

Narco-Deforestation

Changes in Colombian Amazon Land Cover

Danielle Bonilla, Department of Geography, Binghamton University

Introduction

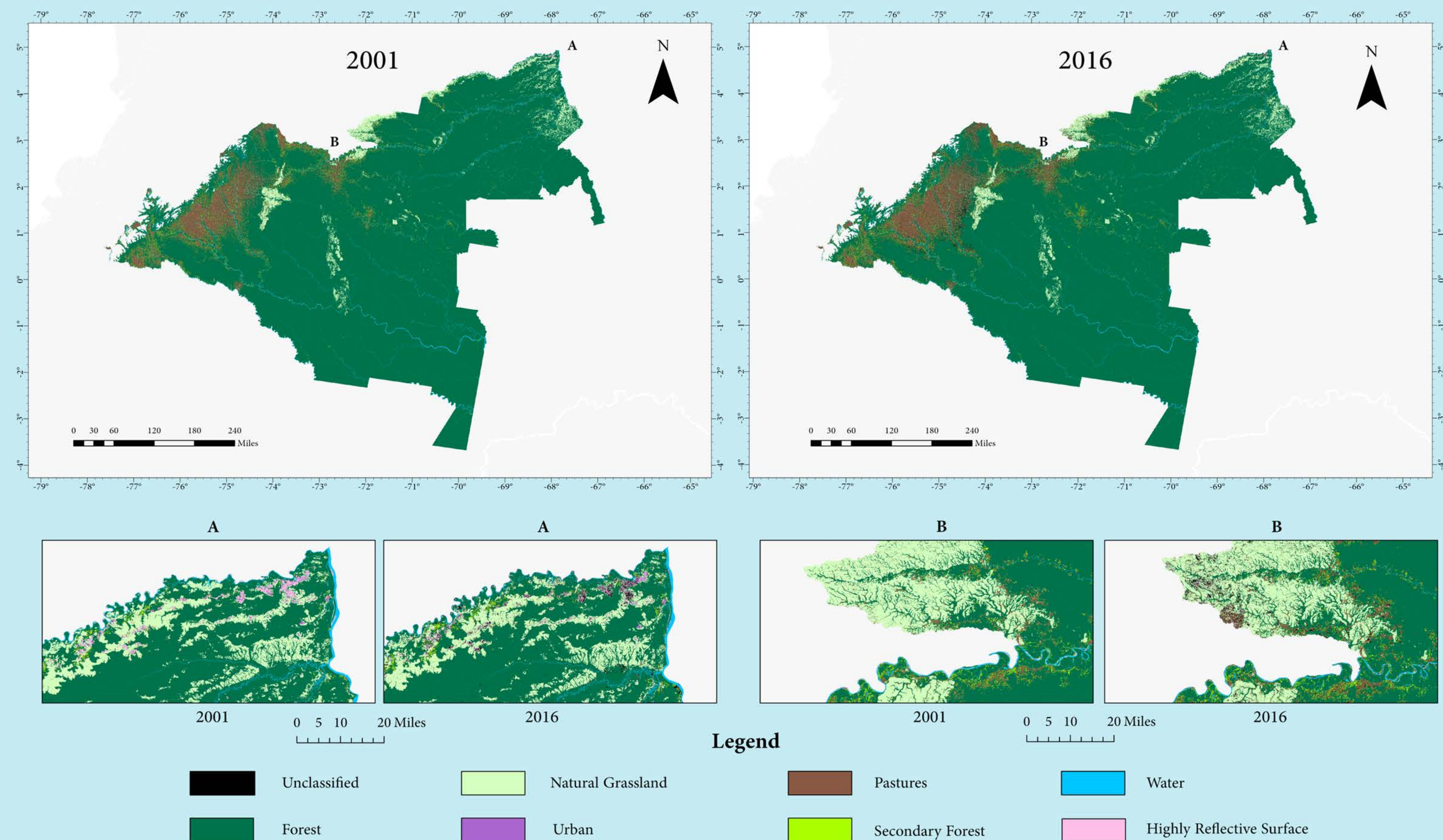
- The Colombian portion of the Amazon Rainforest spans over 483,000 km²
- The Amazon Rainforest is incredibly biodiverse and stands as one of the largest carbon reserves
- This area has become plagued by illegal practices such as mining, logging, and coca plant cultivation, driven by organized crime
- These illicit practices are some of the main drivers of deforestation
- The purpose of this study is to highlight the change in land cover over a 15-year period as a result of illegal practices

Data

- Dataset provided annual maps of the land from 2001 until 2016
- Used the Continuous Change Detection and Classification (CCDC) algorithm to detect changes in Landsat pixel surface
- Maps were created for every Landsat scene then post-processed and mosaicked
- Graphs compared pixel data for each classification

Discussion

- There is an apparent decline in forest, secondary forest, and natural grassland pixels
- An increase in pasture can be seen in figures A and B, with a decline in natural grassland
- Trends support the notion that the Amazon is in decline
- Efforts must be made to preserve the land and prevent further degradation caused by illicit practices
- Further research should be conducted to link organized crime groups to deforestation



Graphs

