LANDFIRE Training, January 23-25, 2024

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## Welcome and what we’ll do

We are excited to host you in lovely Marquette, MI for a 2+ day LANDFIRE training where we will (among other things):

1. Learn about how the LANDFIRE Program operates
2. Download and explore some of the main LANDFIRE datasets, both through the main website, and in ArcGIS Pro, and R
3. Review historical ecosystem models and documents, learn how to access them
4. Create draft maps and charts for sharing with collaborators
5. Discuss example applications, and how LANDFIRE fits into some USFS initiatives such as the Planning Service Organization, Terrestrial Ecological Unit Inventory mapping and fire management

## Pre-work

Randy will happily help with any of this (except USFS-software install issues). Using these programs is optional, but highly recommended. Otherwise you will be just sitting and watching, or otherwise put to work :).

* Software install
  + R (needed for making charts and exploring data. https://repo.miserver.it.umich.edu/cran/)
  + R-Studio (needed for making charts and exploring data. https://posit.co/download/rstudio-desktop/)
  + SyncroSim (needed for exploring Biophysical Settings (historical ecosystem) models). Do this ahead of time as you will need to make an account.
  + ArcGIS Pro (no idea how feds do this)

*Assuming you will have a Windows laptop with Microsoft office products installed (e.g., Excel and Word)*

*If you are new to R, and coding, do not fear. If I can do this, you can do this. We can have a zoom to get you oriented beforehand if that would help. I will have already written some code for you to use.*

* If possible
  + get a portable monitor (~$100-150, plugs into USB port)
  + look over https://claireburtrum.github.io/huronmanistee/

## Agenda

**Monday, January 22, 2024. Travel, and connecting**

* 1200-1330: Lunch and greetings. Get bearings on what people already know about LANDFIRE. Location TBD, likely on NMU campus.

*Official workshop over for the day*

* 1700-?? Meet at Marquette Fit Strip for quick ski and/or snowshoe if there’s adequate snow.

Blackrocks for beer(s) and dinner from food truck (or walk to Stuckos).

**Tuesday, January 23, 2024. Big day of exploring and making things.**

* 730-830: Breakfast at Donkers. Explanation of the day (Randy)
* 900-930: Orientation to R, R-Studio and how to take notes using Quarto documents. Make a chart!
* 930-1000: Why, what, who and how of LANDFIRE (Randy and Megan)
* 1000-1030: Break, catch-up
* 1030-1130: Explore Biophysical Settings description and model in SyncroSim
* 11:30-noon: Get directories organized, start download of key LANDFIRE datasets
* Noon-1300: Walk to lunch at Wildcat Den
* 1300-1400: Bring LANDFIRE data into ArcGIS pro, batch clip
* 1400-1500: Make maps in ArcGIS pro, combine Biophysical Settings and Succession Class data
* 1500-1530: Break, catch-up
* 1530-1700: Easy stuff. Export attribute tables, make charts in R (and quick datawrapper demo), discuss tomorrow

Dinner on your own

**Wednesday, January 25, 2024. Deal with issues, your goals and fuels**

* 730-830: Breakfast at Cafe Bodega
* 900-930: Review and discussion about work on Wednesday.
* 930-1000: Initial LANDFIRE data review
* 1000:1030: Break, catch-up
* 1030-1100: Dealing with LANDFIRE accuracy issues
* 1100-noon: Intro to LANDFIRE Fuels data (Zeke)
* Noon-1300: Lunch
* 1300-1400: Wildfire Exposure Risk Mapping with Zeke, or Vegetation Departure with Randy
* 1400-1700: Discretionary

**Thursday, January 26, 2024**

Travel day.