

ARE CHRISTMAS TREE PLANTATIONS A SUITABLE HABITAT FOR FARMLAND BIRDS ?

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Christmas tree plantations (CTP)

Non food perennial crops

i.e. Miscanthus, short rotation willow coppice

Southern Belgium : meadows → CTP

Belgium : about 5.000 ha

Germany : about 25.000 ha

- first European producer



Impact on farmland birds ?

Characterization of bird assemblages

Bird survey

- Point count technique
- Birds recorded twice in a 100m-radius
- Forest edges and villages avoided

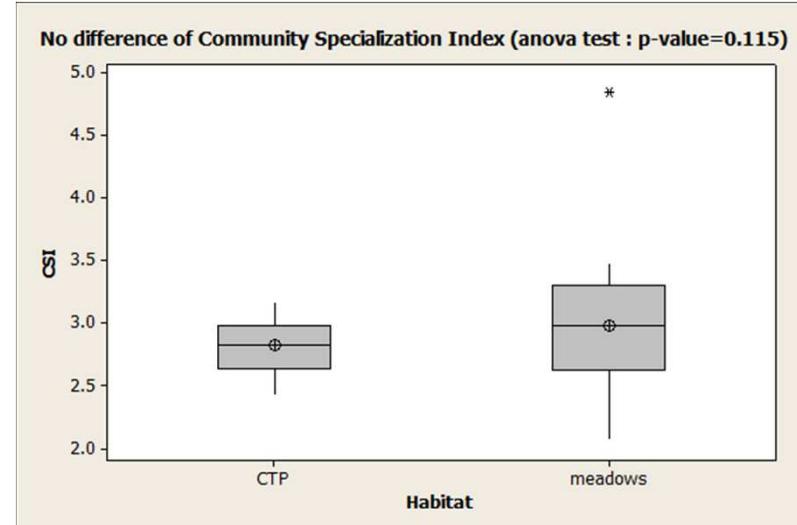
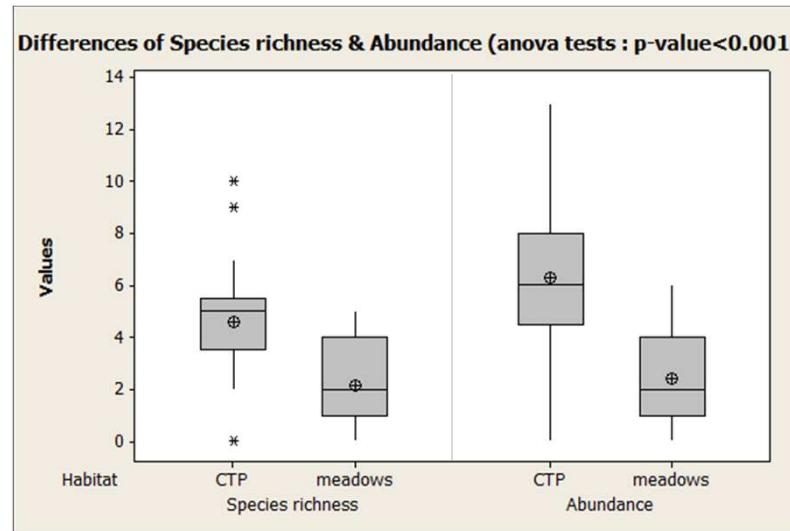


Characterization of bird assemblages

Results

CTP locally increase species richness and abundance...

... without biotic homogenization

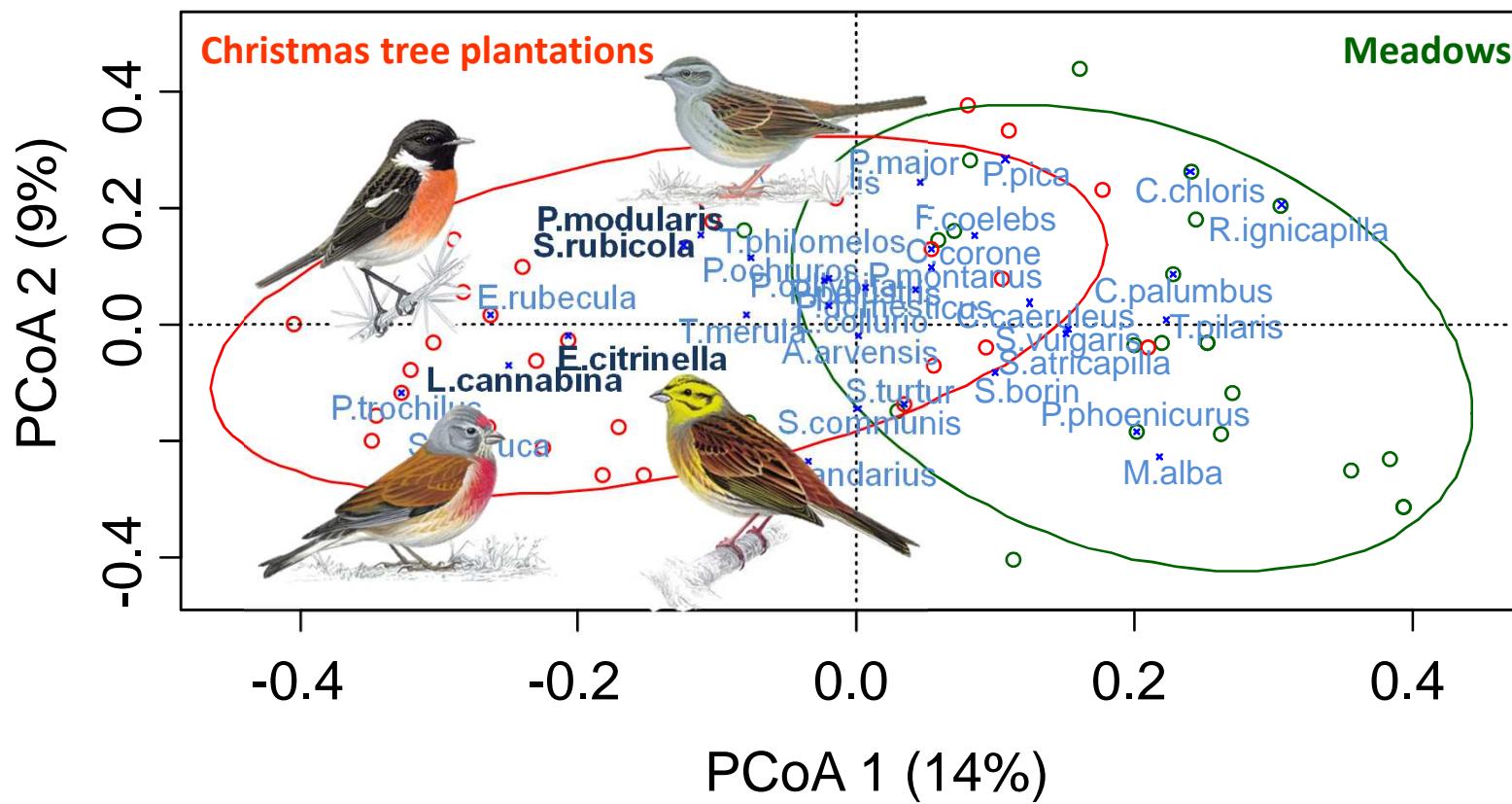


Characterization of bird assemblages

Results

Difference of bird assemblages (PCoA)

Four species associated to CTP (IndVAL method)



Discussion

Context !

Already impoverished farmland



Abundance ≠ habitat quality

→ ecological trap ?

Are CTP an ecological trap ?



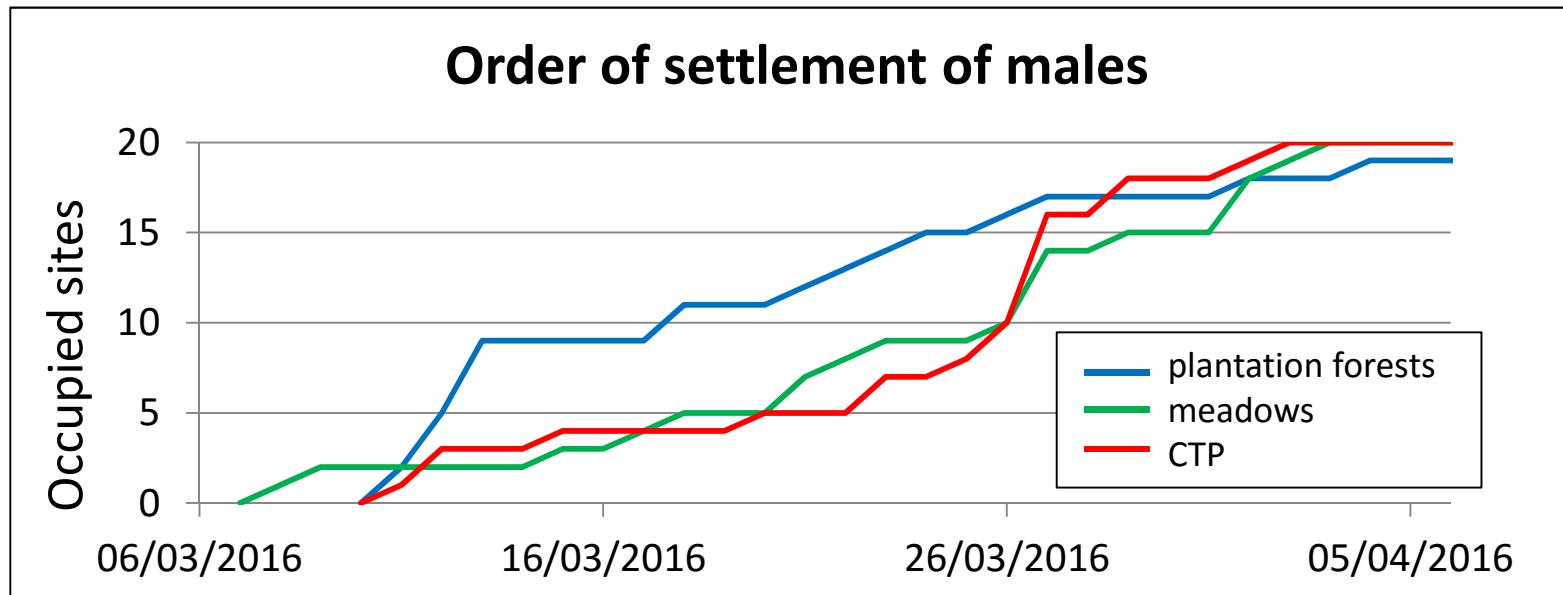
Ecological trap study :

- Habitat preference
- Fitness



Habitat preference

Order of settlement of males
at return from migration (2014-2016)



➤ Preference for
plantation forests



Fitness

Demographic study
during three breeding seasons (2014-2016)

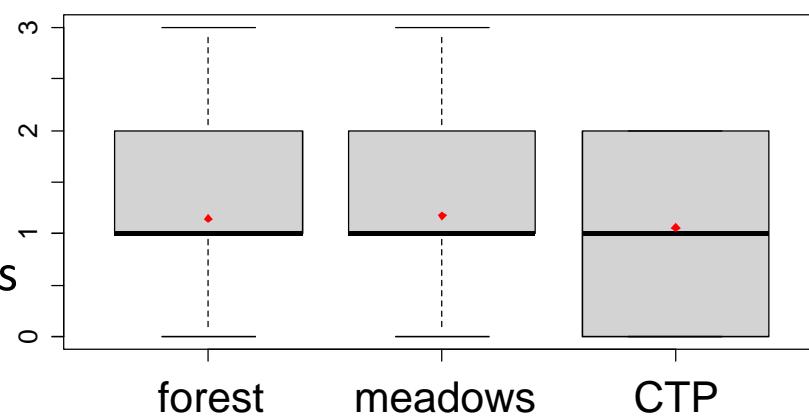


Preliminary results :

no major difference
between habitats

i.e. number of breeding success

anova test : p-value = 0.671



Conclusion

Christmas tree plantations...

- interesting alternative habitat for farmland birds in impoverished farmland
- habitat quality does not seem to differ from traditional meadow and early stages of plantation forest for Stonechat.

Thank you for your attention!

