

Runnig the Madingley Model with Norwegian data

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Chapter 1

Introduction

This work is part of the MadFates project, run by Joachim Töpper. The goal is to learn bit about the Madinley model and its potential for modelling biomass distributions across trophic levels in Norwegian boreal ecosystem. Perhaps limited to forests.

This page is hosted in GitHub and produced using bookdown.

1.1 Some useful links

Paper on the R package

Paper on the model itself

1.1.1 Examples of use

Removing carnivores

Land-use change

1.2 Terms and definitions

Cohorts - Organisms with similar functional roles are grouped into cohorts which are treated as sinle entities in the model to reduce computational requirements.

Stock - autotrophic biomass is treated as a single entity (stock).

Chapter 2

Installation

Madingley is written in C++, but an R version is also available. Although a little bit less flexible perhaps, it should be more than sufficient for this project. And much more familiar.

```
library(devtools)
install_github('MadingleyR/MadingleyR', subdir='Package', build_vignettes = F)
```

I could not get the vignettes to build.

```
vignette(package = "MadingleyR")
```

```
## no vignettes found
```

They can, however, be viewed here.

```
MadingleyR::madingley_version()
```

This line also did not work. The version seems to be 1.0.2. Source version, I don't know.

Chapter 3

Step 1 & 2

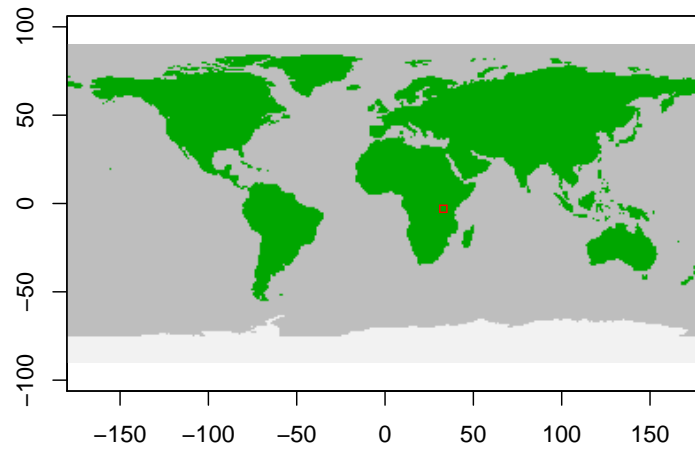
3.1 Load data

Using default data to initialise the model

```
Spatial model domain = c(min_long, max_long, min_lat, max_lat)  
spatial_window = c(31, 35, -5, -1)
```

Plot the spatial window to check selection

```
plot_spatialwindow(spatial_window)
```



3.2 Initialisation

...