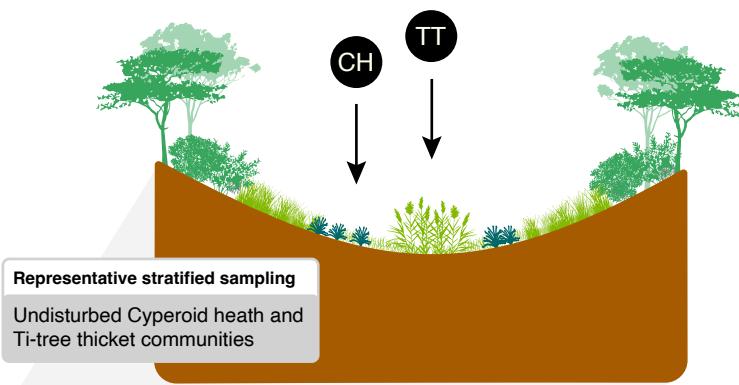
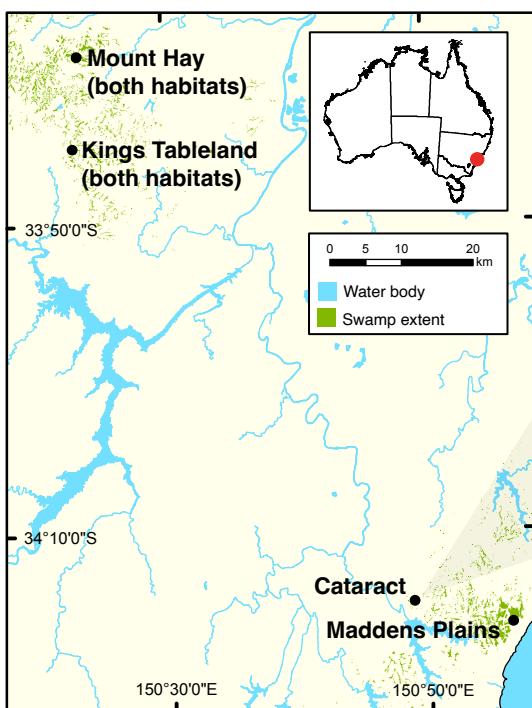


### Population of interest

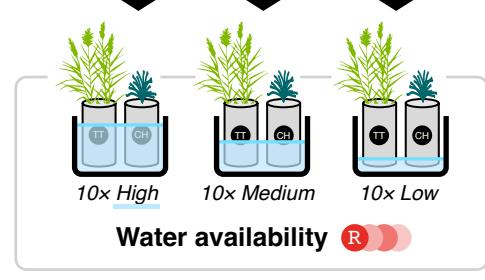
Swamp vegetation of the Sydney Basin



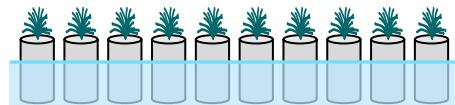
Swamp	Cyperoid heath (CH)	Ti-tree thicket (TT)	Number of replicates
Mount Hay	30	30	
Kings Tableland	30	30	
Cataract	30	30	
Maddens Plains	30	30	

### Dependencies in the data

- sods within swamps
- correlations among species



(example of High-CH group)



\* day 1

\* \* \*

day 587



day 587

R (red) (pink) burning assignment

\* \* \*

day 1261



day 1261



random assignment of sods to treatments using R

### (Treatment)

control group in a given treatment



biomass estimation at 7 timepoints



burning treatment



biomass harvesting and measurement

### Experiment outcome

For each water treatment:  
CH burnt replicates = 5 / site  
CH unburnt replicates = 5 / site  
TT burnt replicates = 5 / site  
TT unburnt replicates = 5 / site

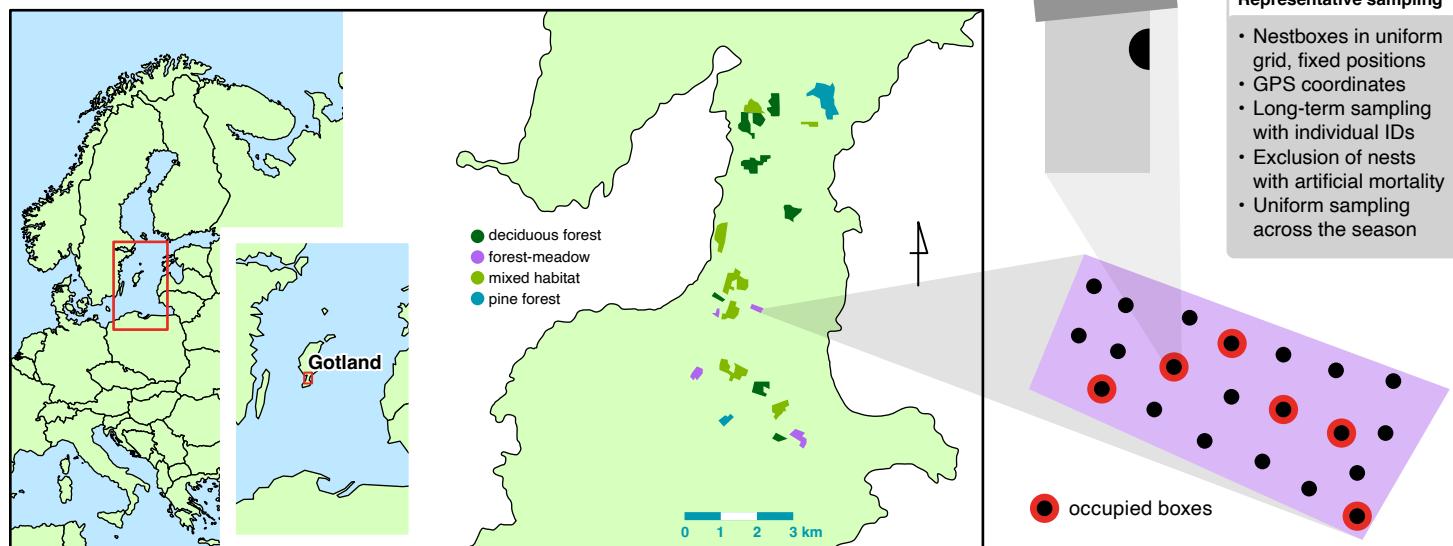
Total of 9 time points per replicate

### Field sampling

### Glasshouse experiment

## Population of interest

Deciduous forests on the Swedish island of Gotland (managed study plots)



## Field sampling

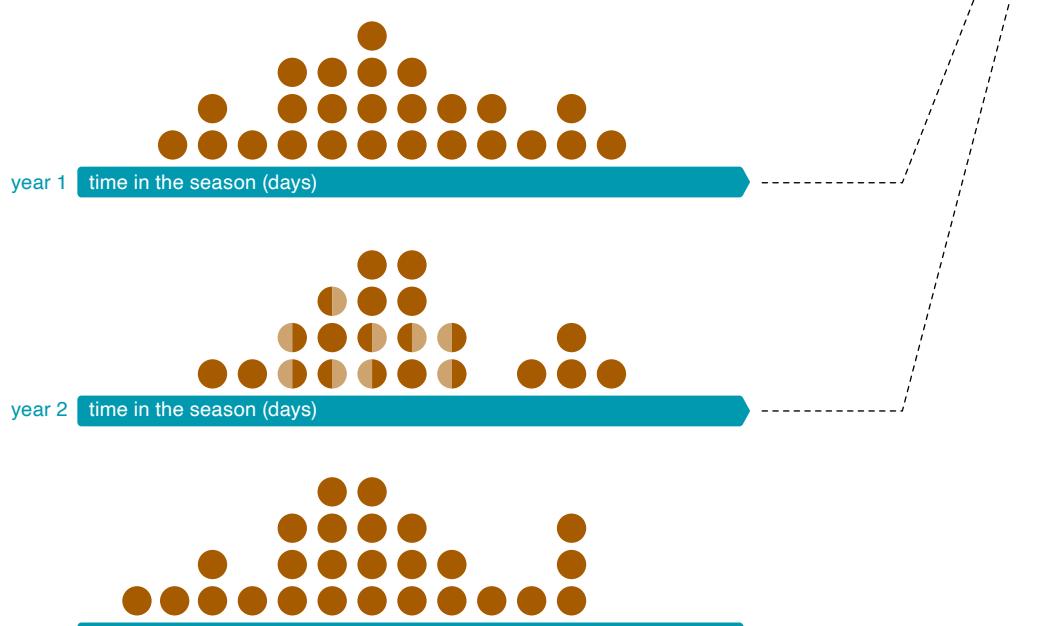


80-120 nests per season  
8-13 chicks per nest  
3-5 feathers per bird

Timeline of a nest-box

## Dependencies in the data

- chicks within nests (in some years rearing/origin)
- nests within years
- genetic relatedness (identifiable in cross-fostered nests)



## Study outcome

In each year and nest:  
feather samples for 8-13 chicks  
phenological data (date of hatching)  
random effects structure

## Data structure