



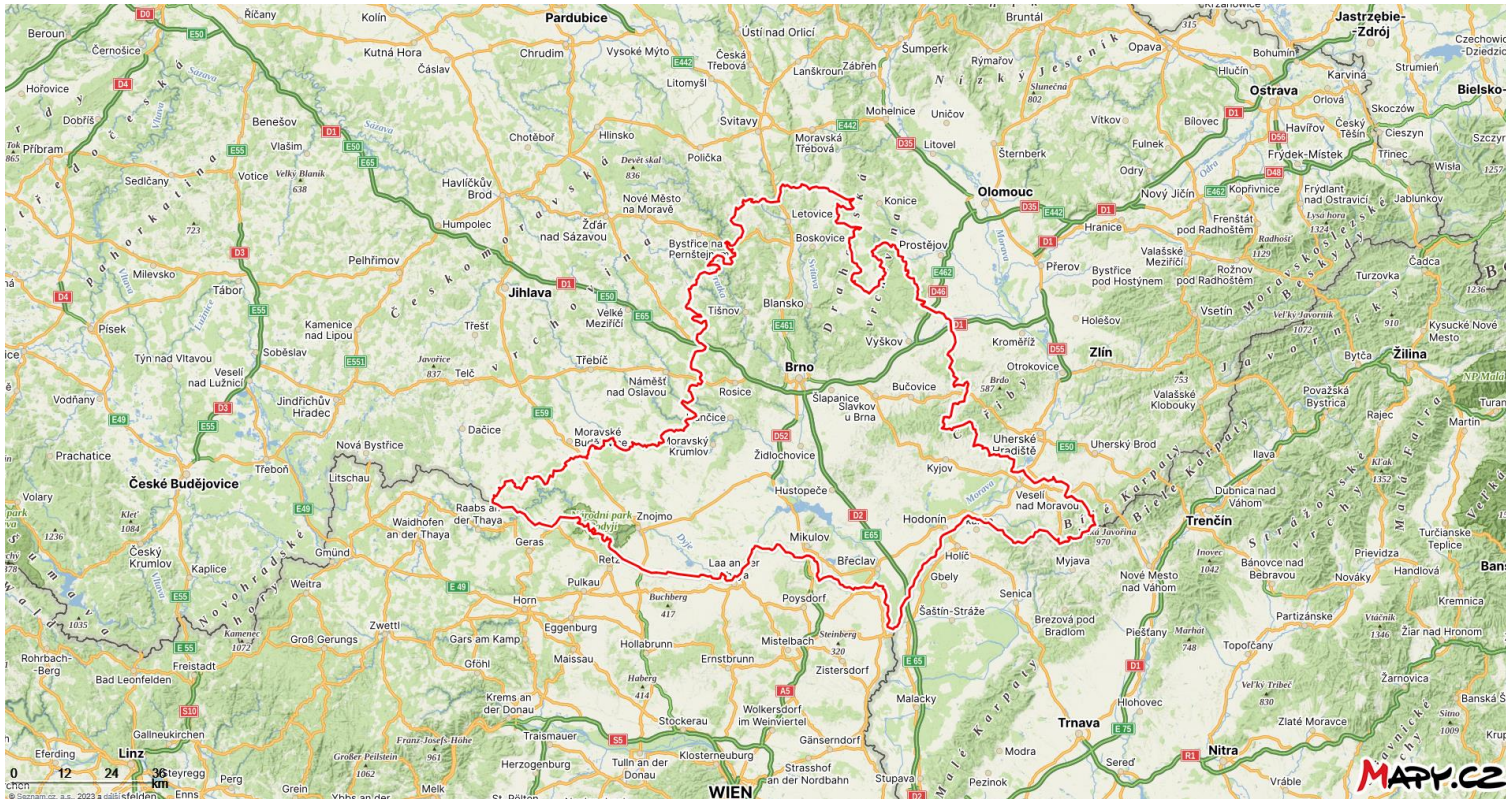
Protection of Common Tern in South Moravian Region 2008–2023



Tereza Čamlíková, Gašpar Čamlík, Petr Berka, Jaroslav Zaňát, Marek Palička

Before...

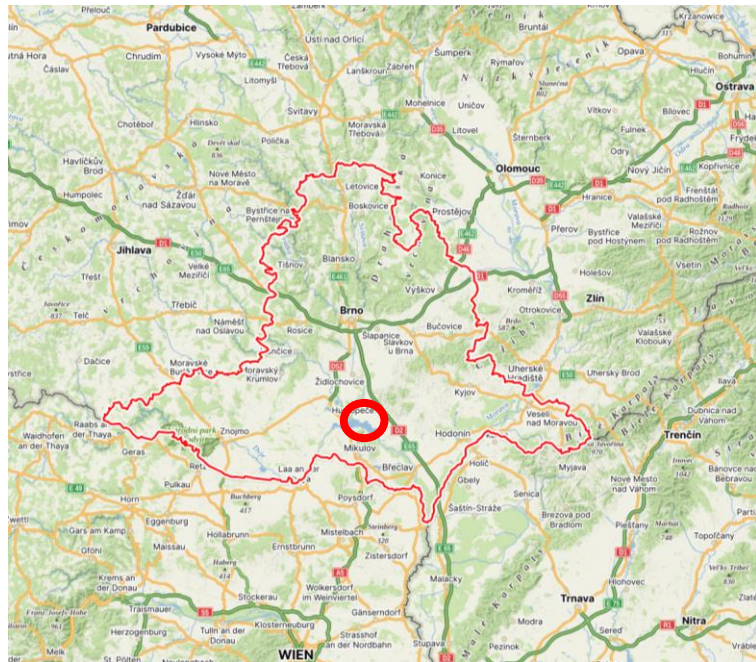
- The one of the most important region for common terns in Czech republic
- IBA Střední nádrž vodního díla Nové Mlýny (water reservoir)
- Second half of the 90s – 100–150 pairs, 1995 more than 200 pairs



- Estimate for the Czech republic in 2001–2003: 400–600 pairs

Before...

- The one of the most important region for common terns in Czech republic
- IBA Střední nádrž vodního díla Nové Mlýny (water reservoir)
- Second half of the 90s – 100–150 pairs, 1995 more than 200 pairs
- **last regular breeding place – 79 pairs in 2007, only 34 pairs in 2008**



Monitoring methods

- min. four observations per season
- direct control – only one at the beginning of the breeding season and only on selected islands
- scope observation – smaller colonies and clear islands
- drone monitoring – last years
- photo-trap monitoring – on four islands in year 2023
- other – focus on potential predators and interspecific interactions



Support of Common terns – reconstruction of nesting sites



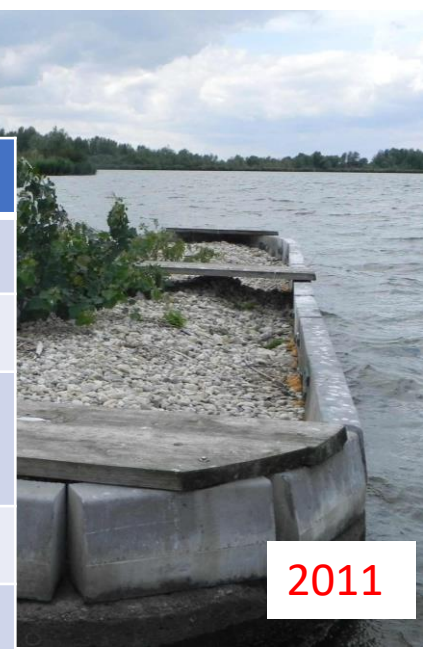
Support of Common terns – reconstruction of nesting sites



2009



Material	concrete construction
Size	143 – 153 m ²
Minimum	25 (2015)
Maximum number of pairs	97 (2022)
Maximum density	0,63 pair/m ²
Average	44,67 pairs
other species	Black-headed gull, Mediterranean gull, Caspian gull, White wagtail



2011



2014



2021



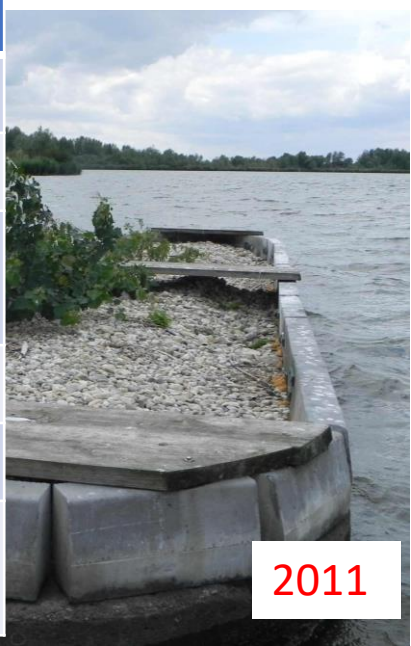
2021

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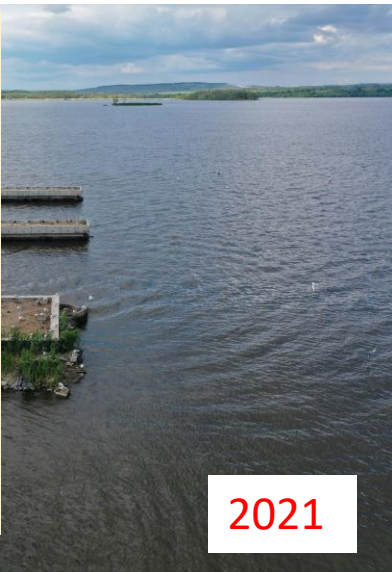


2011



2014

- + traditional breeding site
- + safe against mammal predation
- + improving nesting success
- complicated and expensive reconstruction
- waves
- competition with Black-headed gull



2021

Support of Common terns – reconstruction of nesting sites



Material	stones, rubble
Size	154 m ²
Minimum	0 (2019-2023)
Maximum number of pairs	105 (2016)
Maximum density	0,68 pair/m ²
Average	57,17 pairs
other species	Black-headed gull, Caspian gull

- + cheap and fast reconstruction
- + high number of pairs
- low breeding success
- waves
- predation
- occupation by Caspian gull

Support of Common terns – management of nesting sites



Material	clay
Size	5430 – 33 m2 for terns
Minimum	0 (2014)
Maximum number of pairs	27 (2018)
Maximum denzity	? pair/m2
Average	14,33 pairs
other species	Black-headed gull, Mediterranean gull, Caspian gull, ducks, Graylag Goose etc.



Support of Common terns – management of nesting sites



Material	clay
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+ management with volunteers
 + important breeding colonies of other species
 + important site for biodiversity
 - poor breeding success of terns



Support of Common terns – wooden floating islands



- + rapid occupation by terns
- + easy production
- + high breeding success
- short service life
- regular maintenance and inspection required
- location without large waves required
- anchoring
- duck nesting (only three times)

Material	Wood and plastic or metal barrels
Number	N132 (12 sites)
Size	+/- 9 m ²
Minimum	0 (only four times)
Maximum number of pairs	37 (2020, 36 more times)
Maximum density	4,11 pair/m ²
Average	11,41 pairs
other species	Black-headed gull, White wagtail, Mallard

Floating platforms – support of biodiversity and water quality

- **Project:** 2022 – 2024
- **Main goals:**
 - expansion of breeding opportunities for Common terns and possibly other species, increase of the overall biodiversity in the area
 - innovations of vegetated platforms
 - ensuring the durability of the floating platforms and reducing the maintenance required
 - prevention of nest predation



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Support of Common terns – floating concrete islands



Material	Concrete
Number	N9 (5 islands + 4 new in 2024 season)
Size	+/- 20 m2
Minimum	2 (2023)
Maximum number of pairs	49 (2019)
Maximum density	2,67 pair/m2
Average	30,25 pairs
other species	Black-headed gull, White wagtail

- + strong resistant construction (guarantee)
- + high breeding success
- + wave-resistant
- + safe against mammals predation
- expensive costs
- regular inspection required
- duck nesting (potential)

Support of Common terns – floating concrete islands

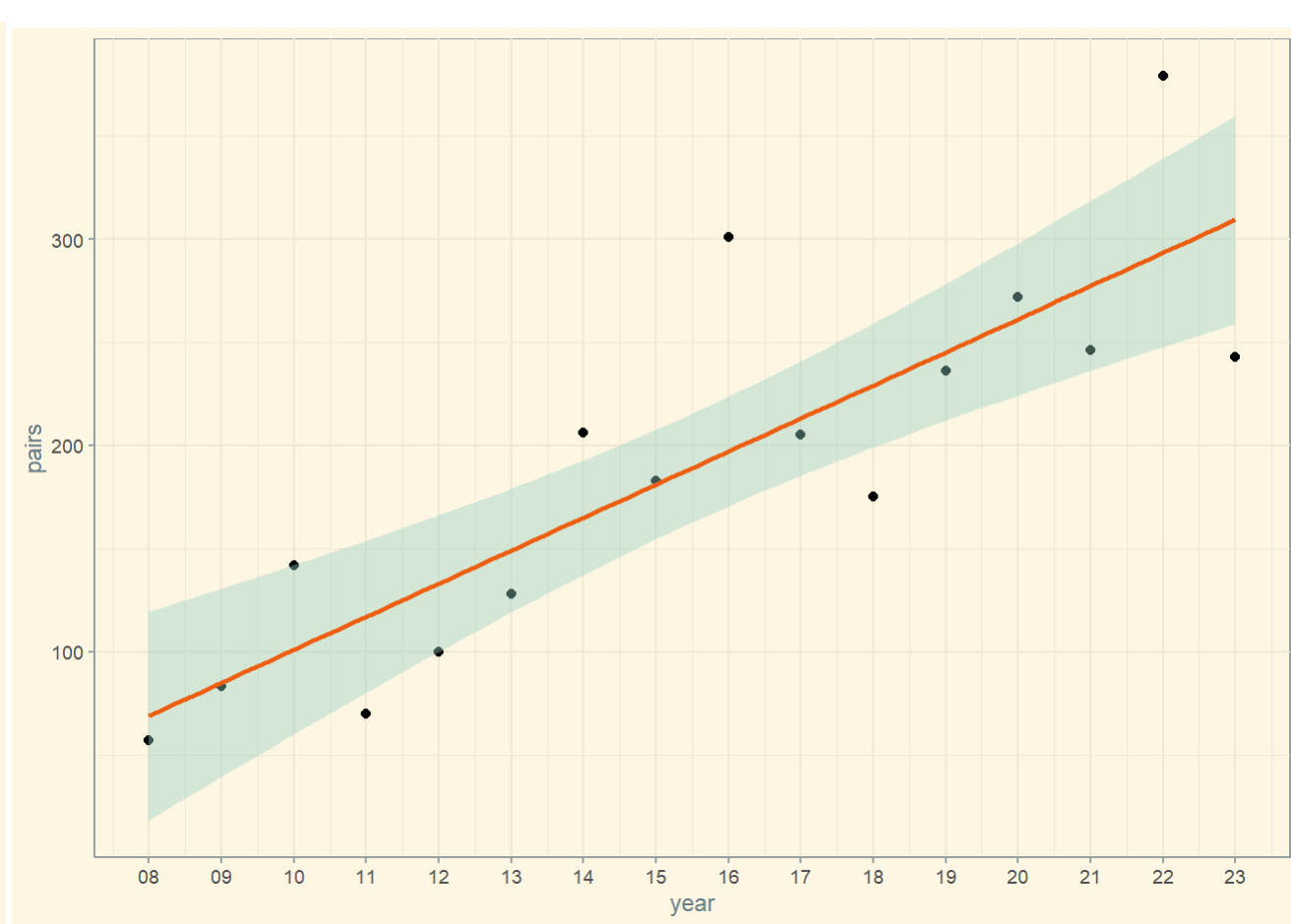
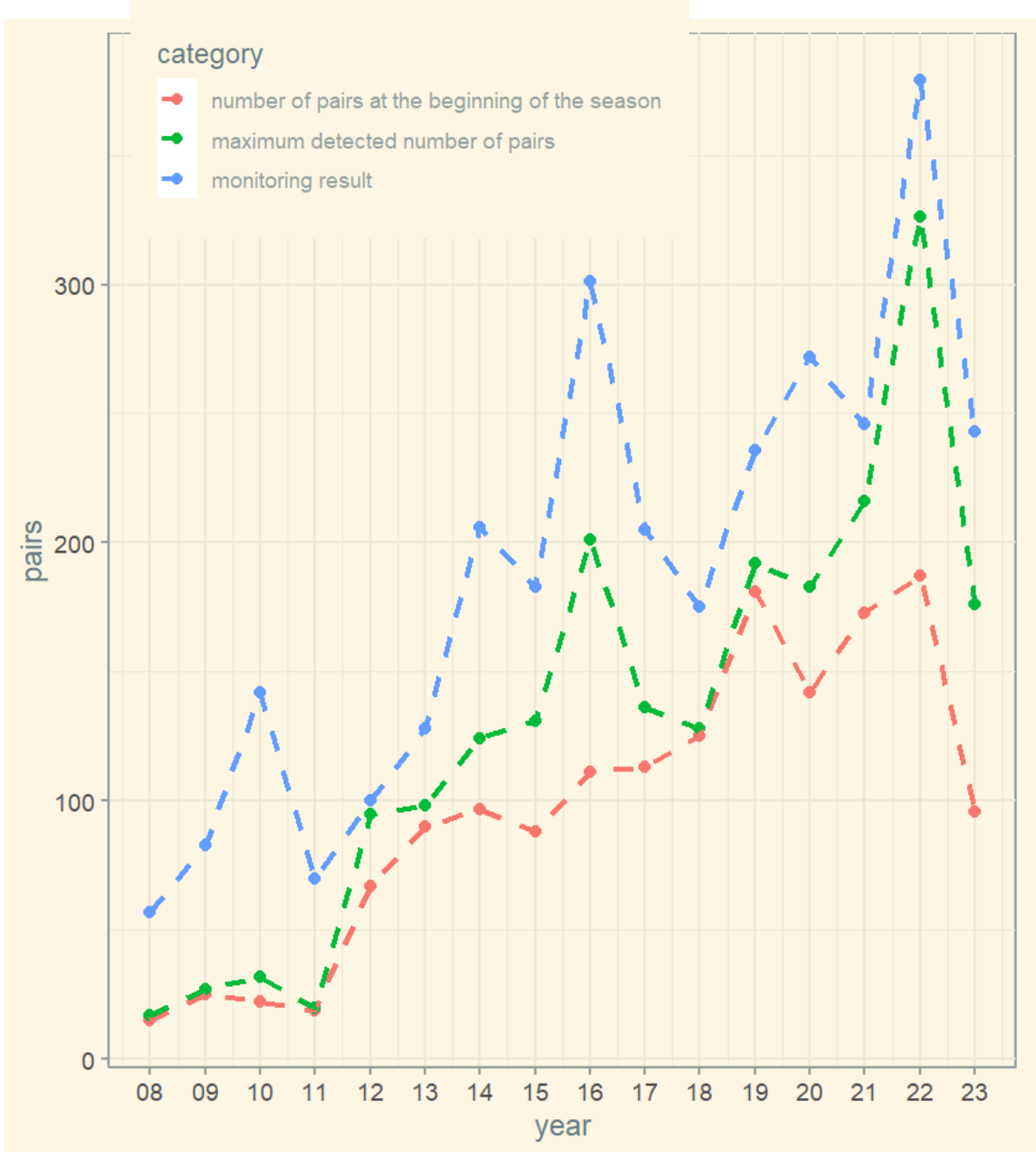


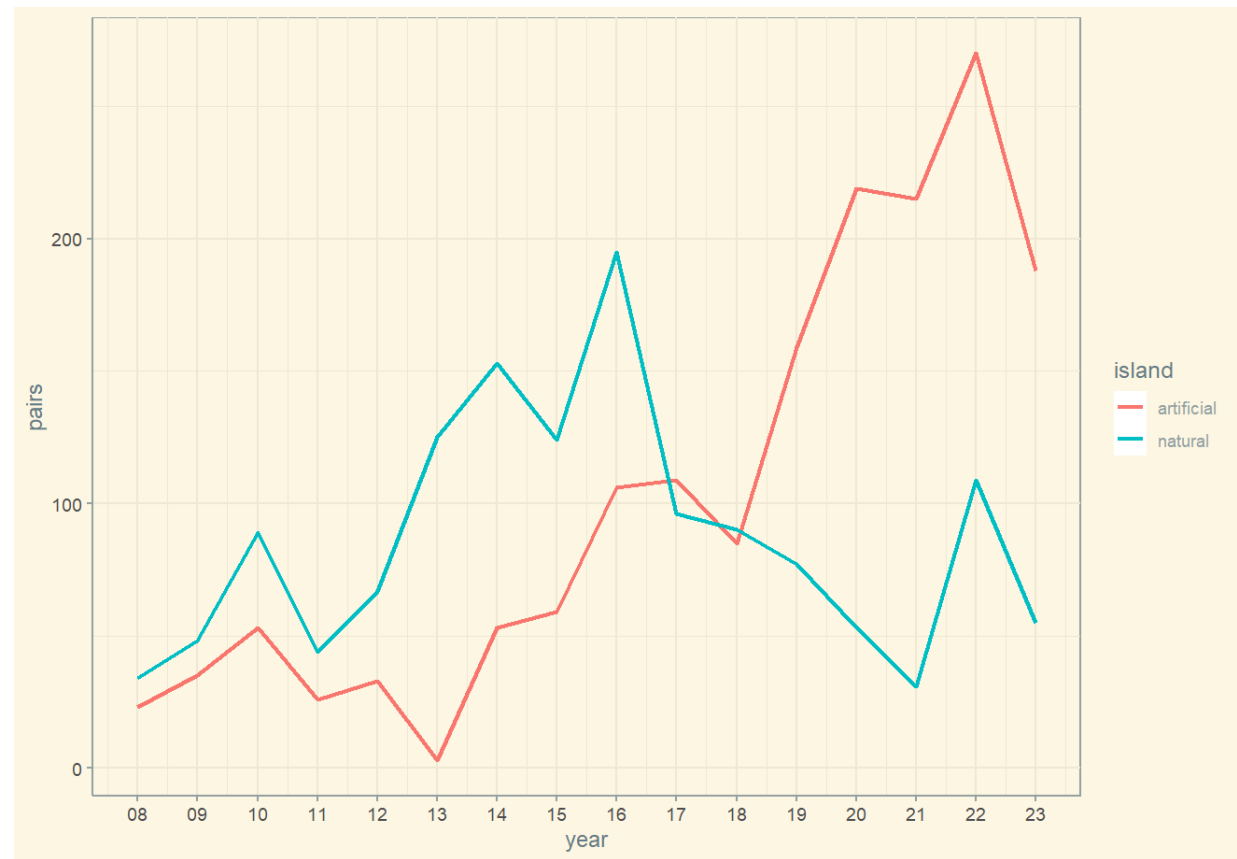
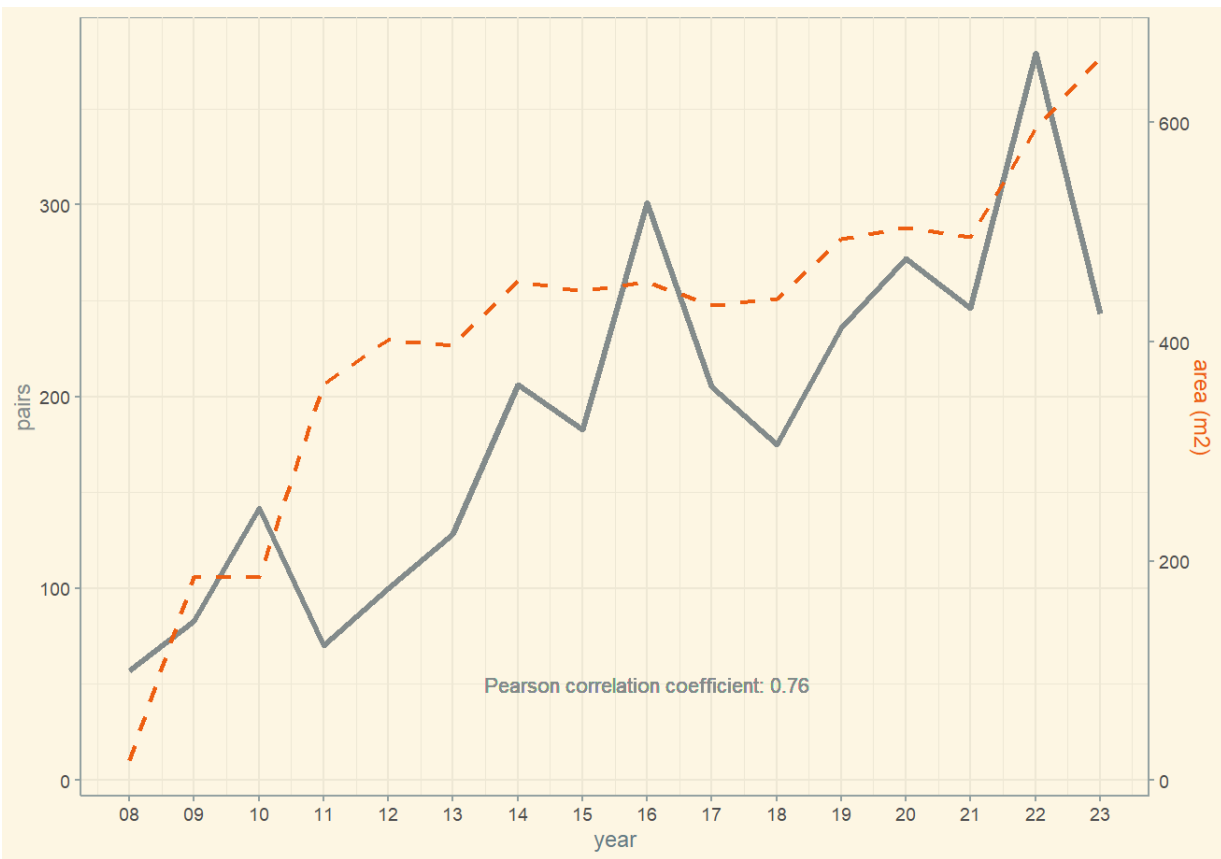
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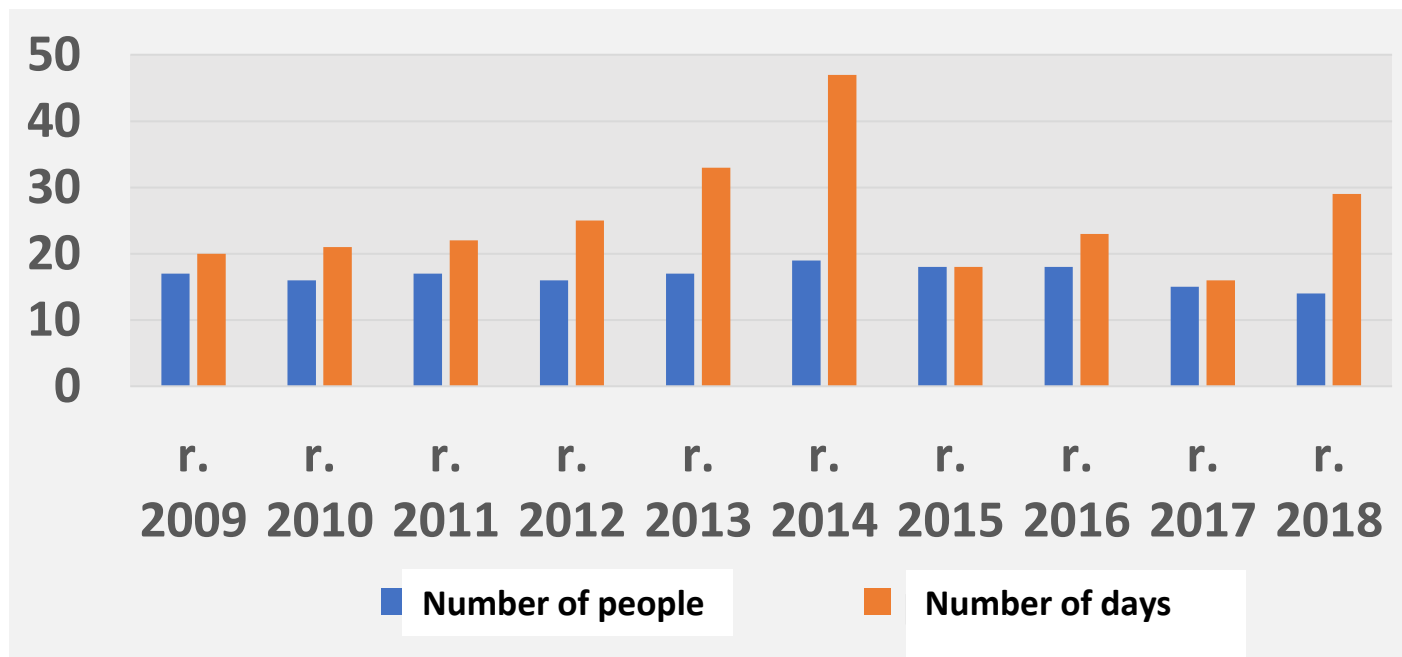
+ **safe** against mammals predation
- measures for few species
- fallen-out chicks cannot return - kindergartens







Support of Common terms – volunteers and cooperation



Summary, future objectives and conclusion

- stable functional nesting sites safe from mammalian predators in multiple locations
- no more wooden islands
- natural islands management because of biodiversity
- the size of the present managed areas is OK
- cooperation with fishermen is possible
- protection of natural nesting sites



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Acknowledgment



volunteers



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