South African
NATIONAL PARKS

A STRUCTURED THICKET REHABILITATION DESIGHN TO OPTIMISE LEARNING

THICKET FORUM 2013

What will be discussed . . . .

- Background and purpose
- Site selection
- Experimental treatments
- Monitoring

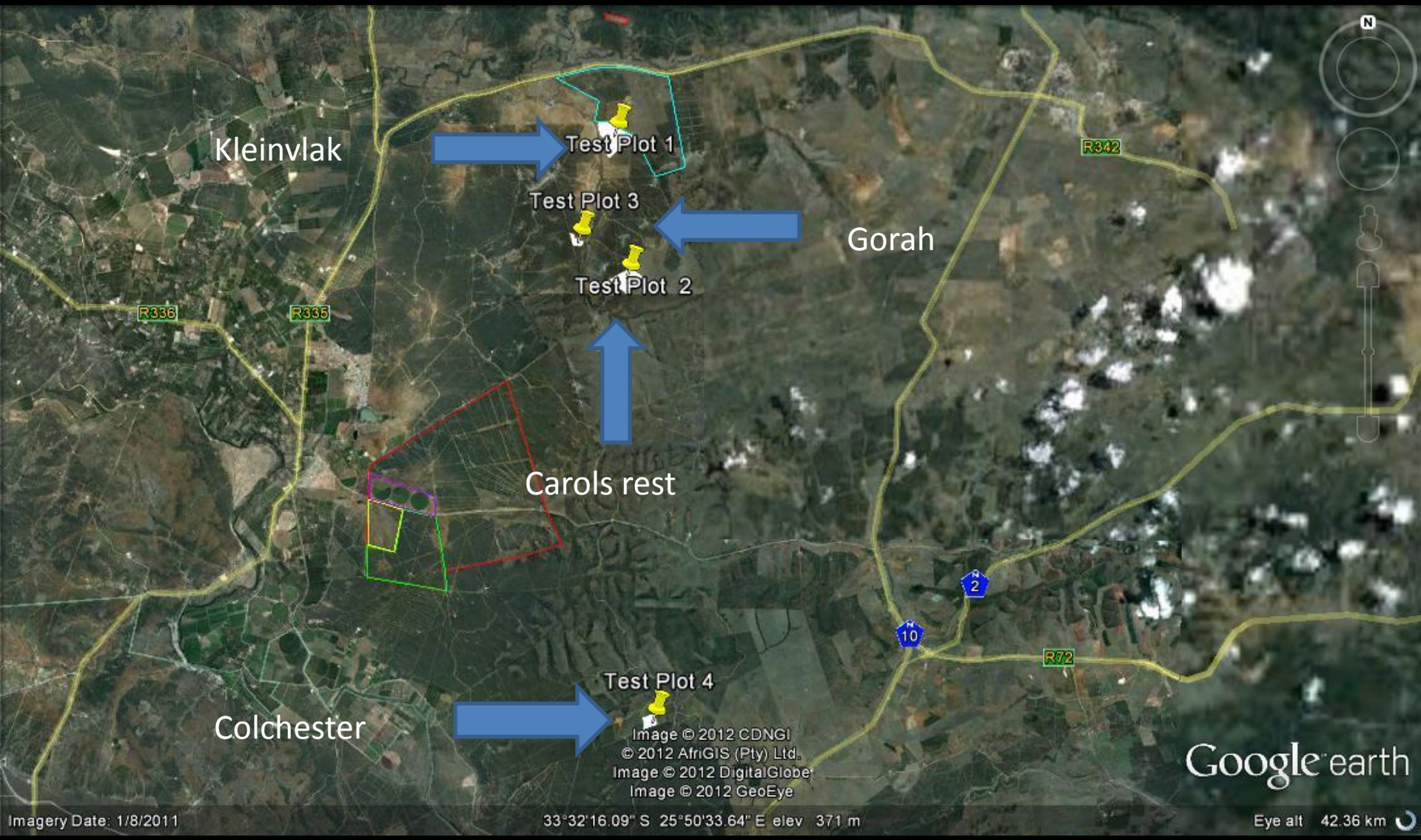
Background and purpose

- Natural thicket regeneration occurs in clumps of vegetation and provides protection and a suitable microclimate for other plant species to germinate.

- We wanted to test a range of spekboom planting techniques to test weather some techniques are more effective at restoring thicket than others.

Monitoring sites . . . . . .

- Site's vulnerability to herbivory – spatial use of elephants
- Drivers effect plant mortality – high/low lying areas
- Independent, similar regarding soils and vegetation type
- Four sites each 20 hectares
- Each site will receive 4 treatments
- 3 sites in Main Camp and 1 in Colchester


Kleinvlak
Test Plot 1
Test Plot 3
Test Plot 2
Gorah
Carols rest
Test Plot 4
Colchester
R336
R335
R342
R72
N
Image © 2012 CDNGI
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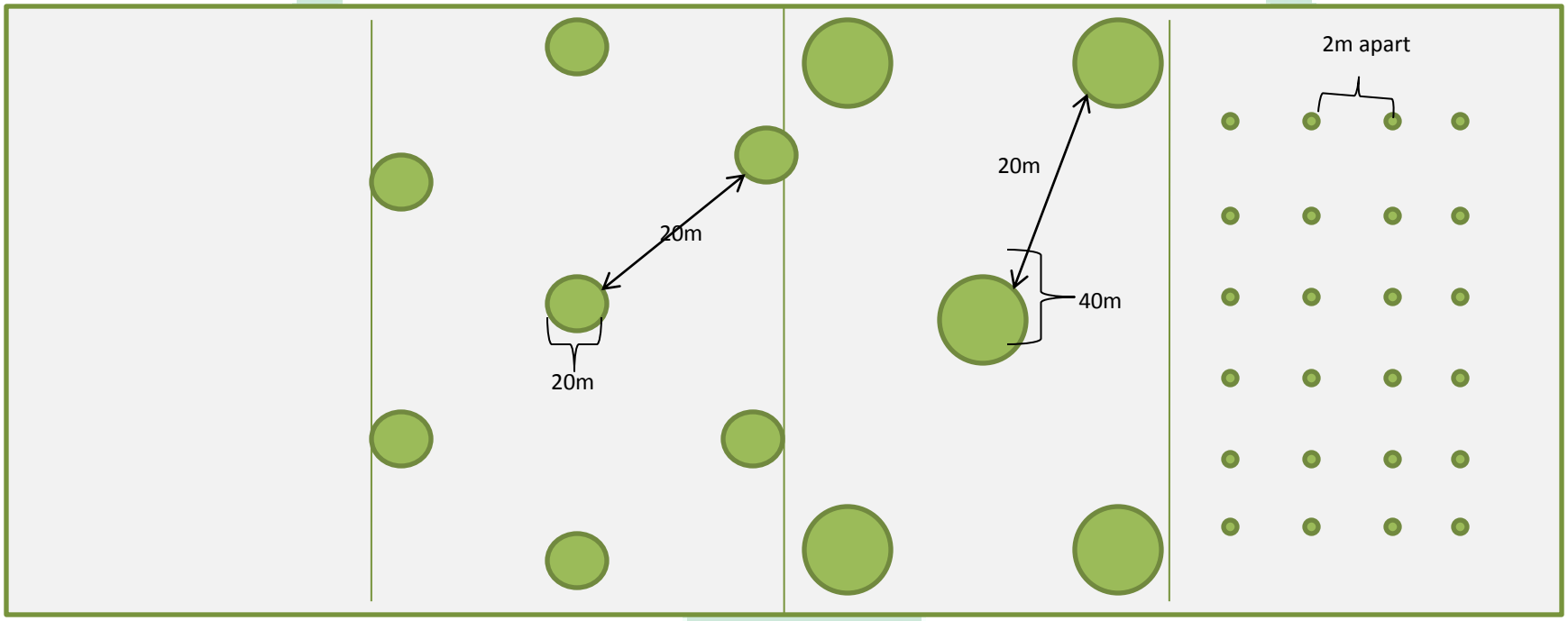
Google earth
Imagery Date: 1/8/2011
33°32'16.09" S 25°50'33.64" E elev 371 m
Eye alt 42.36 km

Planting treatments

Each planting treatment has to in include 2500 spekboom stems at each site. Stems should be about 1m in length and planted at least 15cm into the ground.

Treatments used:

- Clumps
- Large clumps
- Blanket
- Control – no planting



a) Control

b) Clumps

c) Large Clumps

d) Blanket plant

This diagram illustrates the four planting techniques in each of the four monitoring plots.

Monitoring of these plots . . . . .

Four monitoring types have been identified to measure the outcomes of these replanting initiatives mentioned. The monitoring will provide early warning signals that will indicate if the vegetation recovery is heading in wrong direction or not recovering at all. The four monitoring methods will be applied to each treatment in each site.

- Survival rates of the spekboom cuttings planted
- Recovery of vegetation composition
- Functional recovery of underlying soils – LFA's
- Biodiversity recovery – using ants.

The monitoring aims to assess the outcomes of various planting methods used, thereby providing information to optimise future planting treatments and maximise learning for informed decision-making.