <betty_grizzle@fws.gov>

Hi Betty,

To answer your questions:

- 1) According to my number, yes the harvest of wolverines in that MU (5-12) was 25 individuals. I probably didn't send the data from the other MUs nearby – the MU immediately to the east had a harvest during that period of 40 individuals. Other MUs nearby had similar or higher harvest totals, so the number isn't unexpected. I think the map might be misleading simply because the surrounding (and more northerly) MUs are not shown.
- 2) We haven't delved into the genetics work enough to be able to say anything about movement patterns of wolverines. Probably the best information on movement near the border is from Keith Aubry and Cathy Raley's work in the North Cascades. You could also talk to Garth Mowat – he is doing some finer scale gene flow analysis in the Columbia Mountains that might be useful.

Cheers,

Rich

Richard D. Weir, R.P.Bio. | Carnivore Conservation Specialist

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From: Grizzle, Betty [mailto:betty_grizzle@fws.gov]

Sent: Wednesday, August 2, 2017 07:49

To: Weir, Rich ENV:EX

Subject: Fwd: BC wolv trapping map

Hi Rich - I had a couple of questions after reviewing the map (*see attached*) that John Guinotte prepared from the data you sent to him.

1. Can you tell me why one management unit in BC has such a higher number? This is the unit with red color, labeled as 23 wolverines harvested over that time period. Is this due to higher level of trapping effort in that region, better wolverine habitat, or combination of factors?

2. Do you have a general sense, based on your on-going genetic analyses or other studies, as to the movement patterns of wolverines along this portion of the U.S.-Canada border? Do wolverines seem to be dispersing (or moving within home ranges) in both directions across the border?

Thanks for your time. Feel free to call me to discuss if that's easier.

Betty

----- Forwarded message -----

From: **Guinotte, John** <john_guinotte@fws.gov>

Date: Mon, Jun 5, 2017 at 3:51 PM

Subject: BC wolv trapping map

Hi All,

Attached is a quick map I made to show total number of wolverines trapped in BC by management unit (2007-2015). This is the data from Rich Weir.

Best, John

John Guinotte
Fish and Wildlife Biologist

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Legend

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