

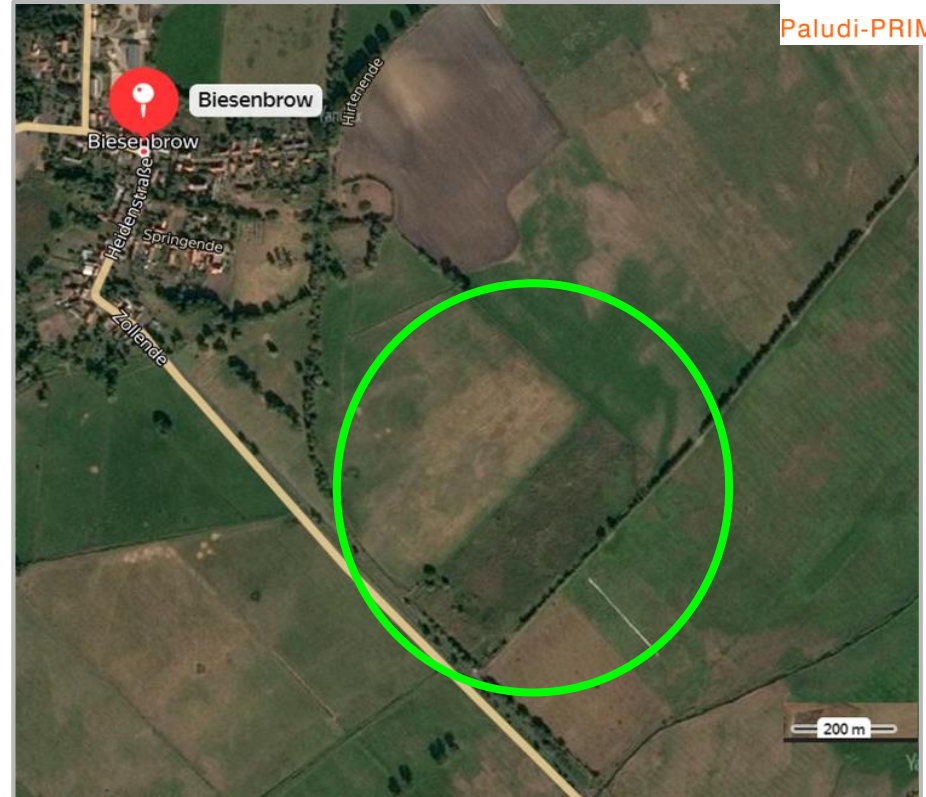
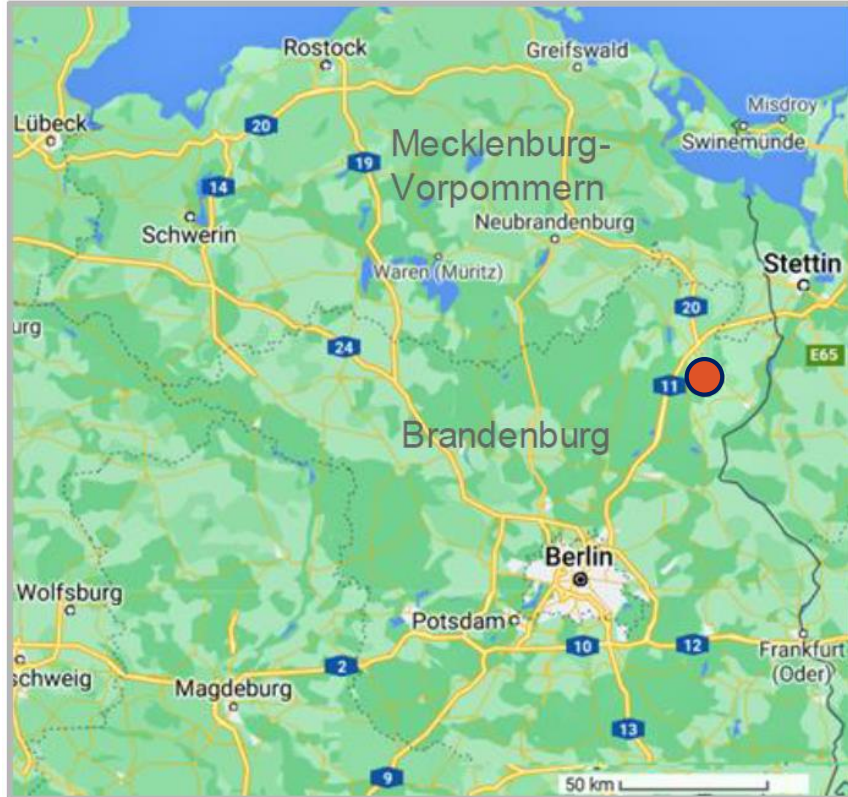


HOW CAN THE POPULATION GENETIC DIVERSITY OF COMMON REED, *PHRAGMITES AUSTRALIS*, CHANGE OVER 24 YEARS?

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Location of the «Biesenbrow Project»

(started in 1996 - 1998)



- 10 ha
- 2 methods for water logging
- different establishment methods, plant material, water regimes

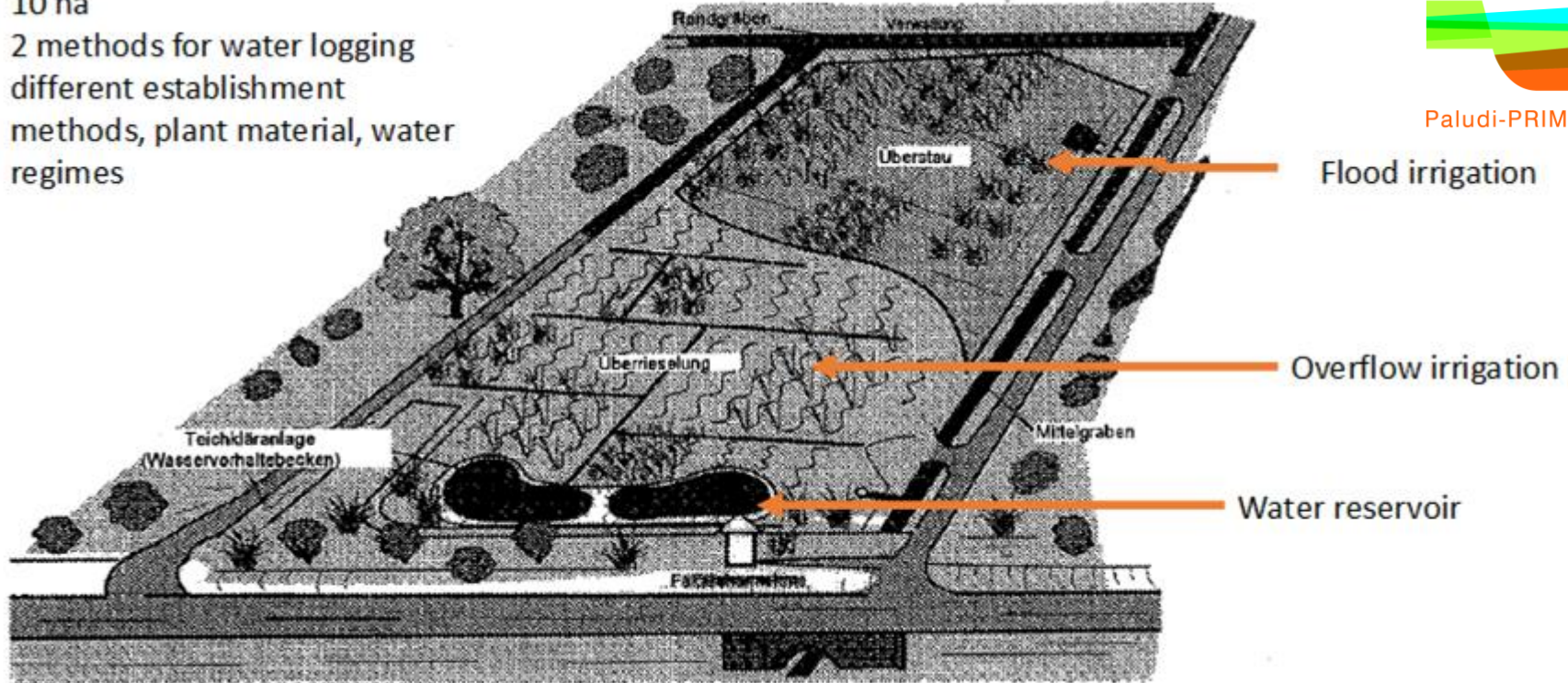
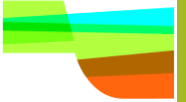


Figure 1 Schematic overview of the investigation area in Biesenbrow, Northeastern Germany

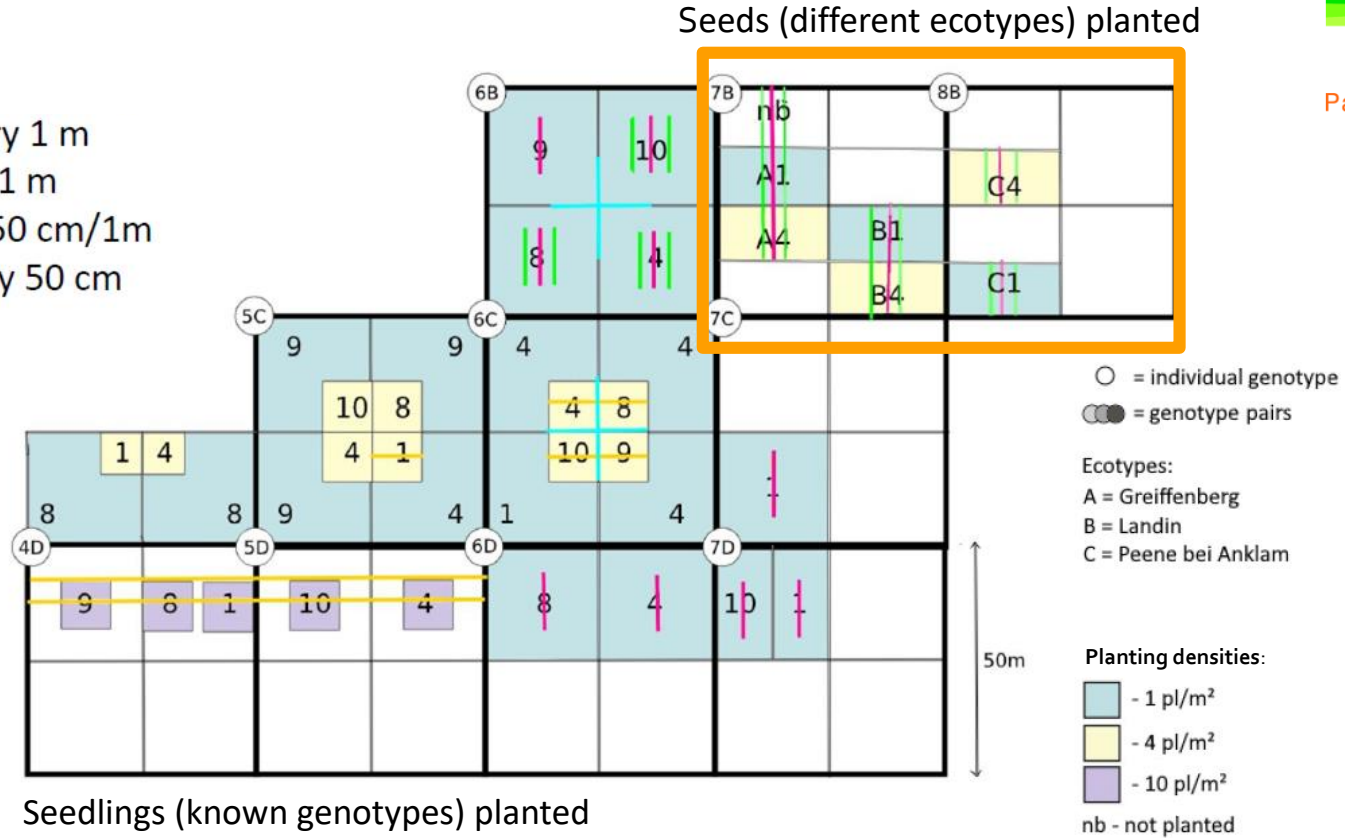


Research questions:

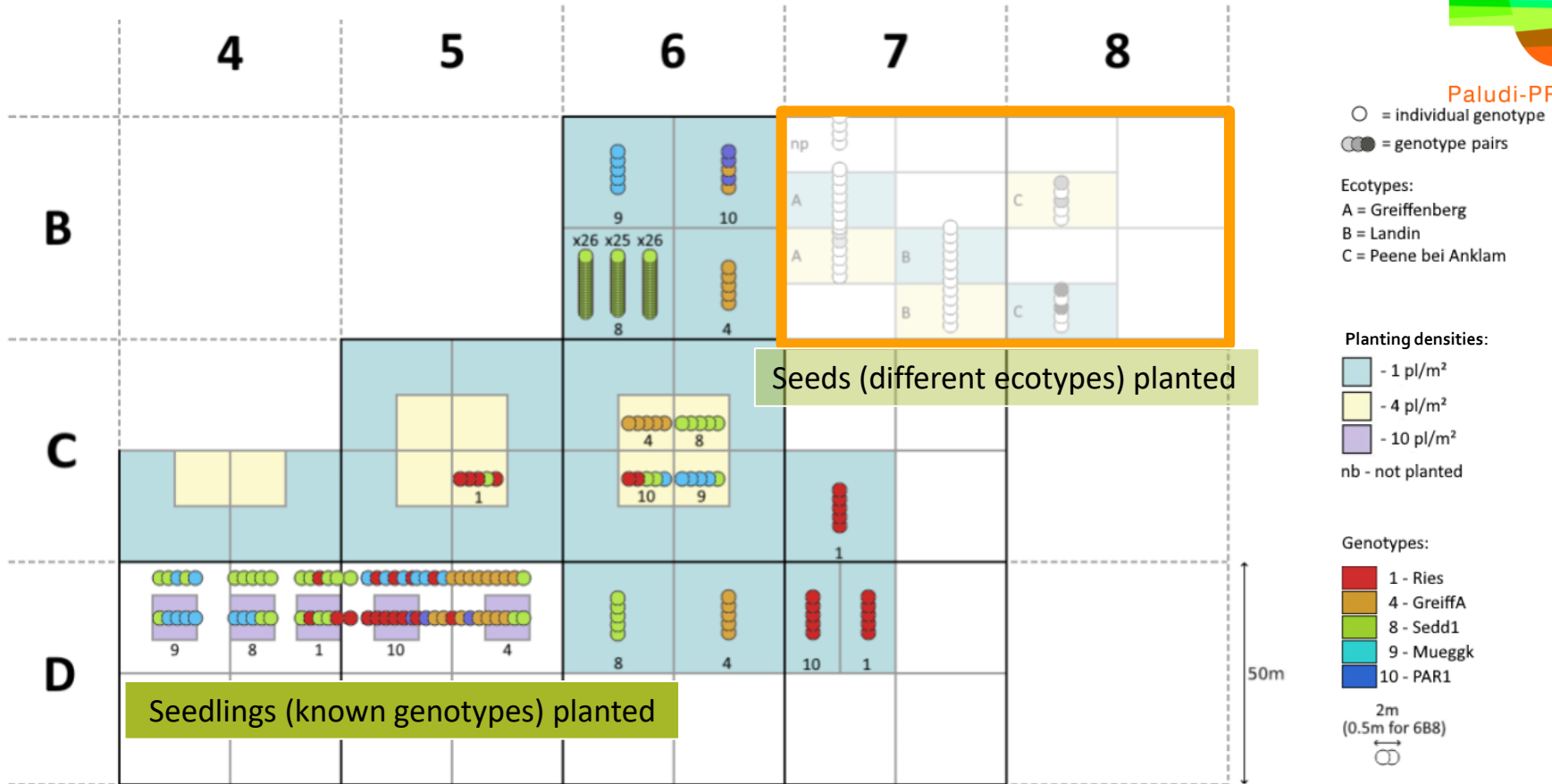
1. Is it possible to detect five original genotypes?
2. Which genotype is better adapted to the environment among the five?
3. How is the genotypic diversity affected by the planting density and the number of genotypes in the long term?
4. Is there any possibility of seed immigration to monoclonal plots?

Sampling

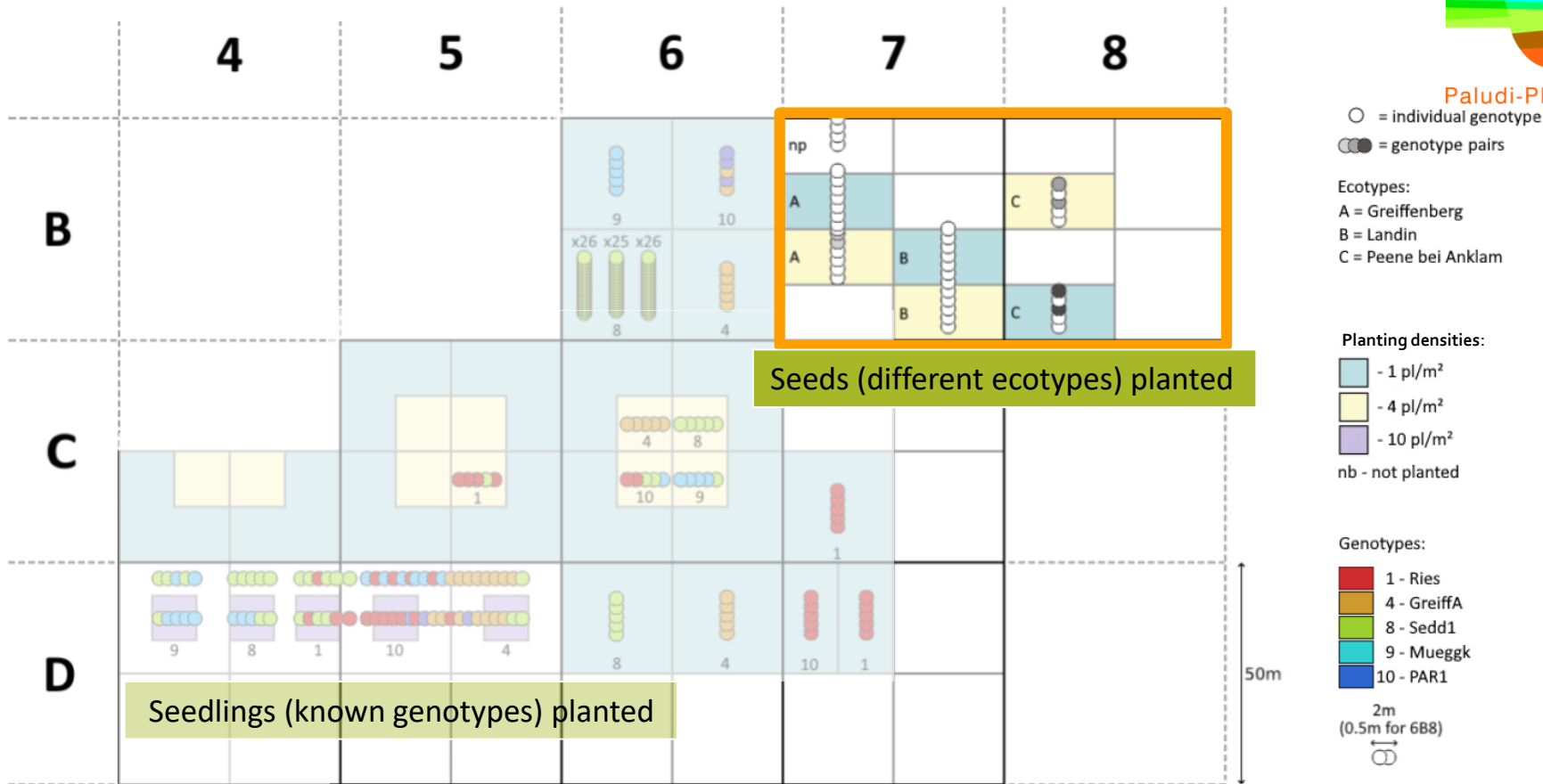
- Yellow – every 1 m
- Blue – every 1 m
- Red – every 50 cm/1m
- Green – every 50 cm



Results

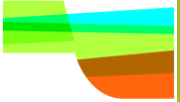


Results



Seeds (different ecotypes) planted

Seedlings (known genotypes) planted



Conclusions:

1. Five original genotypes were detected
2. Two genotypes (1 and 8) showed the highest degree of persistence and interference; one genotype (10) is the least competitive
3. Plots with lower planting density (1 pl/m²) tend to be monoclonal
4. Multiclonal plots (planted with seeds) keep their diversity for over 20 years
5. There were no clear signs of any seed immigration