



Breeding Birds

of the Botanical Garden

IRT 2 – De FRAMOND BENARD Léna
Pr. RENNER Susanne
Munich Botanical Garden
Menzinger Str. 61
80638 München

Introduction

A green spot in the city...



22 Ha, adjacent to 220 Ha-Palace Park

Protected,
ideal environment

Never prospected
for breeding birds

Which species?

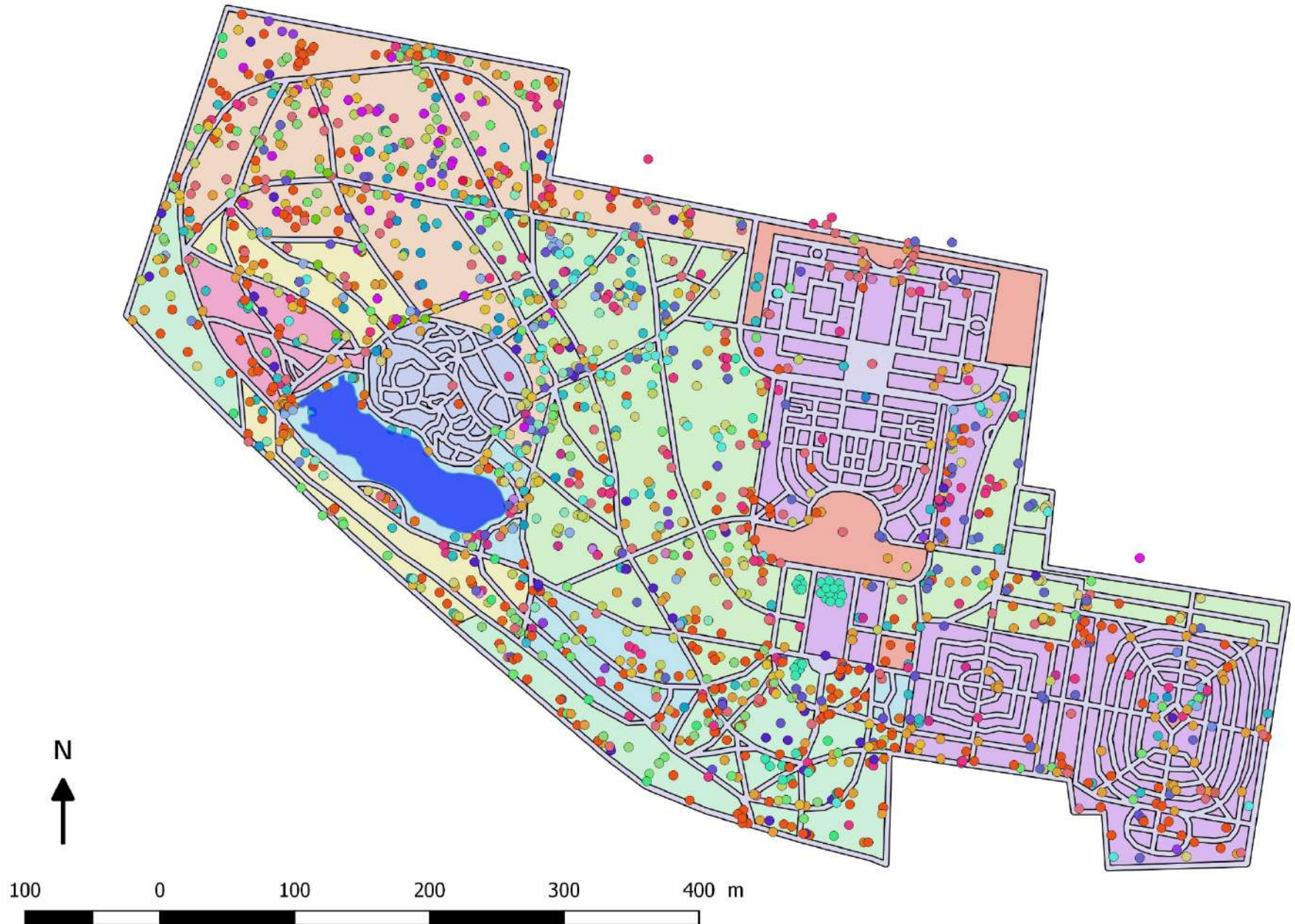
Protocol for further monitoring?



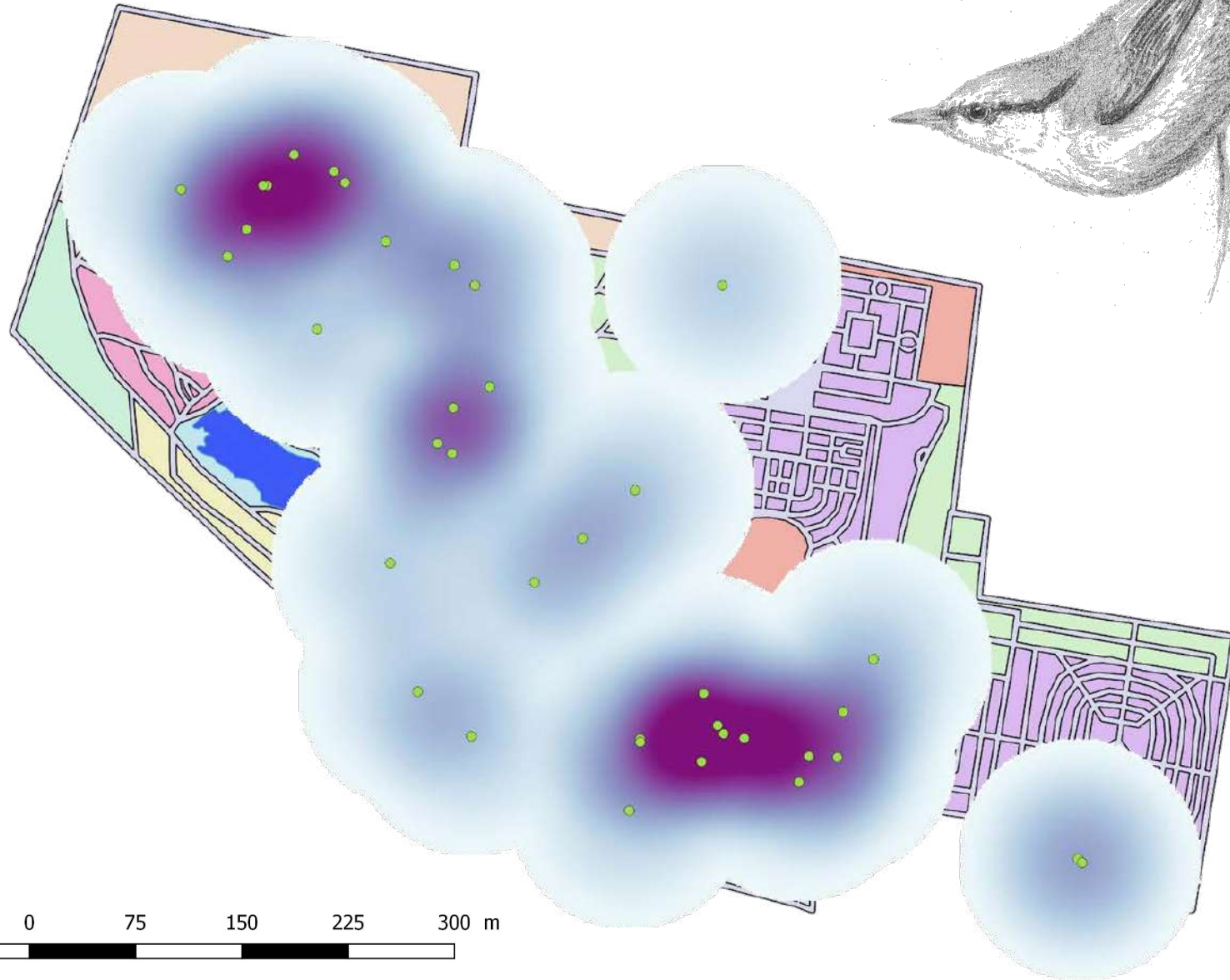
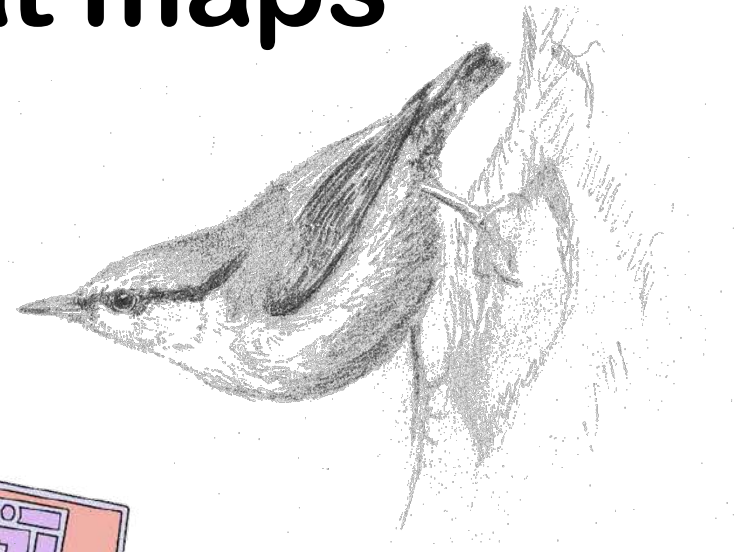
Materials & Methods



Mapping : digitalisation



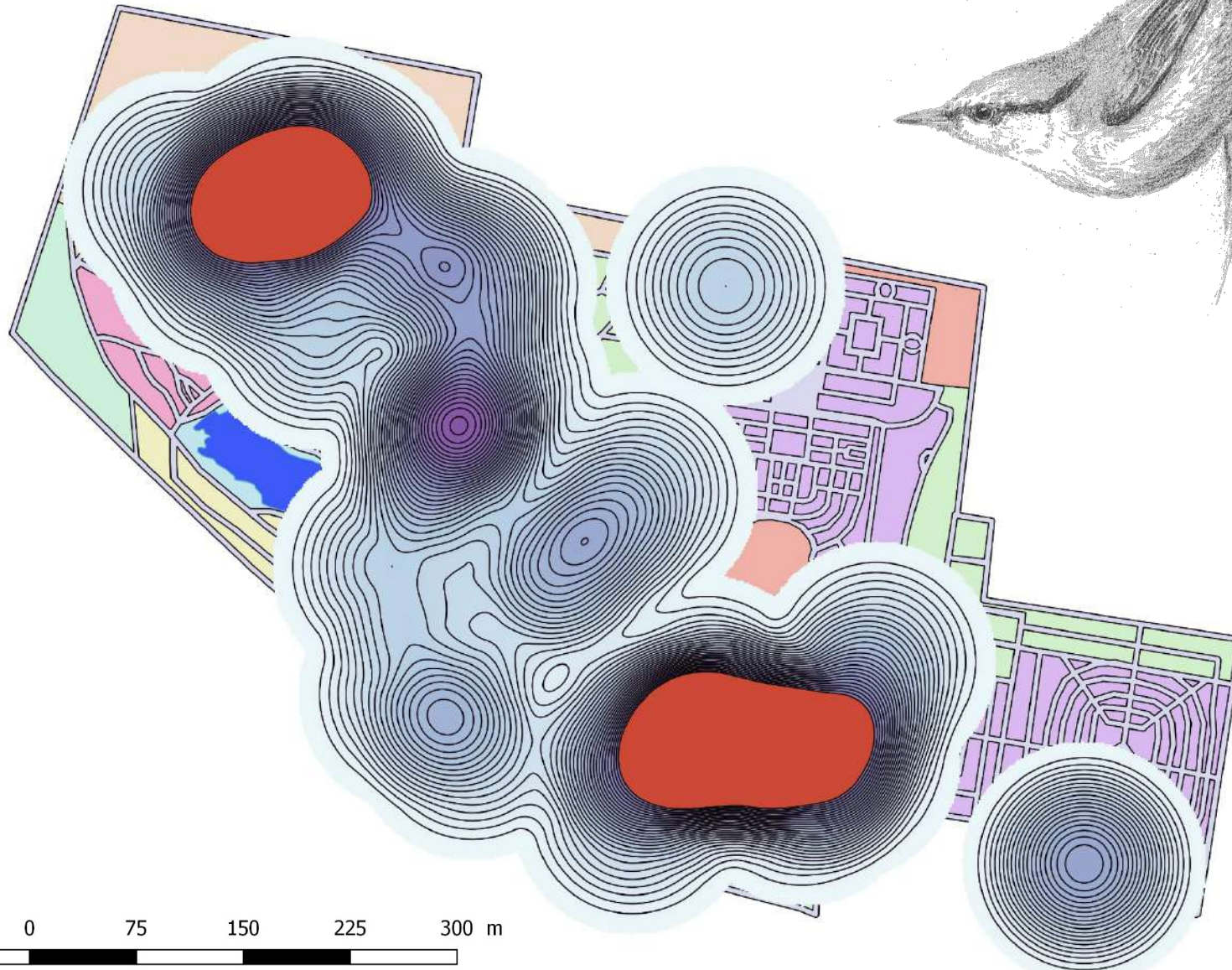
Mapping : heat maps



Legend

- birds
- Nuthatch
- Heat Map
- 0
 - 1.14
 - 2.29
 - 3.43
 - 4.57
 - Lake

Mapping : contour lines



Légende

Territories :

■ Nuthatch

— Contour lines

Heat Map :

□ 0

□ 1.14

□ 2.29

□ 3.43

□ 4.57

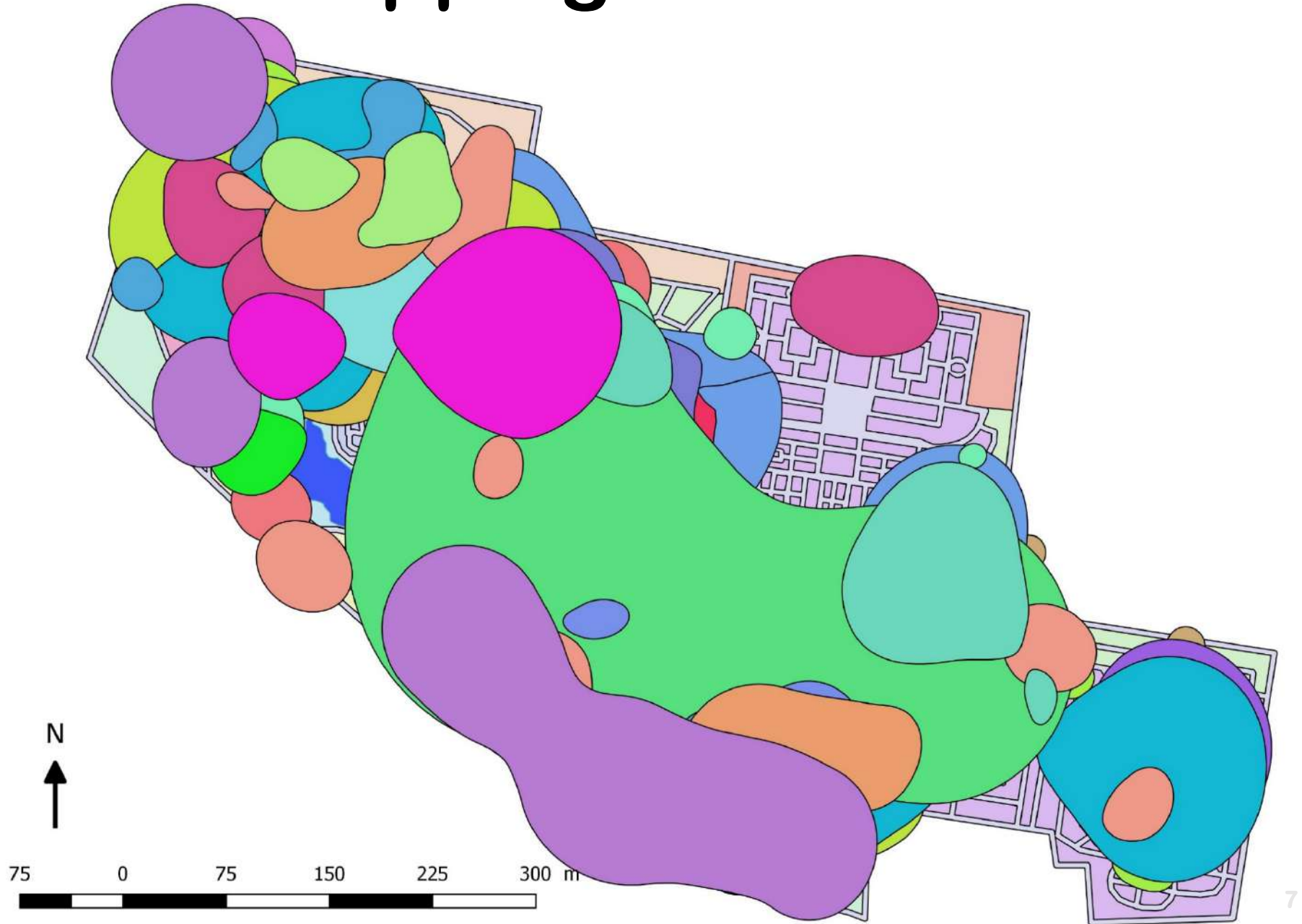
N



75 0 75 150 225 300 m



Mapping : territories



A few birds...

45 species...



A few birds...

45 species...



A few birds...

45 species...



Chris Duraffroy



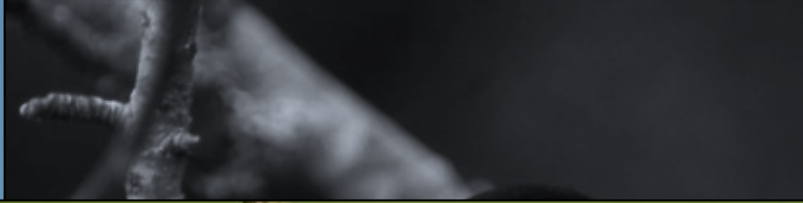
Chris Duraffroy



Chris Duraffroy

A few birds...

45 species...



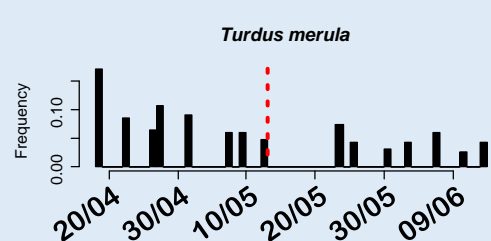
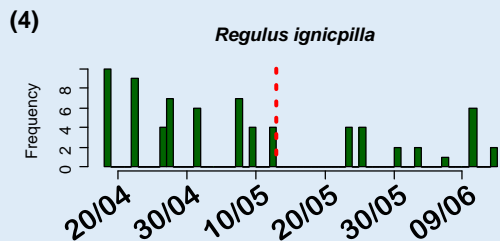
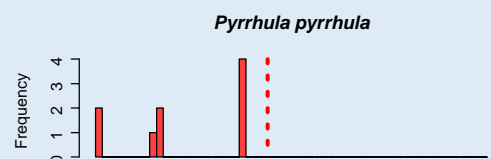
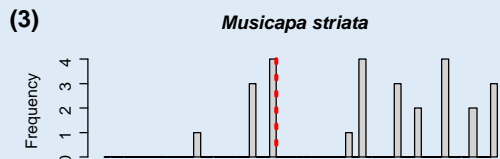
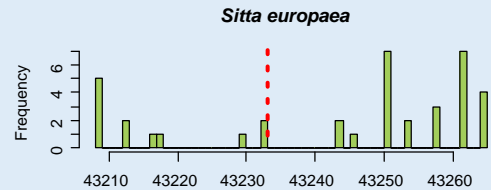
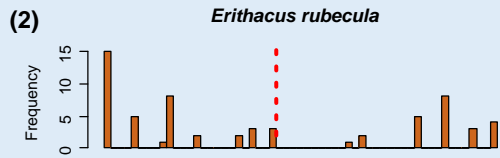
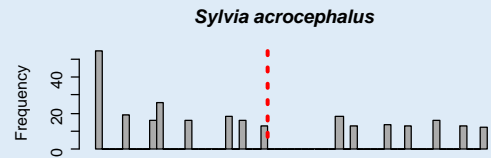
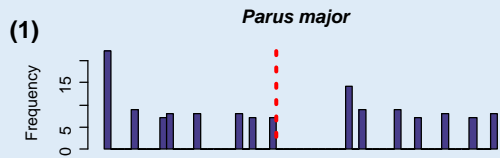
Phragmite des joncs
(*Acrocephalus schoenobaenus*)



Dauraffroy

Phenology

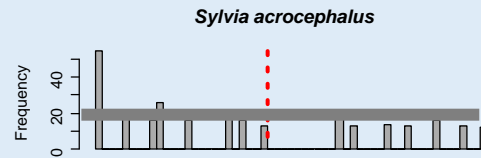
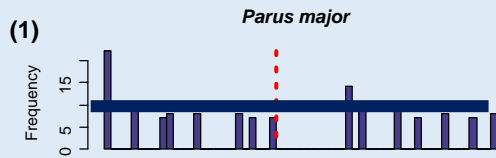
--- 1st fledglings



Observation date

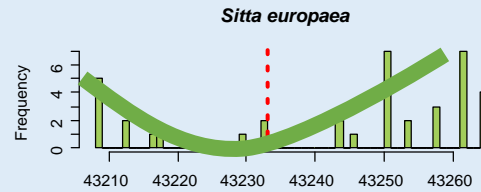
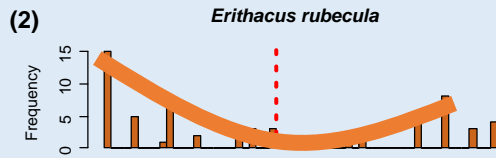


Phenology

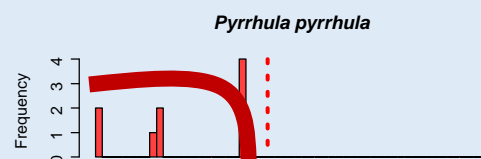
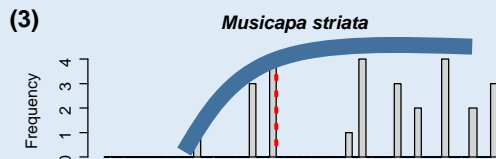


--- 1st fledglings

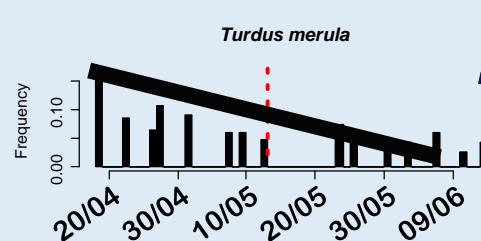
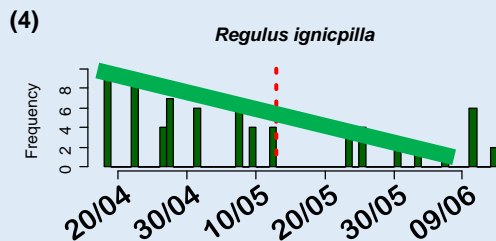
Most birds :
regular



Decrease activity
during brooding



Appearance /
disappearance

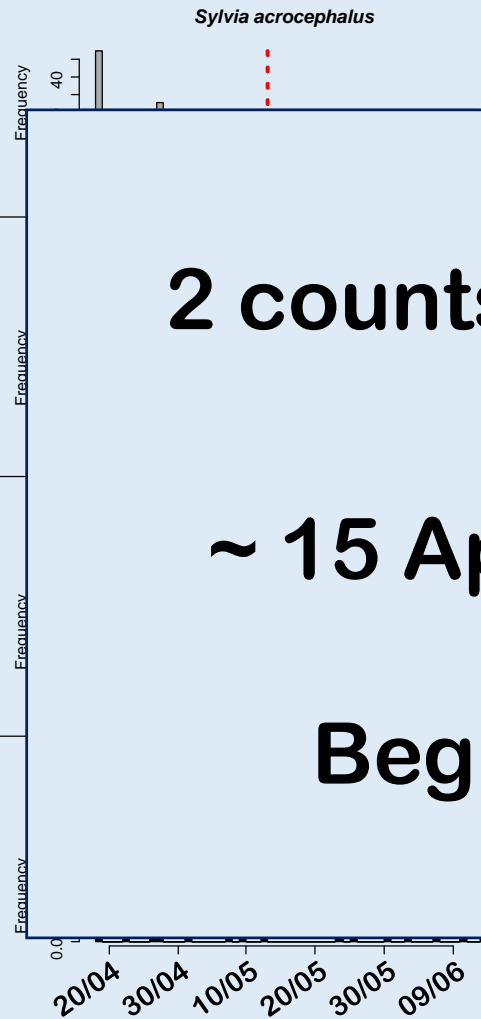
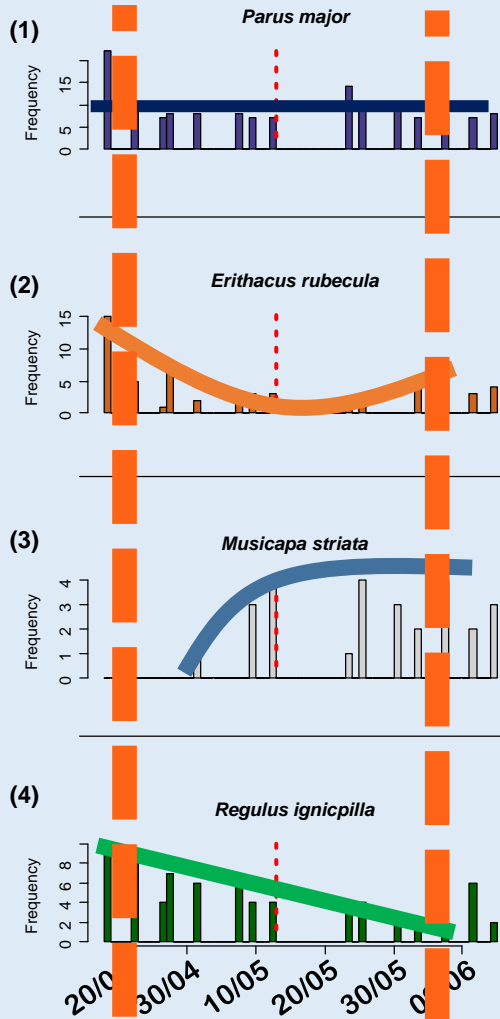


Constant decrease

Observation date



Phenology



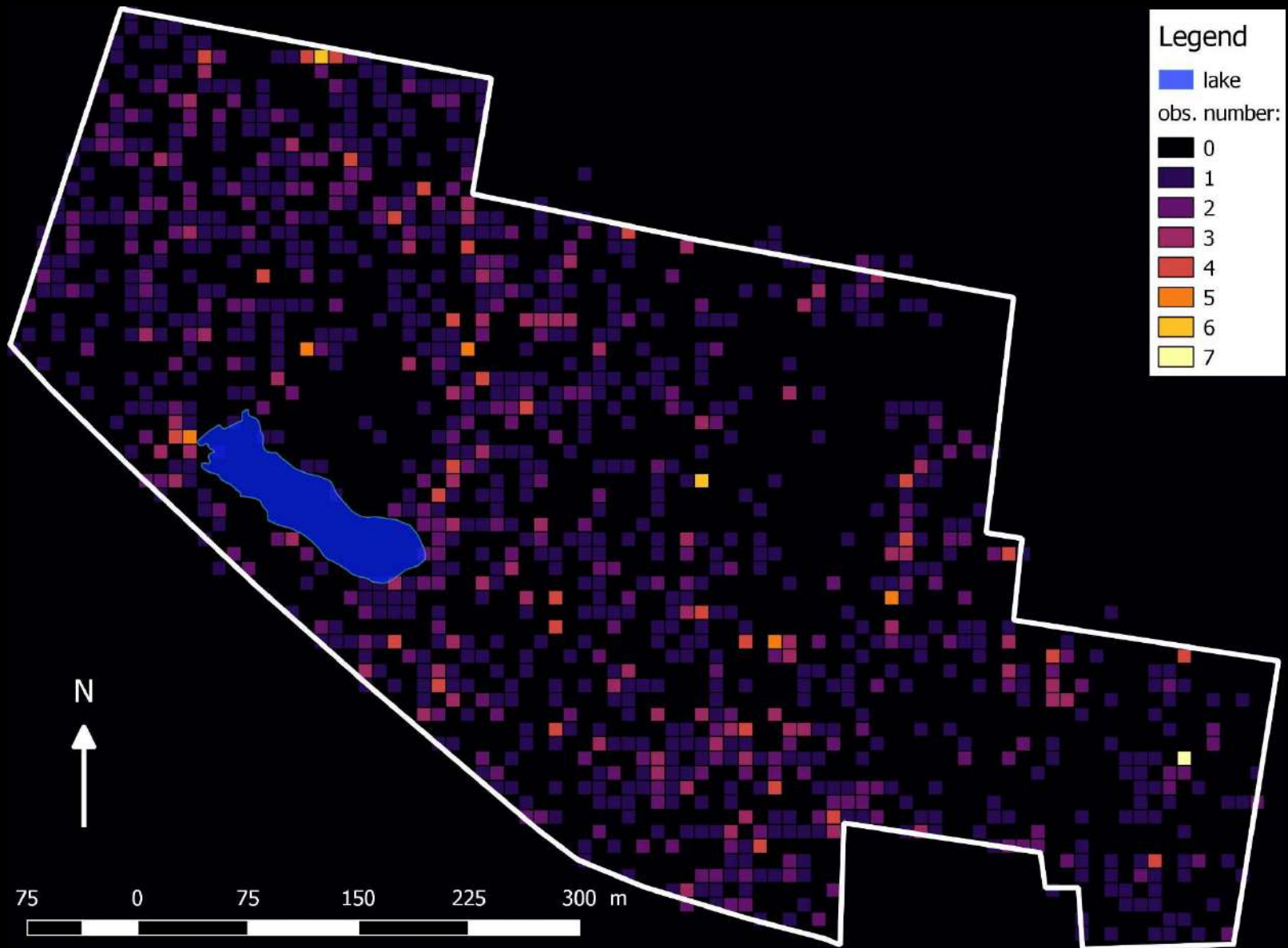
--- 1st fledglings

2 counts necessary :

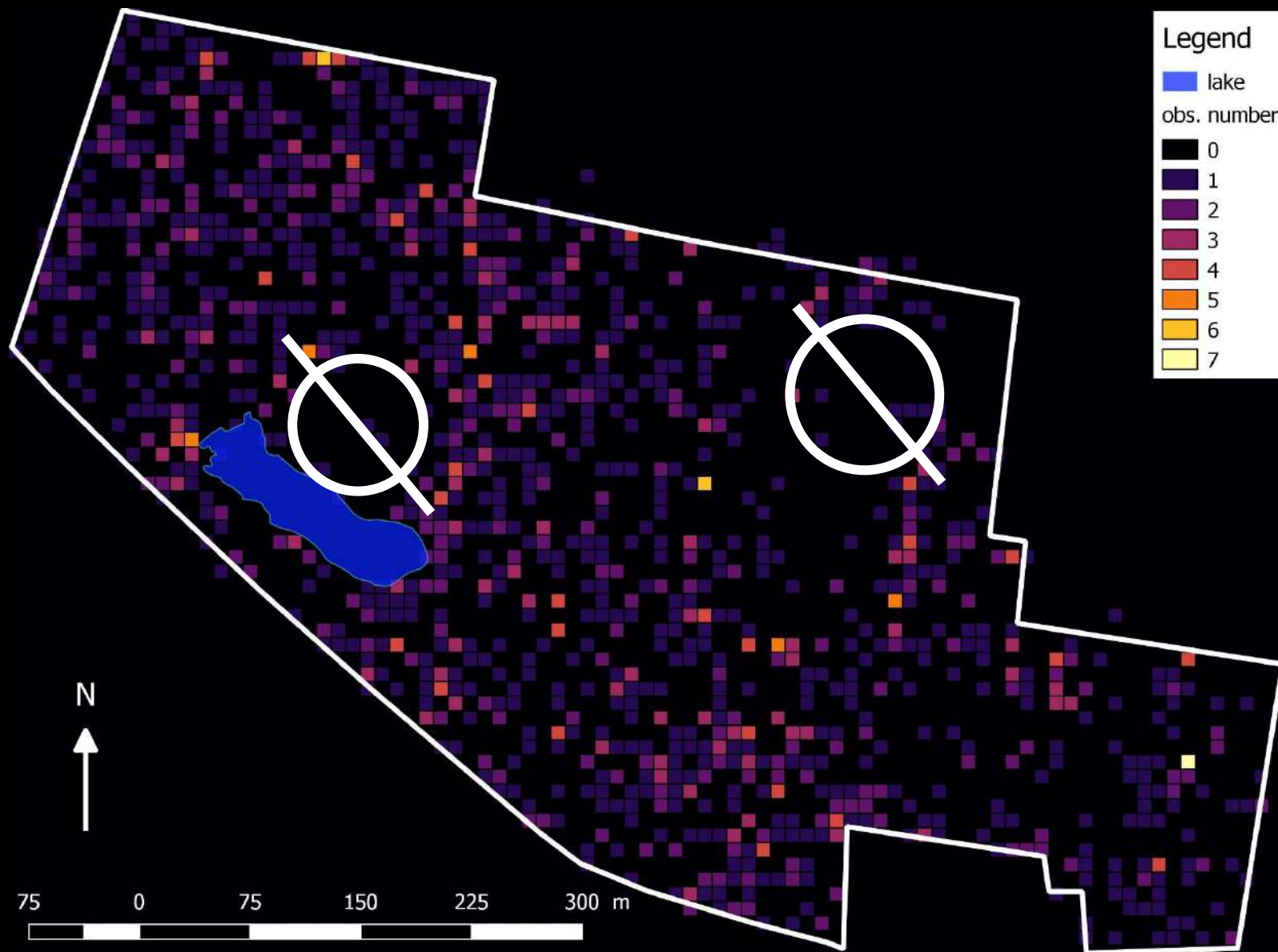
~ 15 April
&
Beginning of June



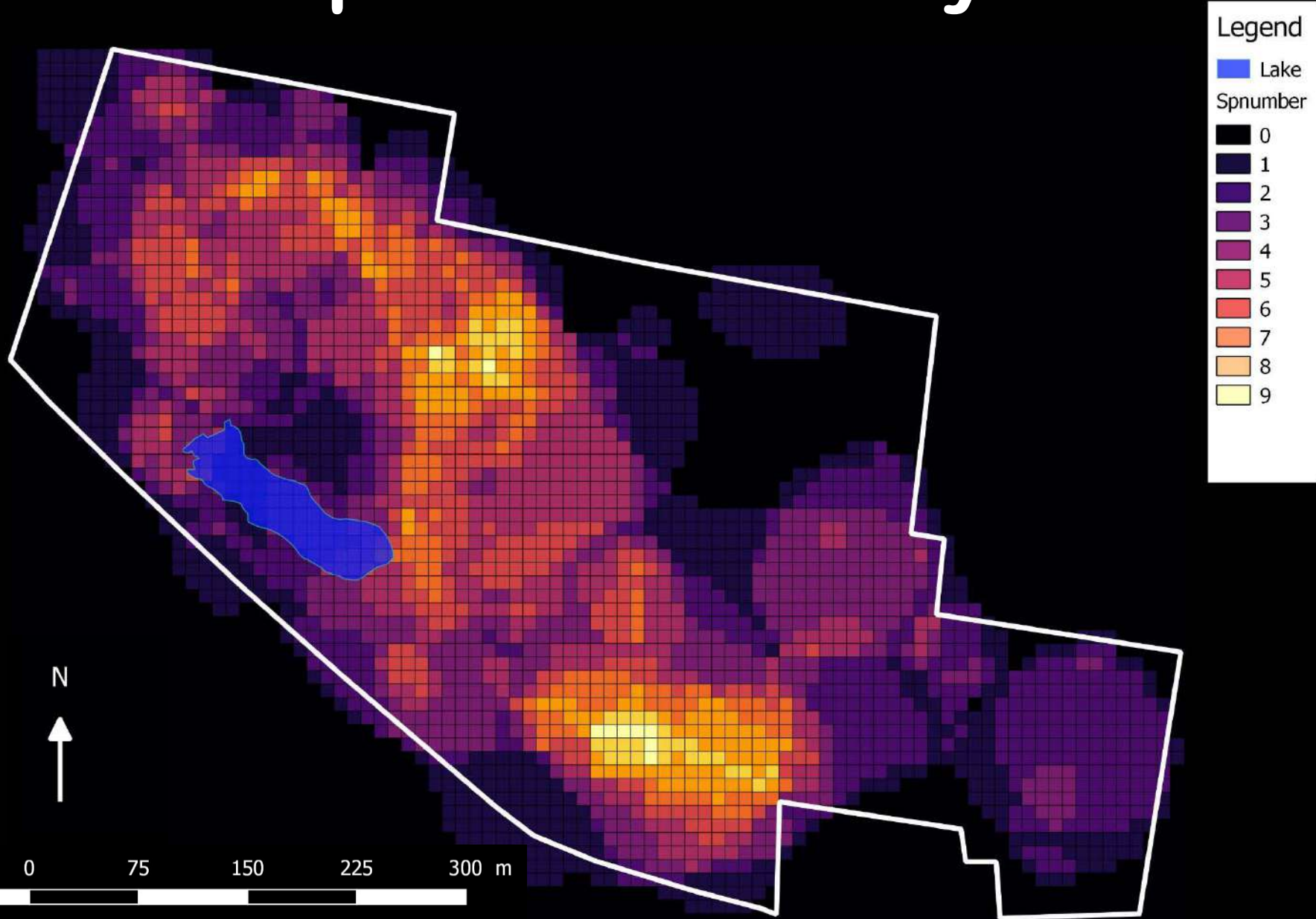
Bird density



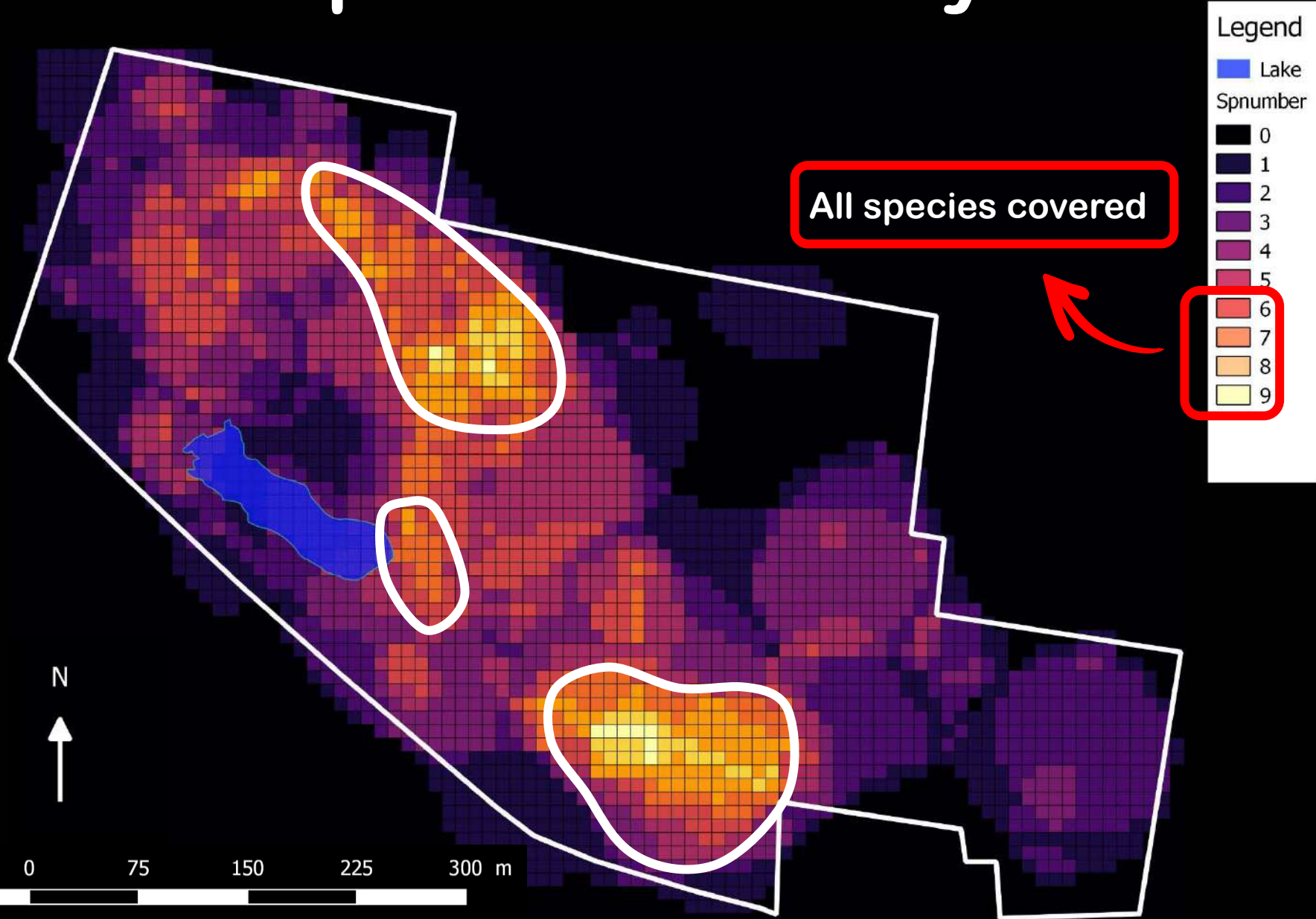
Bird density



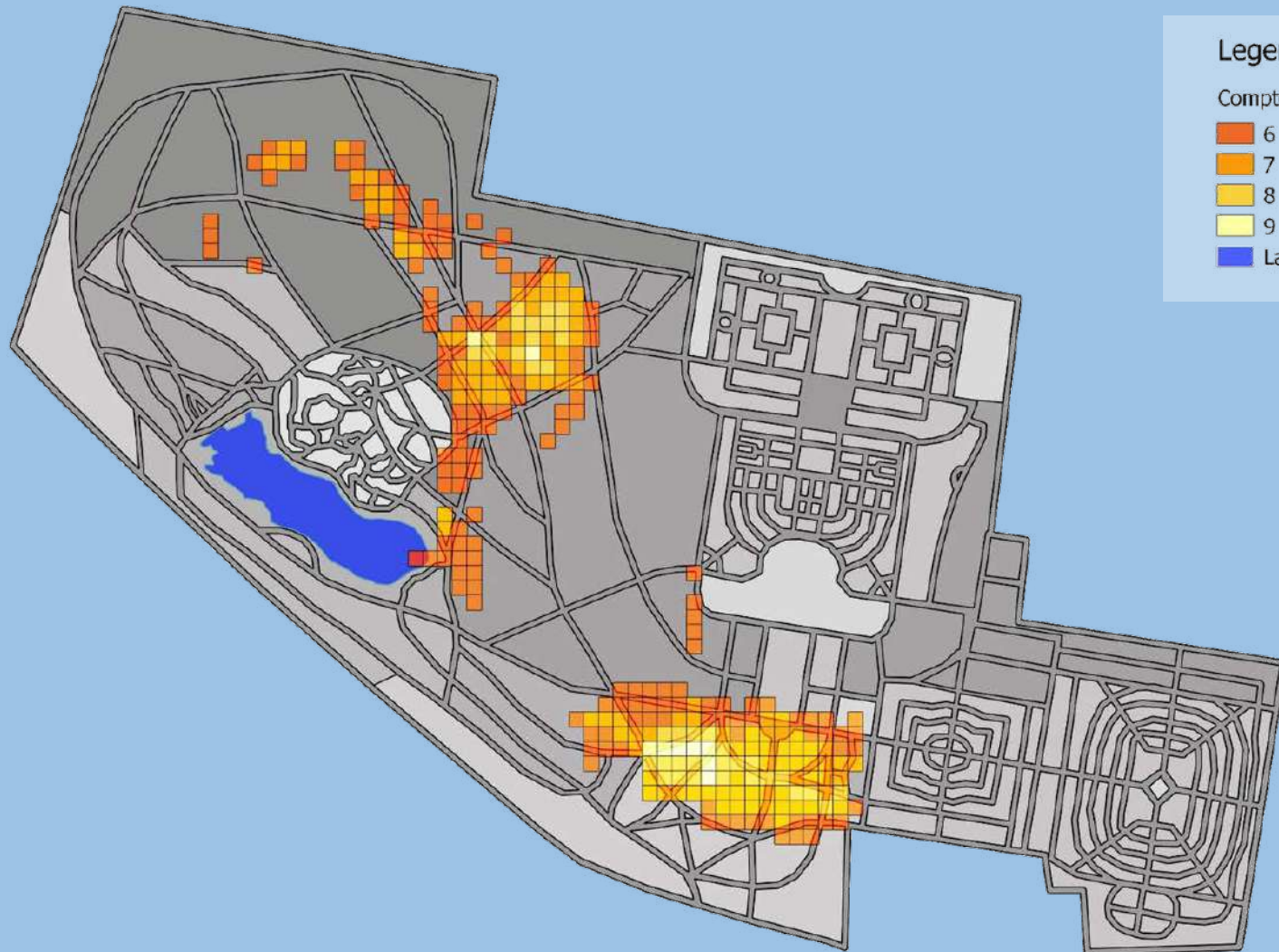
Species diversity



Species diversity



Optimal path



Legend

Compte

6

7

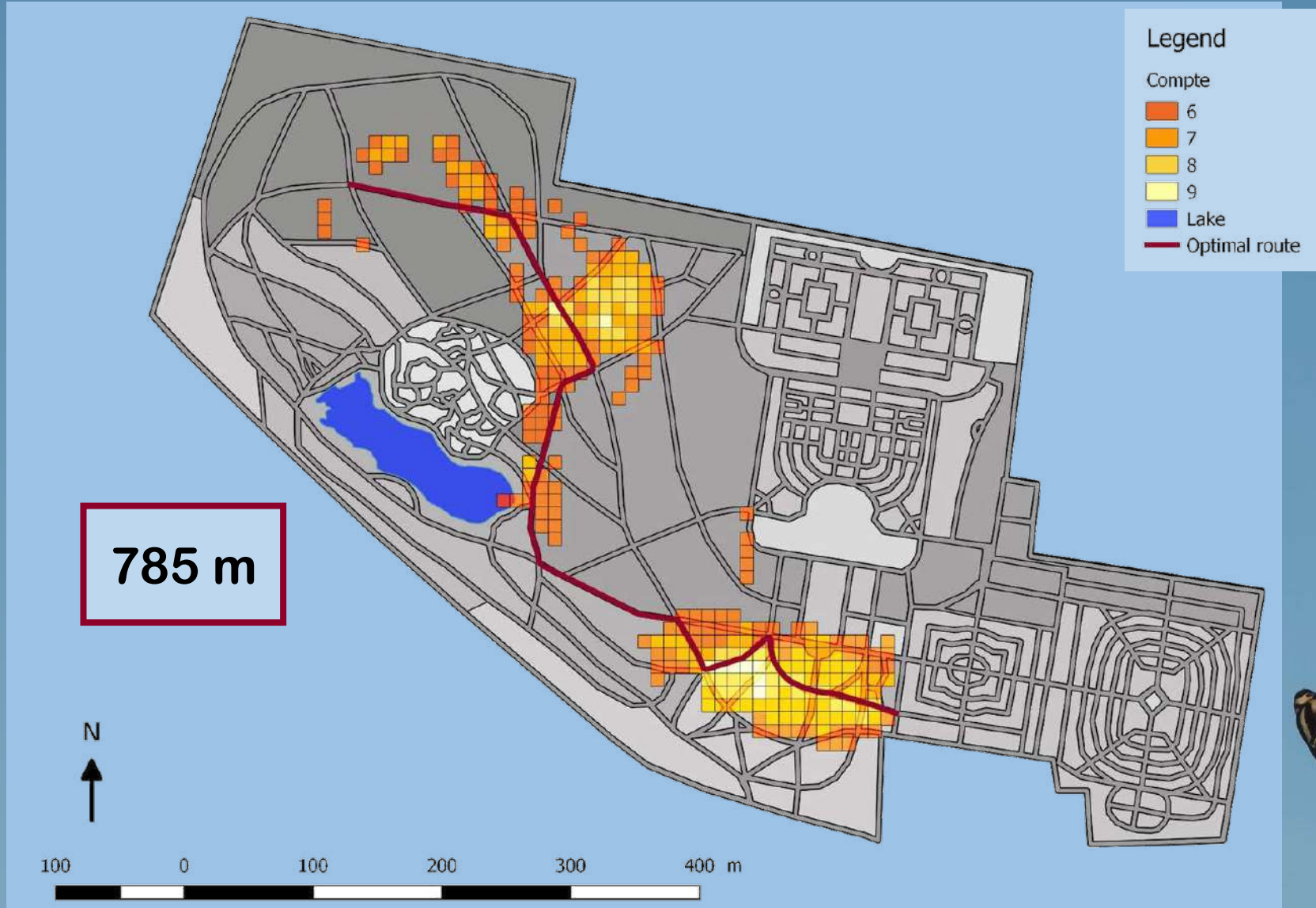
8

9

Lake

100 0 100 200 300 400 m

Optimal path



Optimal path



Conclusion



27 breeding bird species

Among 45 contacted species

2 counts

785 m long optimal path



Thank you for your attention !