

**From:** [Turner, Ed](#)  
**To:** [Betty Grizzle](#)  
**Subject:** Map zip  
**Date:** Monday, February 13, 2017 12:03:31 PM  
**Attachments:** [Wolverine Betty Take 2 CO.zip](#)

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Betty, Here is a zip file with the maps you are taking. Just in case you need to have extras printed when there.

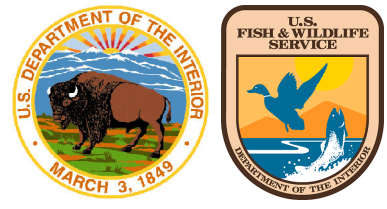
Ed

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Edwin Turner, Geographer  
GIS Mapping and Analysis Branch

DOI-R8-CFWO  
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2177 Salk Ave. Suite 250  
Carlsbad, CA 92008  
760.431.9440 x266

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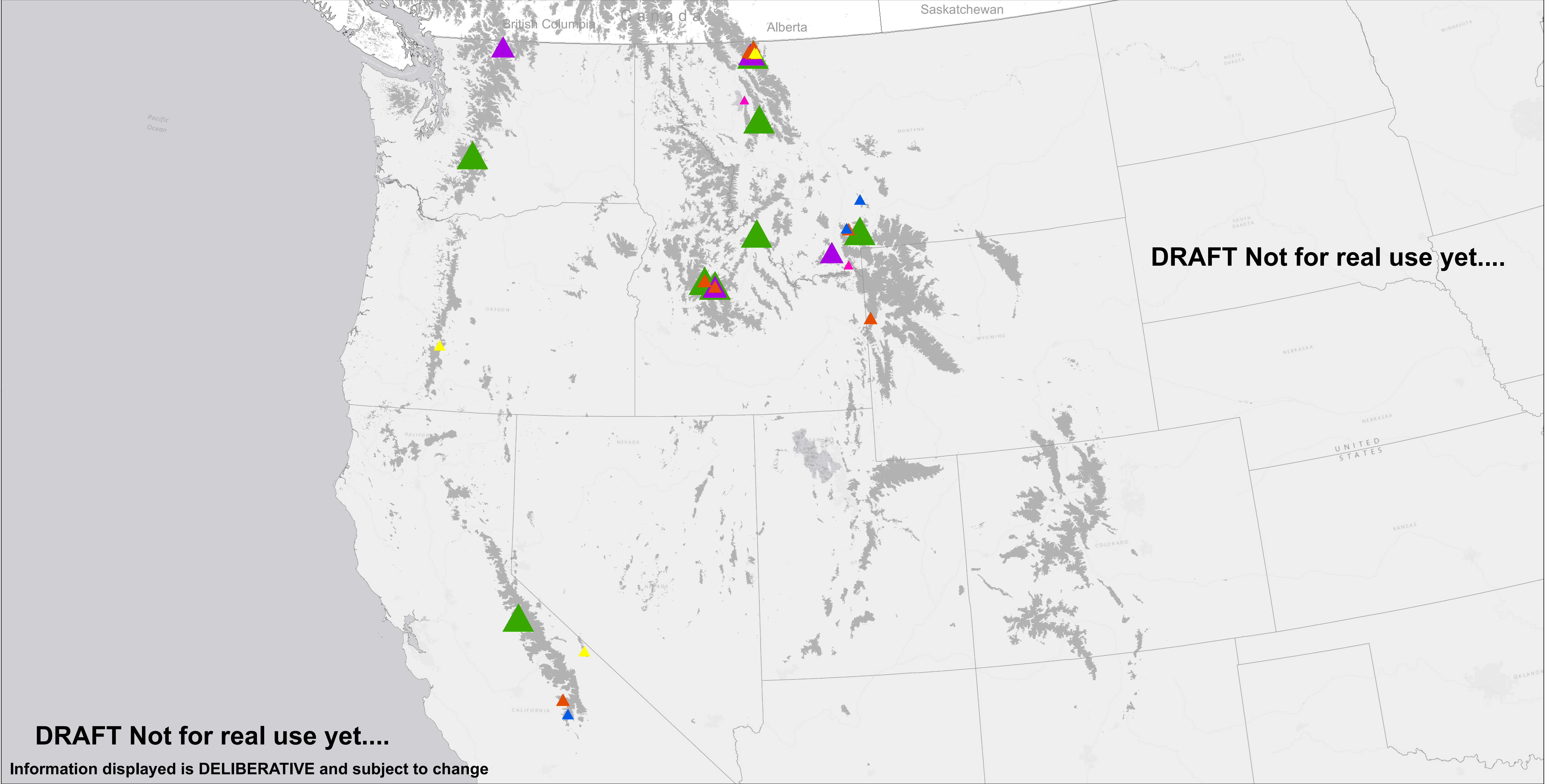


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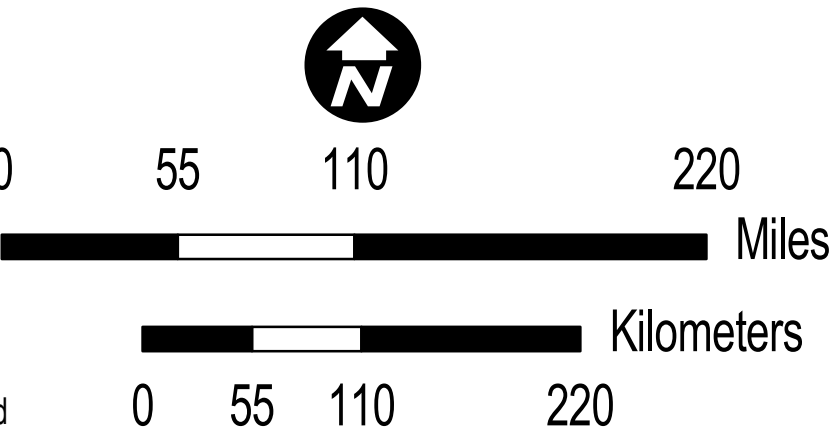
Wolverine Den Sites by Years of Snow Cover



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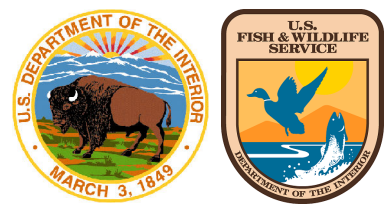
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CARLSBAD FIELD OFFICE  
GIS CONTACT: ED TURNER  
BIOLOGY CONTACT: BETTY GRIZZLE  
(760) 431-9440  
DATA SOURCE: USFWS, INMAN (WCS), COPELAND  
IMAGE SOURCE: ESRI Online Mapper  
Feb 13, 2017  
S:\stem\edstemp\American\_wolverine\MXD\Snow\_Series\Wolverine\_D\_Den\_Tyr\_Snow.mxd



Legend

- 1 Year of Snow
- 2 Years of Snow
- 3 Years of Snow
- 4 Years of Snow
- 5 Years of Snow
- 6 Years of Snow
- 7 Years of Snow
- Snow Cover - Areas that were covered once or more, by snow during a 3 week period in late April, early May, from 2000-2006





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Wolverine Habitat in the Western United States

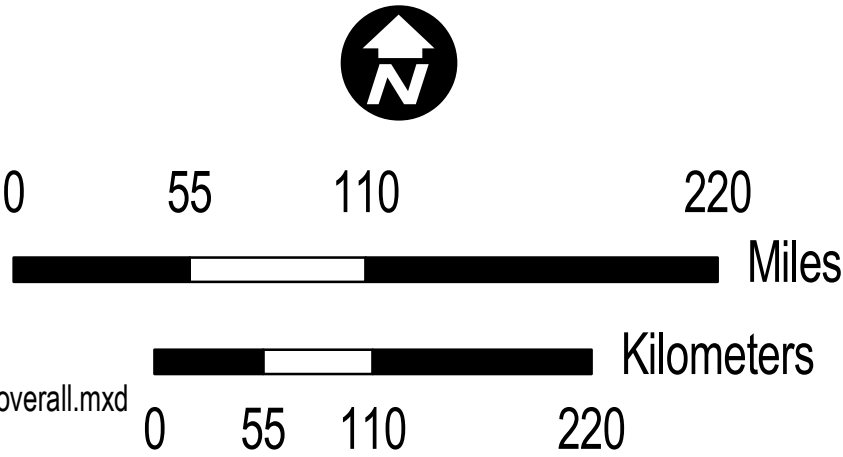
This map represents areas of western United States predicted to be maternal wolverine habitat (suitable for use by reproductive females), primary wolverine habitat (suitable for survival, i.e., use by resident adults), female dispersal habitat (suitable for relatively brief female dispersal movements), and male dispersal habitat (suitable for relatively brief male dispersal movements) based on resource selection function modeling developed with wolverine telemetry locations from the Greater Yellowstone Ecosystem, of Montana, Idaho, and Wyoming, USA, 2001-2010.

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IMAGE SOURCE: ESRI Online Mapper  
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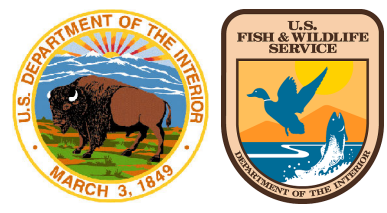


Legend



Map is a reproduction of Figure 4., from Robert Inman's Doctoral Thesis No. 2013:4, Wolverine Ecology and Conservation in the Western United States



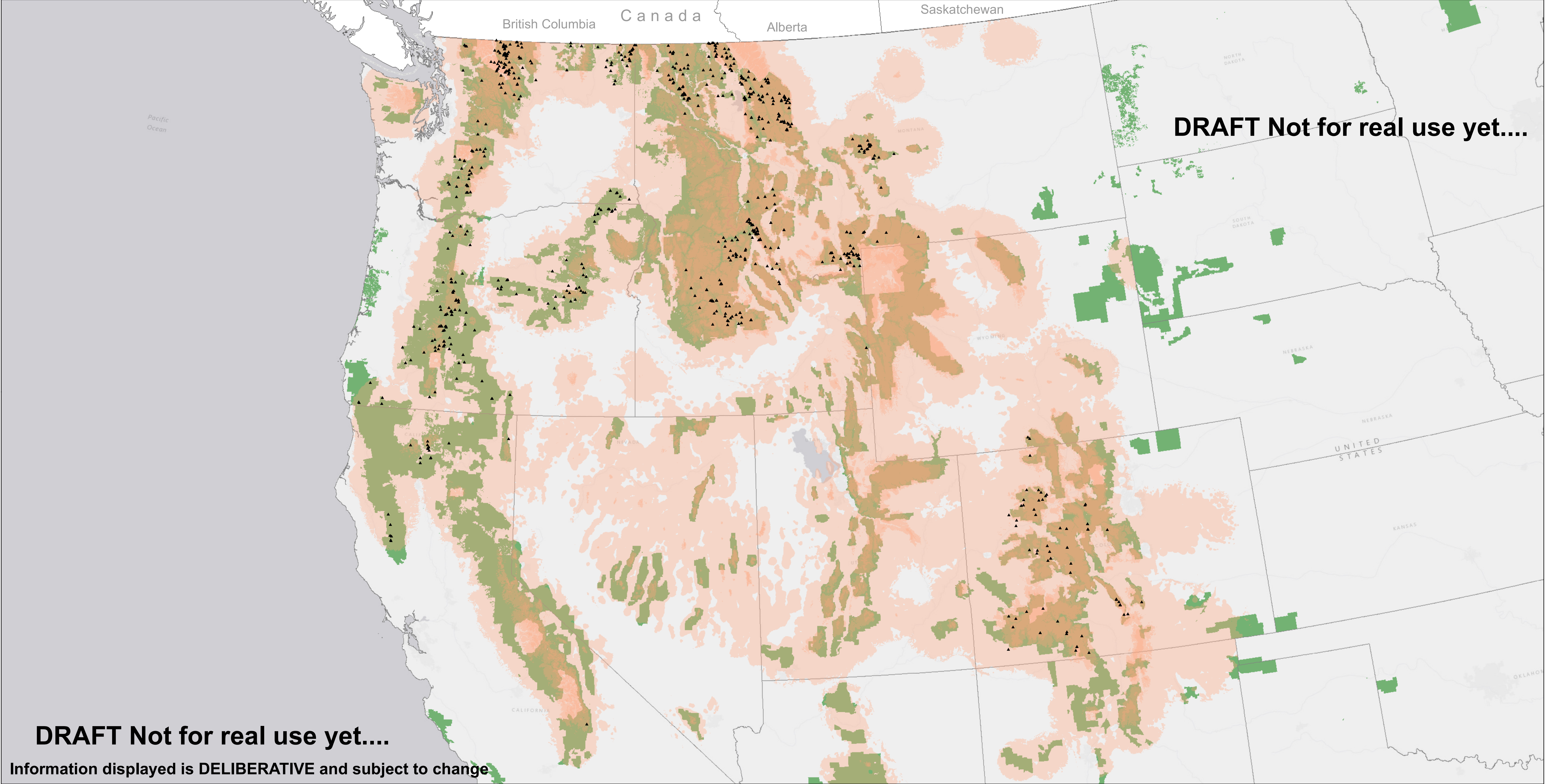


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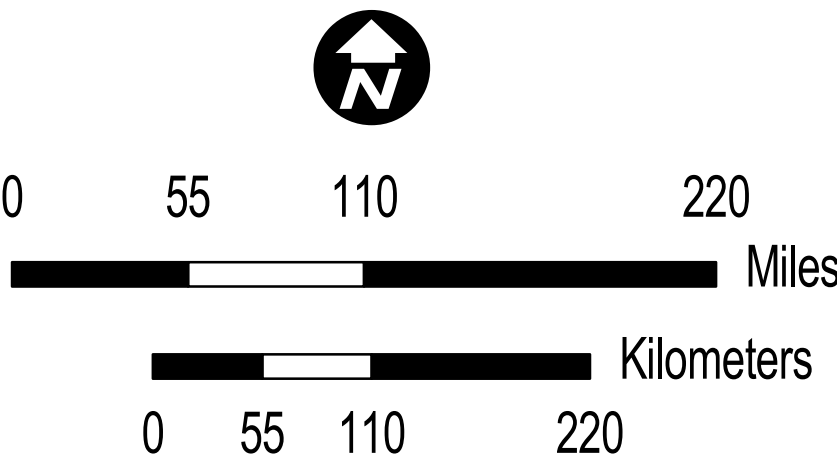
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Wolverine Habitat USFS Map

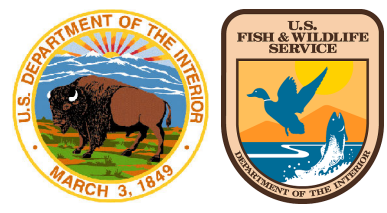


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DATA SOURCE: USFWS, INMAN (WCS), USFS  
IMAGE SOURCE: ESRI Online Mapper  
Feb 10, 2017  
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- Legend**
- ▲ Wolverine Observations USFS NRIS Data Pull
  - Inman Wolverine Primary Habitat, Female Dispersal, Male Dispersal
  - US Forest Service



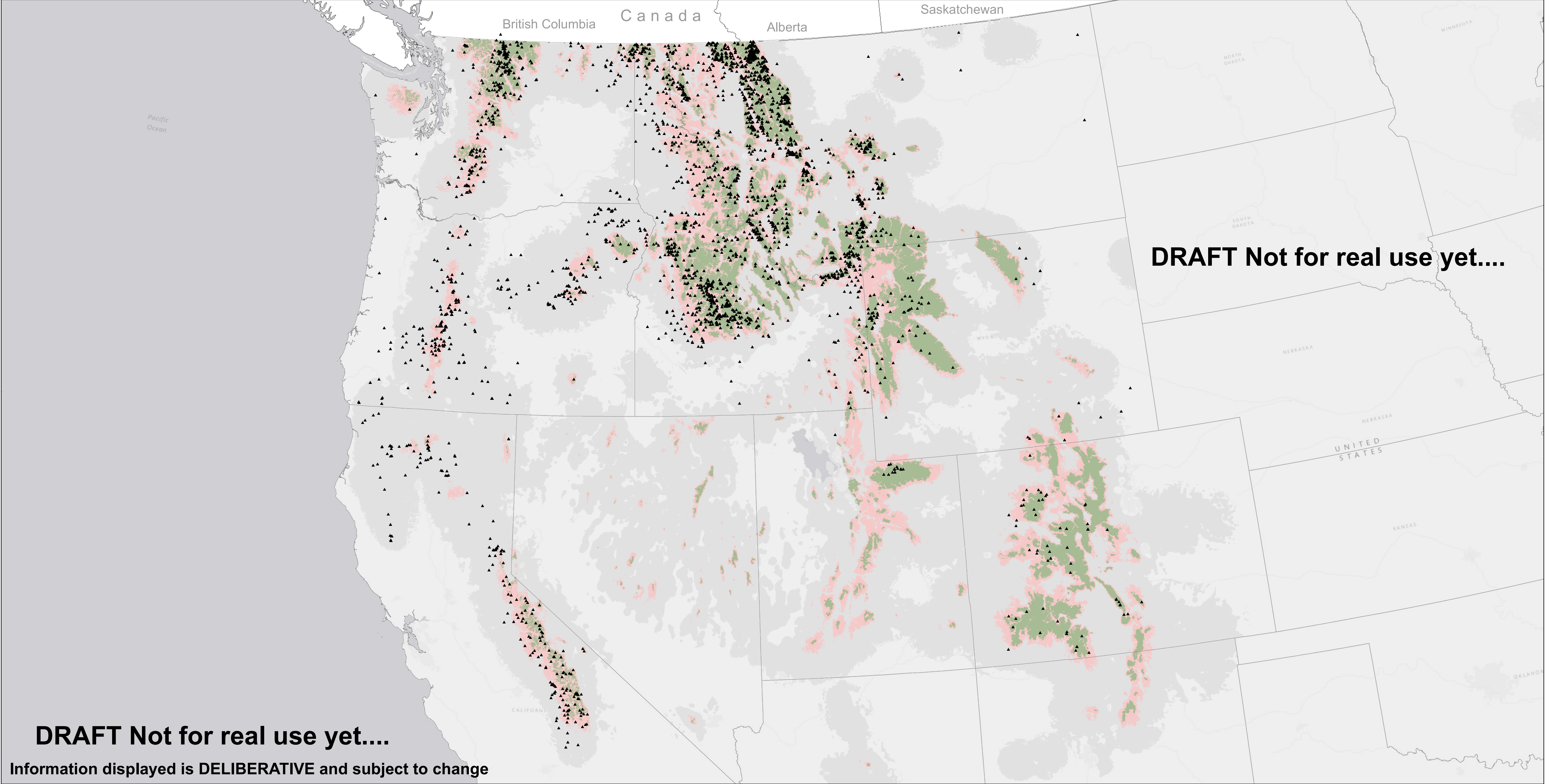


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Wolverine CFWO Geographic Range Map for Creation



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