

University of Montana Academic Programs in Remote Sensing, GIS, & Spatial Analysis

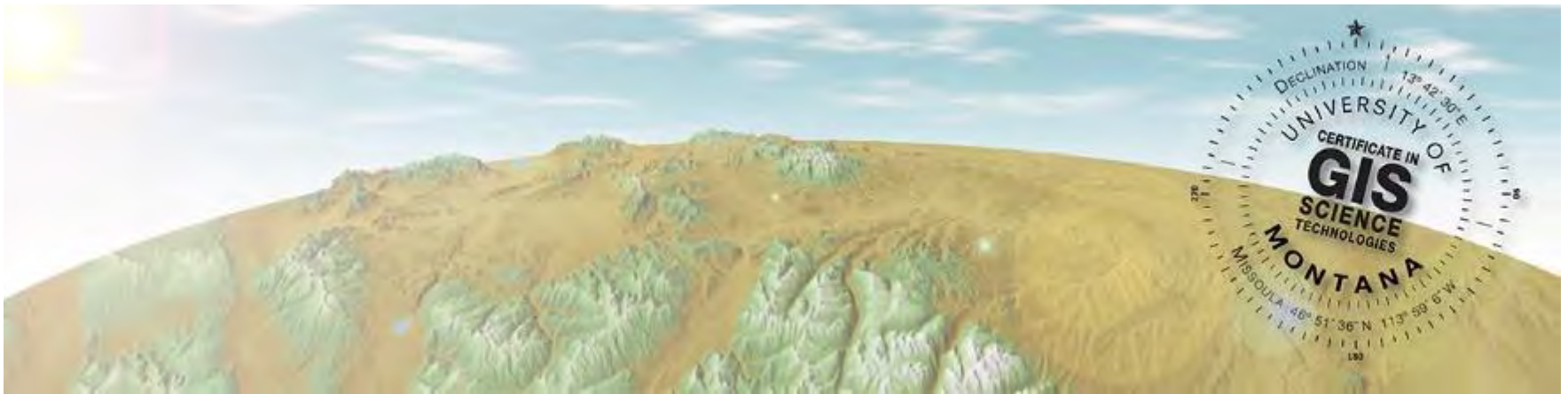
1. Certificate in GIS Sciences & Technologies
2. Graduate research programs
3. Institutional research & workforce development capacity

Certificate in GIS Sciences & Technologies

<https://www.cfc.umt.edu/giscertificate/>

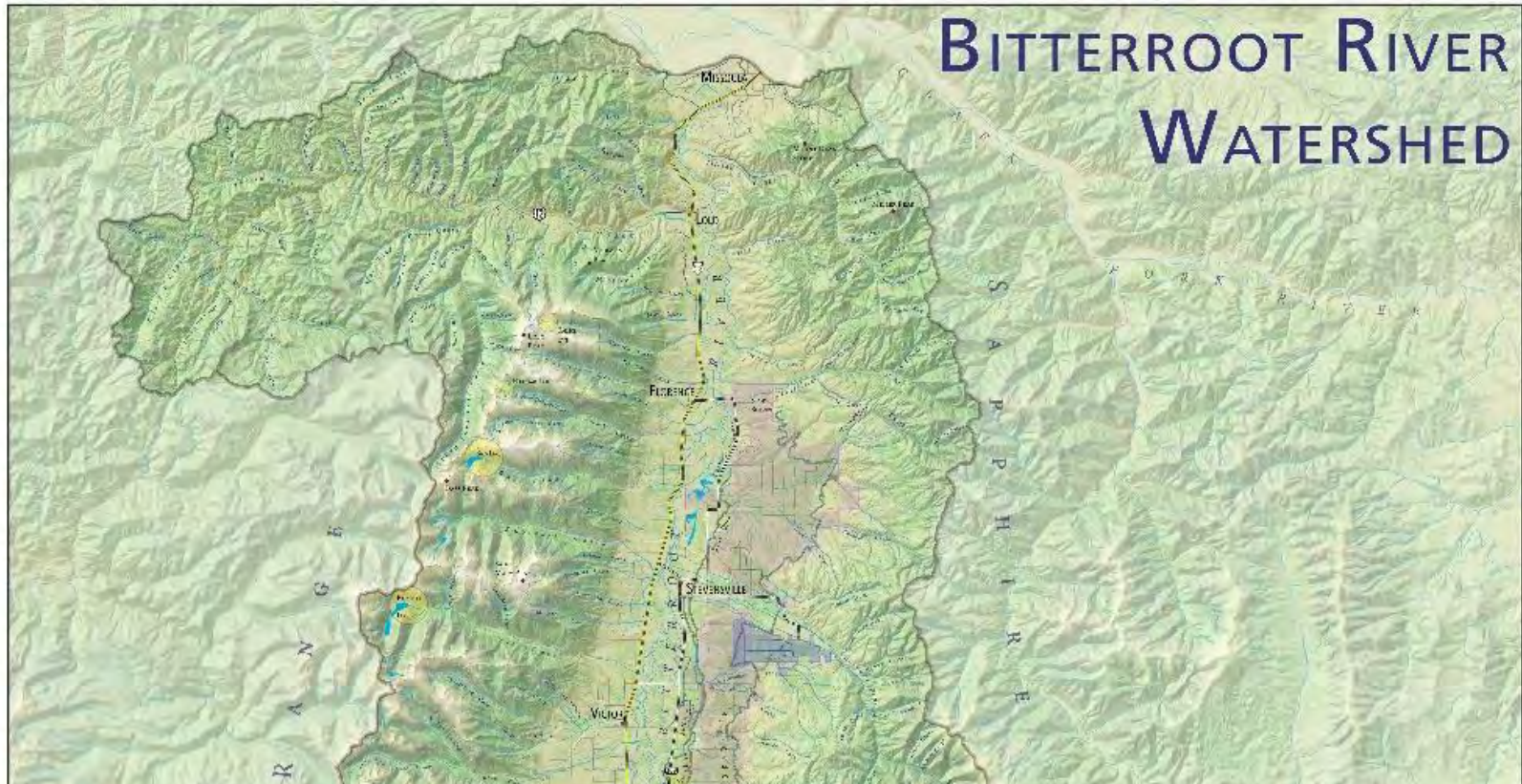
The purpose of the Certificate is to ensure the knowledge, understanding, and training necessary to acquire, process, analyze, and properly display digital geographic data.

- administered by the College of Forestry & Conservation
- serves all majors, post-baccalaureates
- graduates 25-30 students annually



Certificate in GIS Sciences & Technologies

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Bitterroot River Watershed

Zach **Goodwin**

2020 Arthur B. Robinson Cartography Award for Best Printed Map,
Cartography and Geographic Information Society

Certificate in GIS Sciences & Technologies

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Raster GIS, Remote Sensing, and Image Analysis

FORS351 Photogrammetry and Remote Sensing

FORS551 Digital Image Processing

GPHY587 Digital Image Analysis & Modeling

Vector GIS and Networks

GPHY588 Vector GIS

Data Management and Programming

GPHY491 Programming for GIS

FORS505 Sampling Methods

Applied GIS

GPHY481 Advanced Cartographic Design

GPHY482 Spatial Analysis and GIS

FORS503 Predictive Distribution Modeling

WBIO562 Wildlife Habitat Modeling

Graduate Research in Forestry

- 3-4 MS or PhD annually on topics methodological
- Applied across forestry, ecology, hydro/climatology

USING SATELLITE OBSERVATIONS OF SOIL MOISTURE TO
IMPROVE MODELING OF TERRESTRIAL WATER CYCLES

MS Thesis, Colin W. **Brust** 2020

REMOTE SENSING APPROACHES TO PREDICT FOREST
CHARACTERISTICS IN NORTHWEST MONTANA

MS Thesis, Ryan P. **Rock** 2020

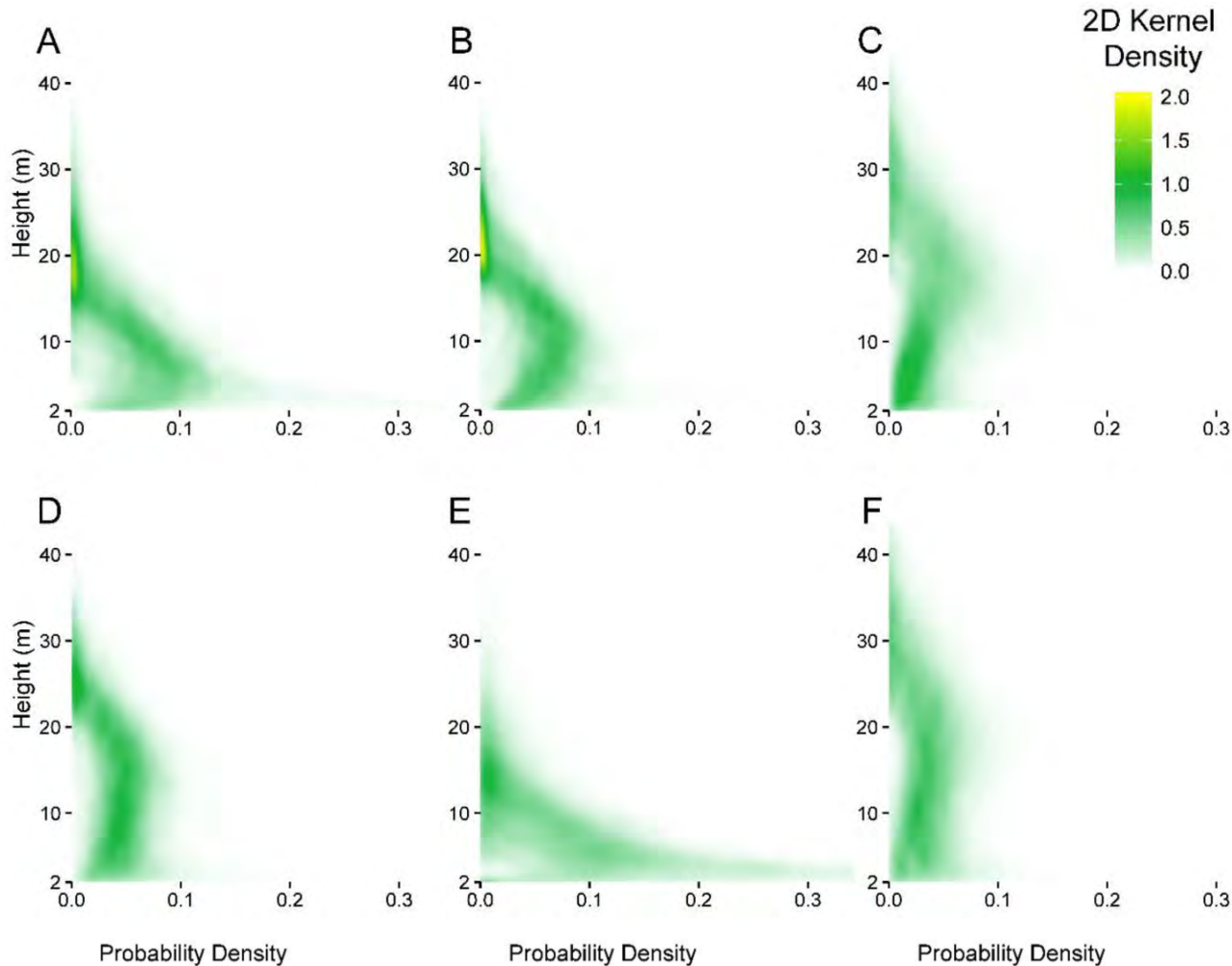
NEW, MULTI-SCALE APPROACHES TO CHARACTERIZE PATTERNS
IN VEGETATION, FUELS, AND WILDFIRE

PhD Dissertation, Christopher J. **Moran** 2019

Graduate Research in Forestry

NEW, MULTI-SCALE APPROACHES TO CHARACTERIZE PATTERNS IN VEGETATION, FUELS, AND WILDFIRE

PhD Dissertation, **Christopher J. Moran** 2019



Institutional Capacity & Workforce Development

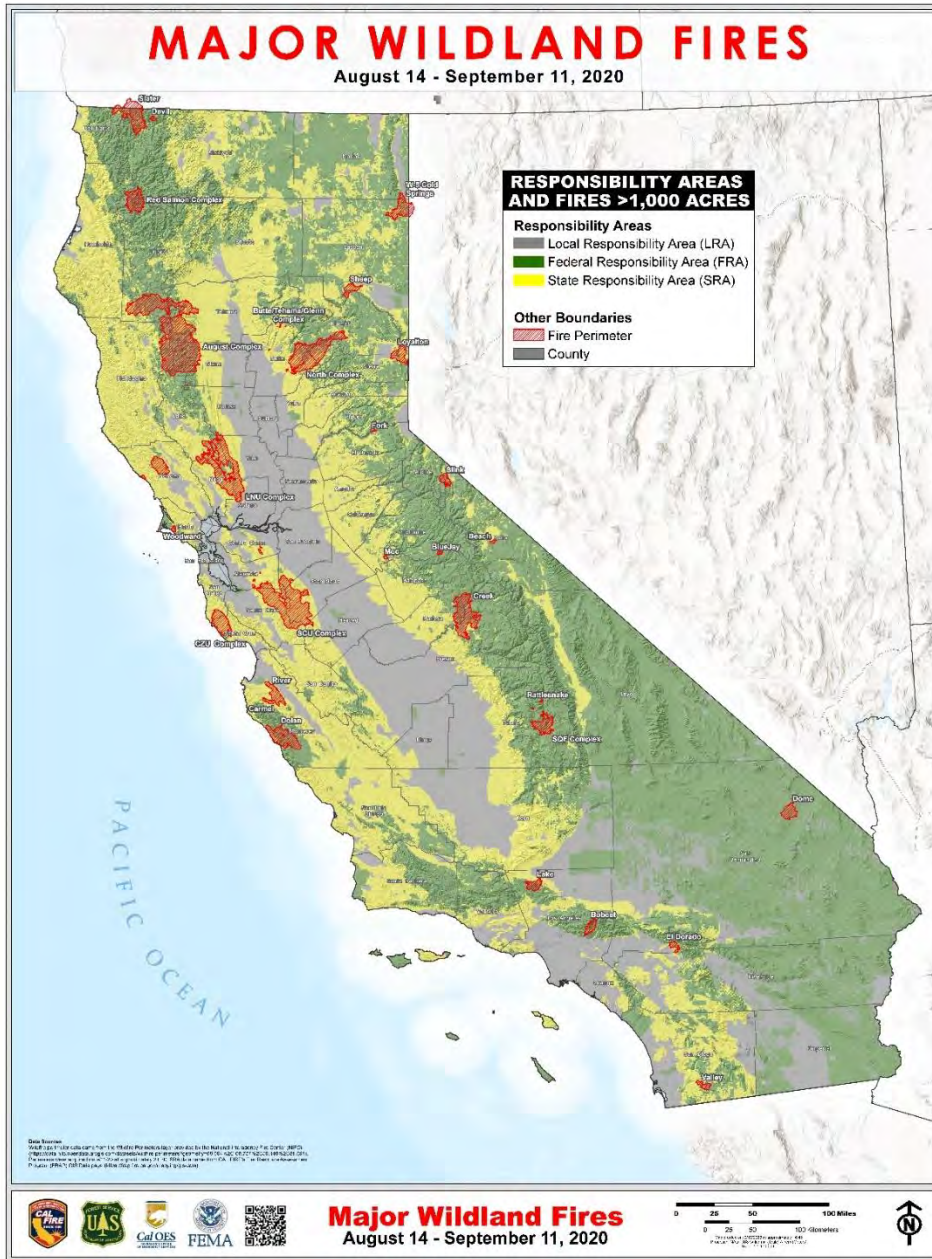


INLAND NORTHWEST
GROWTH & YIELD COOPERATIVE
UNIVERSITY OF MONTANA

Institutional Capacity & Workforce Development

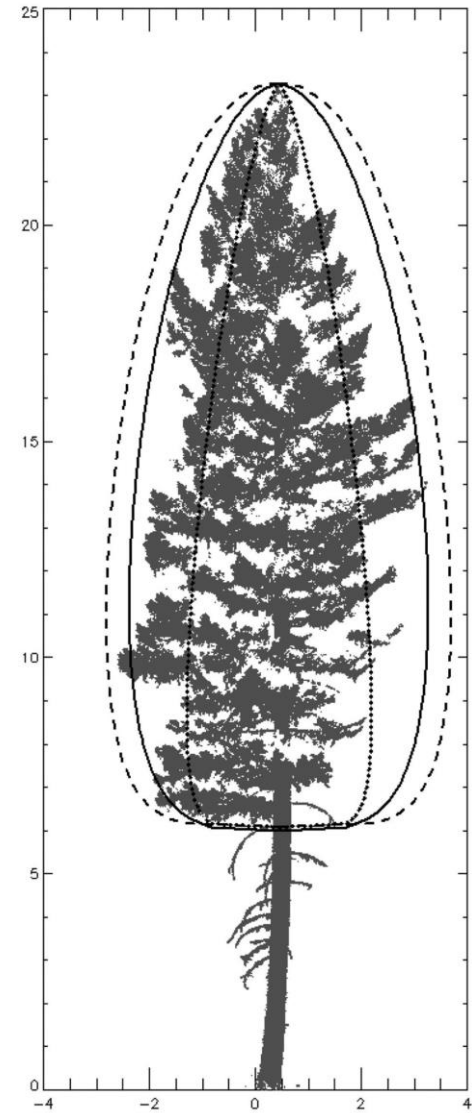


Institutional Capacity & Workforce Development



Tristan **Howard** CAL FIRE
(M.S. Univ. Montana)

Questions? Suggestions?



Jena A **Ferrarese** et al., *Silva Fennica* 2015