Western Belize lidar

These data were collected during 2 flights in 2009 and 2013. They represent 60 1x1 km^2 lidar tiles from the larger dataset (Figure 1).

The 60 uploaded tiles have been normalized and have no ground or topography data. The code that was used to normalize the original las files can be found here: DOI: 10.5281/zenodo.1482085.

This is a subset of data used in

Chase, A.F., D.Z. Chase, J.J Awe, J.F. Weishampel, F. Iannone, M. Yaeger, M.K. Brown, R.L. Shrestha, W.E. Carter, and J.C. Fernandez-Dias. 2014. "Ancient Maya Regional Settlement and Inter -Site Analysis: The 2013 West-Central Belize LiDAR Survey." Remote Sensing 6: 8671–95.

Chase, A.F., D.Z. Chase, J.F. Weishampel, J.B. Drake, R.L. Shrestha, K.C. Slatton, J.J. Awe, and W.E. Carter. 2011. "Airborne LiDAR, Archaeology, and the Ancient Maya Landscape at Caracol, Belize." Journal of Archaeological Science 38: 387–98.

Fernandez-Dias, J.C., W.E. Carter, R.L. Shrestha, and C.L. Glennie. 2014. "Now You See It...Now You Don't: Understanding Airborne Mapping LiDAR Collection and Data Product Generation for Arcaeological Research in Mesoamerica." Remote Sensing 6: 9951–10001.

Hightower, J.N., A.C. Butterfield, and J.F. Weishampel. 2014. "Quantifying Ancient Maya Land Use Legacy Effects on Contemporary Rainforest Canopy Structure." Remote Sensing 6: 10716–32.

Weishampel, J.F., J.N. Hightower, A.F. Chase, and D.Z. Chase. 2012. "Use of Airborne LiDAR to Delineate Canopy Degradation and Encroachment along the Guatemala -Belize Border." Tropical Conservation Science 5: 12–24.

The National Center for Airborne Laser Mapping (NCALM) used an Optech Gemini Airborne Terrain Mapper flown aboard a Cessna 337 for both campaigns (Chase et al. 2014). Both flights occurred at the end of the dry season (April-May) during maximum periods of leaf abscission to optimize ground detection for archaeological prospecting and in theory improve lidar-derived estimates of canopy height. lidar point density was 20 m-2 and 15 m-2 for the 2009 and 2013 flights, respectively, but otherwise the data collections were similar. ALS data processing followed procedures outlined in Chase et al. (2014) and Fernandez-Diaz et al. (2014).

Naming convention: Files are named bz (Belize) hr (high relief) or lr (low relief) with a tile number. Tile number is irrelevant to physical location of the tile.
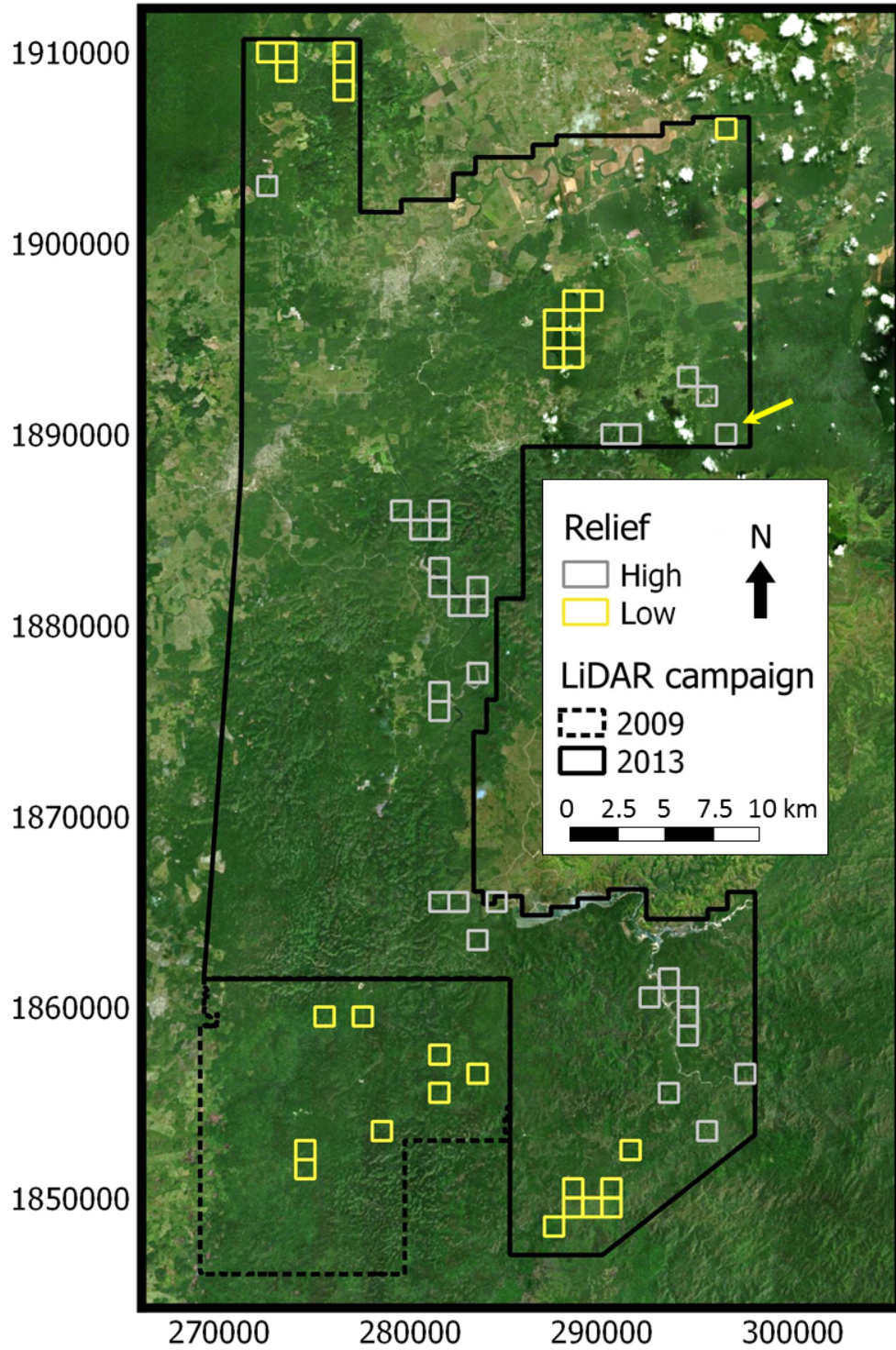
Figure 1. Extent of the entire lidar campaign (black solid and dashed lines) and uploaded tiles (yellow and gray boxes)