



Monitoring and conservation of aquatic genetic resources in the Netherlands

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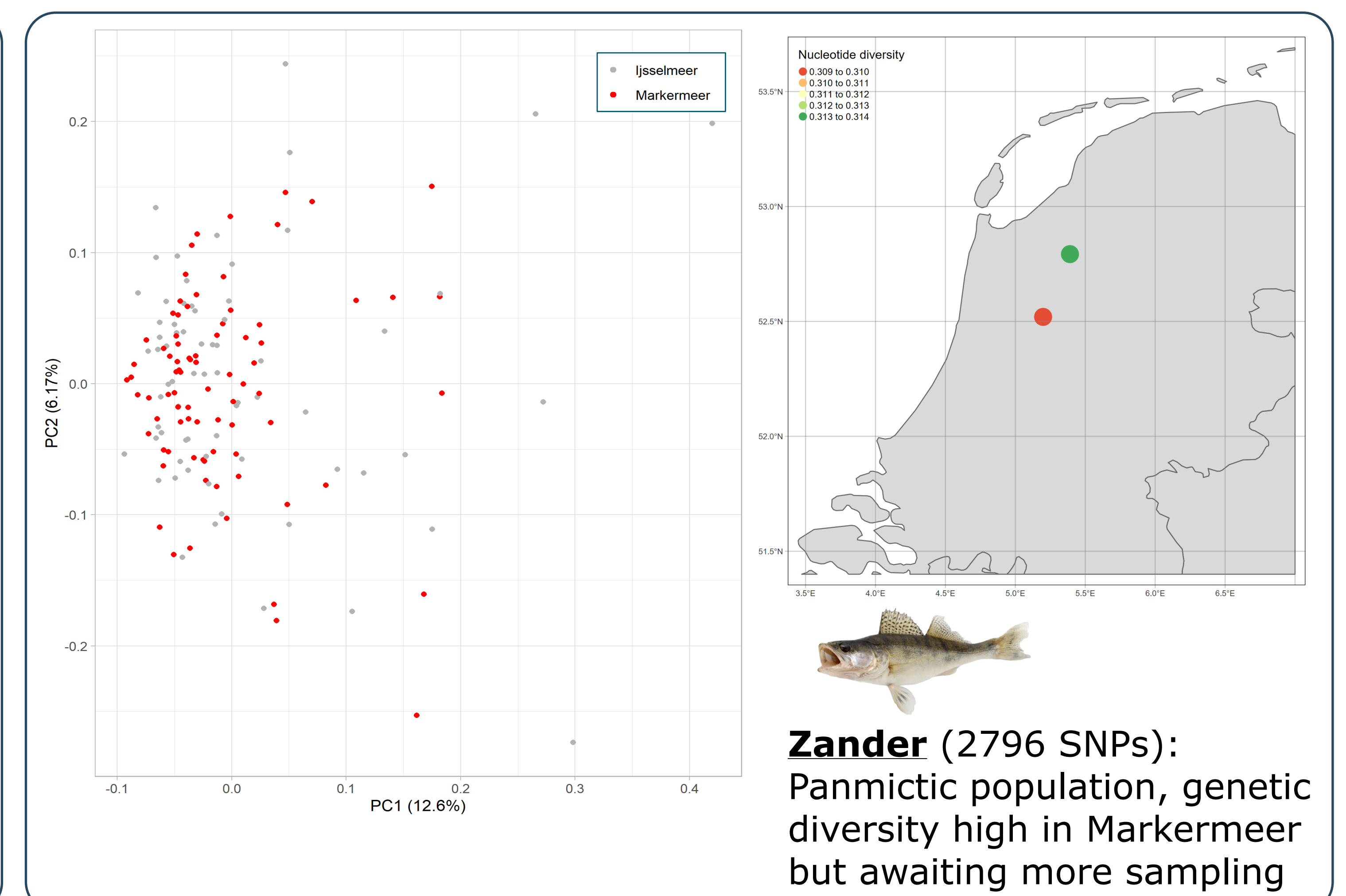
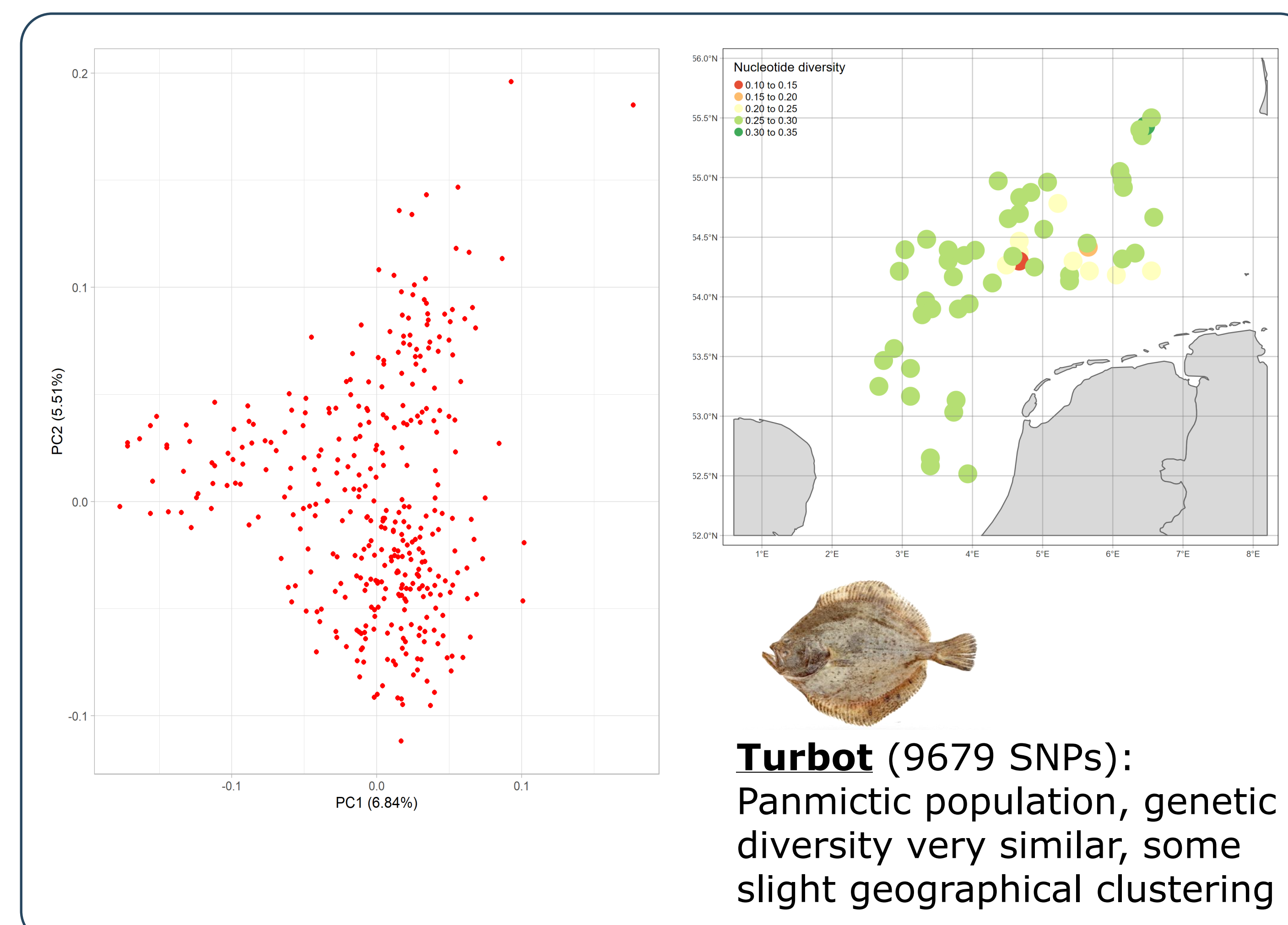
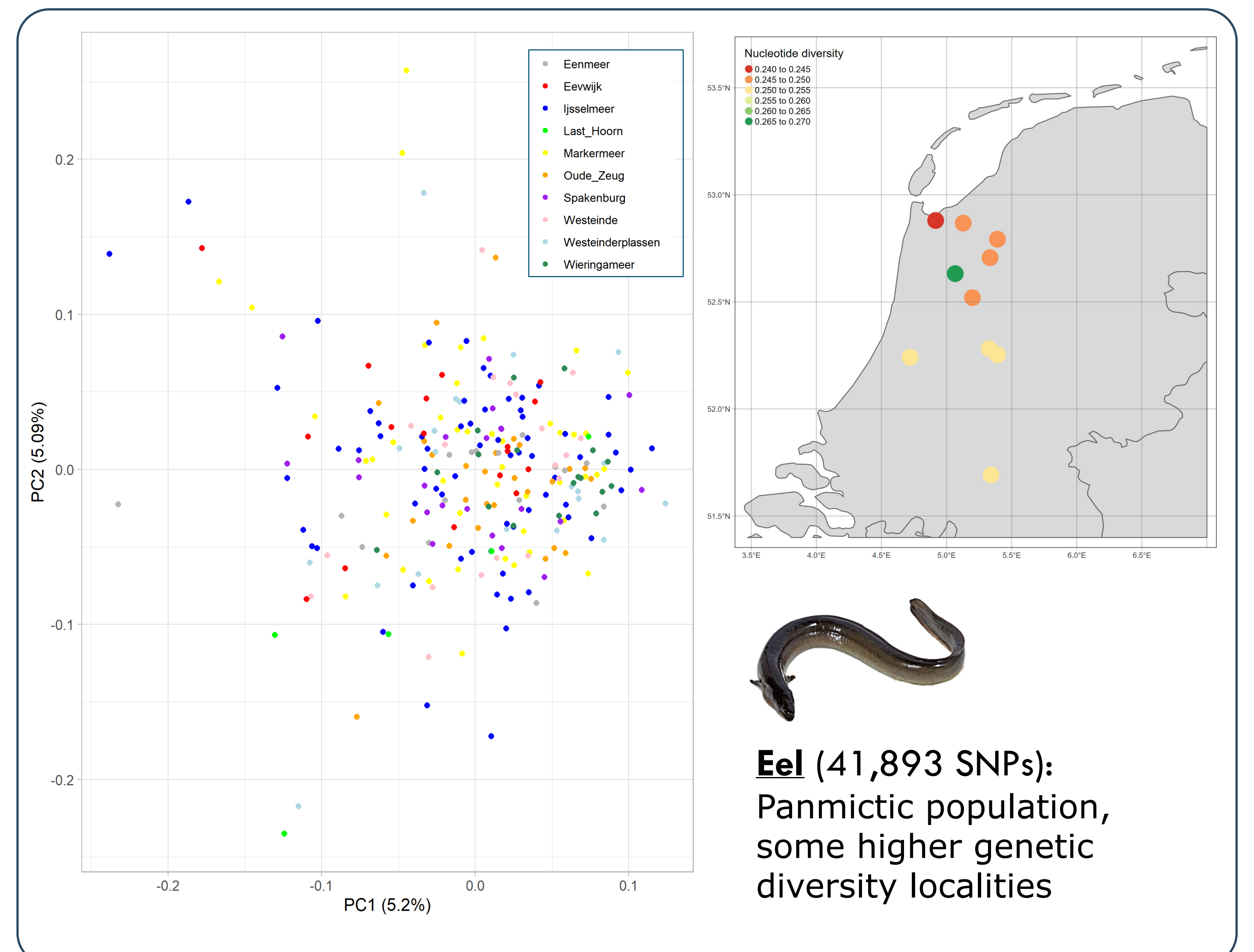
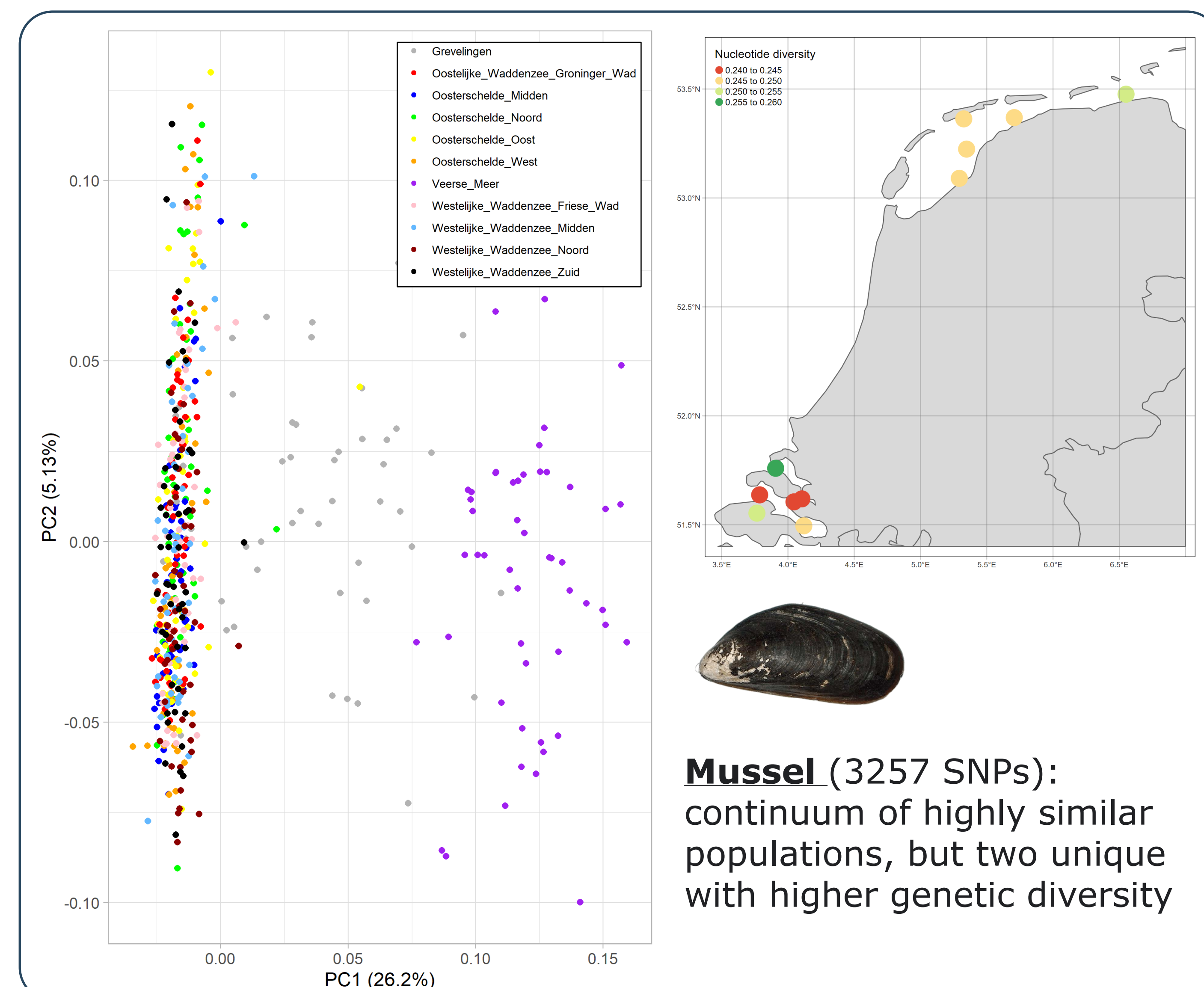
Introduction

- Centre for Genetic Resources, the Netherlands, Wageningen University & Research conducts Statutory Research Tasks, that arise from obligations of the Ministry of Agriculture, Fisheries, Food Security and Nature, based on (inter)national legislation
- Here we report on our first genetic monitoring results (2022-2023) using population genomic data for Mussel (*Mytilus edulis*), Turbot (*Scophthalmus maximus*), European eel (*Anguilla anguilla*) and Zander (*Sander lucioperca*)

Methods

- We generated ddRAD-seq data for each species (pstI and mspI enzymes, mean coverage of 5x):
- Reads were aligned to each species reference genome and Stacks 2.46 was used to call SNPs (min-maf 0.05, max 20% missing data)
- SNPs were used to assess population structure (using Plink), Nucleotide diversity (Stacks) and private alleles (ADZE)

Results



Conclusions

- Genetic monitoring of selected species to continue in coming years. Flat oyster, Pacific oyster, glass eel and various seaweed species to be analysed soon, providing further baseline data for additional species
- Our work forms a basis for genetic monitoring of selected aquatic species in the Netherlands and assists the improvement of national policies, legislation, research and education concerning the conservation, sustainable use and development of aquatic genetic resources

