



**JOINT MEETING**  
**ALASKA CHAPTER AND NW SECTION**  
**OF THE WILDLIFE SOCIETY**  
Alaska Pacific University – Rasmuson Hall  
Anchorage, Alaska  
March 26<sup>th</sup> – 30<sup>th</sup>, 2018  
**SPATIAL MODELING WORKSHOP**



## Modern Tools for Spatial Modeling and Animal Movement Analysis

A one-day methods-and-tools workshop developed by:  
Elie Gurarie, Peter Mahoney, Eric Palm and Mark Hebblewhite

Alaska Wildlife Society Meeting, Anchorage  
March 30, 2018

Two of the most fundamental tools for studying wildlife in the wild are (a) remotely sensed animal movement data, and (b) geographical and spatial data that characterize the animal's habitats and ranges. In this workshop, we will introduce and implement several powerful, open source tools for the processing, visualization and analysis of movement and spatial data within the R programming environment. These include the ability to secure store and access data via Movebank, annotate data with environmental features, and link the data with GIS layers. We will learn how to: (a) Efficiently manage, load and tidy spatial and movement data, (b) make high-level visualizations, including maps, animations and interactive graphics, (c) efficiently obtain basic statistical summaries of behaviors and habitat use, and (d) analyze habitat use with resource and step selection functions (RSF/SSF). Mixing presentation and practical exercises, we will perform analyses jointly in class (bring laptops!) using diverse datasets on Alaskan wildlife. Participants are encouraged to bring their own data.

