

1 Introduction

This document details the processing workflow for the terrestrial LiDAR data collected during fieldwork in Bicuar National Park, Angola, and Kilwa District, Tanzania, with the aim of documenting a reproducible workflow.

The project aimed to

2 Field methods

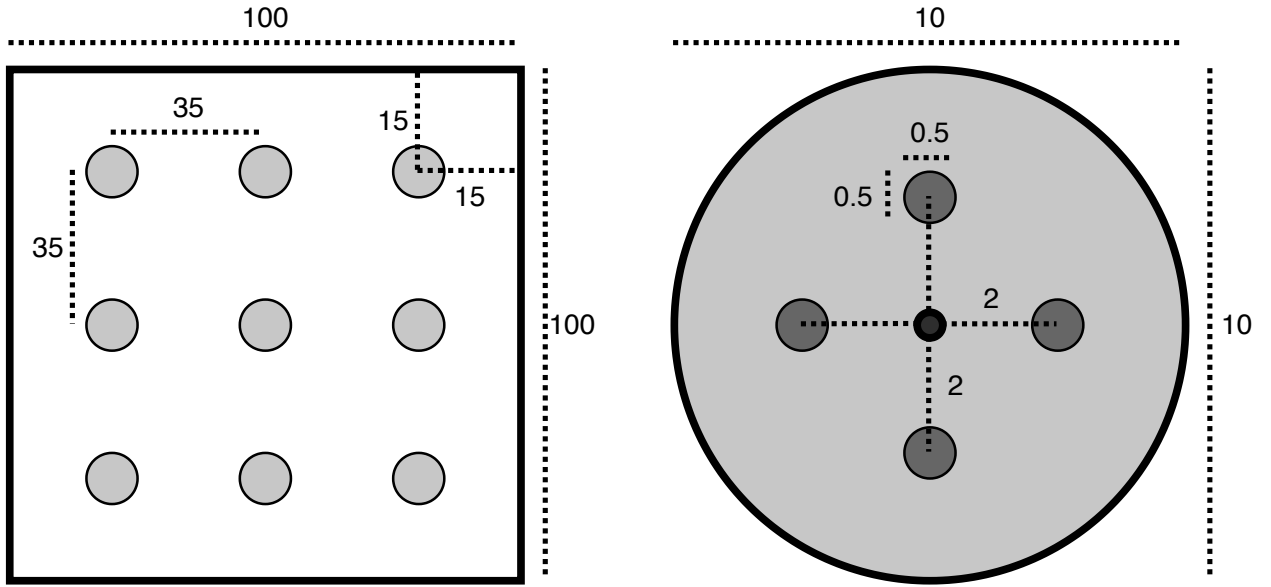


Figure 1: The layout of 10 m diameter subplots with each larger 1 ha square plot. Each subplot is situated inside a 15 m buffer from the plot edge, with 35 m between subplot centres. Subplots are arranged in a 3x3 grid. Disc-pasture measurements and biomass samples are located in cardinal directions 2 m from the centre of the subplot. All distances are in metres.

3 Registration

Scan registration was conducted in Leica Cyclone version XXXX. Targets from each scan were aligned using Cyclone's automatic target acquisition software.

4 Voxelization

The .laz files were voxelised to different voxel sizes depending on the application of the data. For grassy biomass estimation, I used XXX cm³ square voxels, while for subplot height profile estimation I used XXX cm³ voxels. The reason for this variation in voxel size is ...

5 Noise reduction

I used PDAL's XXX noise reduction filter, which ...

6 Canopy height profiles

7 Canopy gap fraction

8 Grassy biomass estimation

9 Canopy height