

Introduction to Basic GIS Analysis using QGIS for Environmental Conservation

Dr. Janet Nackoney

March 29, 2018 9-12am & 2-4pm

March 30, 2018 9-12am & 2-4pm

Large Conference Room @ PRI

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Geographic Information Systems (GIS) are used around the world for visualizing and analyzing geographical data across a wide range of topics. Attend this workshop to learn how to use GIS for habitat monitoring and conservation analysis. The workshop begins with a formal presentation about GIS, followed by open classroom time with step-bystep training divided into 4 parts:

Part 1: view and display different types of spatial data, such as vector shape files and raster files and start to feel comfortable with the QGIS interface; visualize field observation data that show where chimpanzees have been observed at a study site, conduct basic queries and learn how to make a map.

Part 2: look at satellite imagery using QGIS and digitize features from the satellite imagery.

Part 3: conduct spatial analysis and learn how to calculate statistics to understand the relationship between the observed data and the surrounding environmental features, such as land cover type and proximity to human activity; use the University of Maryland's Global Forest Change data and calculate tree cover loss for the study area between 2000 ~ 2014.

Part 4: create a density surface of the chimpanzee observations across the study area and examine a series of layers representing human presence in the landscape, including locations of direct human observations, locations of fires, locations of agricultural activity and tree cover loss, and locations of roads and navigable rivers; build a spatial model to overlay these datasets and create a GIS surface of relative human presence in the landscape.

Dr. Janet Nackoney is Associate Research Professor in the Department of Geographical Sciences at the University of Maryland, USA. Her research interests lie in the use of geospatial technology for land use planning and biological conservation applications.

*Come to Dr. Nackoney's seminar on Wednesday, March 28 @ 1600