

**From:** [Turner, Ed](#)  
**To:** [Betty Grizzle](#); [Guinotte, John](#)  
**Subject:** NA Wolverine Current Range with States for rnumbers  
**Date:** Thursday, March 23, 2017 3:06:46 PM  
**Attachments:** [NA\\_W\\_CurrentRange\\_Values.xlsx](#)  
[NorthAmerican Wolverine Current Range States.zip](#)

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Hello All,

Looks like Lower 48 = 7.45% (rounded) of overall range.

Northern Territory = 92.55% (rounded) of overall range.

*\*\* when we do the metadata on the general current range that is one feature not split by the US/CA border, I'll add some of this info to John's info for documentation.*

For our current numbers here is what I did:

I created a data set that combined the US States and the current range for number use only.

Here are the numbers for the range based on a re-projection of the Current Range data originally from Canada (Bonnie Fournier, Northwest Territories Department of Environment and Natural Resources), edited by John to represent the current North American Wolverine Range.

I re-projected the data from the original Canadian Lambert Conformal Conic positioning to the North America Lambert Conformal Conic positioning. My reasoning behind this was to place both the Lower 48 and the Northern Territories (Canada and Alaska) in the same geographic origin for consistency.

Once complete I simply took both the lower 48 (including Alaska) state boundaries and the NA Wolverine range and combined those. They are both in NA Lambert so the process was smooth and from that, I allowed the XTools Pro 11.0 Global License system calculate both Hectares and Acres.

Using the Sum of Hectares equal to 846521326.563648, I calculated percents. I took each polygons hectares value and divided that by the current range hectares sum values. I documented this in the Percent Field. Next I multiplied that by a value of 100 and documented that in the Total\_Prec field.

Following that I ran a calculation test with the following equation “ [Hectares] /846521326.563648 \* 100 “ and documented in the TC field and all seems to check.

John, I’m providing that data if you’d like to check it out. (\*\*\*\* Make sure you open it in a empty project just in case projections cause problems \*\*\*\*) I ran a few test both using xtools for acres and just calculating myself with “Tool Box Create Geometry” and stuff checks. I went to a consistent Lambert projection that would cover all of North America because I was getting crazy acre values under the Canadian only system. I think the Canadian system calculates too much area as you move below the US/CA border. Figured it’s better to go form the Central American border north to the pole for this work.

I’ll doc all the data next week and then we’ll have record copies of the general range “No States” and the detailed Range “w states”.

Thanks for building this.

I think I'm leaving at 3, but will get back on documenting this stuff Friday if all goes well.

Thanks, Ed

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| Sum of Total_Perc<br>Range | Total  |
|----------------------------|--------|
| Lower 48                   | 7.45   |
| Northern Territory         | 92.55  |
| Grand Total                | 100.00 |