



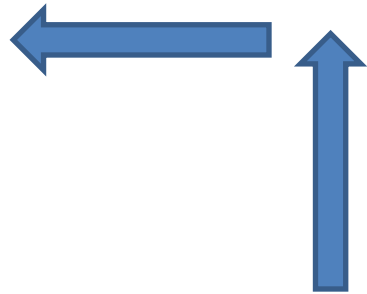
Assessment of Trees in the Kaingaroa Timberlands Estate

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The Why



10 months

2 years

3 years

5 years

10 years

Survival

Survival
Regen

Health &
Vigour

Height
+ SPH

Pre- &
Post-thin



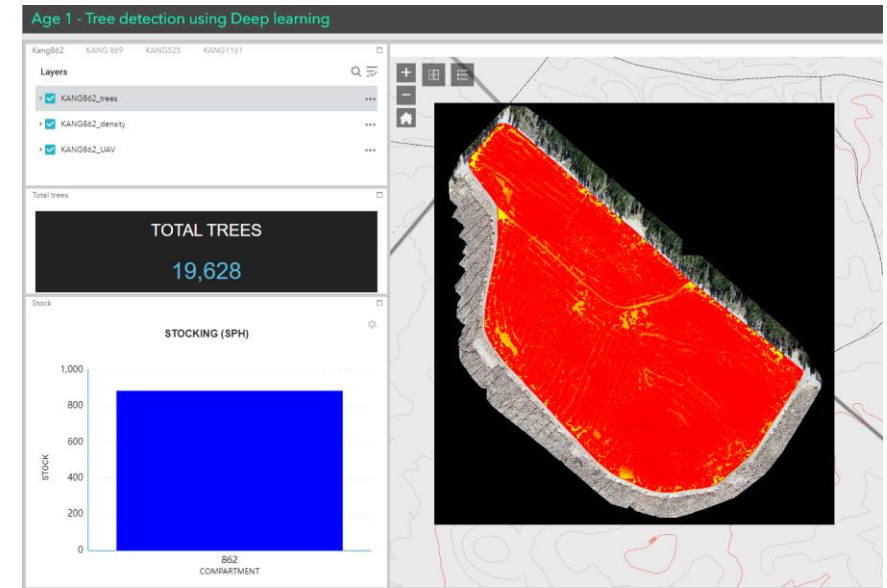
The How



Data capture



Data processing



Data visualisation

A white t-shirt is laid flat, serving as the background for the text. The text is centered on the chest area. The word 'PERFECTION' is in large, bold, teal letters. Below it, 'IS THE ENEMY OF' is in smaller, teal letters, flanked by two sets of three vertical bars. 'PERFECTLY' is in large, bold, orange letters. 'ADEQUATE' is in large, bold, white letters inside a teal rectangular box. At the bottom, '— JIMMY MCGILL' is in orange letters, with a horizontal line above the dash.

PERFECTION

IS THE ENEMY OF

PERFECTLY

ADEQUATE

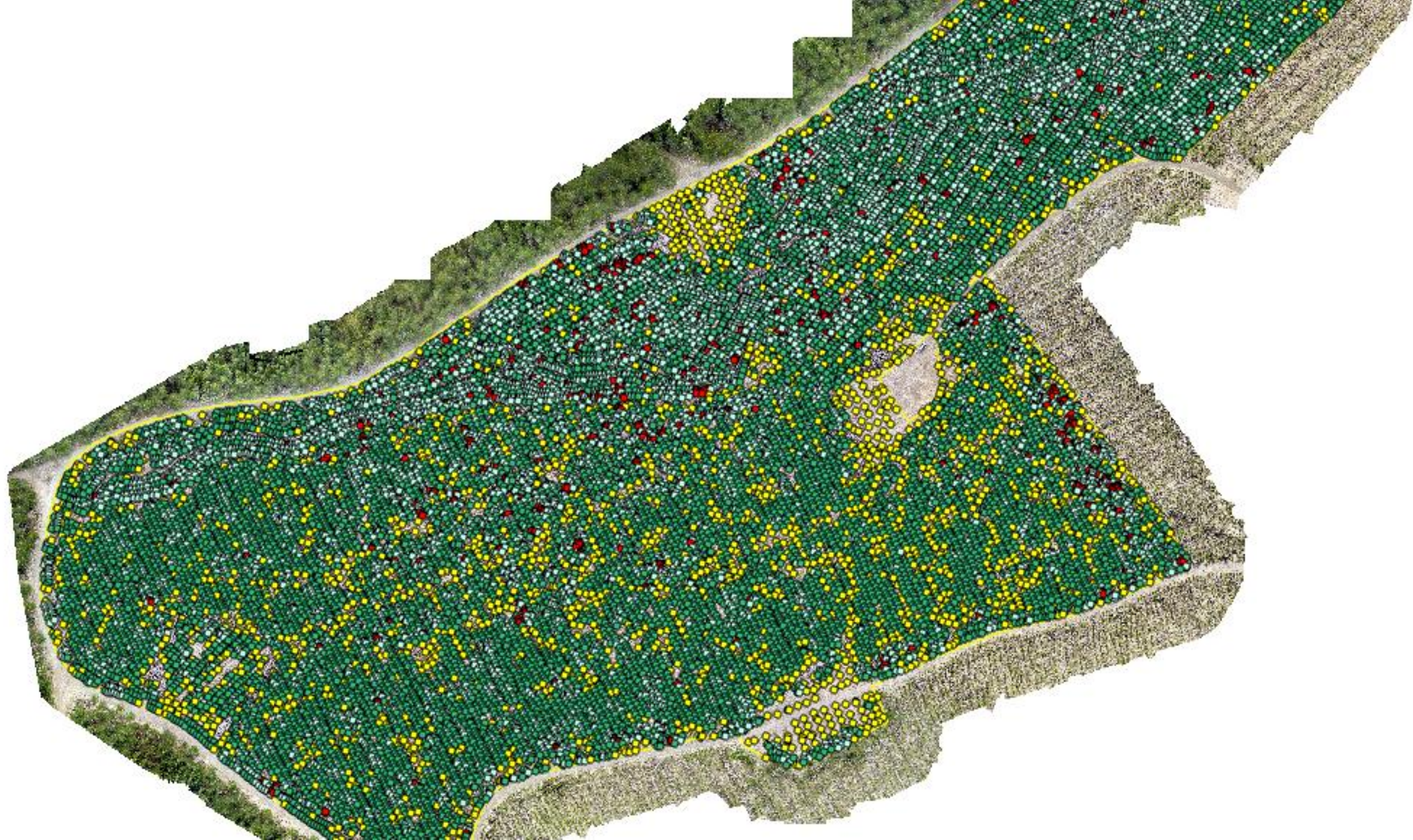
— JIMMY MCGILL

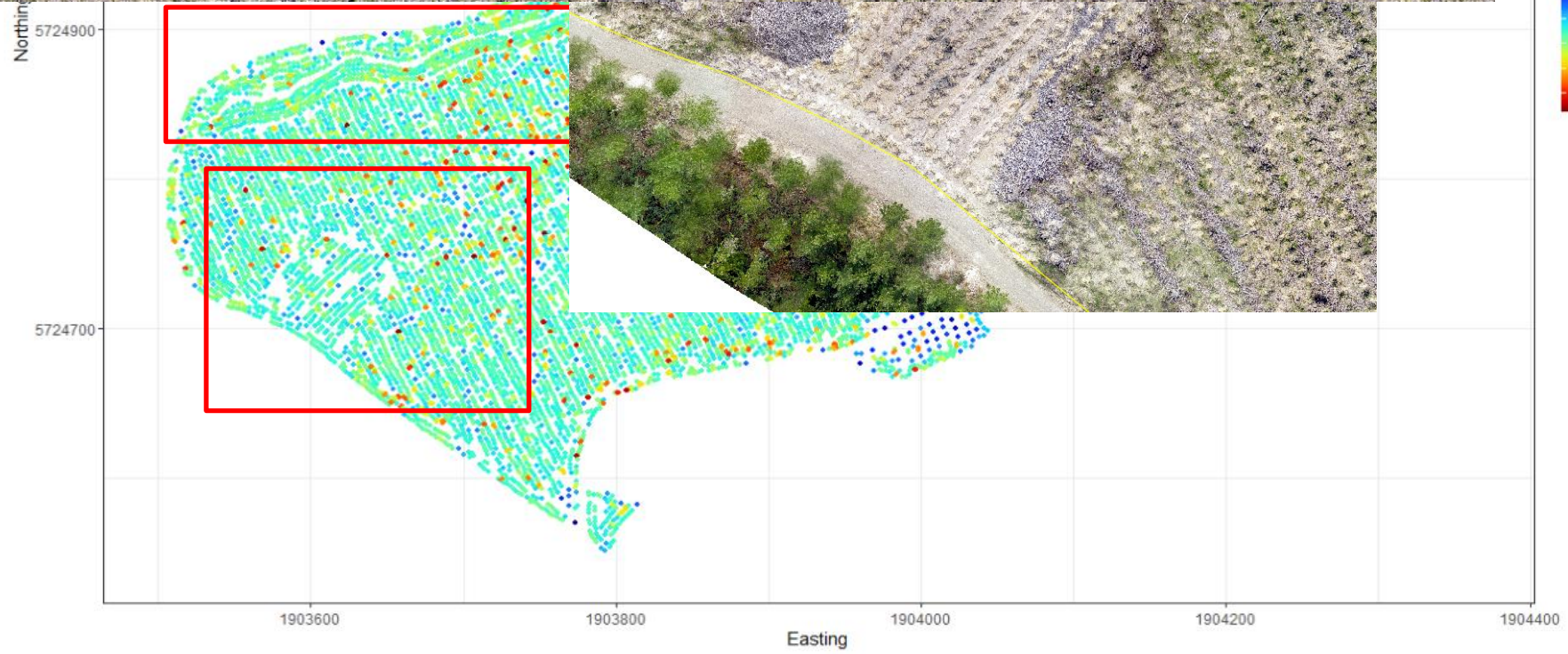


Example – 10-month-old trees



Aim - gap detection in time to inform blanking

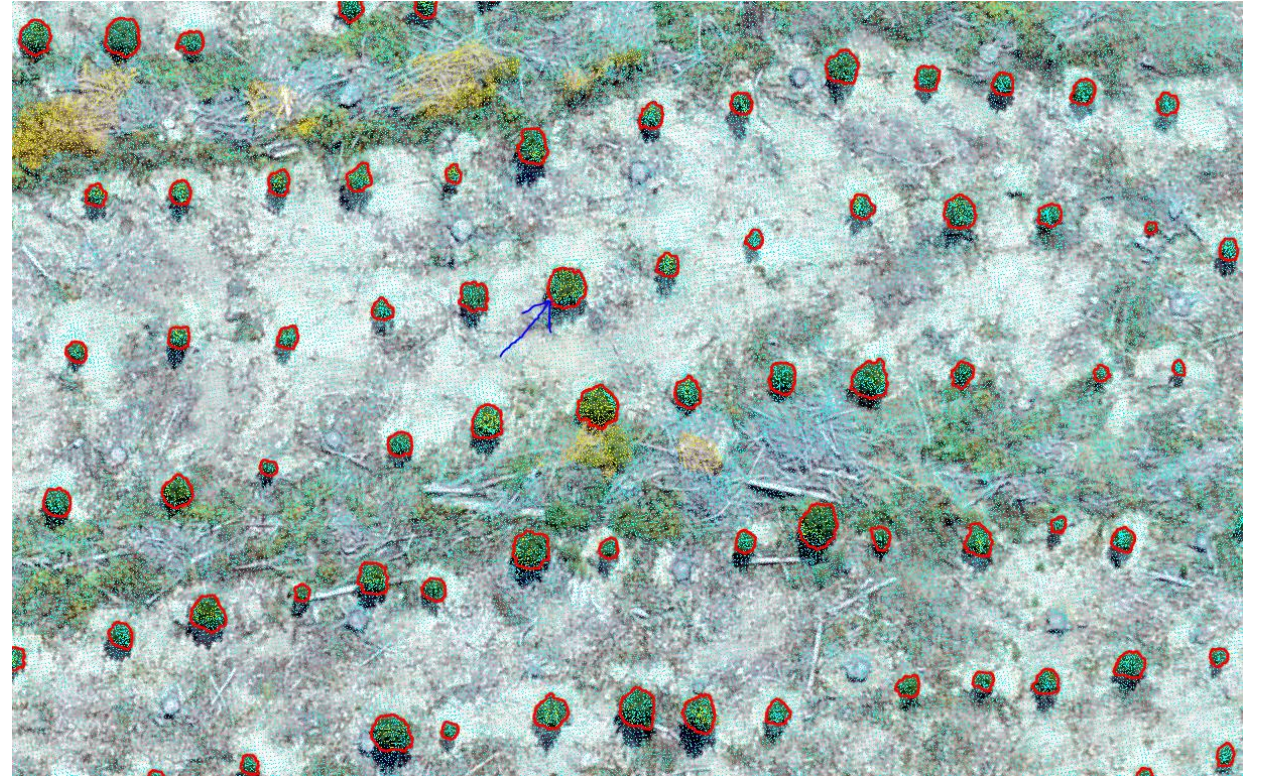
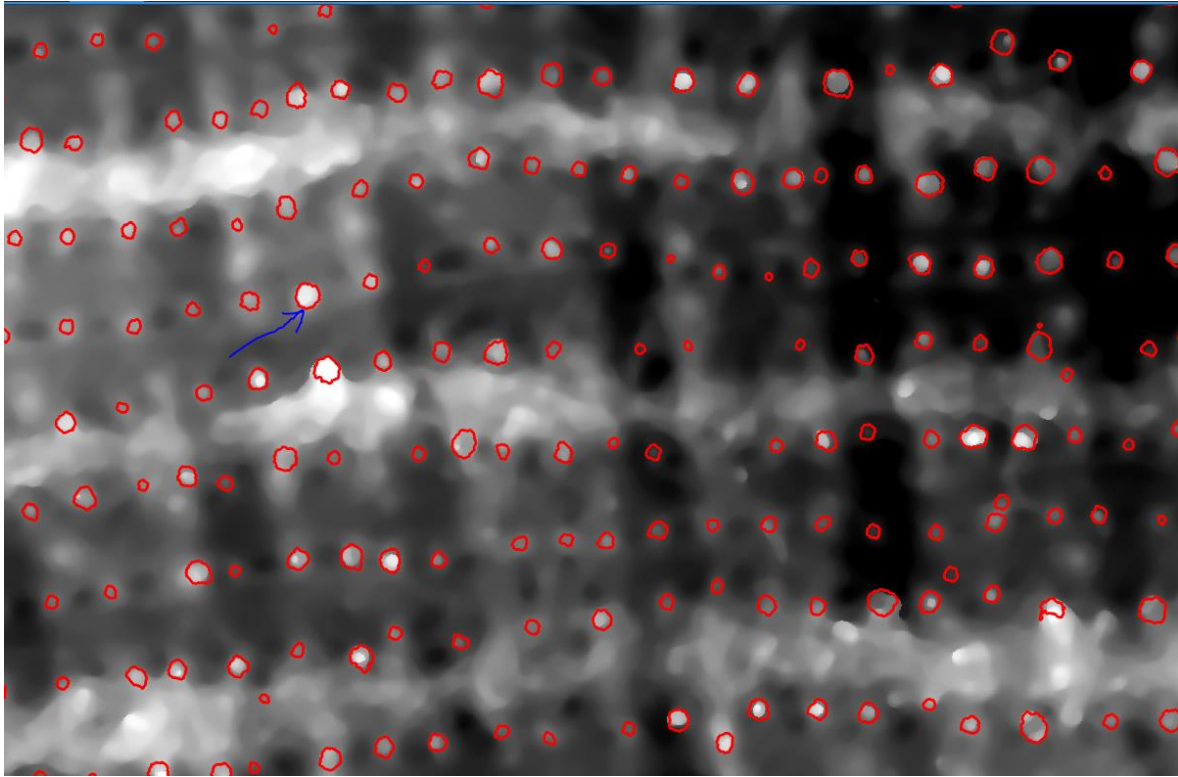






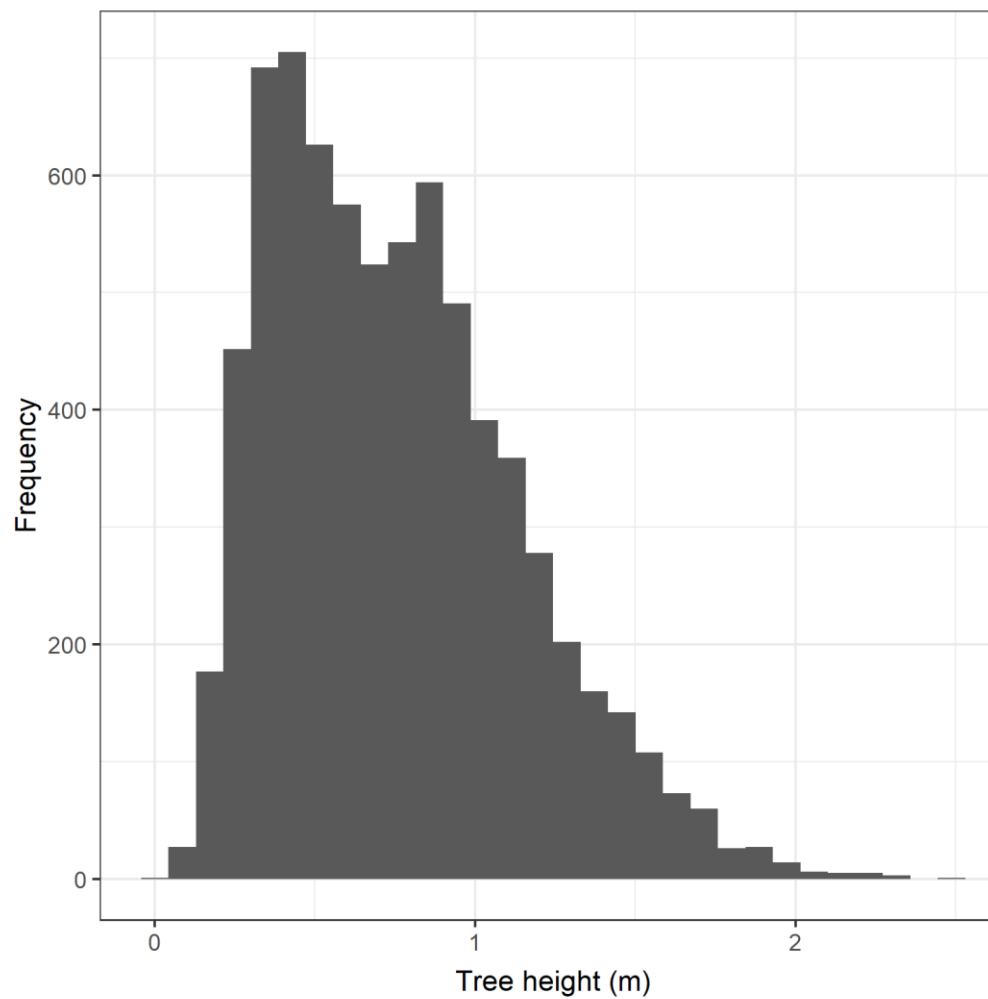
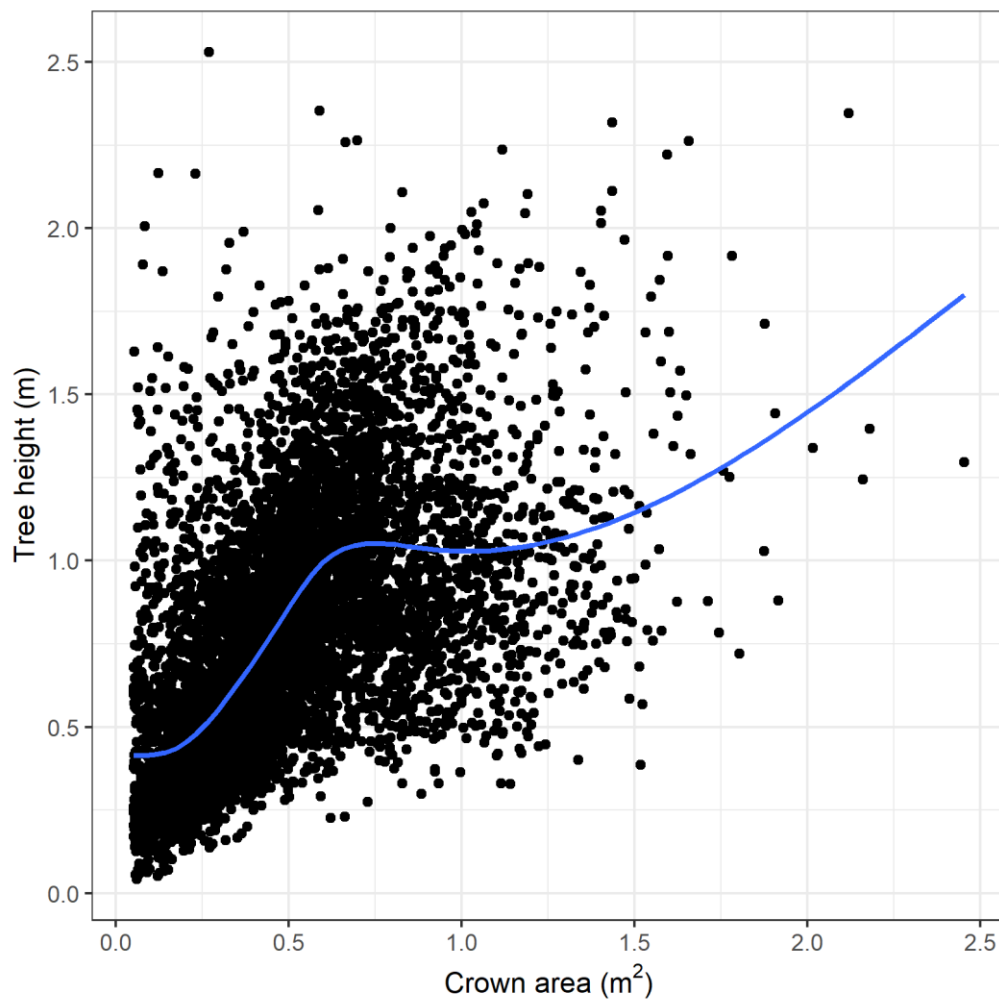
Example – Crown Size in 2-Year-Old Trees







Extracting Tree Metrics





Future Directions

- Scale up
 - Size of capture programme =f(target stands, flying height, flying time)
 - Processing larger datasets
- Use of intra and inter-row spacing to differentiate planted trees & regen
- Transition from photogrammetry to LiDAR
 - Age 2/3
- Improved allometric relationships to predict DBH/Vol
- Assessment of other traits