The 36th International Symposium on Remote Sensing of Environment,
11 – 15 May 2015, Berlin, Germany, ISRSE36-752

High resolution mapping of chimpanzee habitat suitability

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Major threats to current chimpanzee populations include habitat loss from resource extraction activities and land conversion, hunting, disease and the illegal pet trade. Clearing of tropical forests has rapid and devastating impacts, leaving chimpanzees in isolated, small populations that face edge effects and an elevated risk of extinction. Although these threats affect each chimpanzee sub-species to varying degrees in different regions, all threats are related to increasing human populations and resource demands. There is an urgent need to monitor the status and trends of human induced land cover change at the local scale to aid decision makers in developing effective strategies to protect chimpanzees and to measure conservation success. Spatially explicit maps of chimpanzee habitat suitability can help address this need, however previous efforts were either at a coarse resolution or only covered a small extent of the entire chimpanzee range. Here, we present our ongoing efforts to combine recently released datasets derived from the Landsat 7 ETM+ satellite, as well as topographical data derived from the Shuttle Radar Topography Mission, with a coarse resolution habitat suitability model covering the entire chimpanzee range. This approach will enable us to produce habitat suitability maps at a scale relevant to decision makers over the entire chimpanzee range and monitor change in suitability as new imagery is acquired.