Results 3 February 2017

**Question 1: How does species richness change over time?**

*Q1.1. Looking at all the data together*

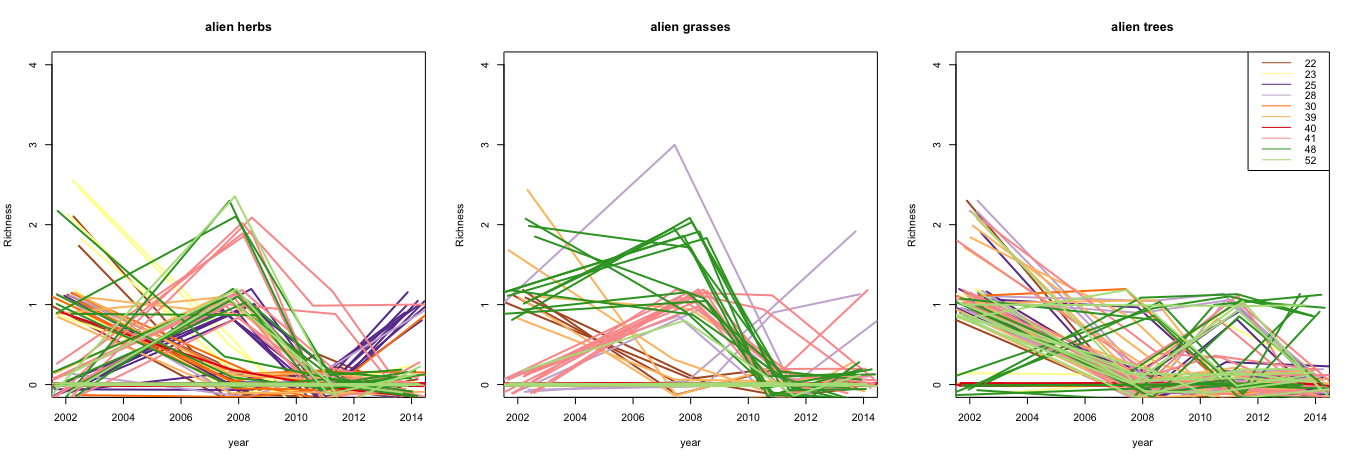


Fig. 1.1. Changes in alien species richness over time, coloured by site ID.

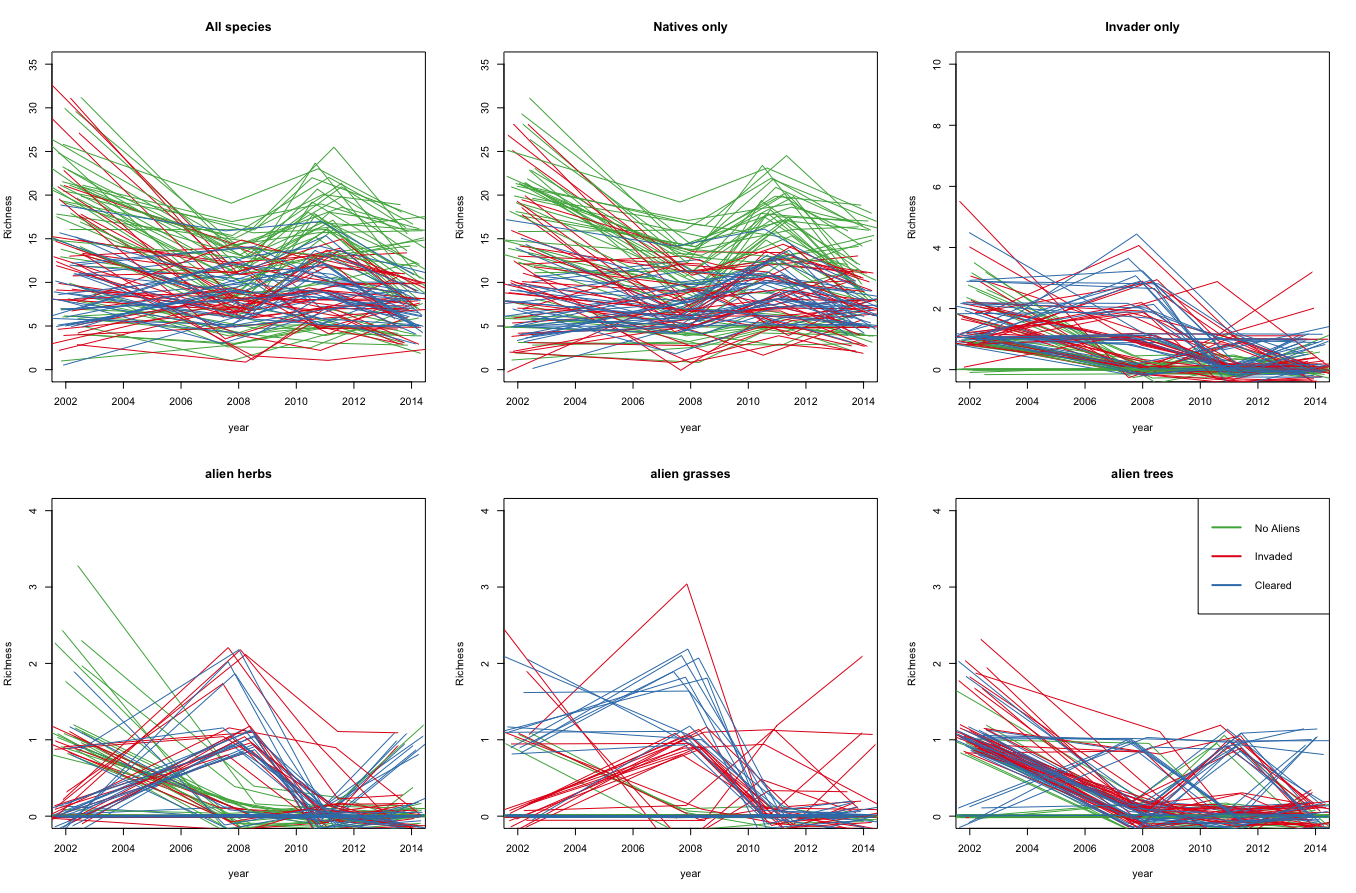


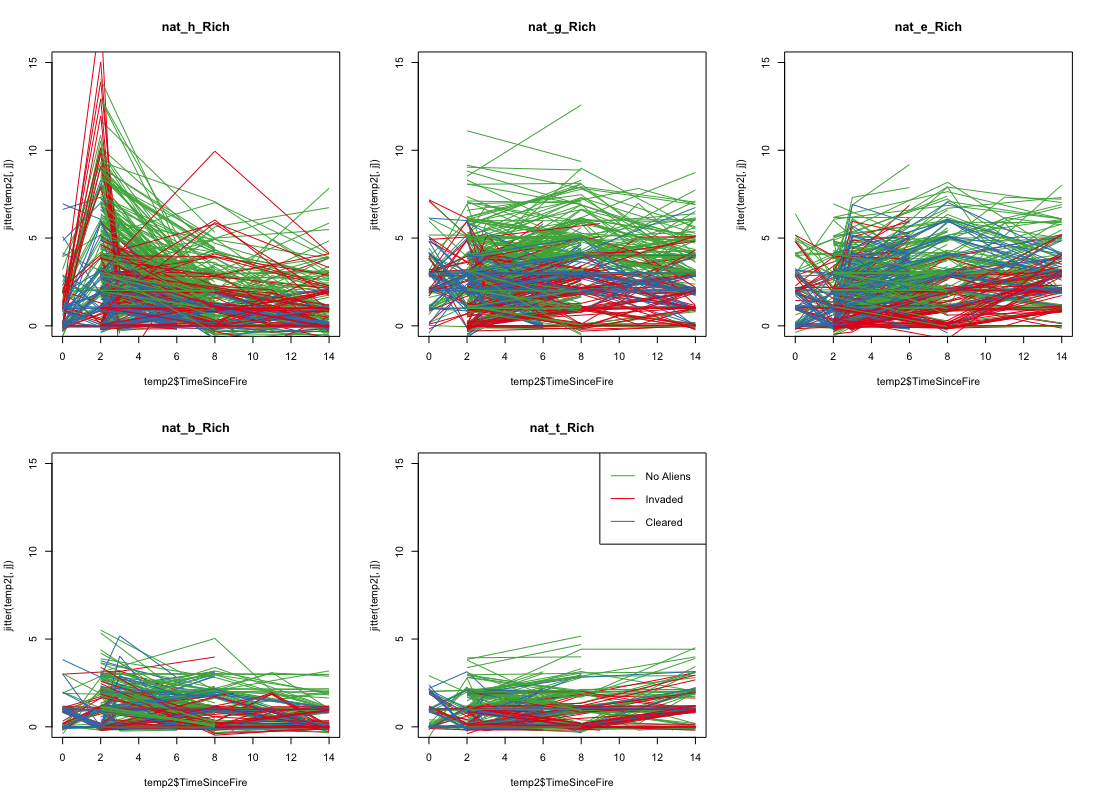
Fig. 1.2. Changes in native and alien species richness over time, coloured by treatment.

🡺 See tests in the next section.

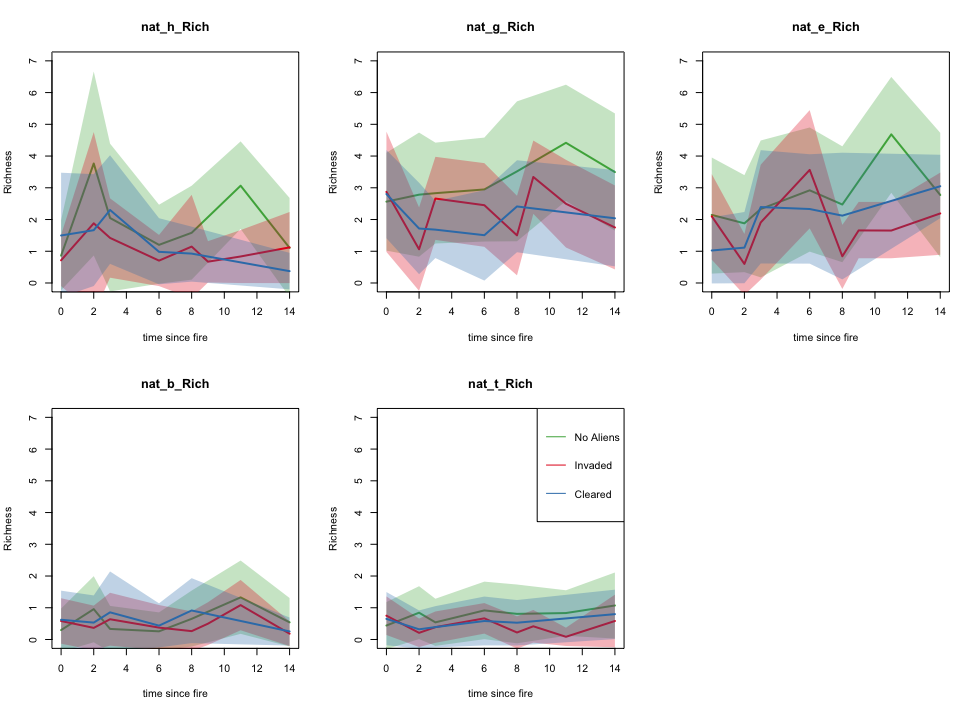
CONCLUSION: Native and alien richness generally decrease over time

*Q1.2. Using the time since the last fire instead of time series*

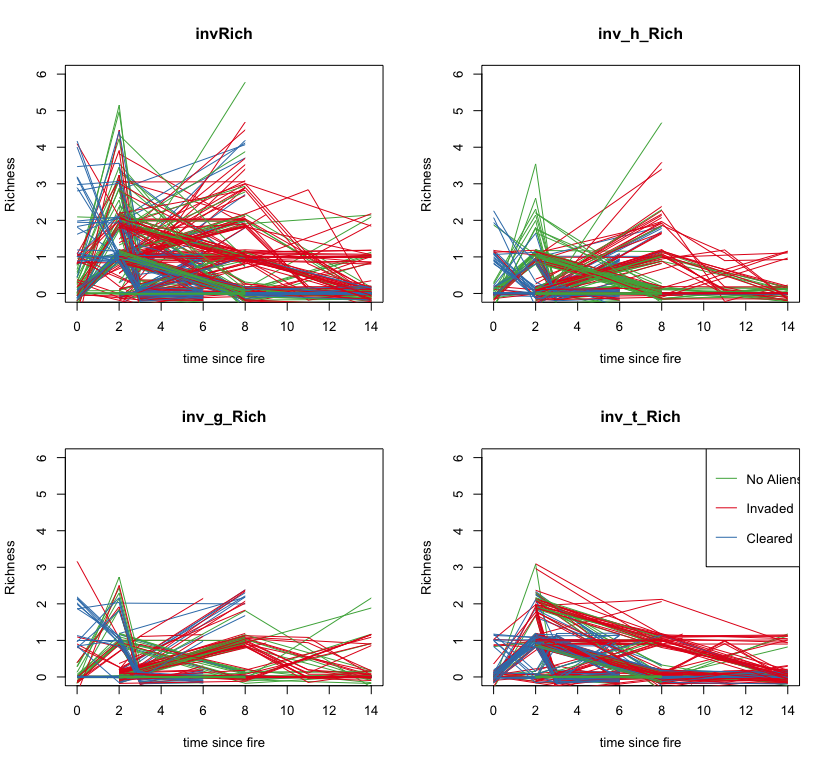
Native species richness



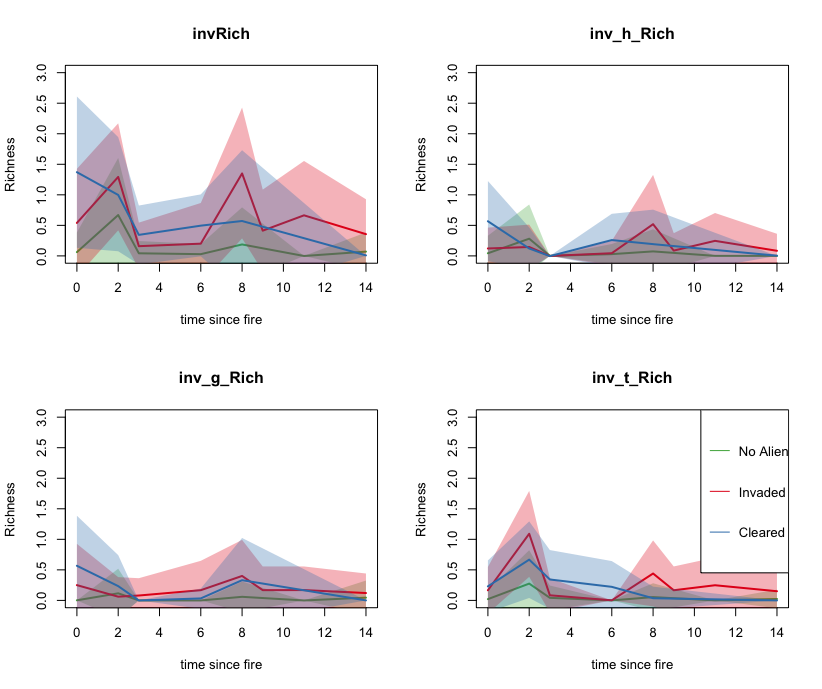
or similar, but the mean + sd only

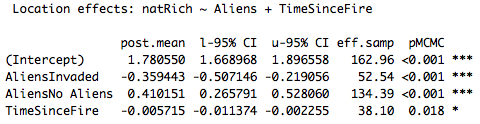


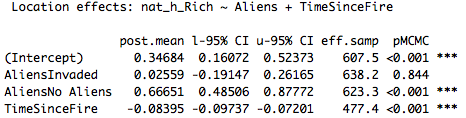
Invasive species richness

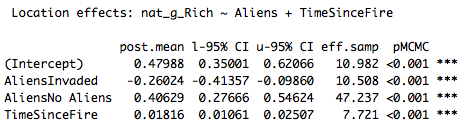


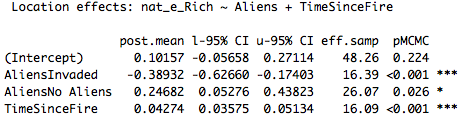
only mean and sd trends

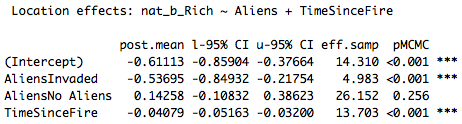


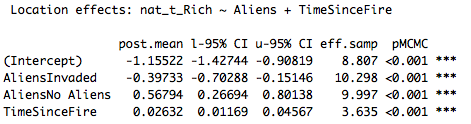
R2=0.16

 R2=0.11

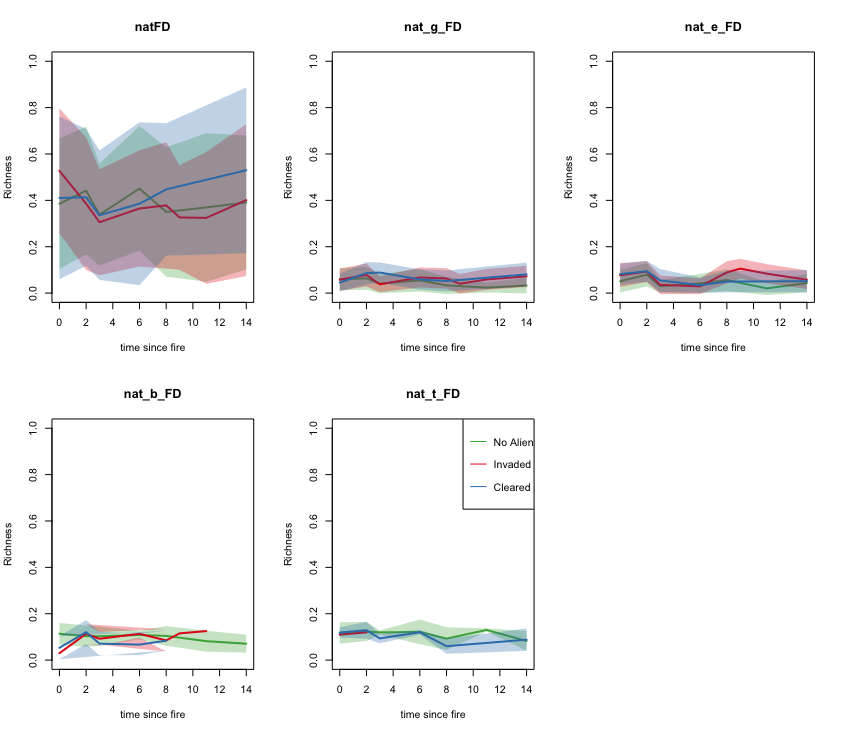
 R2=0.15

 R2=0.11

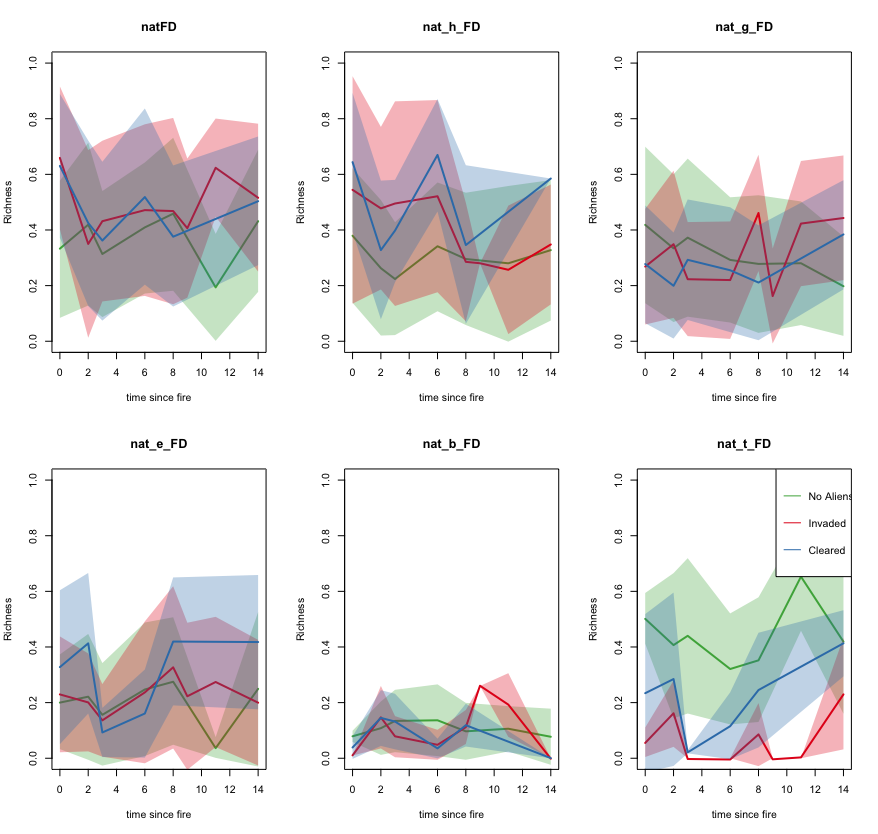
 R2=0.03

 R2=0.09

Native species diversity (all traits included)



native diversity (all traits but growth form)

R2=0.01

**Question 2: What are invasive species impacts on native species**

*2.A. Effects on native richness*

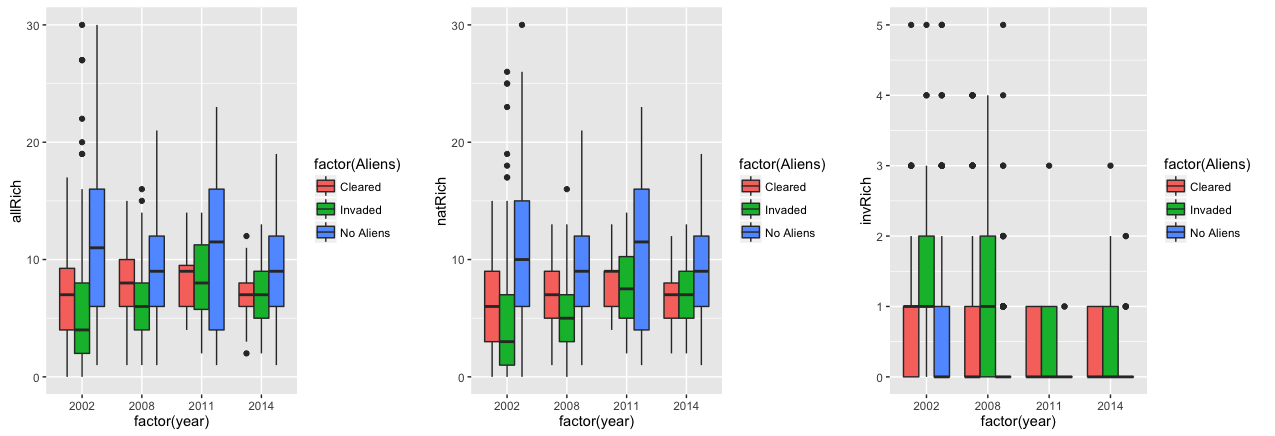
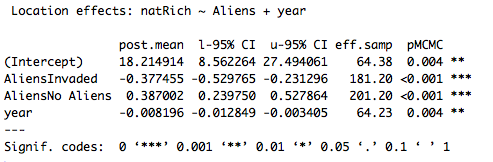


Fig. 2.1. Richness over time per treatment

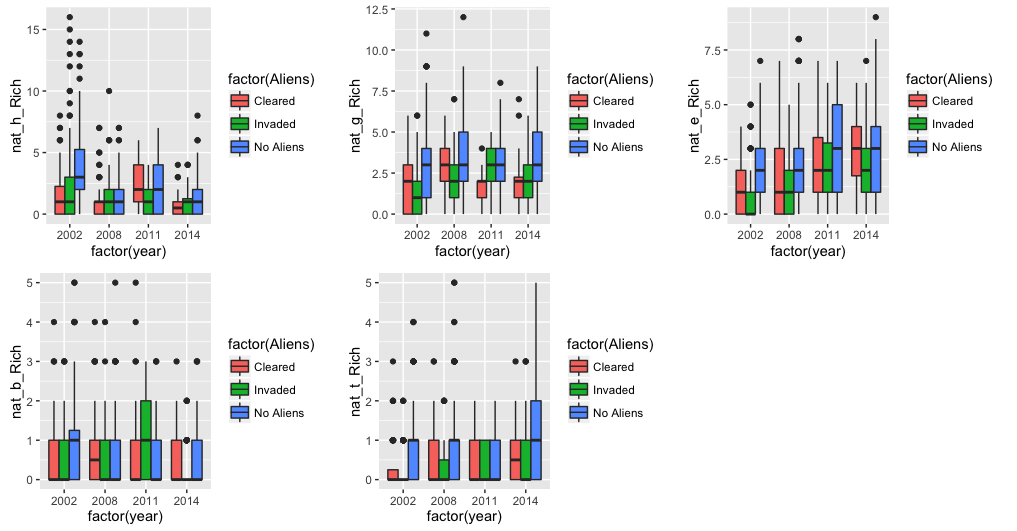
R2=0.15

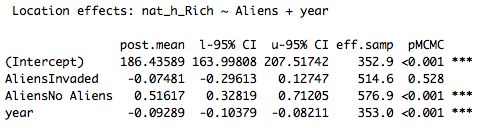
🡺 Native richness: generally decreases over time. + is highest when there is no alien / is medium in cleared sites / is lowest in invaded sites.

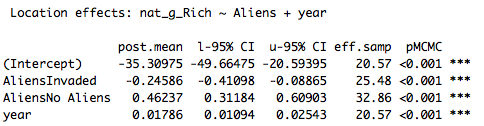
🡺 I.e. the decrease is normal, as species grow larger over time + lower richness with aliens as space is limited.

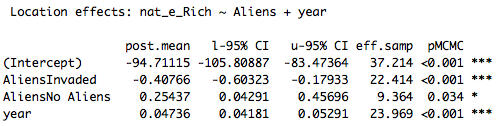
Questions: why are there alien species in the “no alien” and cleared treatments? How to deal with it?

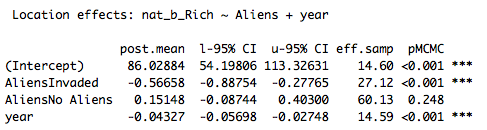
🡪 Add the type of native species

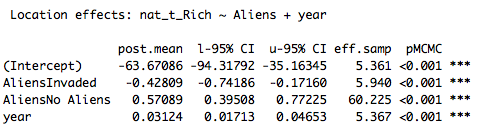


R2=0.17

 R2=0.14

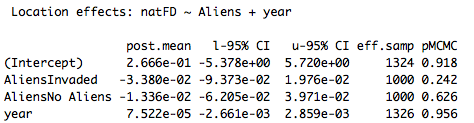
 R2=0.13

 R2=0.04

 R2=0.08

*2.B. Effect on native functional diversity*

🡪 Based on species growth form only



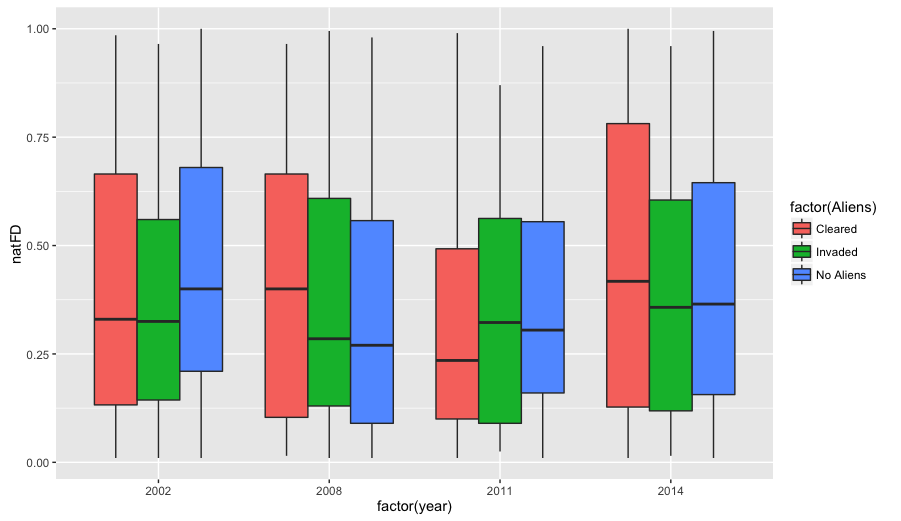
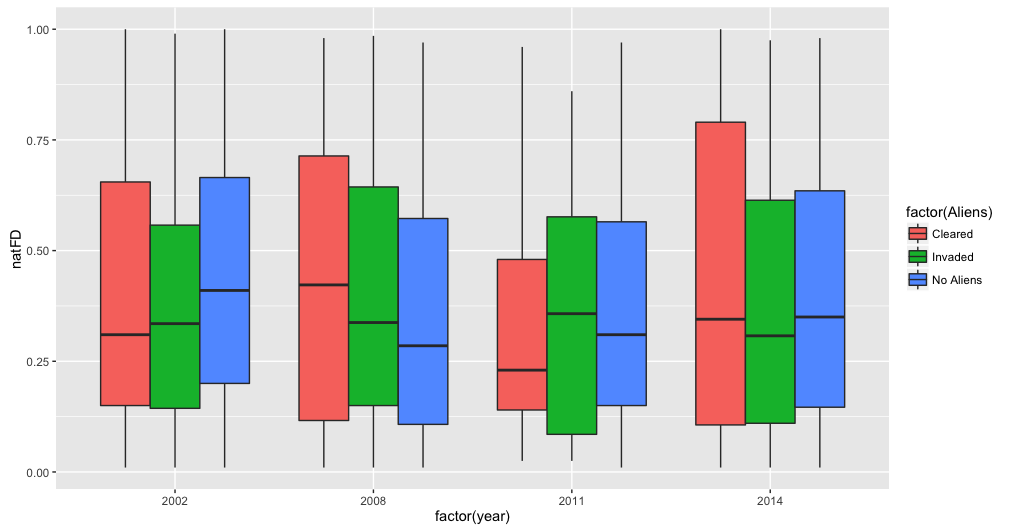


Fig. 2.2. Native species functional diversity (diversity based on growth form only) over time per treatment.

🡪 Based on all available traits (Growth\_Form, Life\_span\_, Dispersal, Seed\_size, Regeneration, plant\_height, time\_to\_first\_flower)



non-significant.