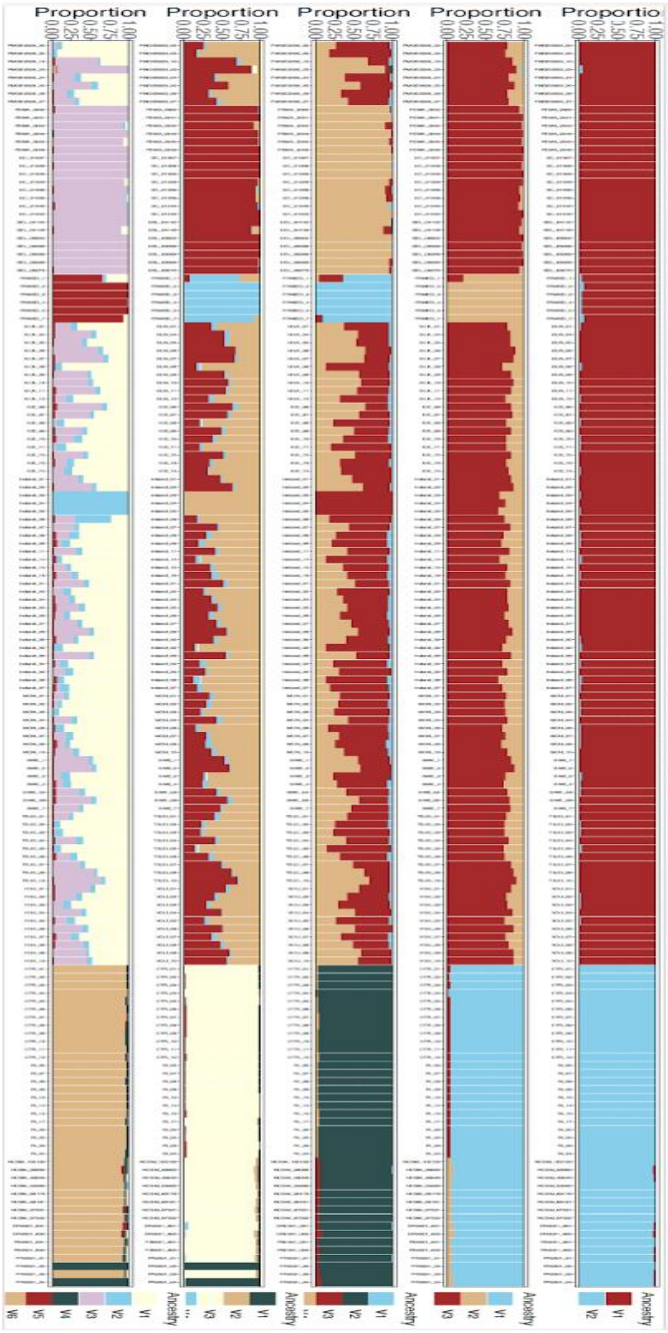
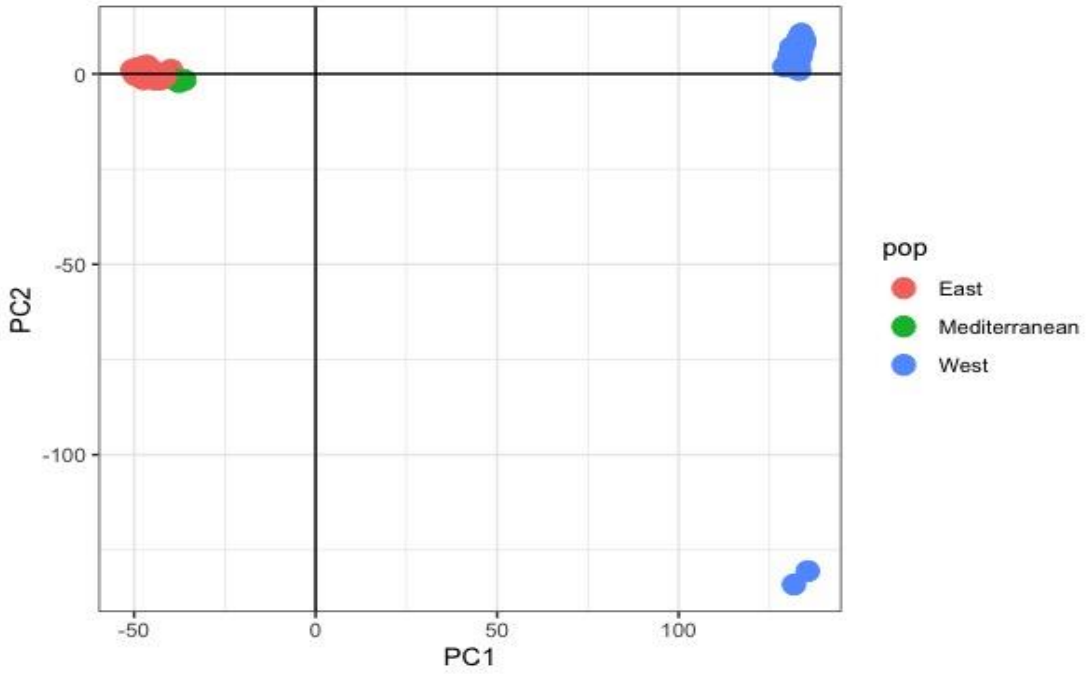
Past & Contemporary Patterns of Marine Biodiversity: Making Inferences from Anadromous Sea Lamprey Population Genomics & Publicly Archived Genetic Data

PhD Thesis Eleana Karachaliou

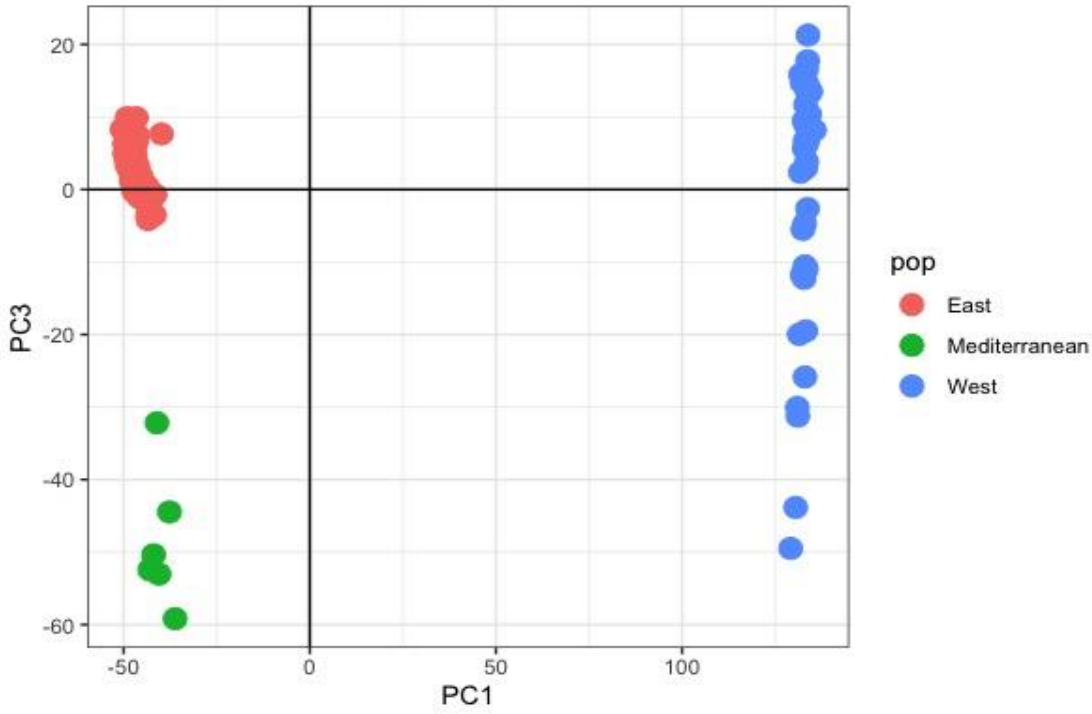
Supplemental Information 2



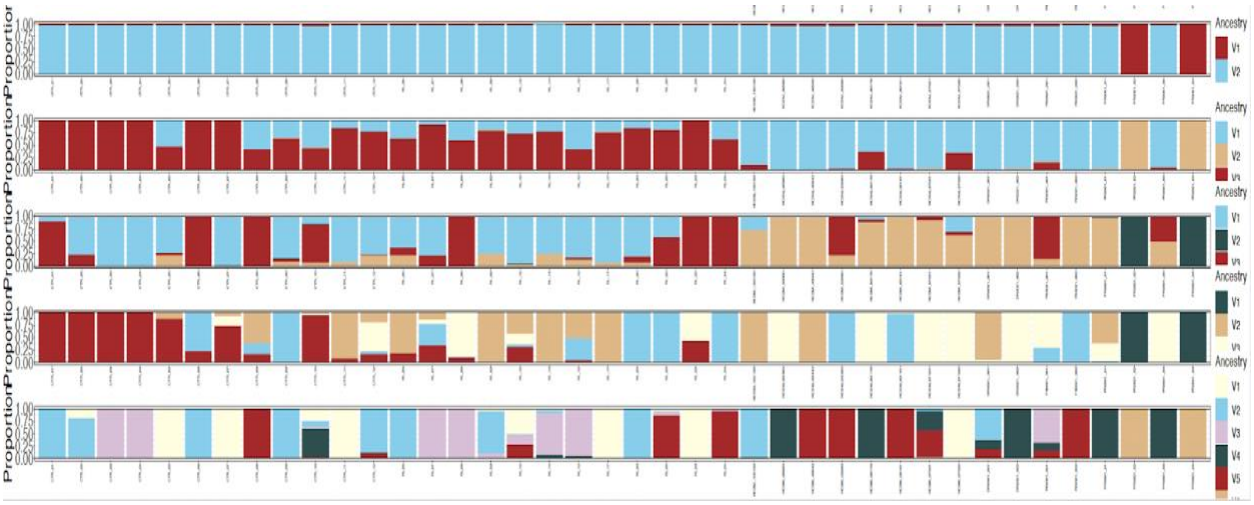
SI.2.1. Plot of ancestry coefficients estimated using snmf in LEA[1] for all sea lamprey samples for K=2-6.



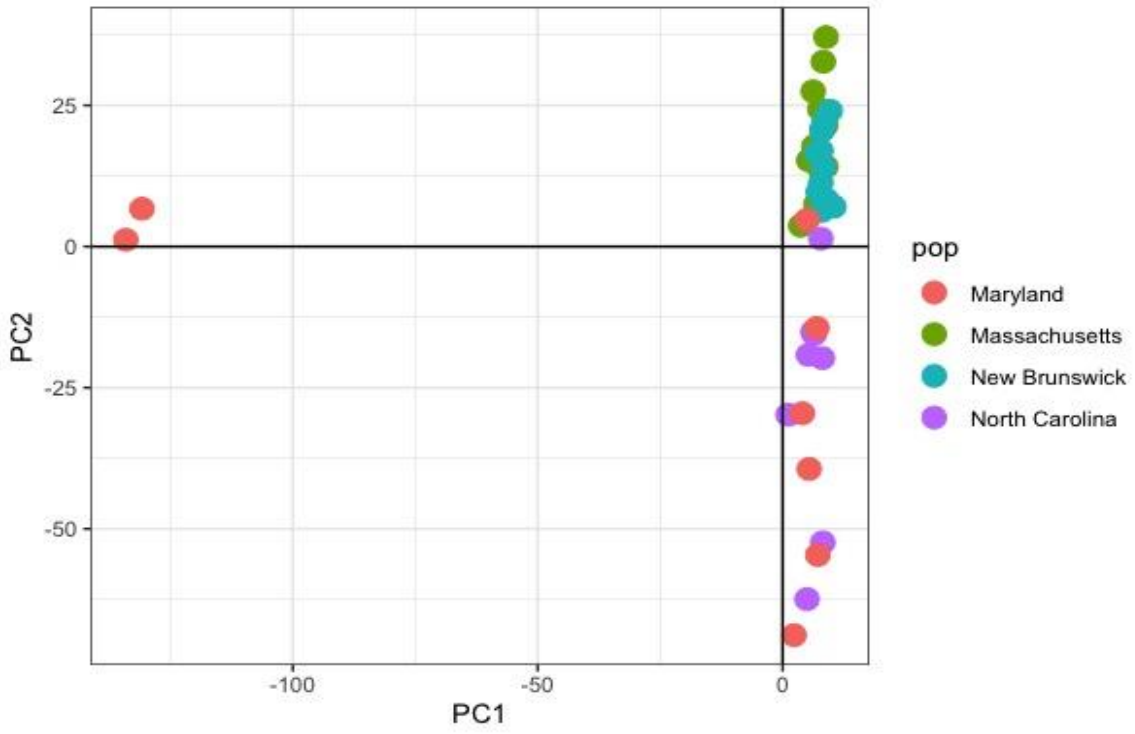
SI.2.2. PCA for all sea lamprey samples.



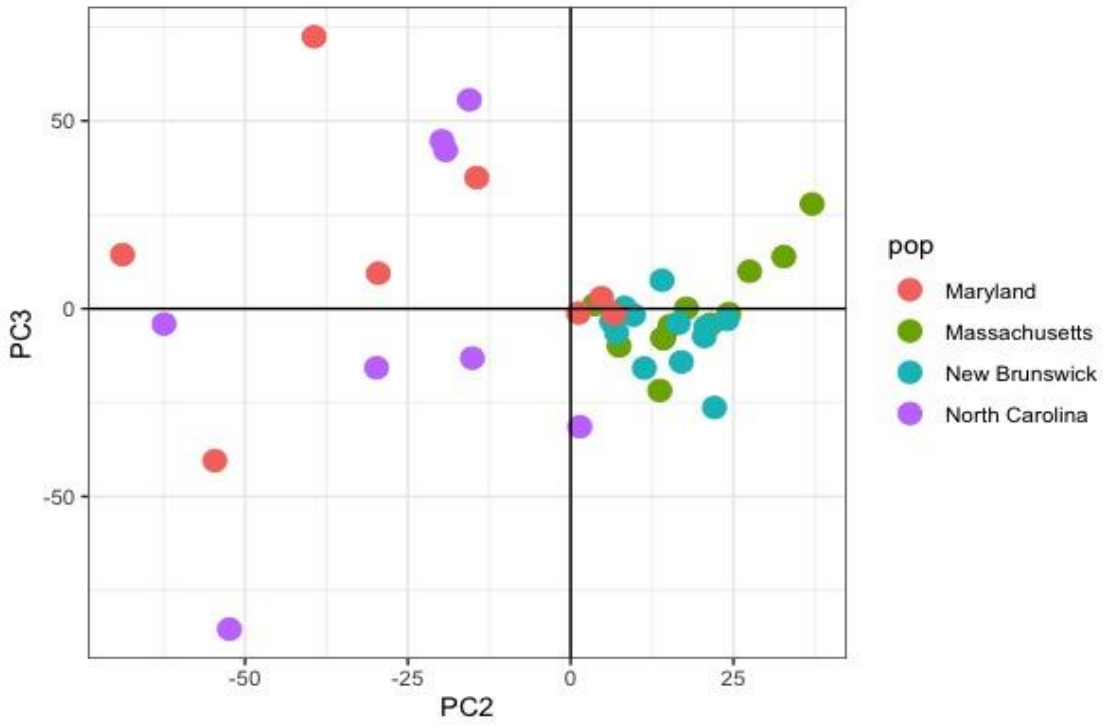
SI.2.3. PCA for all sea lamprey samples.



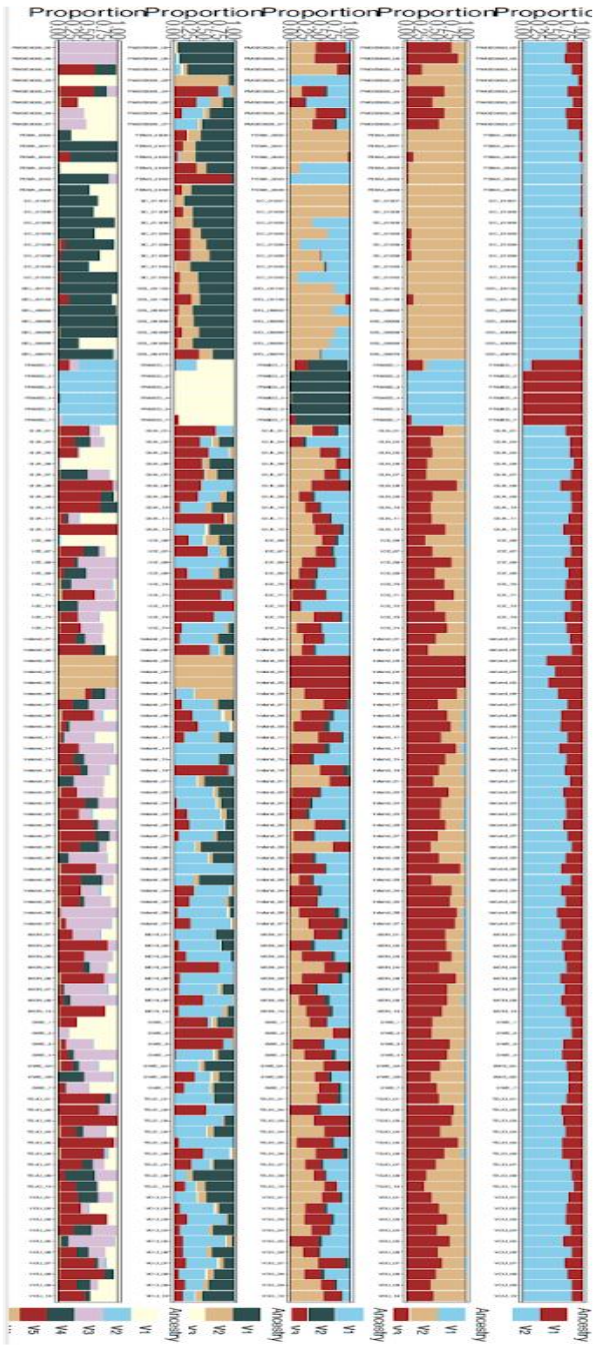
SI.2.4. Plot of ancestry coefficients estimated using snmf in LEA[1] for West Atlantic/North American sea lamprey samples for K=2-6.



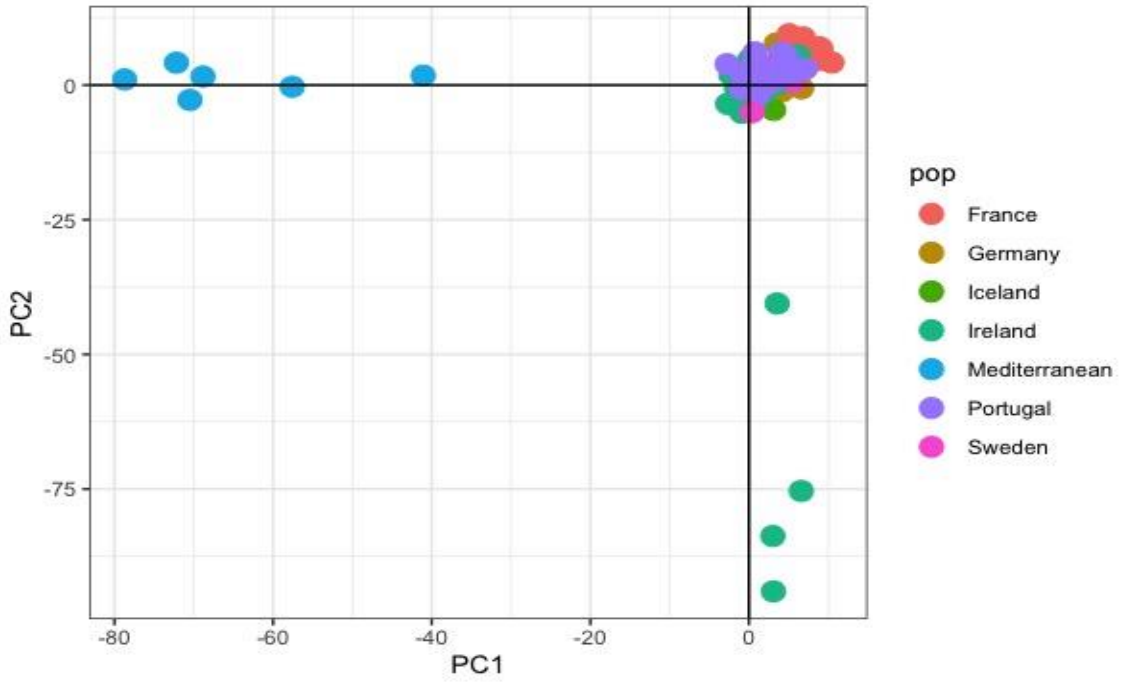
SI.2.5. PCA for West Atlantic/North American sea lamprey samples.



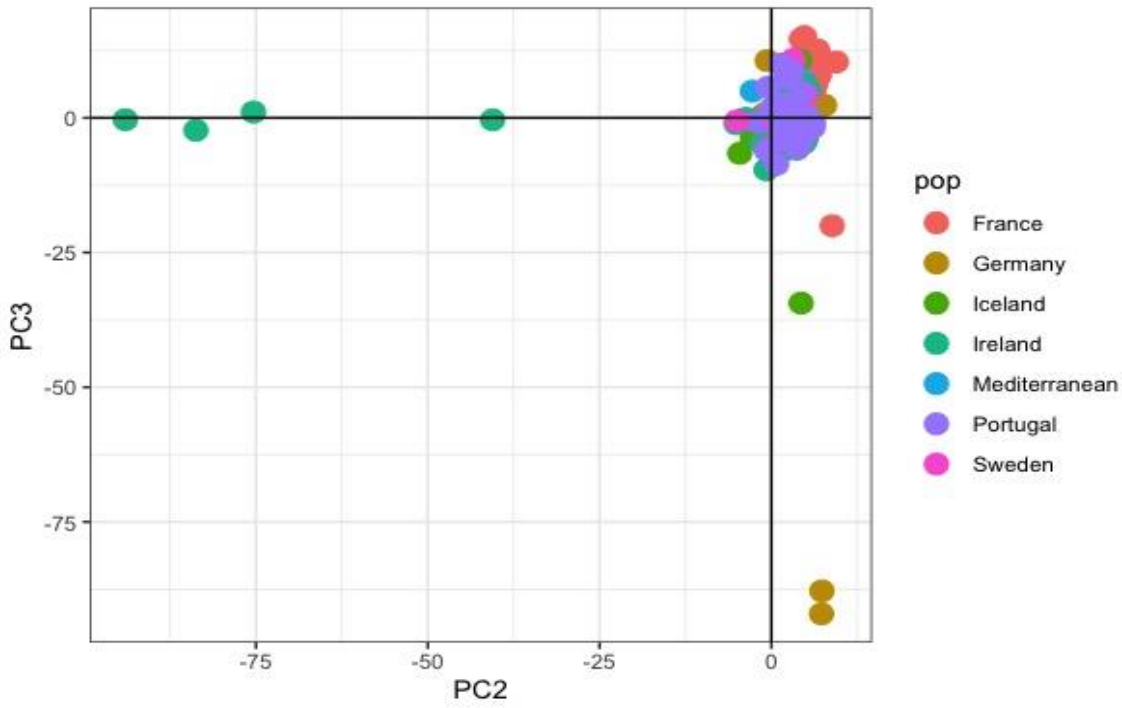
SI.2.6. PCA for West Atlantic/North American sea lamprey samples.



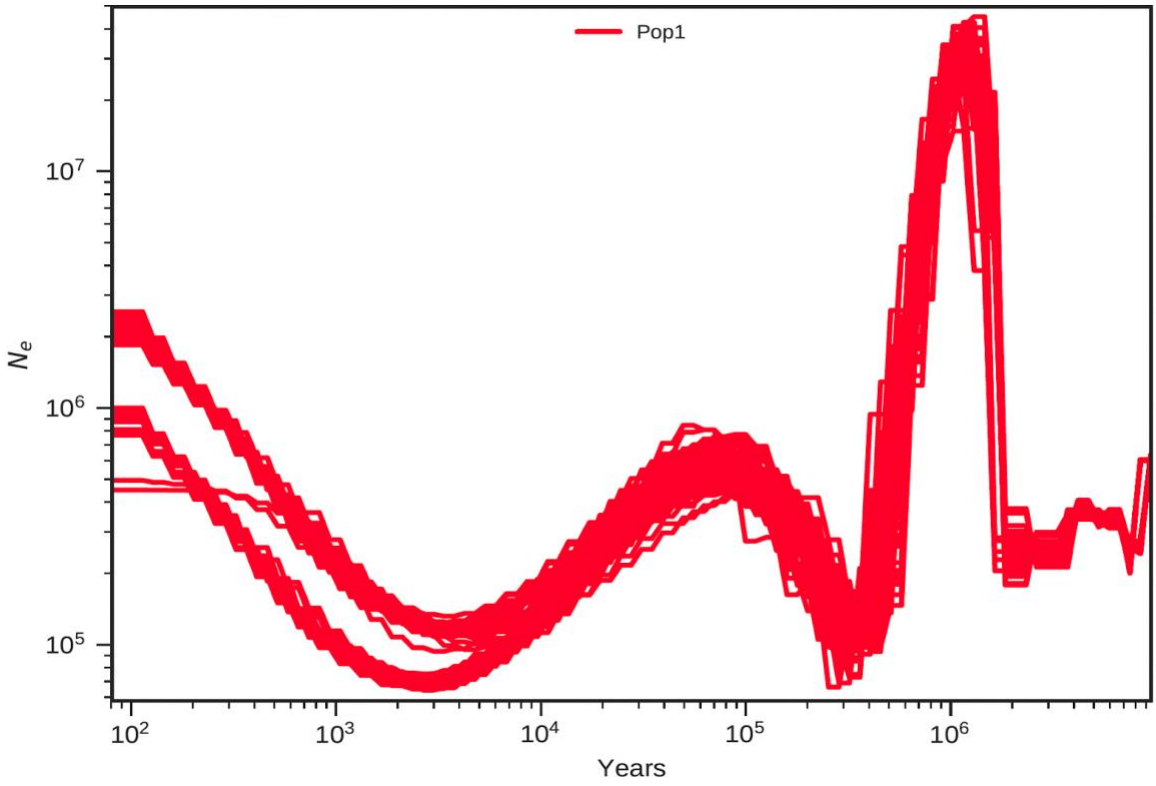
SI.2.7. Plot of ancestry coefficients estimated using snmf in LEA[1] for East Atlantic and Mediterranean European sea lamprey samples for K=2-6.



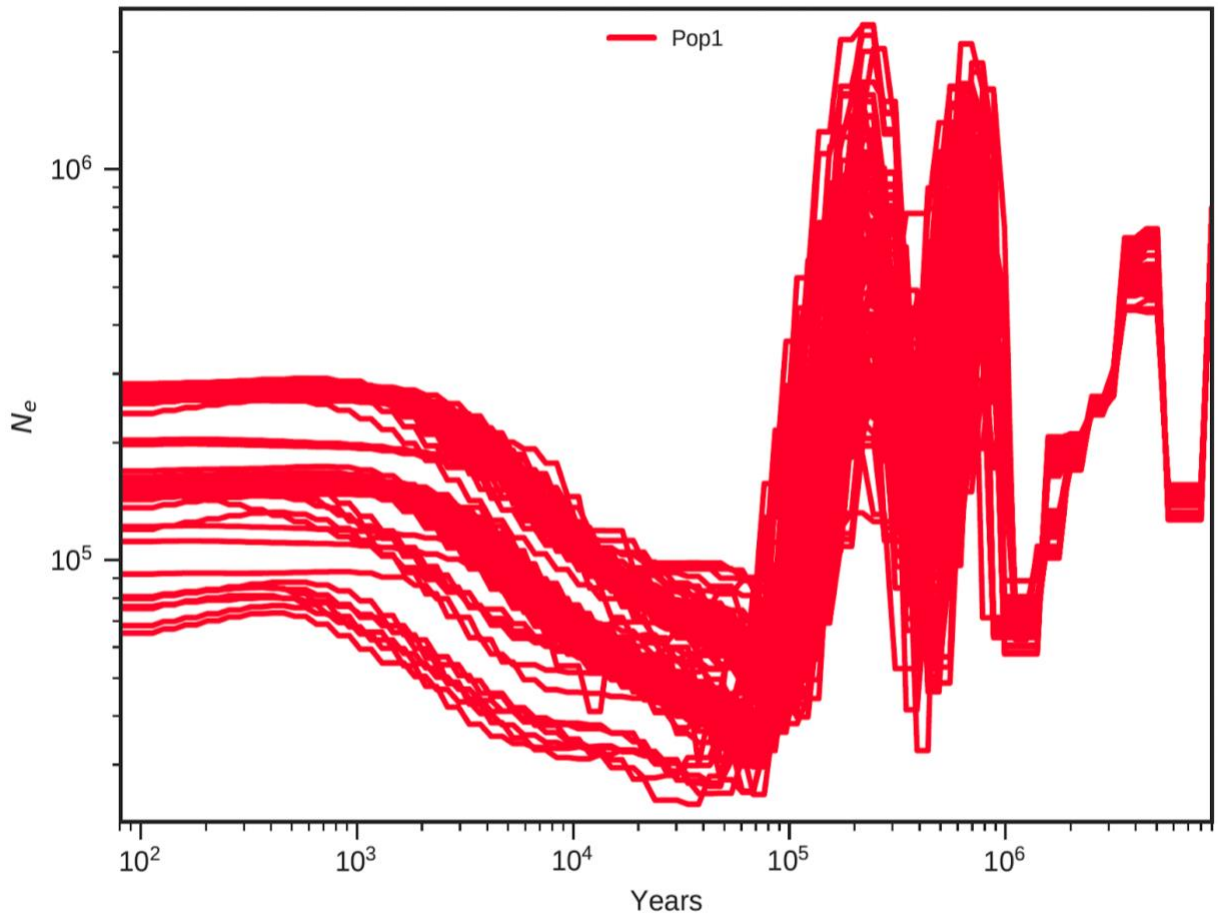
SI.2.8. PCA for East Atlantic and Mediterranean European sea lamprey samples.



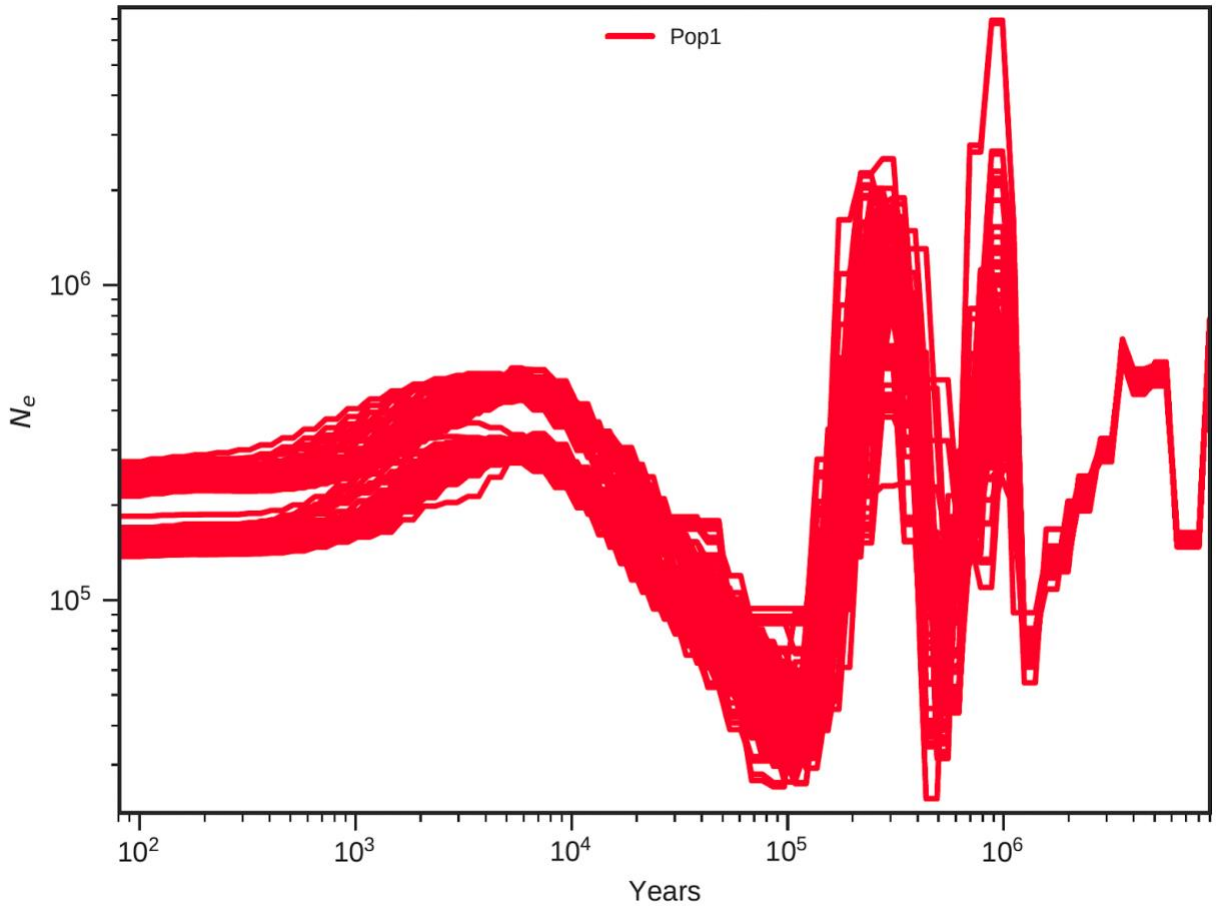
SI.2.9. PCA for East Atlantic and Mediterranean European sea lamprey samples.



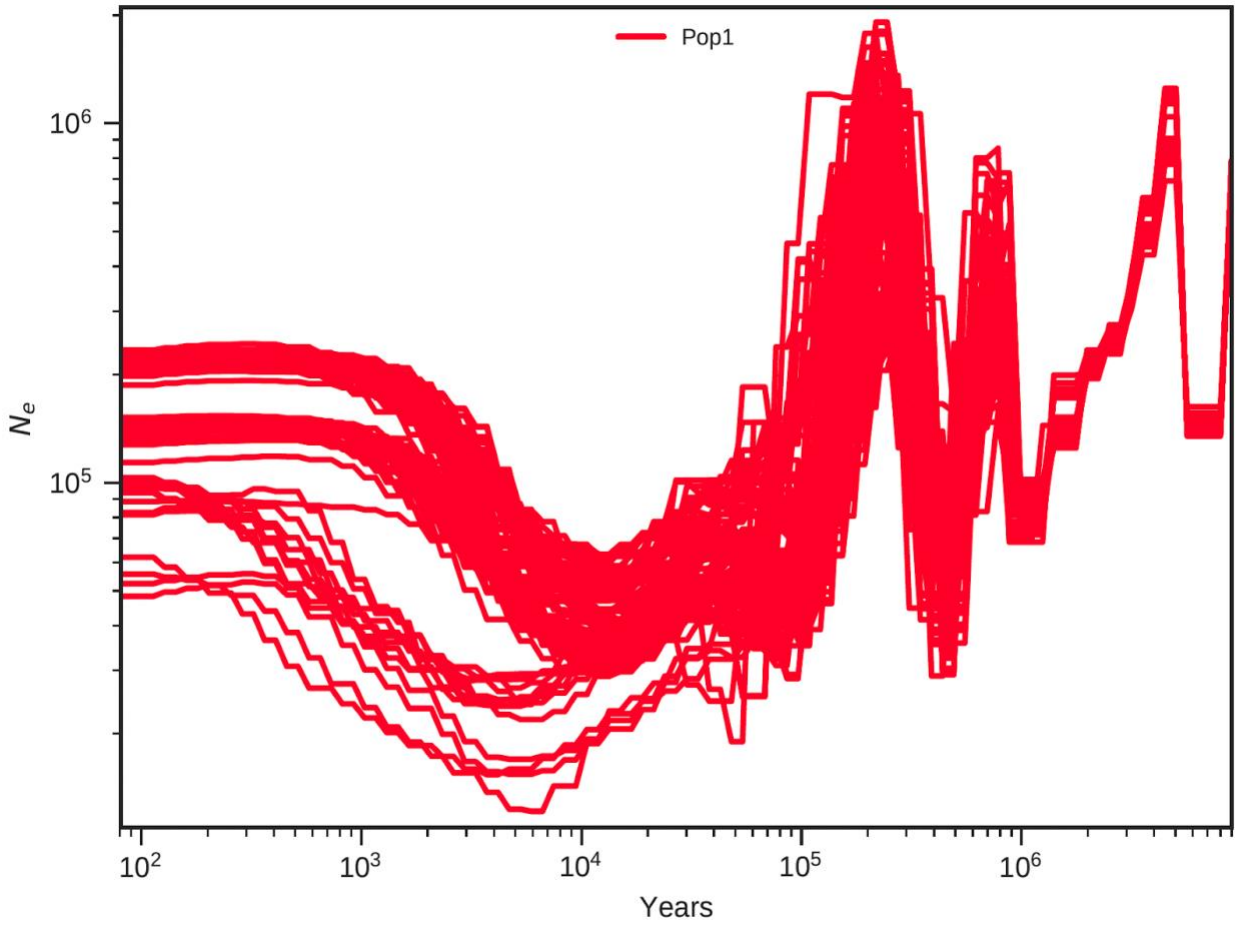
SI.2.10. Plot of 100 replicate model runs reconstructing deep evolutionary history for the West Atlantic North American coast. Effective population size on the y axis. Years back in time based on a pre generation mutation rate of 10^{-9} on the x axis. Models estimated across a timescale of 10 - 10^6 years ago. Analysis undertaken in SMC++ [2].



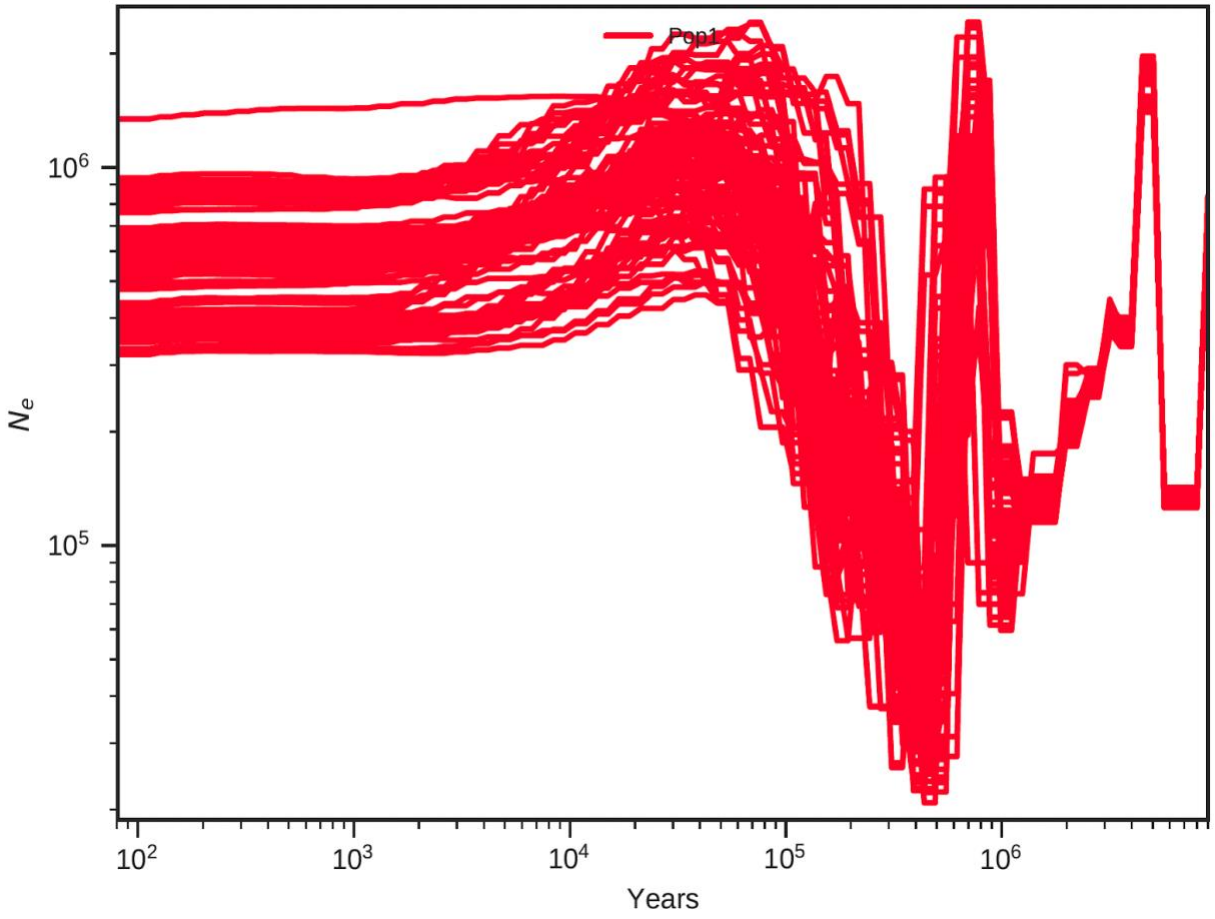
SI.2.11. Plot of 100 replicate model runs reconstructing deep evolutionary history for the French Mediterranean coast. Effective population size on the y axis. Years back in time based on a pre generation mutation rate of 10^{-9} on the x axis. Models estimated across a timescale of 10 - 10^6 years ago. Analysis undertaken in SMC++ [2].



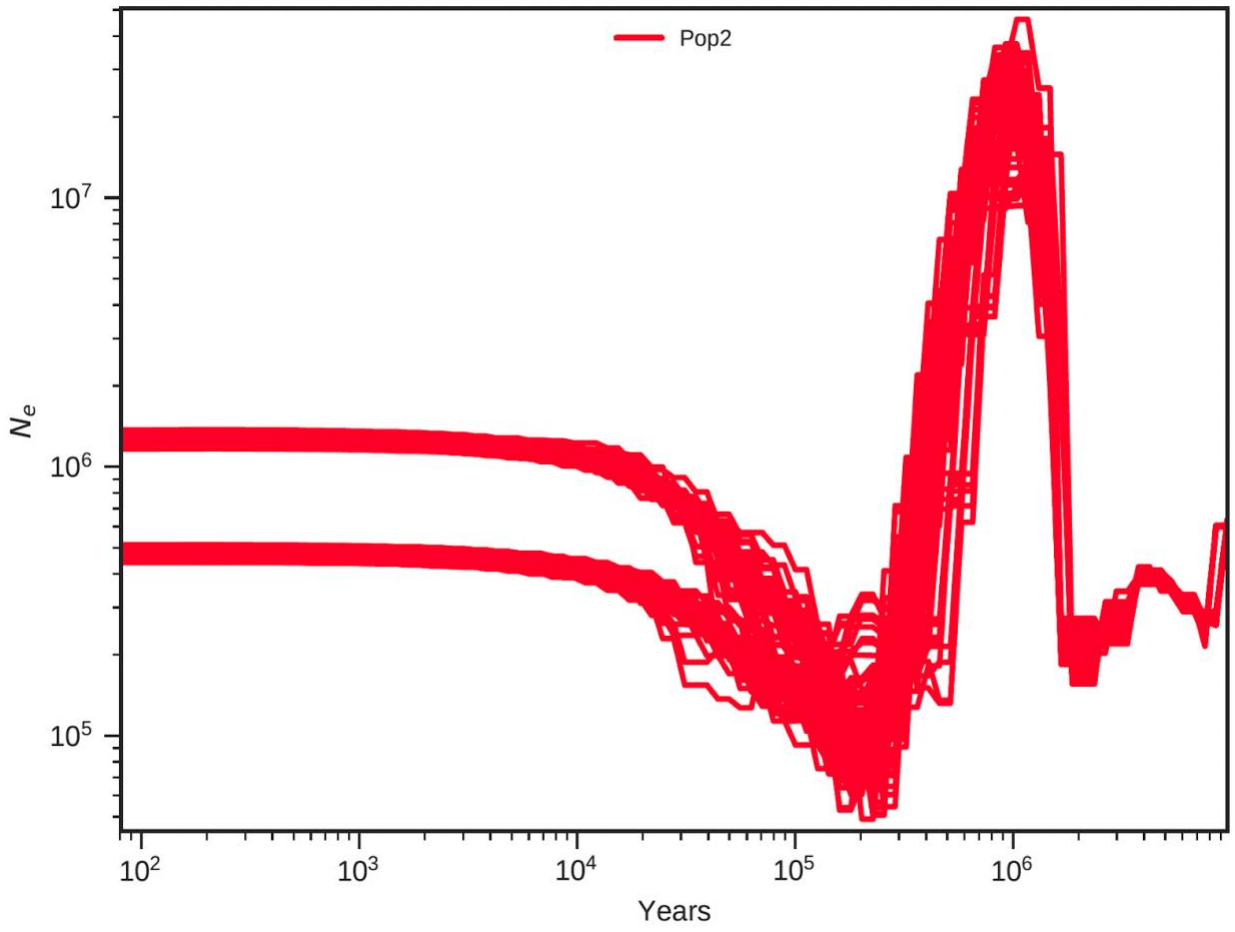
SI.2.12. Plot of 100 replicate model runs reconstructing deep evolutionary history for the French Atlantic coast. Effective population size on the y axis. Years back in time based on a pre generation mutation rate of 10^{-9} on the x axis. Models estimated across a timescale of 10 - 10^6 years ago. Analysis undertaken in SMC++ [2].



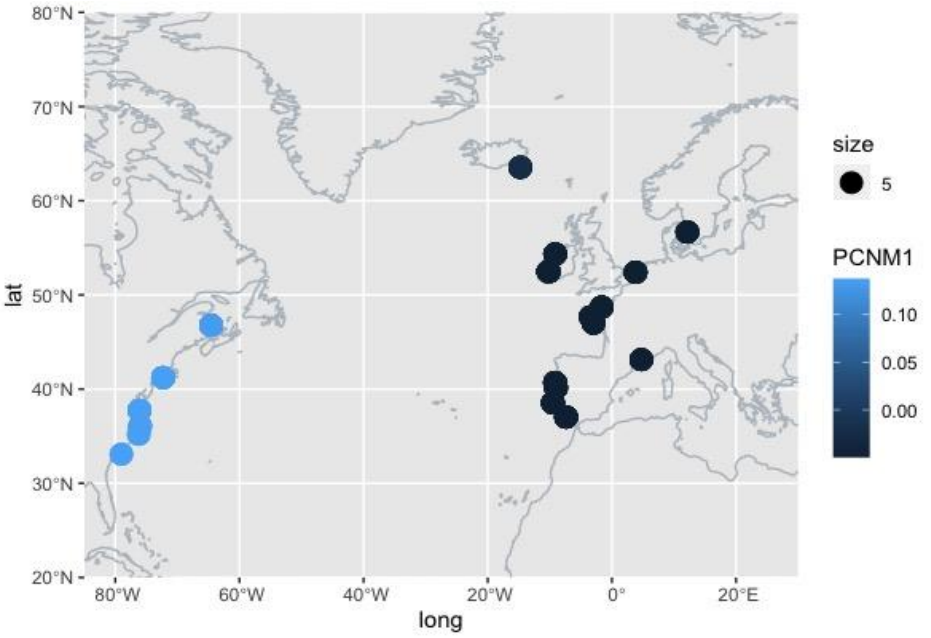
SI.2.13. Plot of 100 replicate model runs reconstructing deep evolutionary history for Portugal. Effective population size on the y axis. Years back in time based on a pre generation mutation rate of 10^{-9} on the x axis. Models estimated across a timescale of 10 - 10^6 years ago. Analysis undertaken in SMC++ [2].



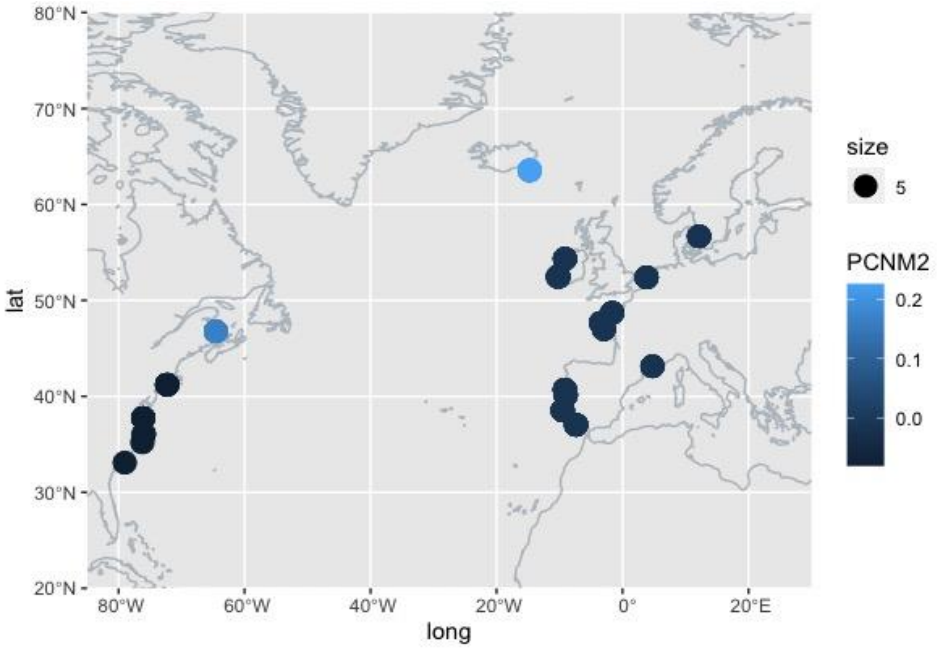
SI.2.14. Plot of 100 replicate model runs reconstructing deep evolutionary history for Germany. Effective population size on the y axis. Years back in time based on a pre generation mutation rate of 10^{-9} on the x axis. Models estimated across a timescale of 10 - 10^6 years ago. Analysis undertaken in SMC++ [2].



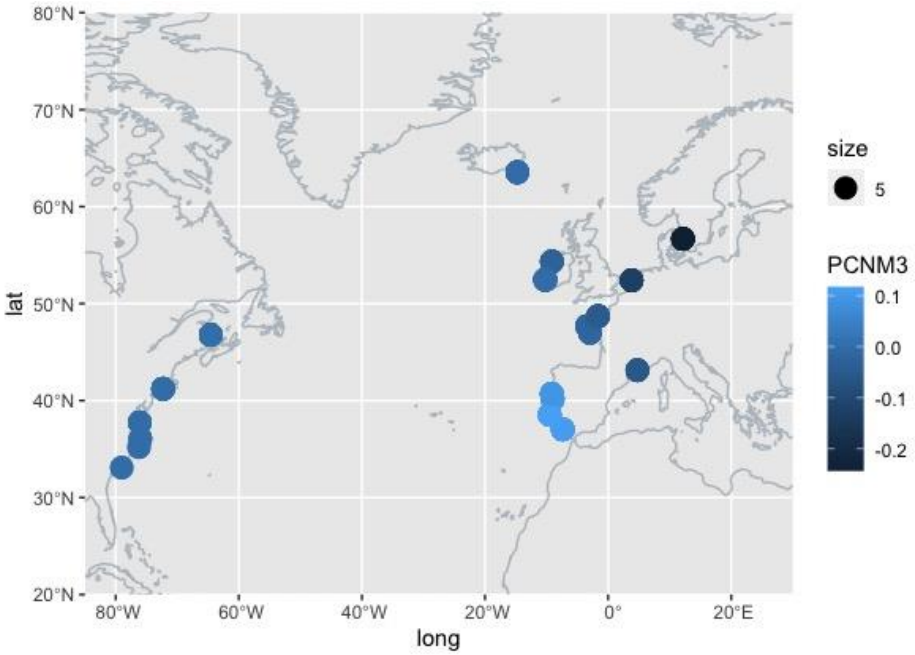
SI.2.15. Plot of 100 replicate model runs reconstructing deep evolutionary history for New Brunswick. Effective population size on the y axis. Years back in time based on a pre generation mutation rate of 10^{-9} on the x axis. Models estimated across a timescale of 10 - 10^6 years ago. Analysis undertaken in SMC++ [2].



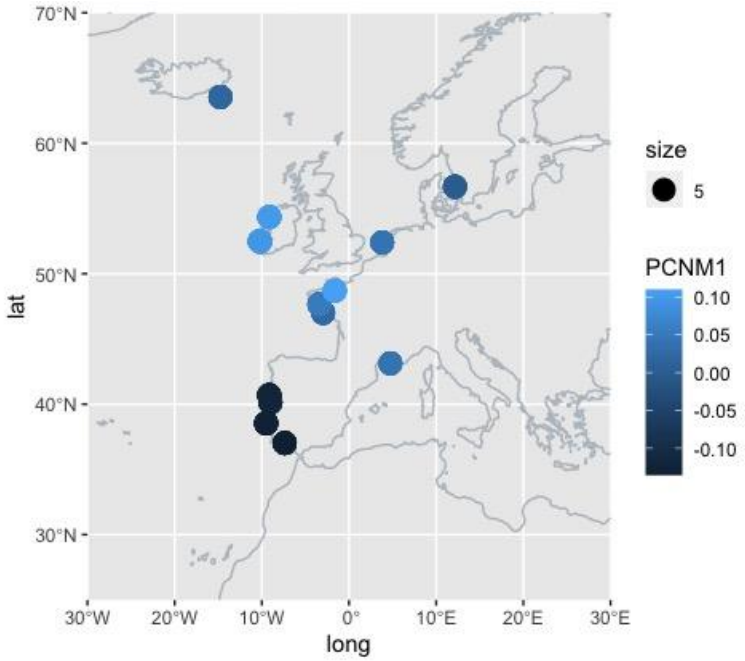
SI.2.16. PCNM1 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the entire dataset.



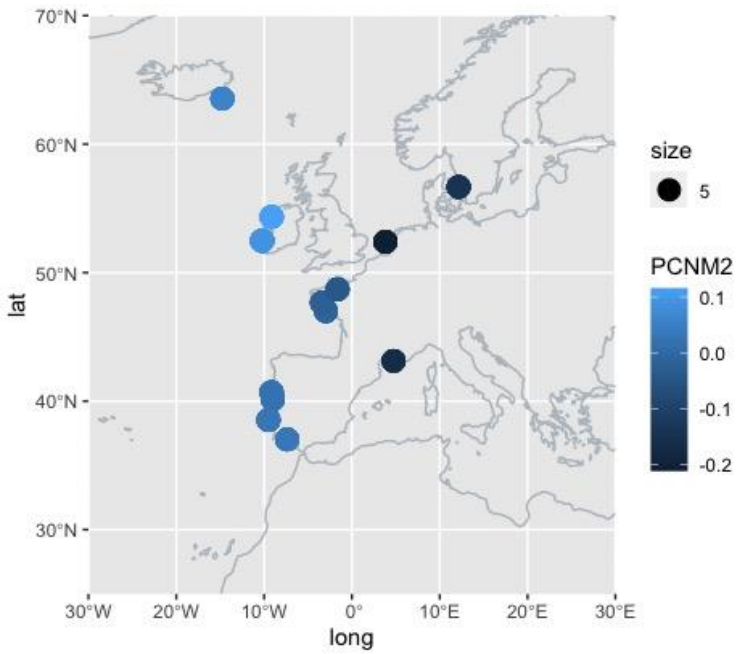
SI.2.17. PCNM2 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the entire dataset.



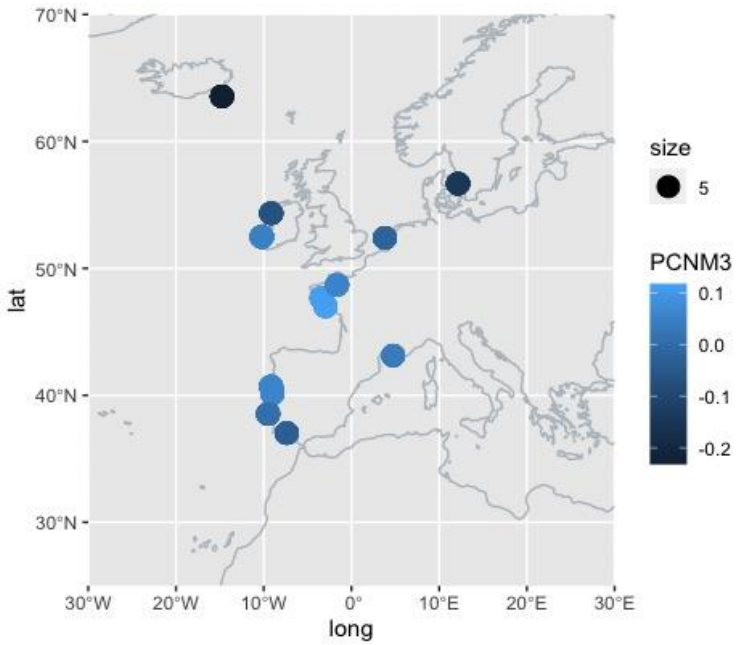
SI.2.18. PCNM3 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the entire dataset.



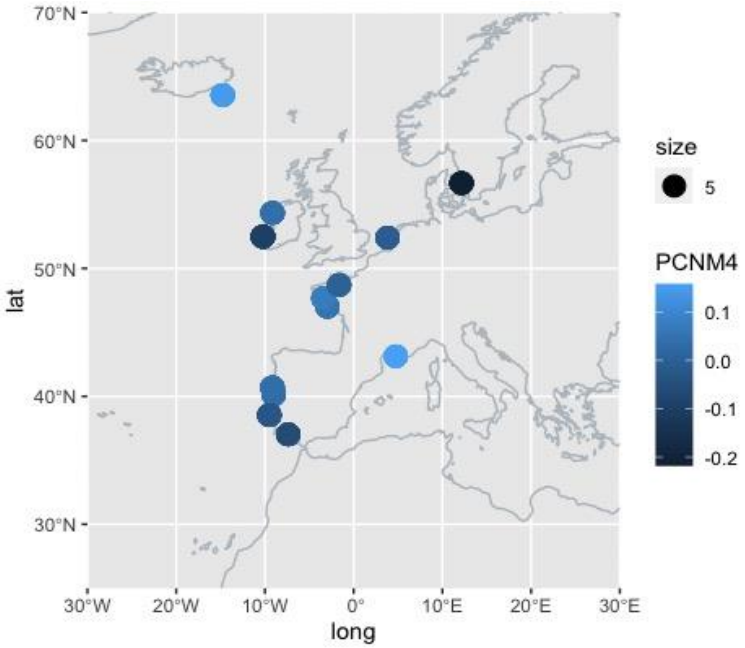
SI.2.19. PCNM1 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the East Atlantic and Mediterranean region.



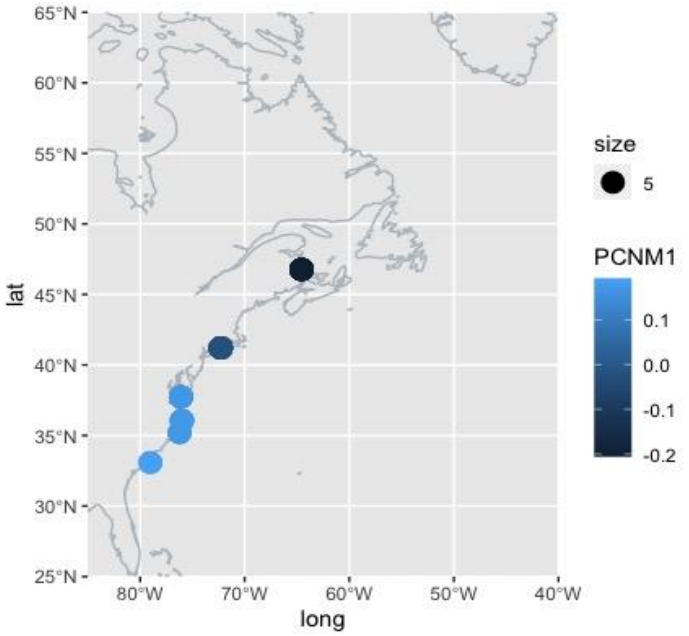
SI.2.20. PCNM2 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the East Atlantic and Mediterranean region.



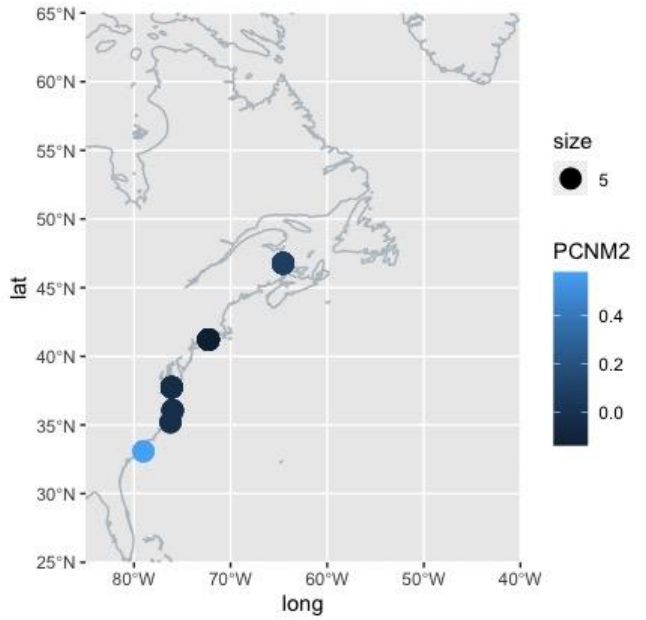
SI.2.21. PCNM3 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the East Atlantic and Mediterranean region.



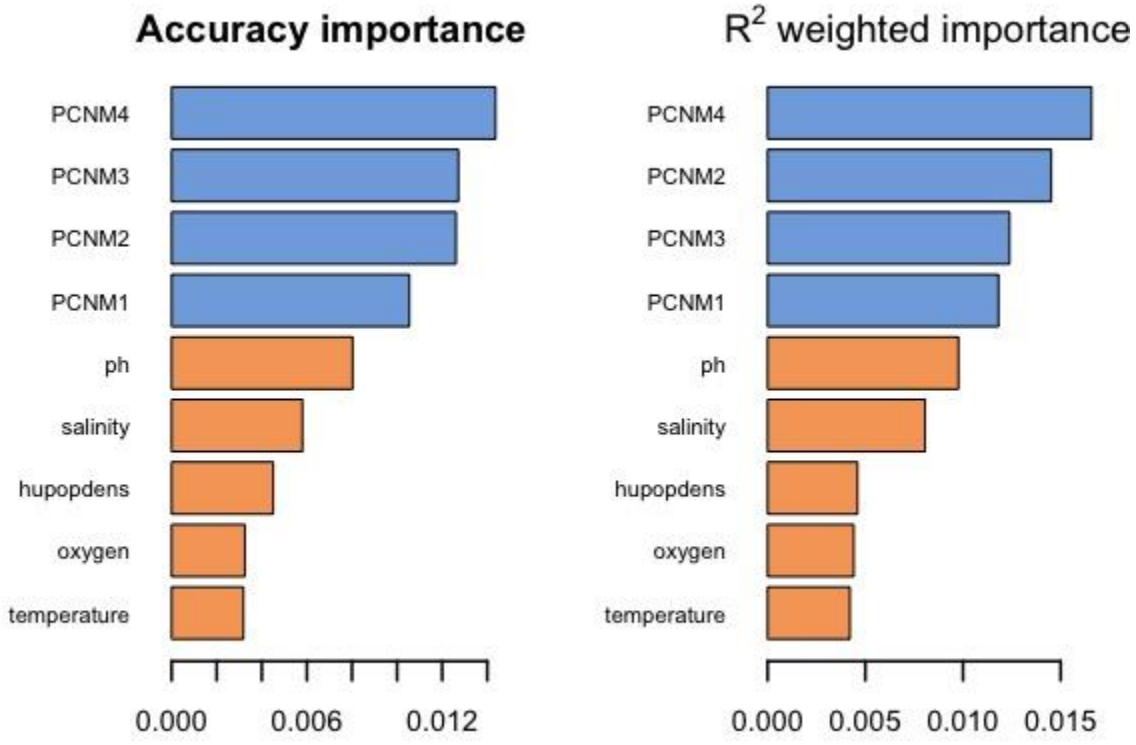
SI.2.22. PCNM4 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the East Atlantic and Mediterranean region.



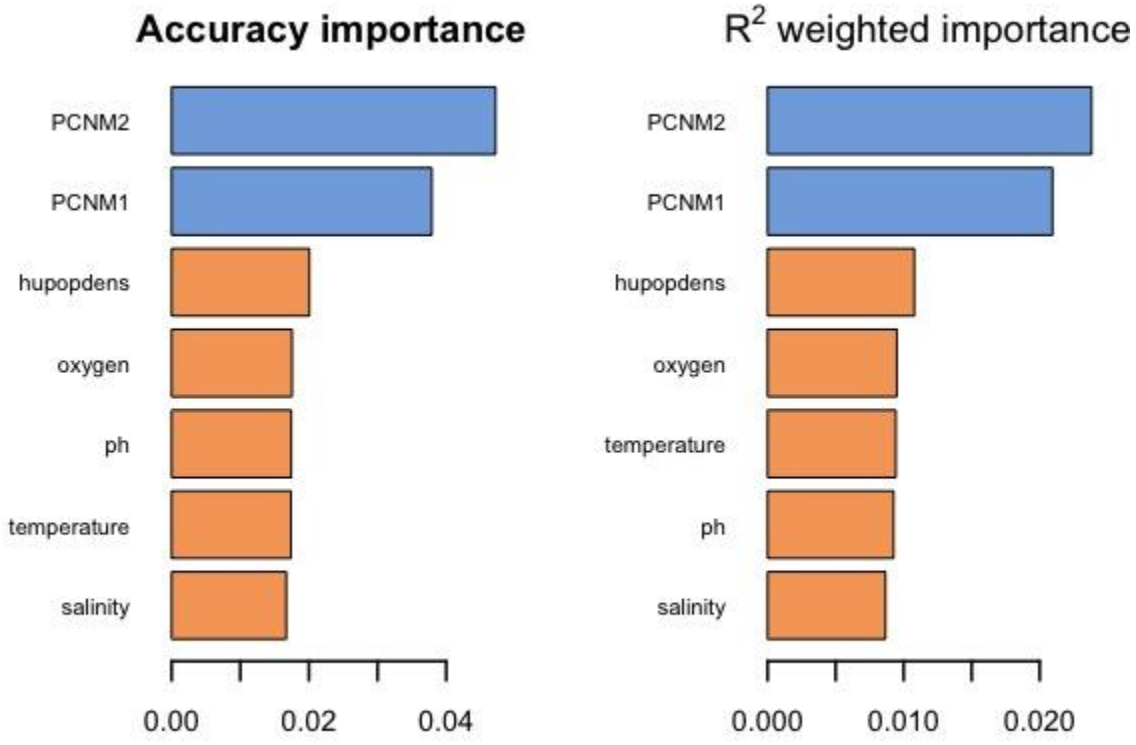
SI.2.23. PCNM1 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the West Atlantic region.



SI.2.24. PCNM2 (Principal Coordinates of Neighborhood Matrix)[3] showing underlying spatial patterns in adaptive loci across the West Atlantic region.

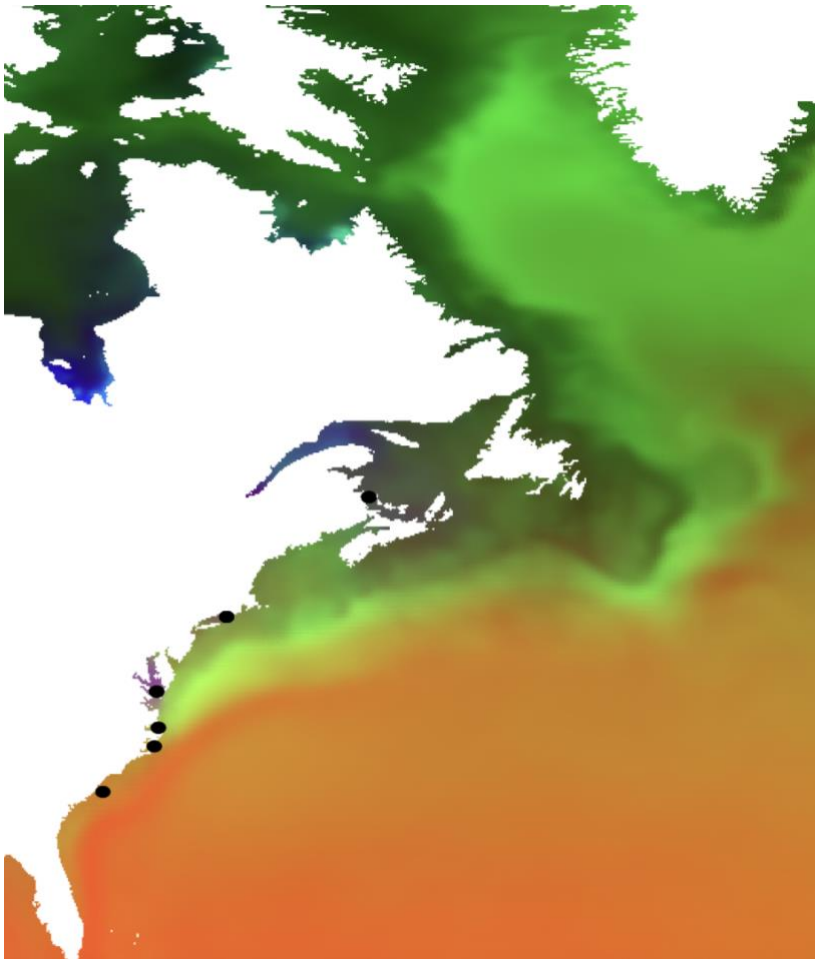


SI.2.25. Fitted gradient forest[4] model predictor variables and significant PCNMs (Principal Coordinates of Neighborhood Matrix)[3] ranked by importance for East Atlantic and Mediterranean region. Spatial patterns were found to be the most important predictors in the model, followed by environmental gradients in pH, salinity and human population density. Oxygen and temperature were the least important predictors. Analysis was run in the in the gradientForest R package[5].

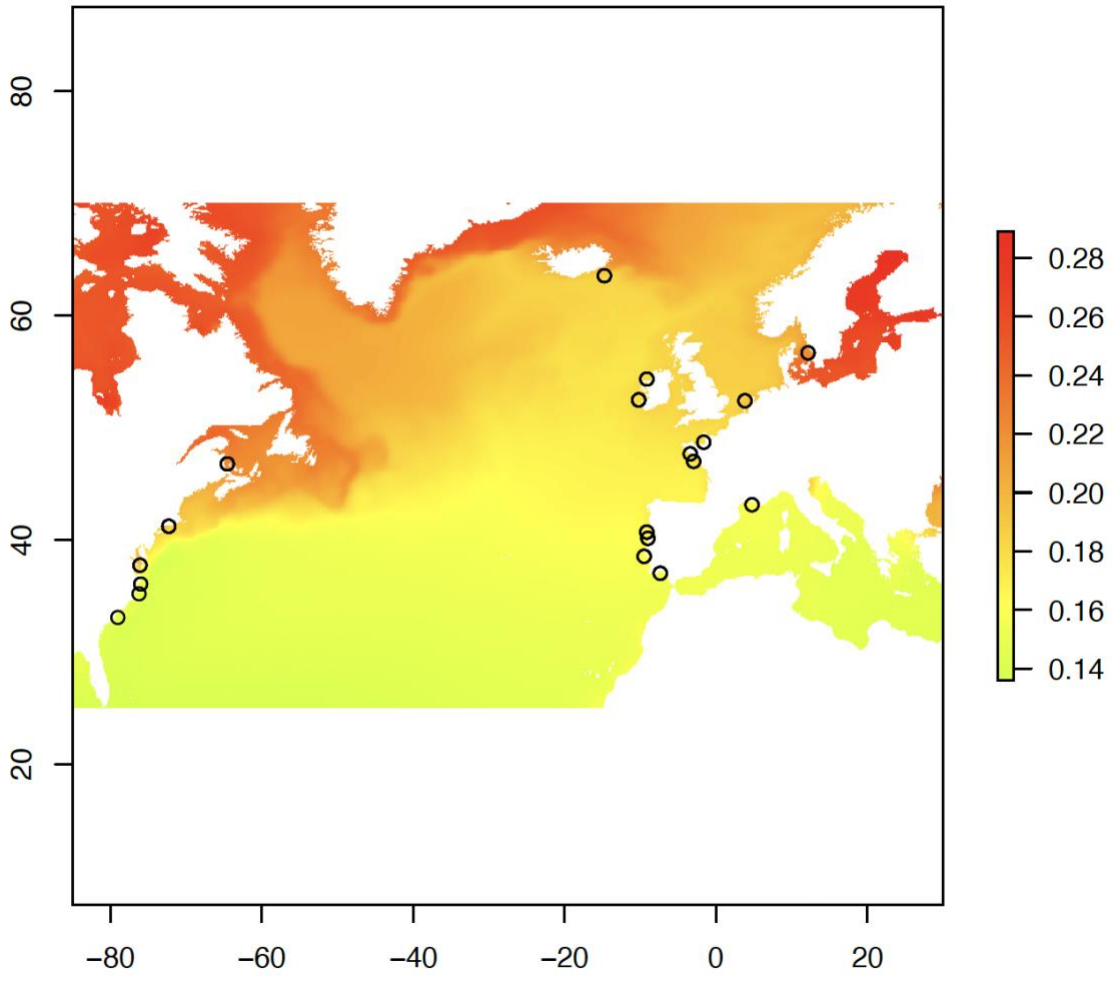


SI.2.26. Fitted gradient forest[4] model predictor variables and significant PCNMs (Principal Coordinates of Neighborhood Matrix)[3] ranked by importance for the West Atlantic. Spatial patterns were found to be the most important predictors in the model, followed by human population density and to a lesser extent environmental gradients in oxygen, pH, temperature and salinity. Analysis was run in the in the gradientForest R package[5].

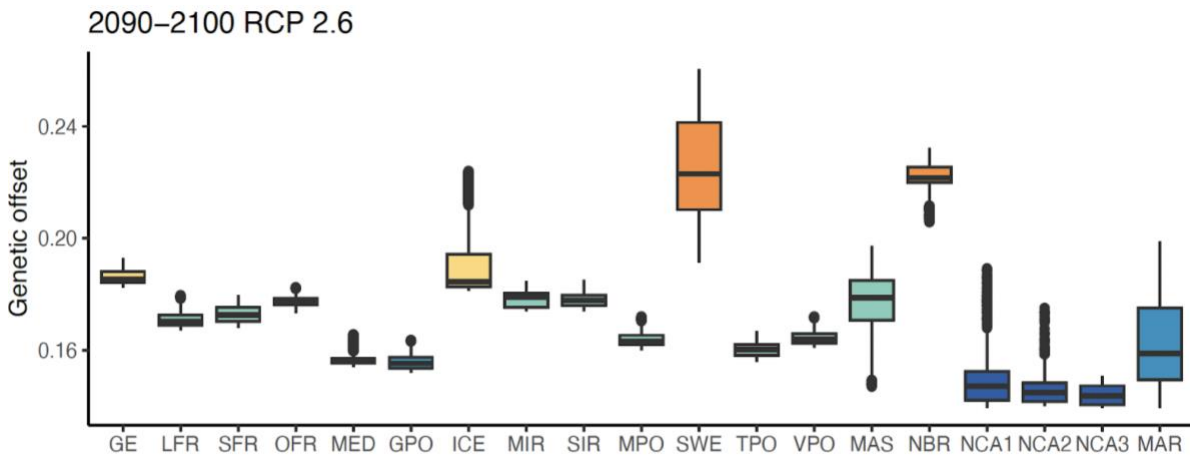
SI.2.27. Map of allelic turnover across space and environmental gradients in salinity, pH, oxygen and temperature for the East Atlantic and Mediterranean region. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



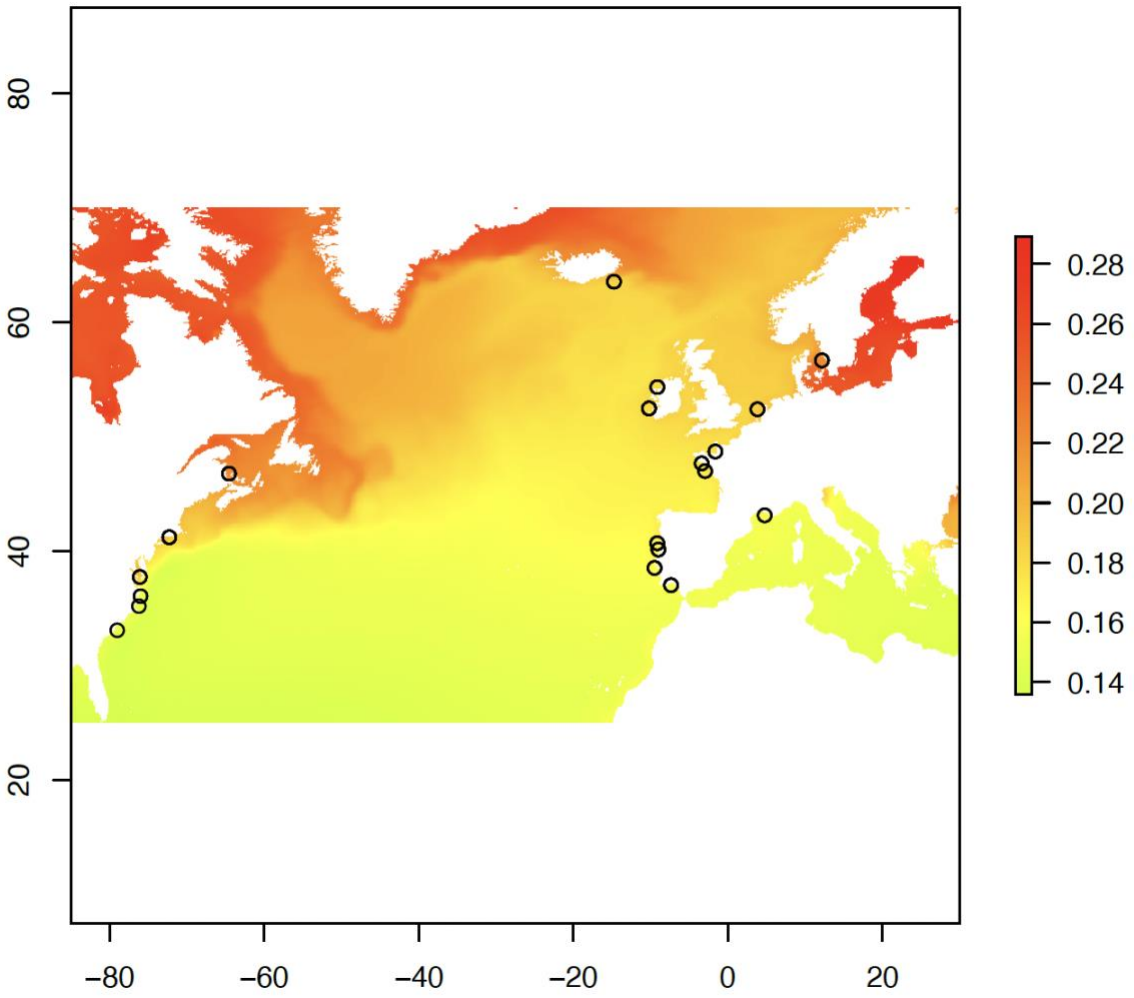
SI.2.28. Map of allelic turnover across space and environmental gradients in salinity, pH, oxygen and temperature for the West Atlantic region. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



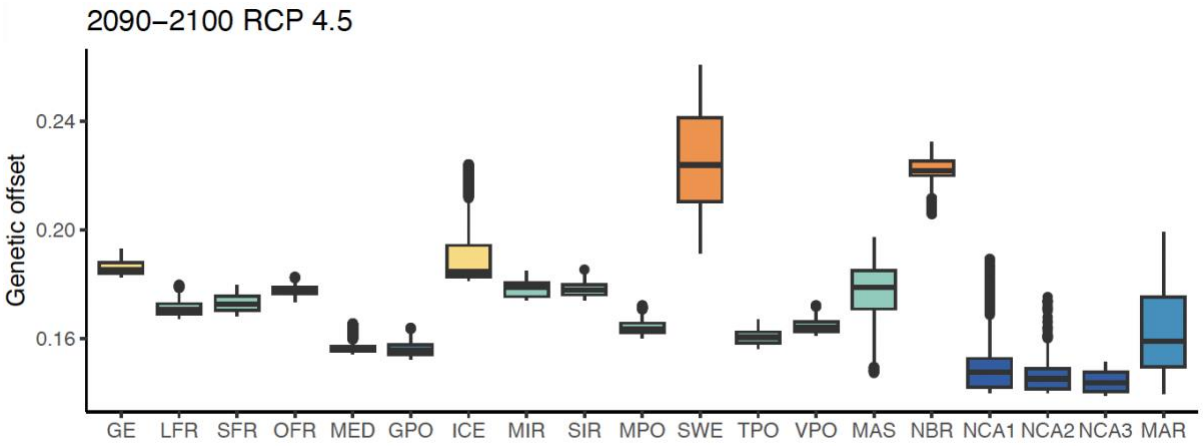
SI.2.29. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP2.6 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



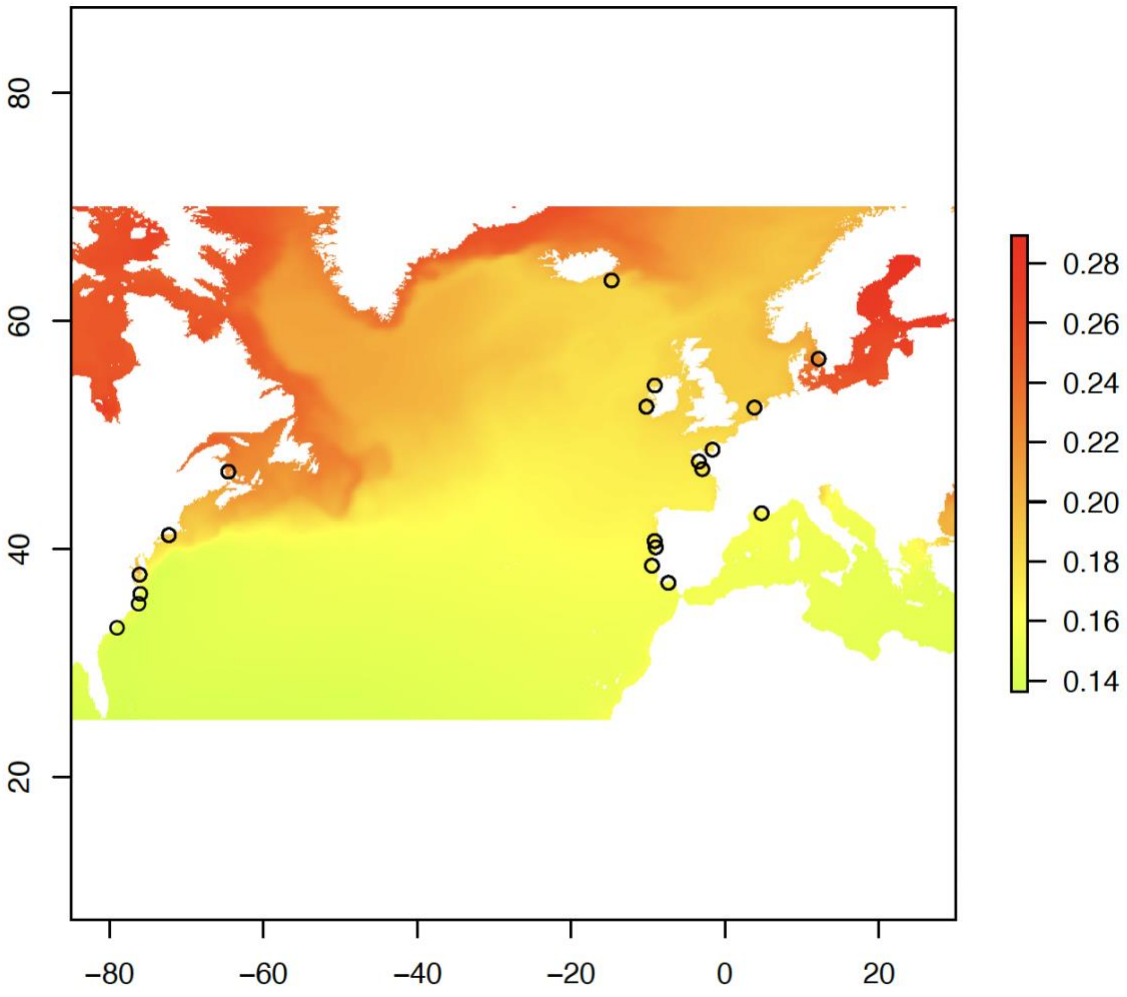
SI.2.30. Entire dataset - boxplots of per site genetic offsets under a RCP2.6 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



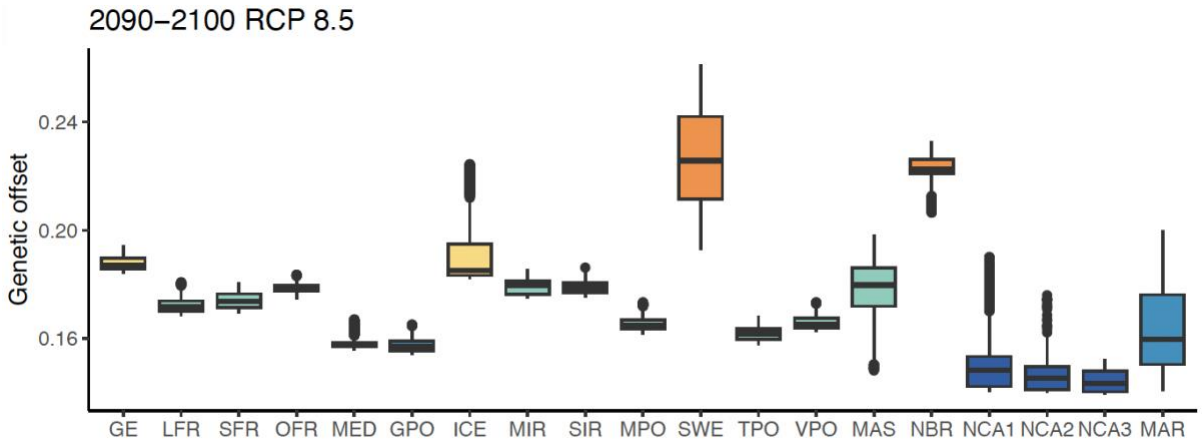
SI.2.31. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP4.5 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



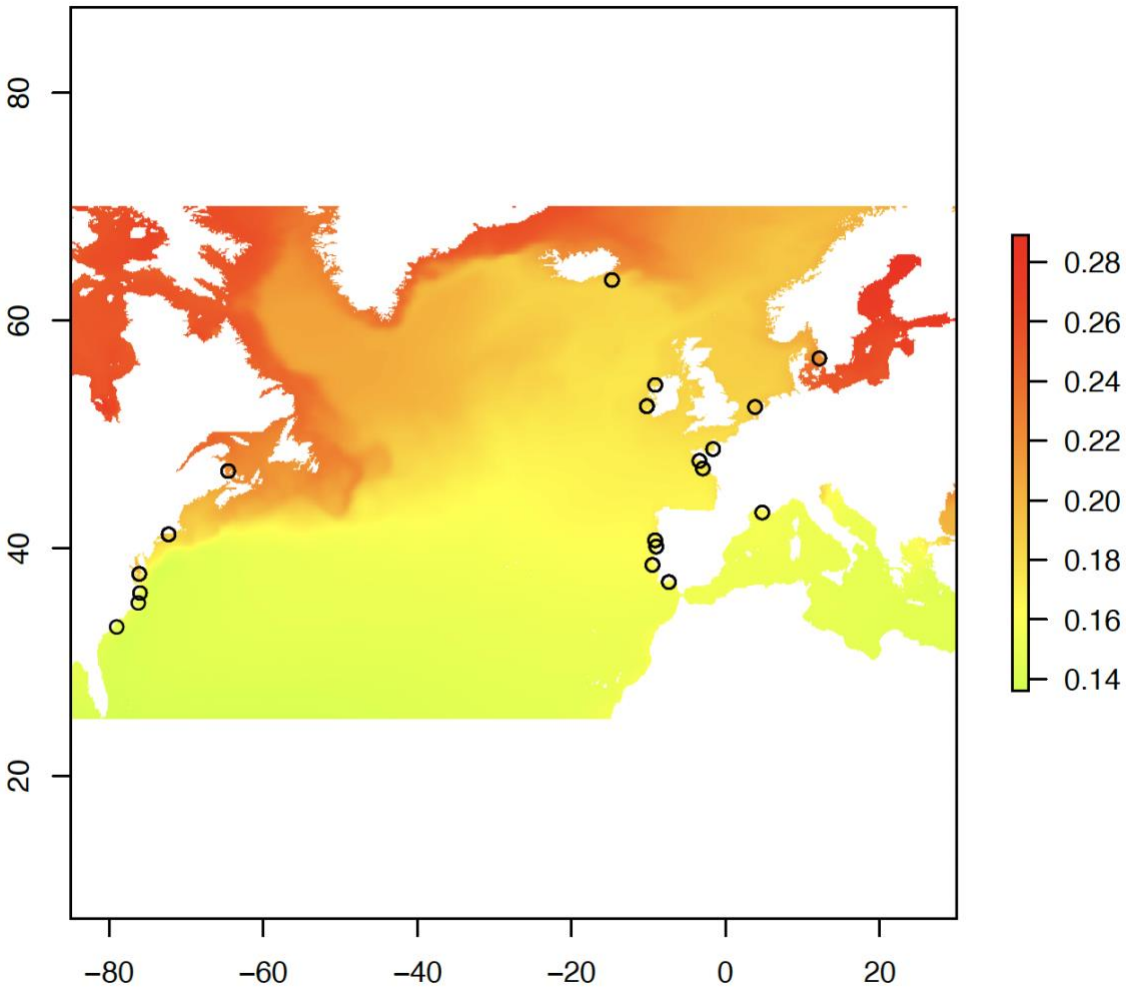
SI.2.32. Entire dataset - boxplots of per site genetic offsets under a RCP4.5 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



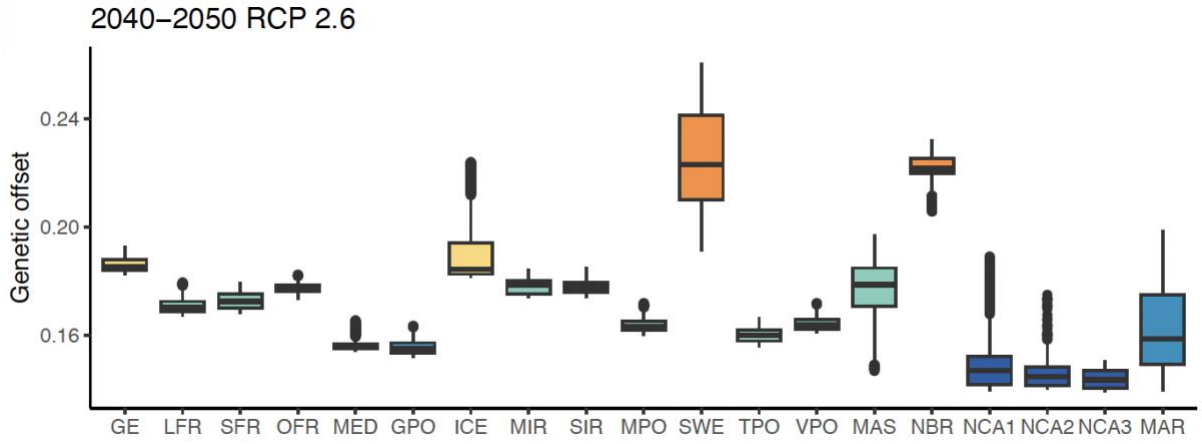
SI.2.33. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP8.5 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



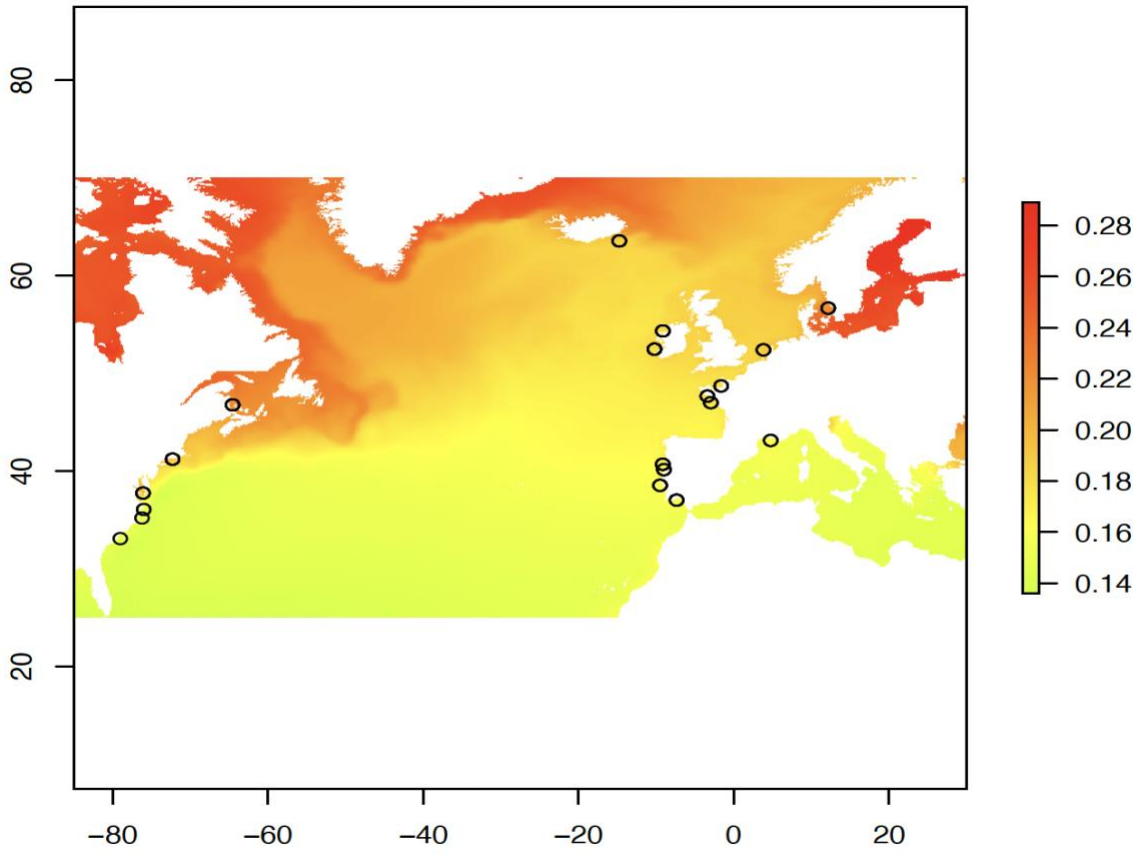
SI.2.34. Entire dataset - boxplots of per site genetic offsets under a RCP8.5 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



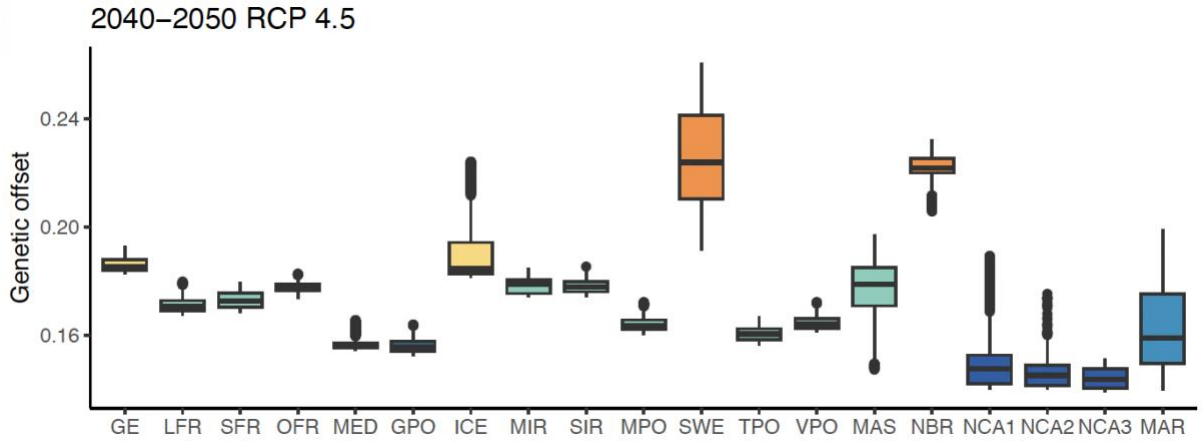
SI.2.35. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP2.6 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



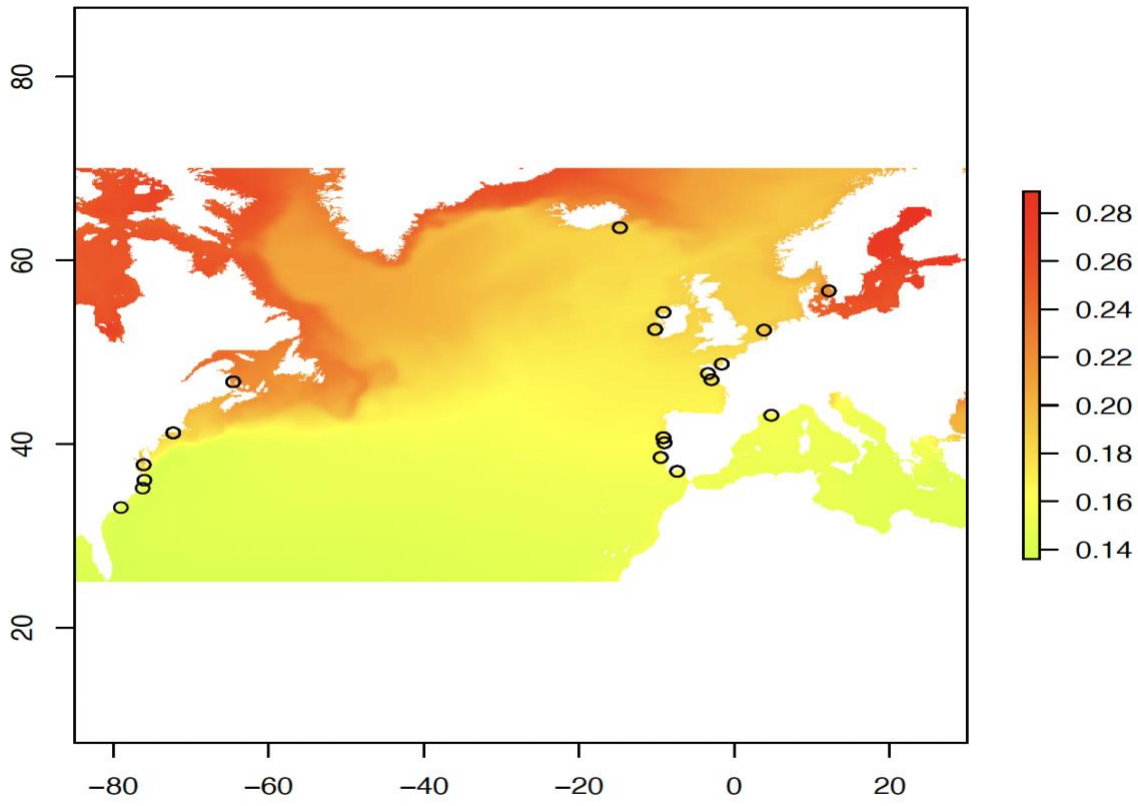
SI.2.36. Entire dataset - boxplots of per site genetic offsets under a RCP2.6 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



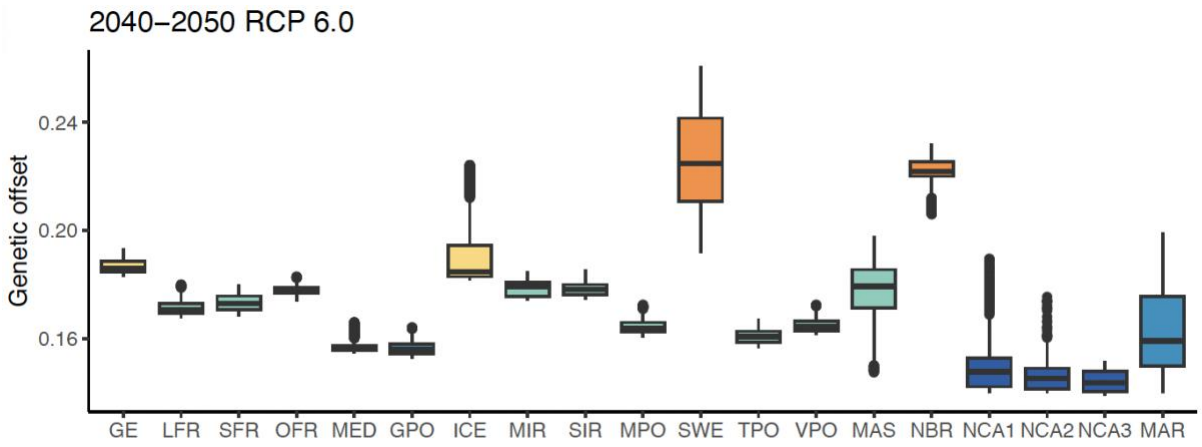
SI.2.37. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP4.5 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



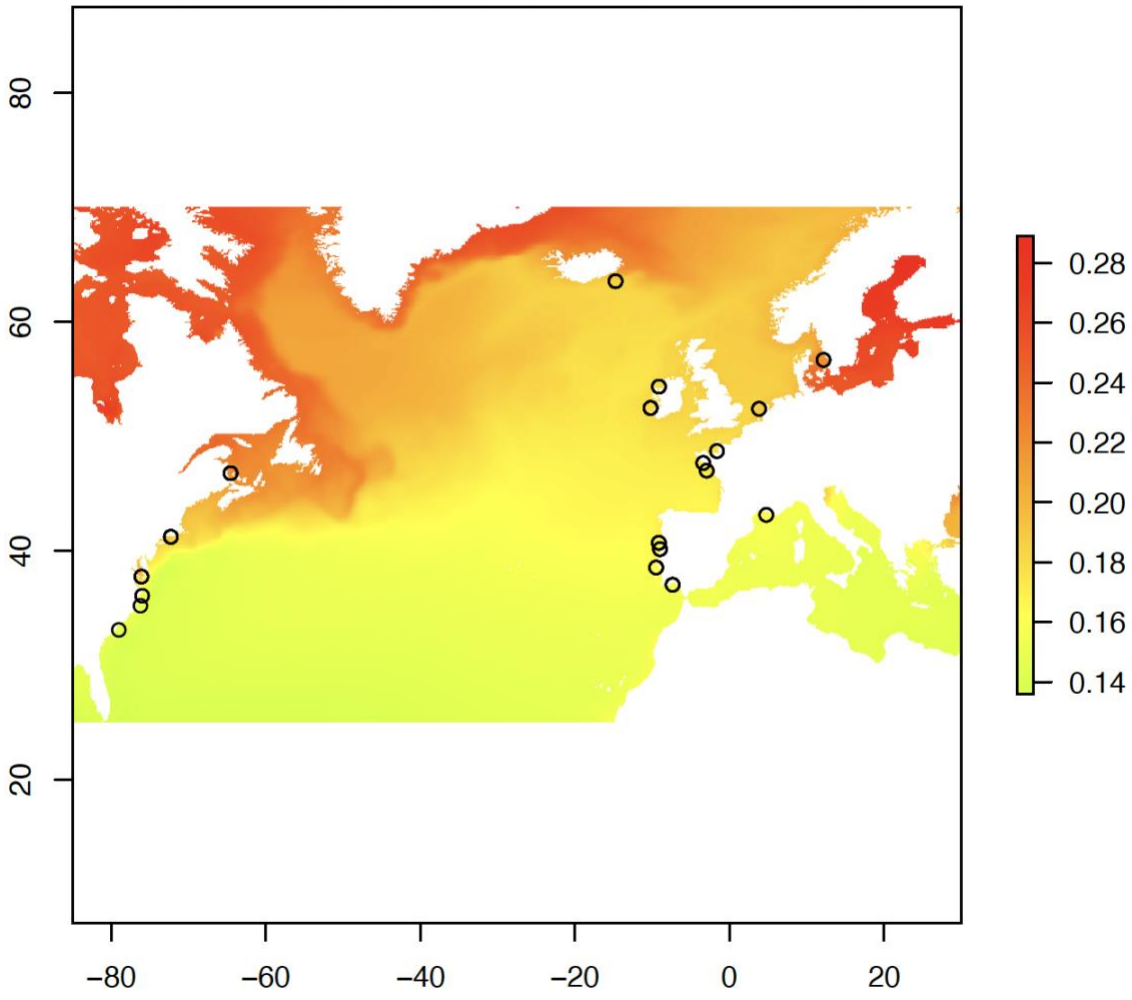
SI.2.38. Entire dataset - boxplots of per site genetic offsets under a RCP4.5 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



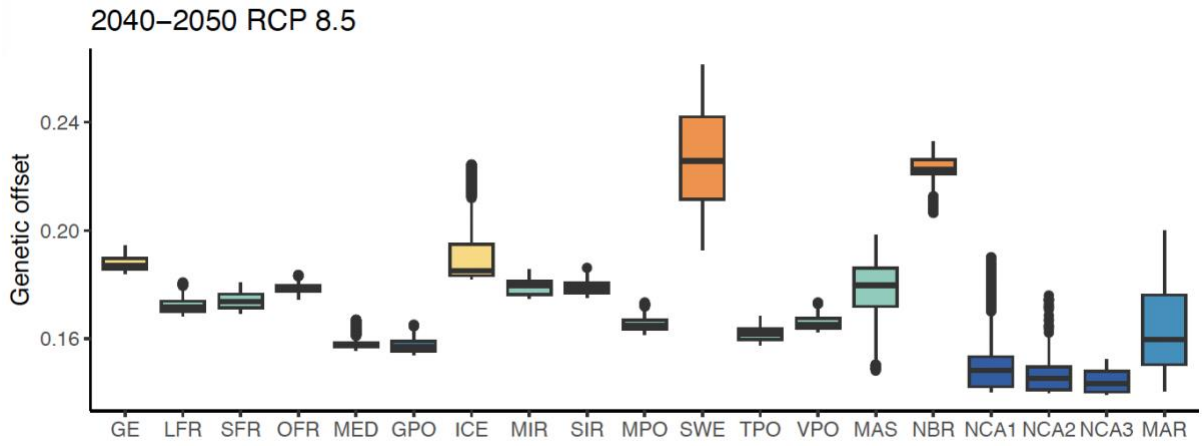
SI.2.39. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP6.0 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



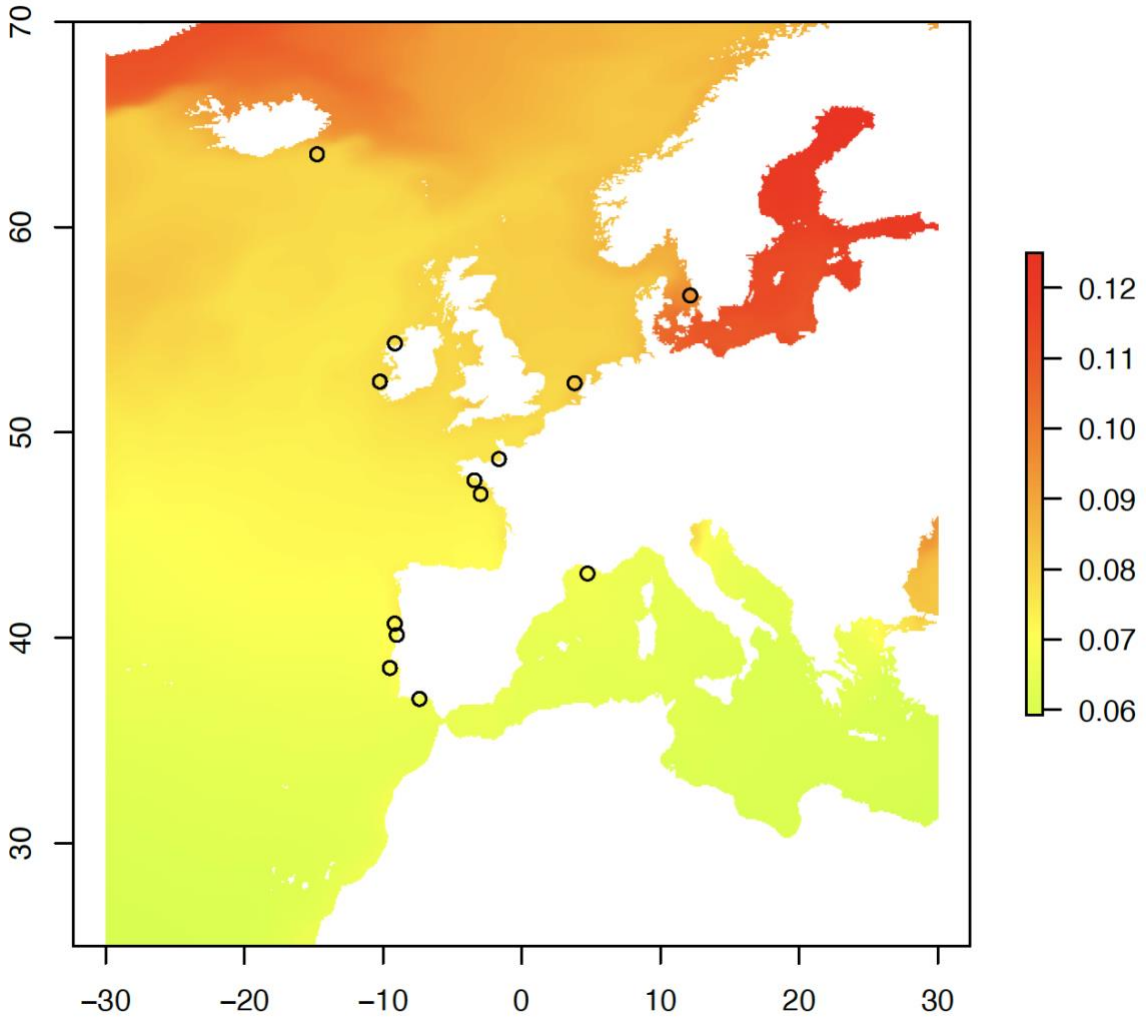
SI.2.40. Entire dataset - boxplots of per site genetic offsets under a RCP6.0 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



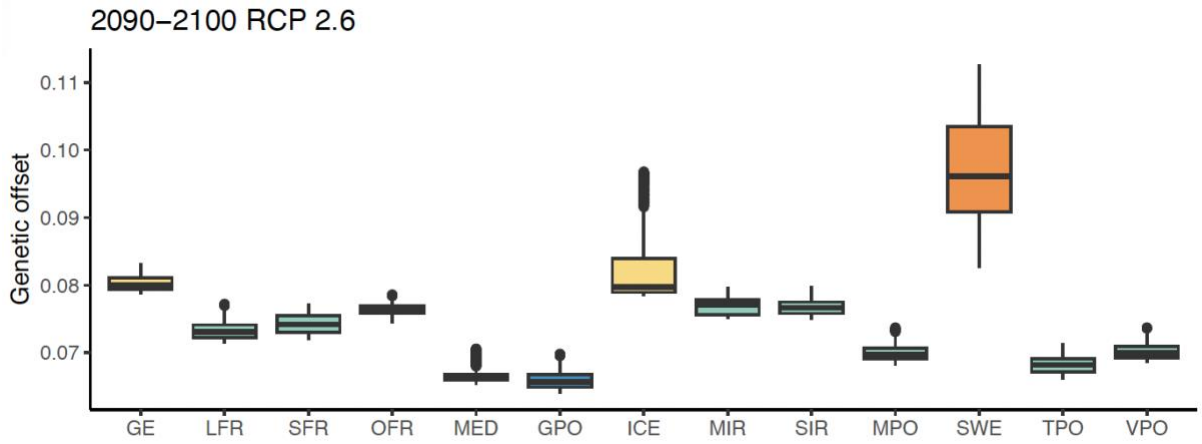
SI.2.41. Entire dataset - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP8.5 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



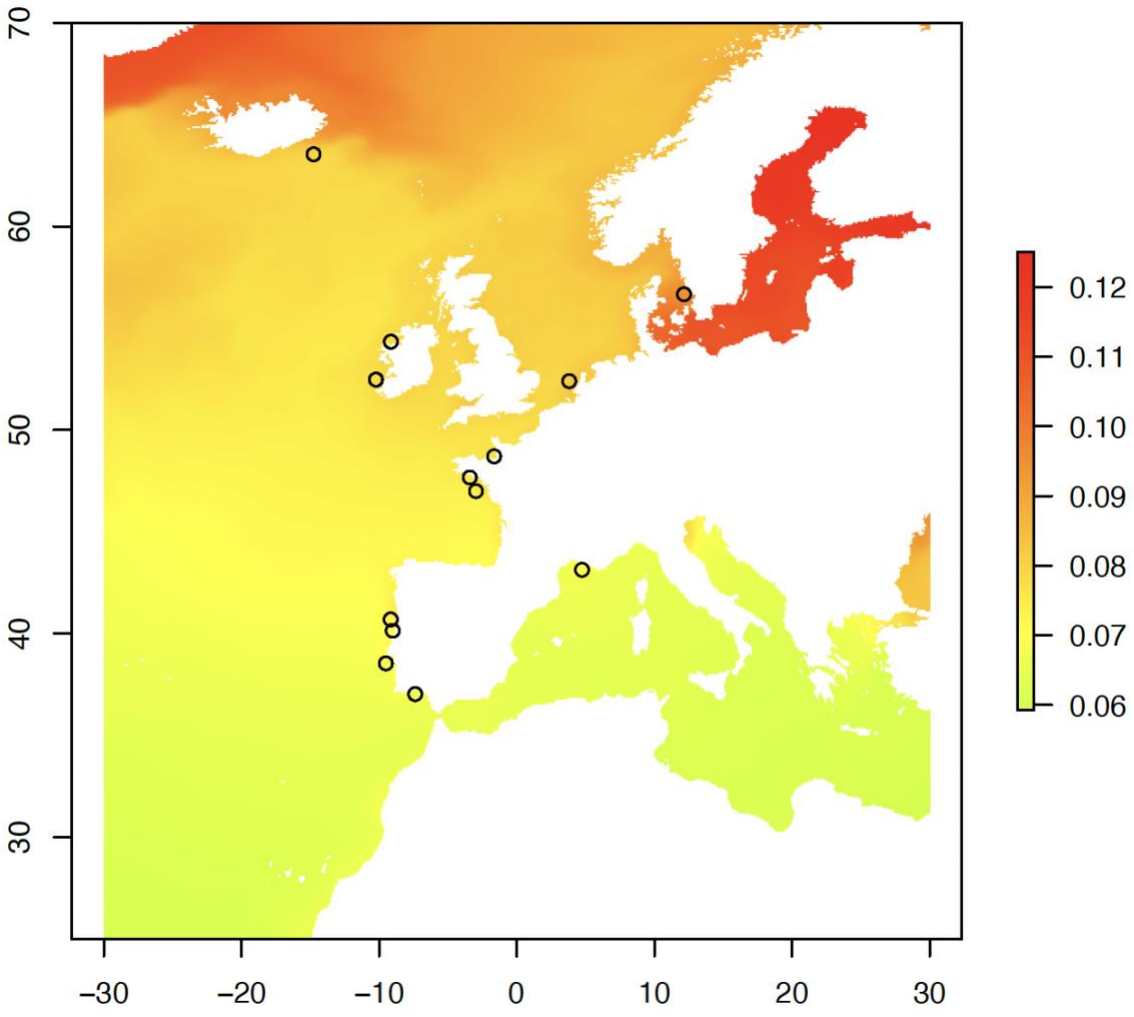
SI.2.42. Entire dataset - boxplots of per site genetic offsets under a RCP8.5 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO), Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



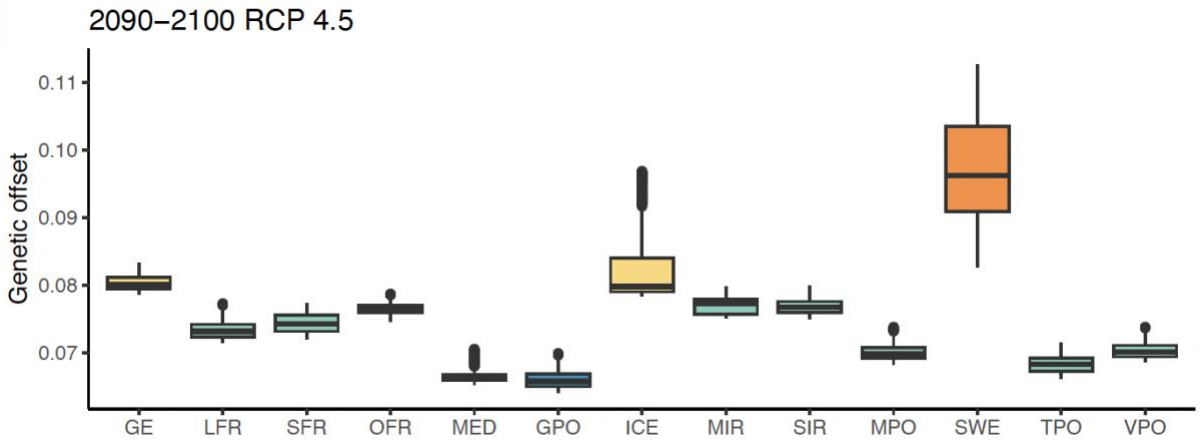
SI.2.43. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP2.6 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



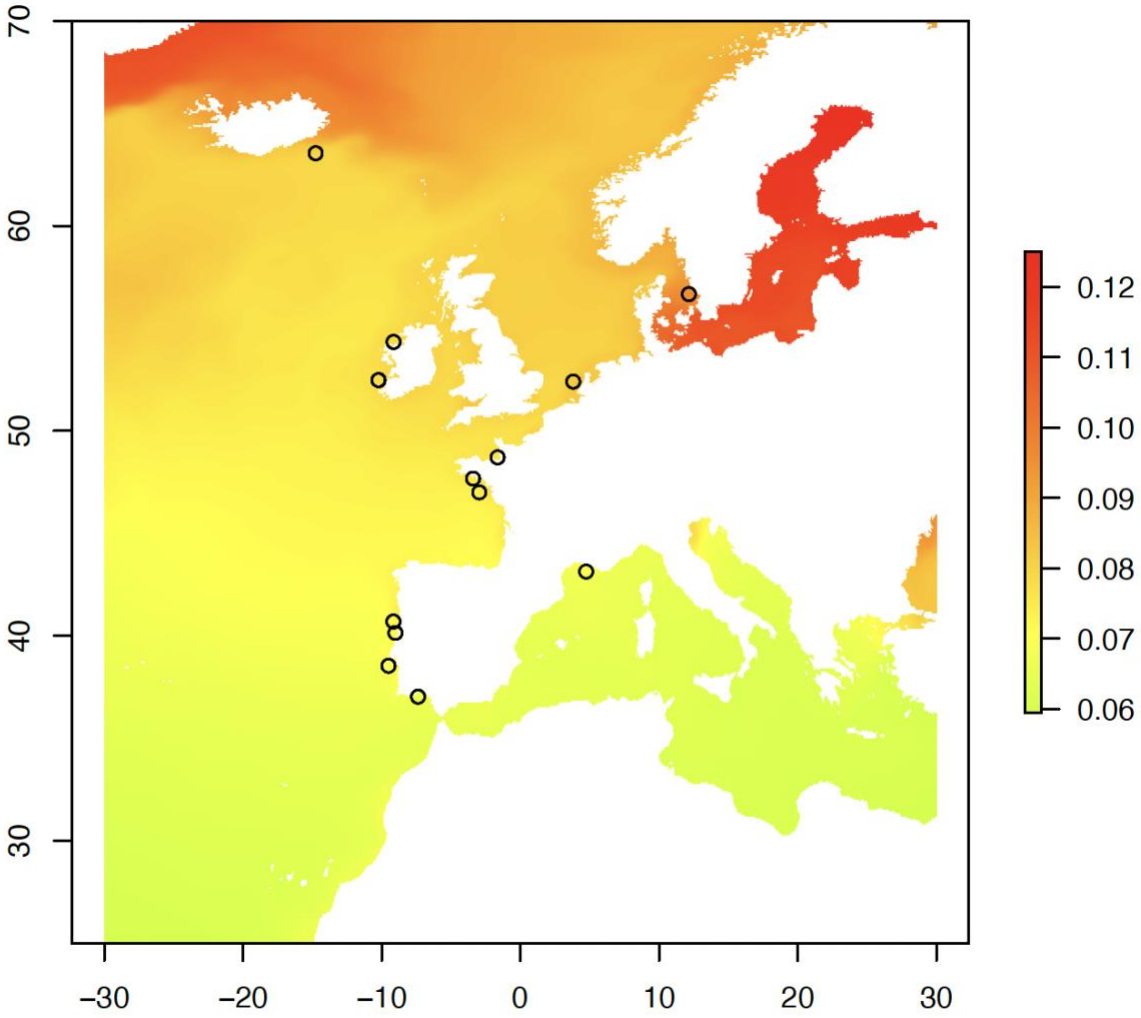
SI.2.44. East Atlantic and Mediterranean region - boxplots of per site genetic offsets under a RCP2.6 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



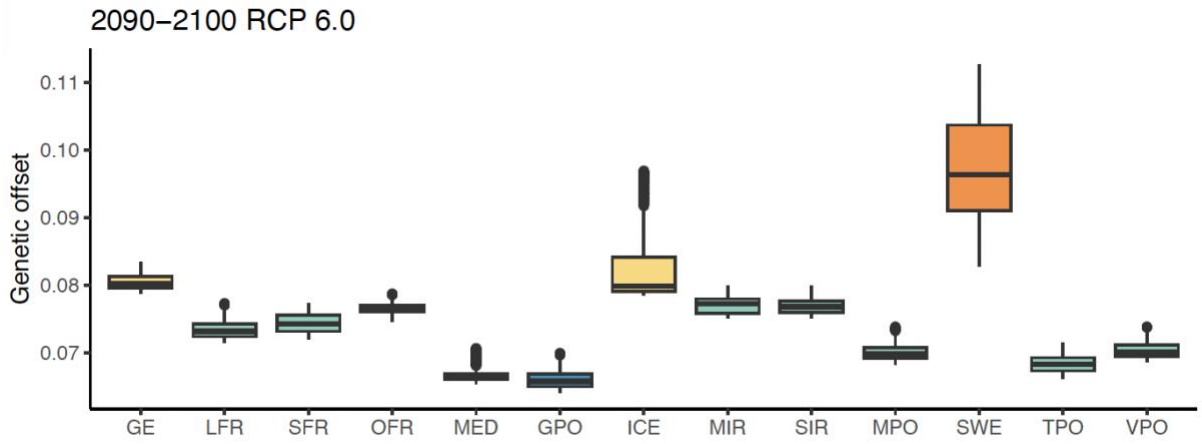
SI.2.45. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP4.5 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



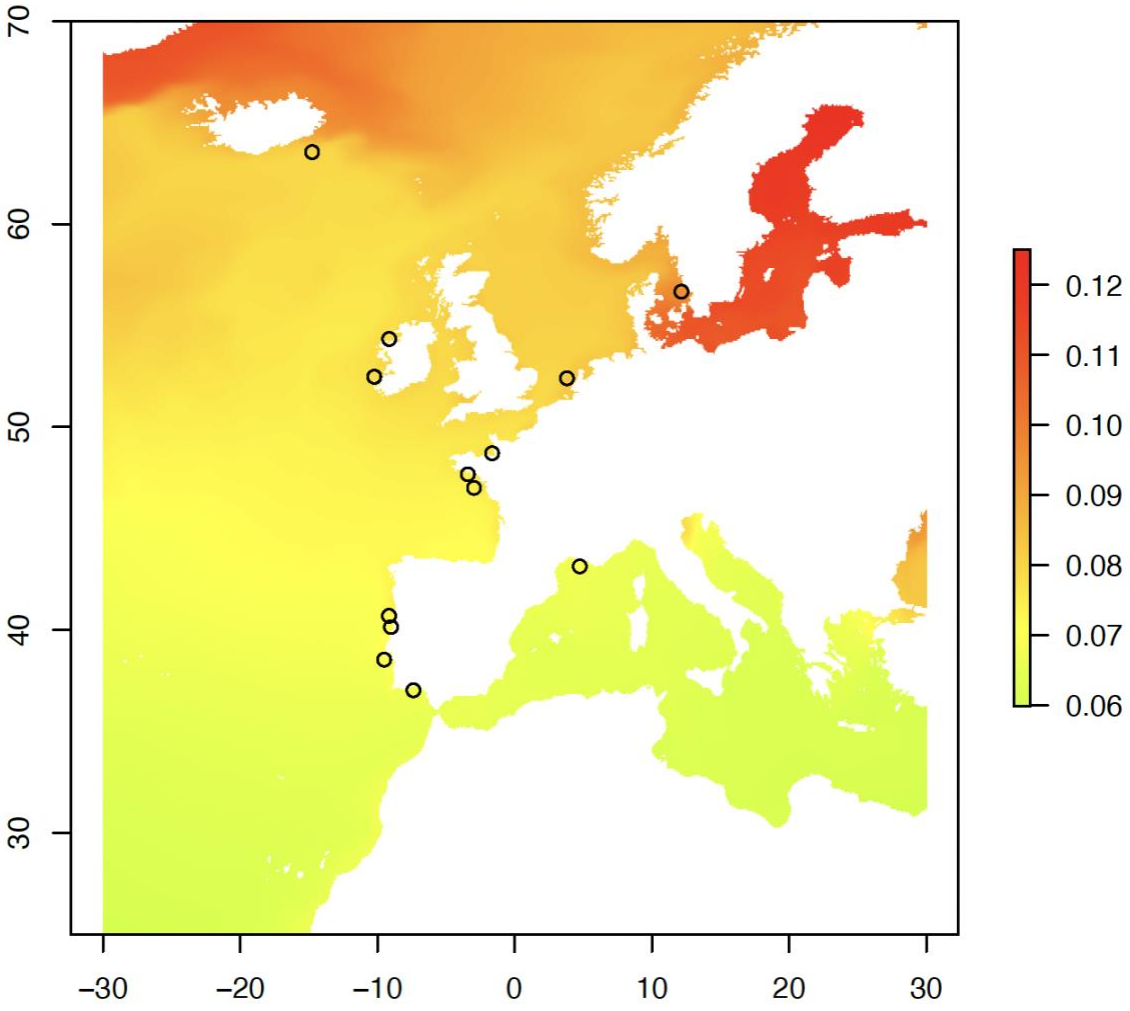
SI.2.46. East Atlantic and Mediterranean region - boxplots of per site genetic offsets under a RCP4.5 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



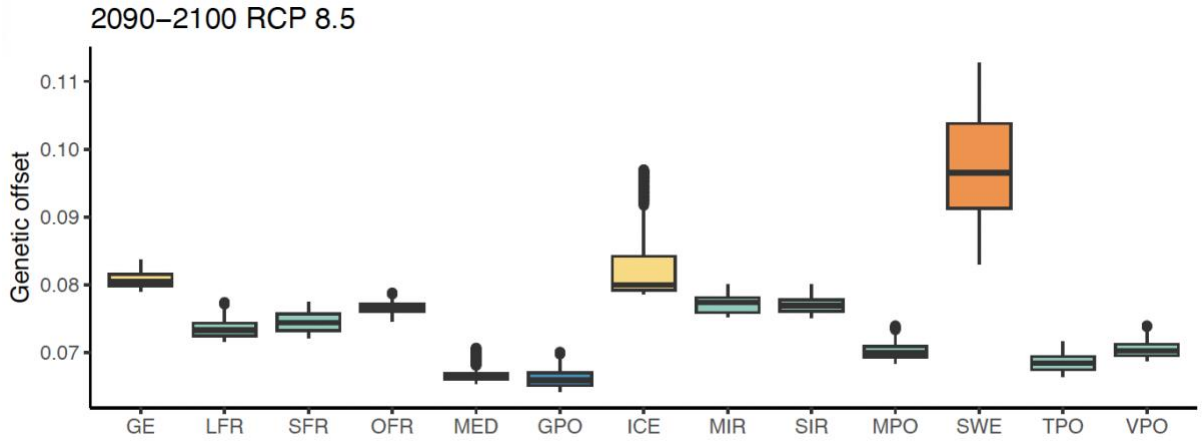
SI.2.47. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP6.0 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



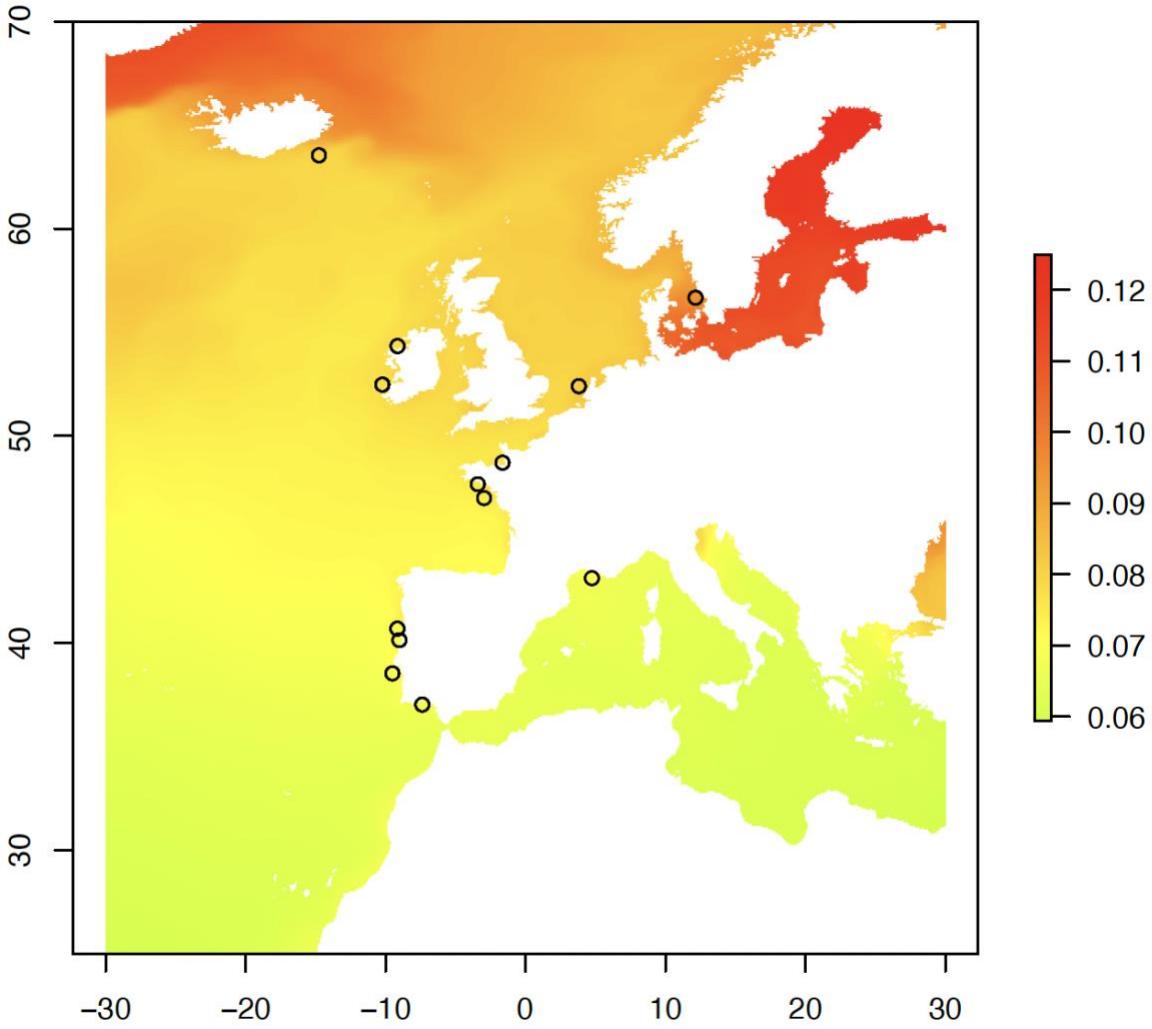
SI.2.48. East Atlantic and Mediterranean region - boxplots of per site genetic offsets under a RCP6.0 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



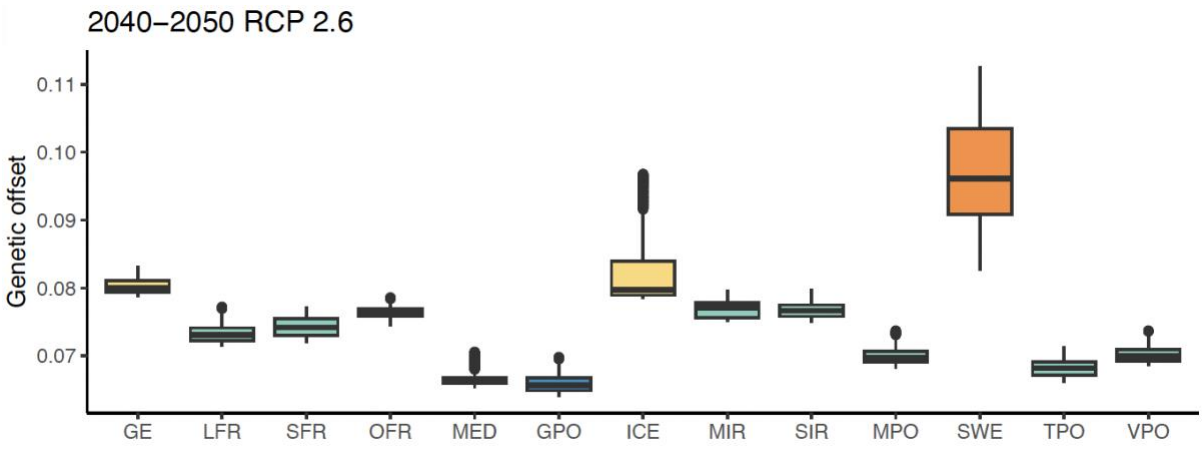
SI.2.49. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP8.5 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



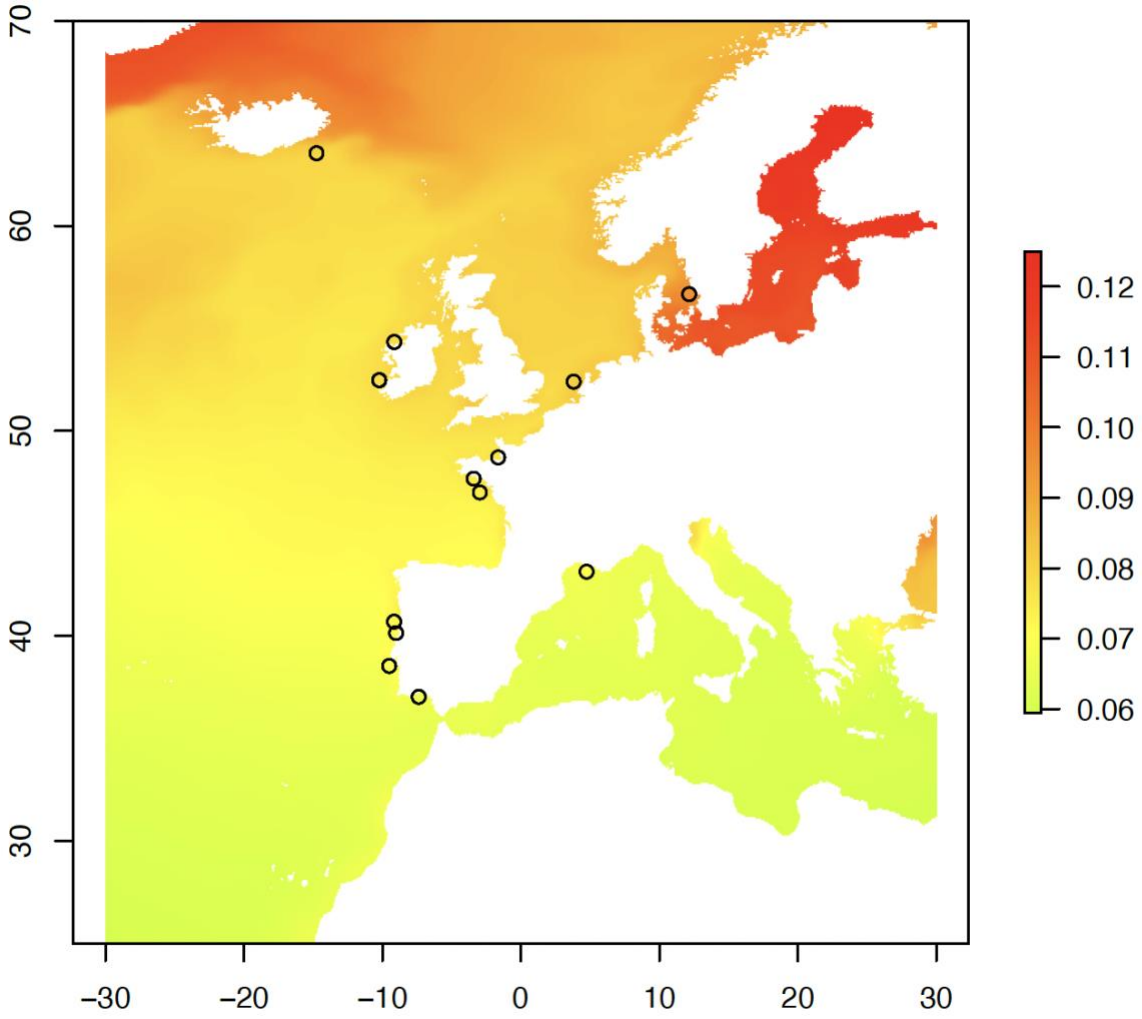
SI.2.50. East Atlantic and Mediterranean region - boxplots of per site genetic offsets under a RCP8.5 scenario for the years 2090-2100. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



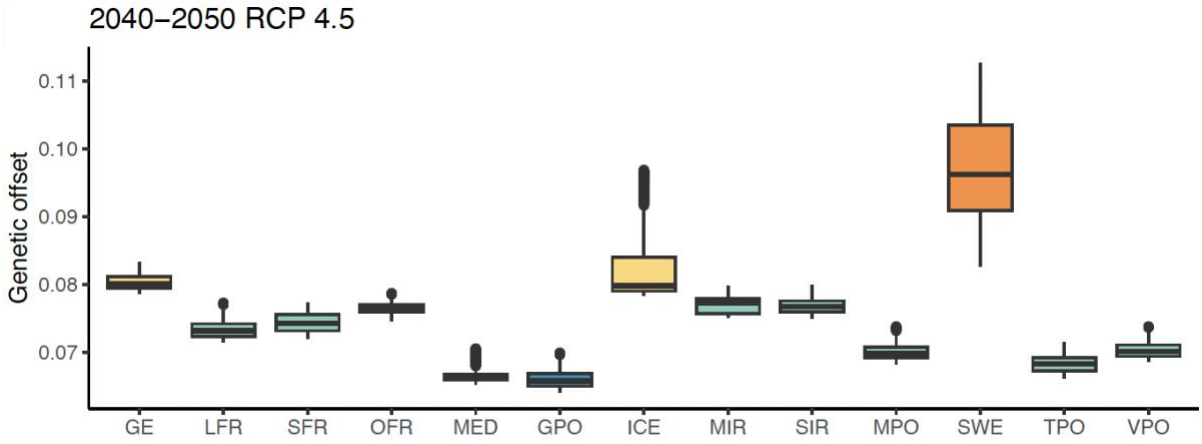
SI.2.51. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP2.6 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



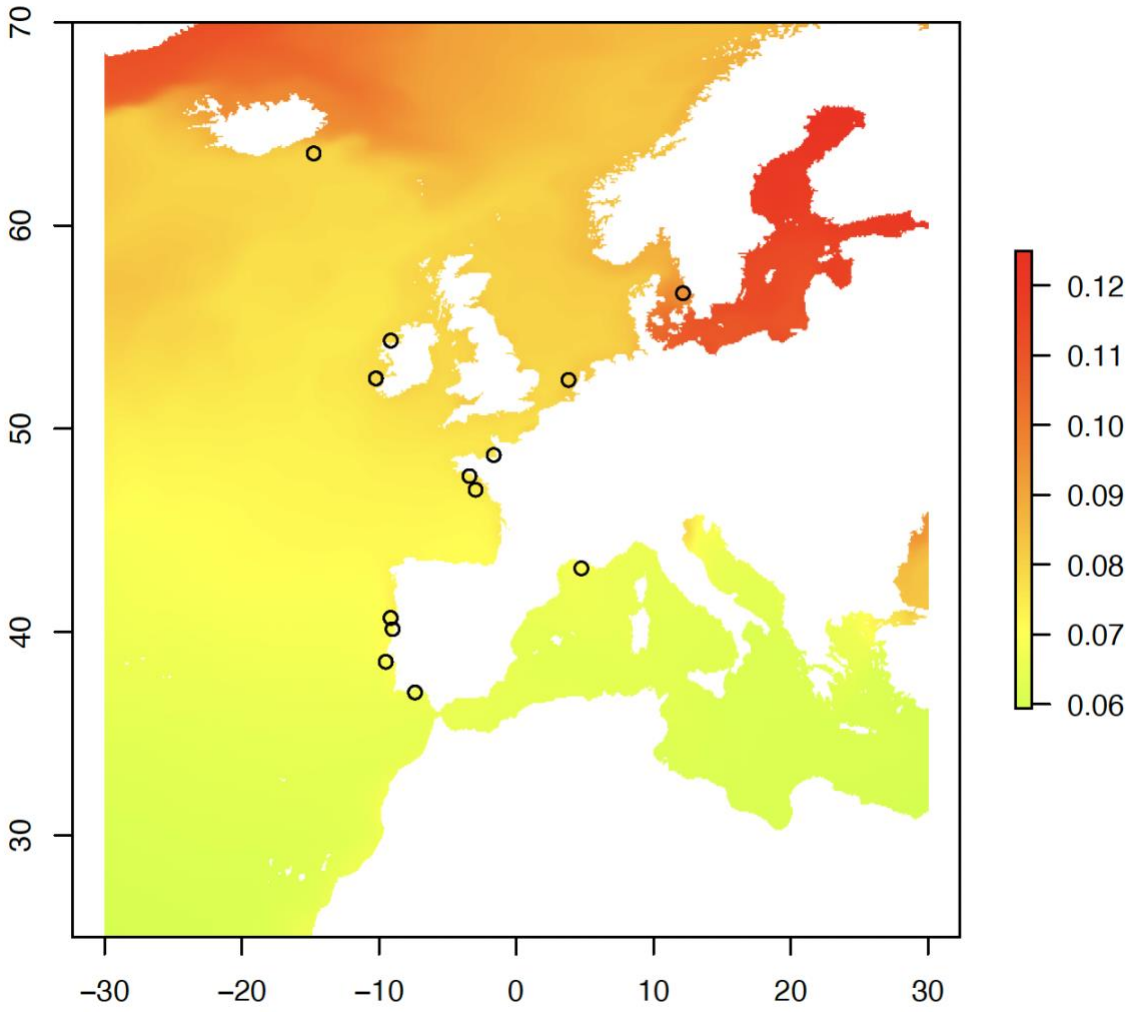
SI.2.52. East Atlantic and Mediterranean region - boxplots of per site genetic offsets under a RCP2.6 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



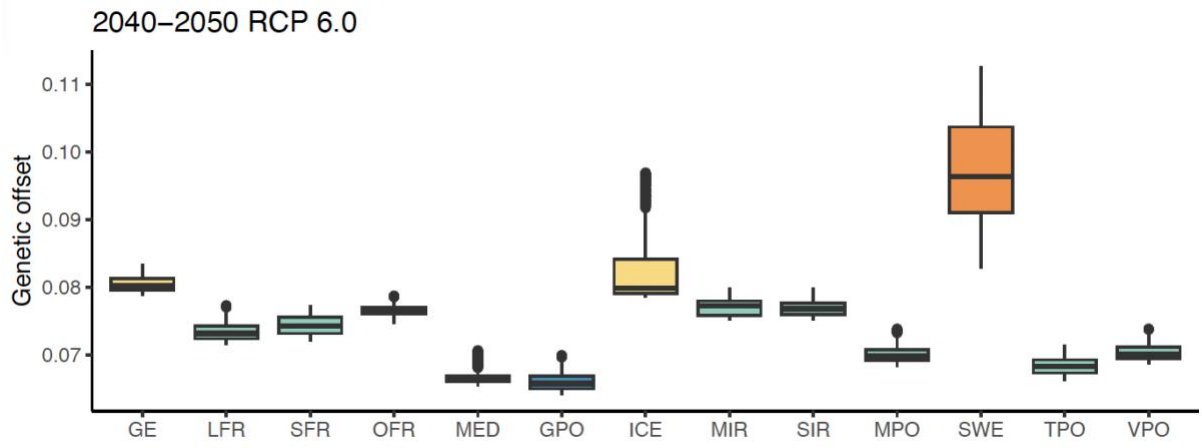
SI.2.53. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP4.5 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



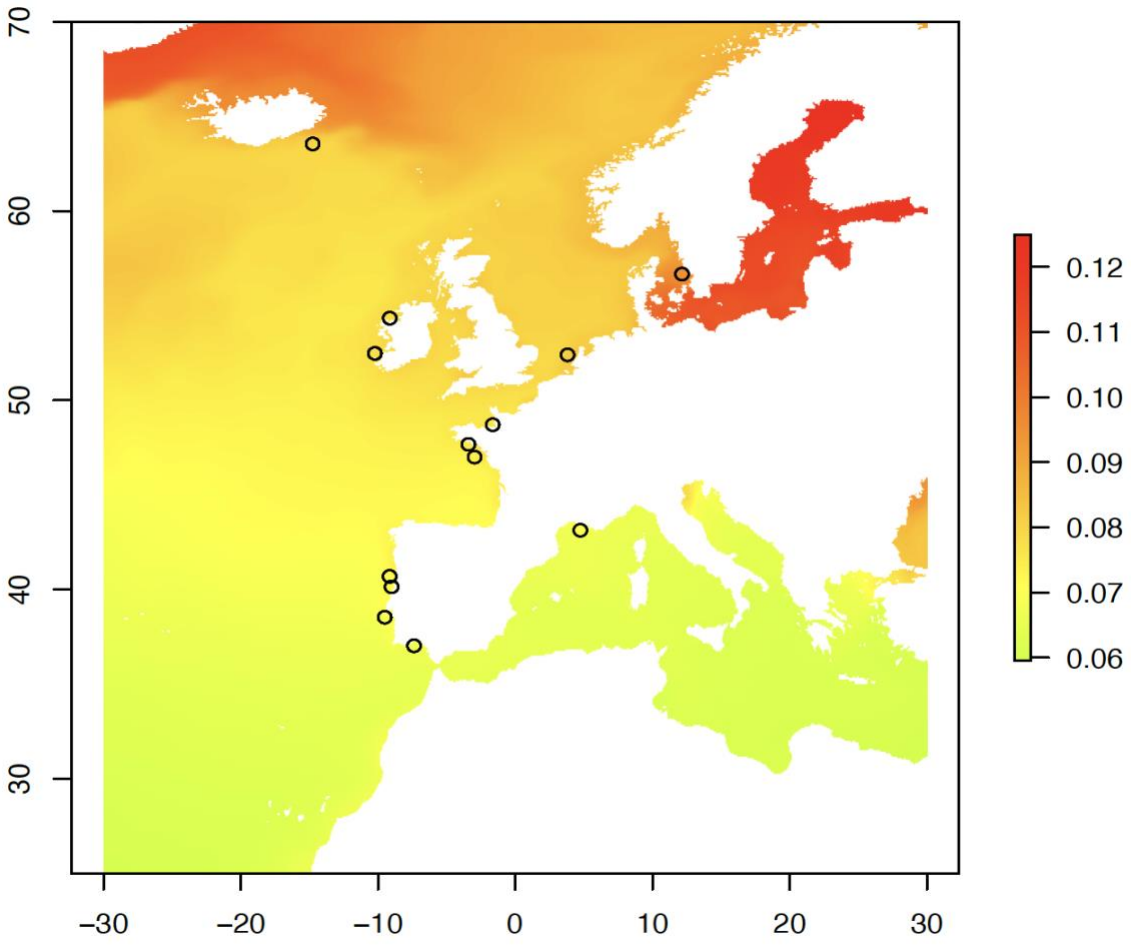
SI.2.54. East Atlantic and Mediterranean region- boxplots of per site genetic offsets under a RCP4.5 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



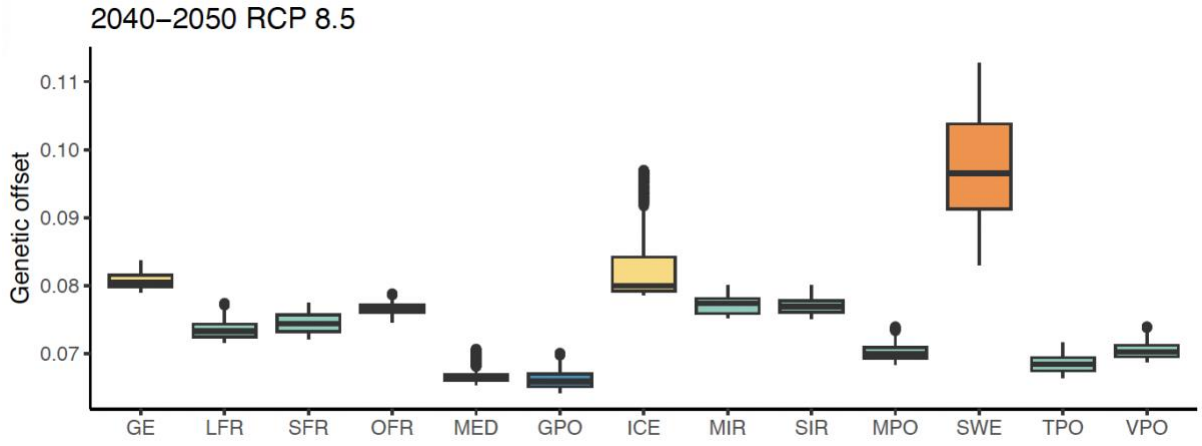
SI.2.55. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP6.0 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



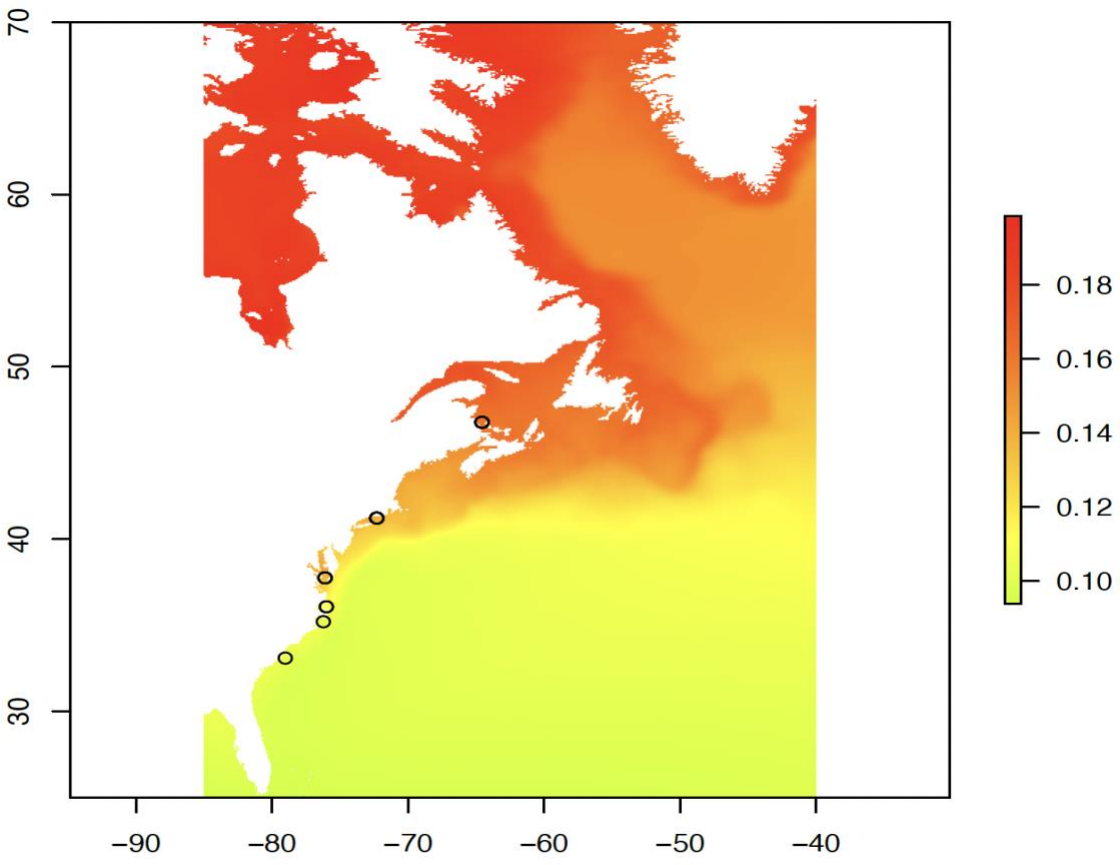
SI.2.56. East Atlantic and Mediterranean region - boxplots of per site genetic offsets under a RCP6.0 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



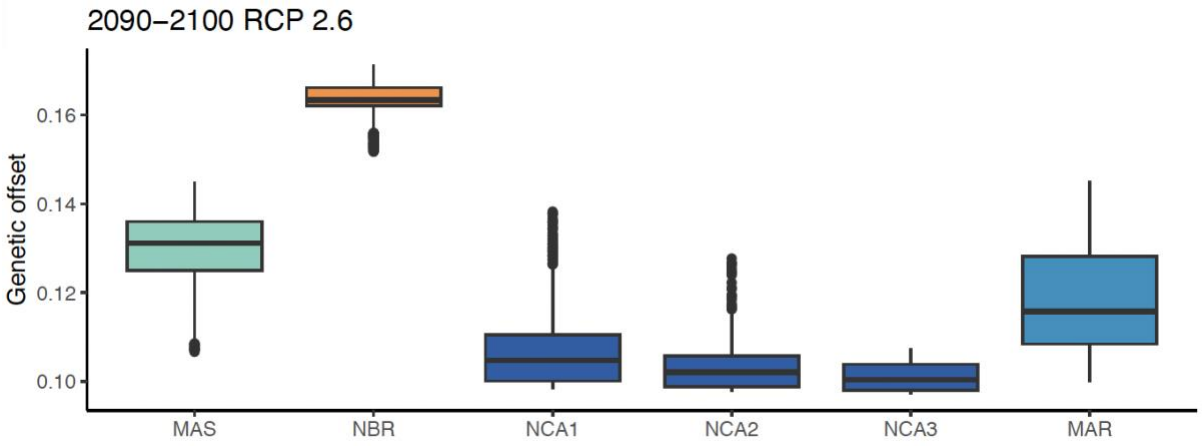
SI.2.57. East Atlantic and Mediterranean region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP8.5 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



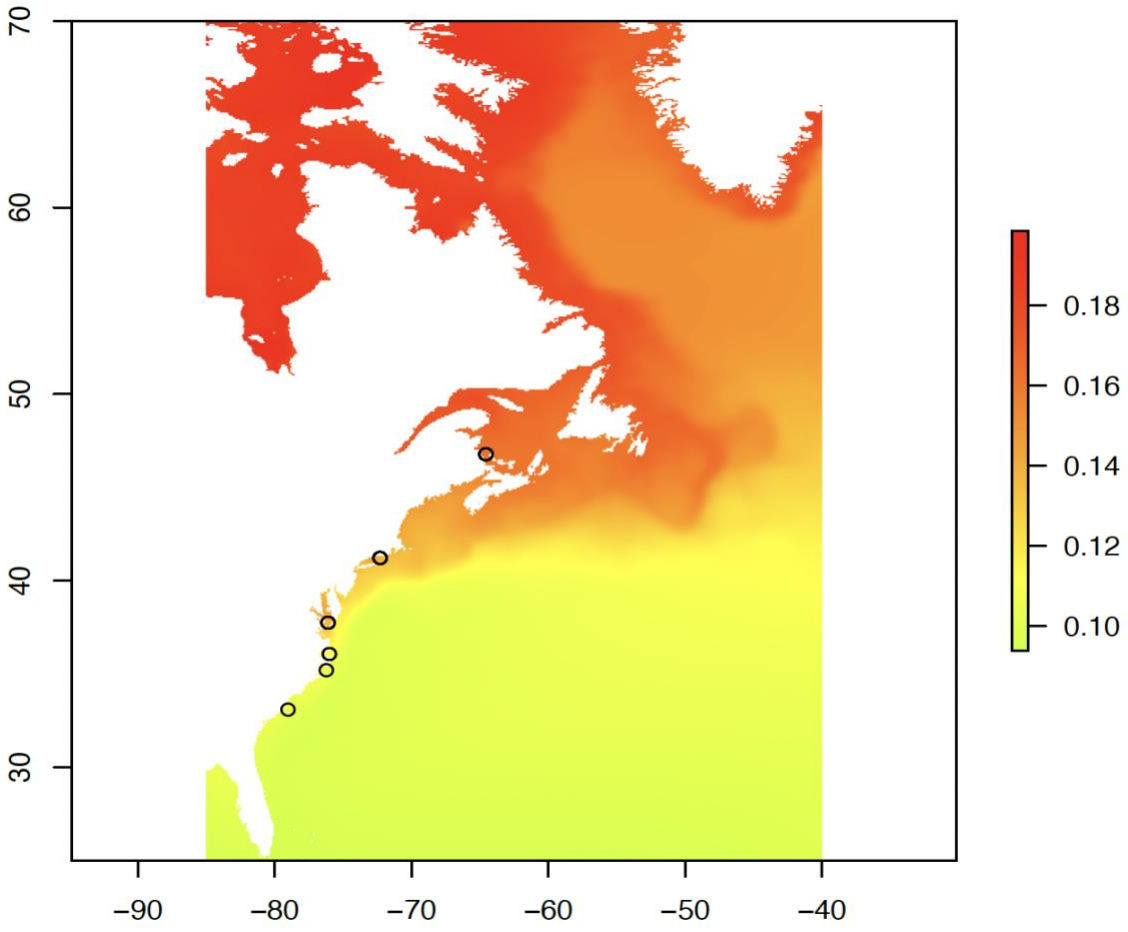
SI.2.58. East Atlantic and Mediterranean region- boxplots of per site genetic offsets under a RCP8.5 scenario for the years 2040-2050. Sites represented as following: Germany (GE), River Loire France (LFR), River Scorff France (SFR), River Oir France (OFR), France Mediterranean Coast (MED), Guadiana River Portugal (GPO), Iceland (ICE), River Moy Ireland (MIR), River Shannon (SIR), Mondego River Portugal (MPO), Sweden (SWE), Tejo River Portugal (TPO), Vouga River Portugal (VPO). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



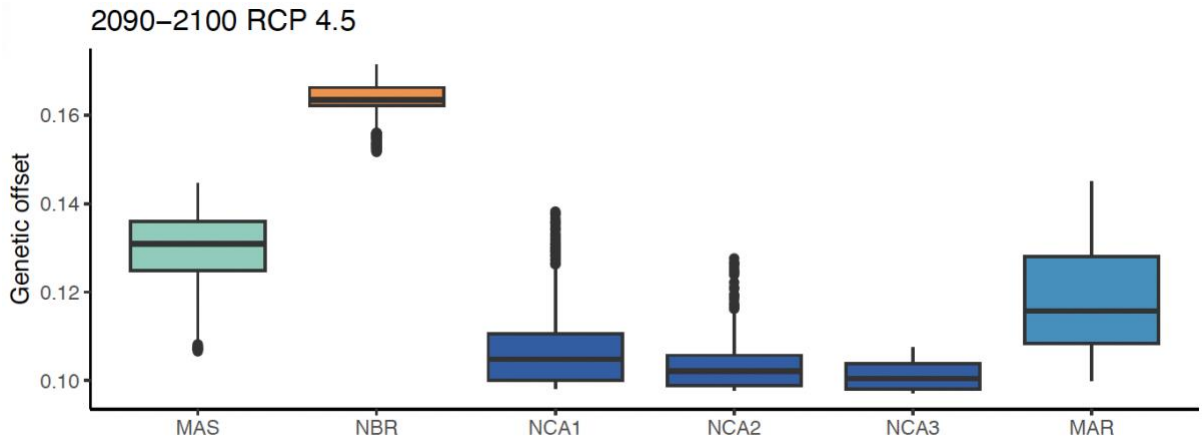
SI.2.59. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP2.6 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



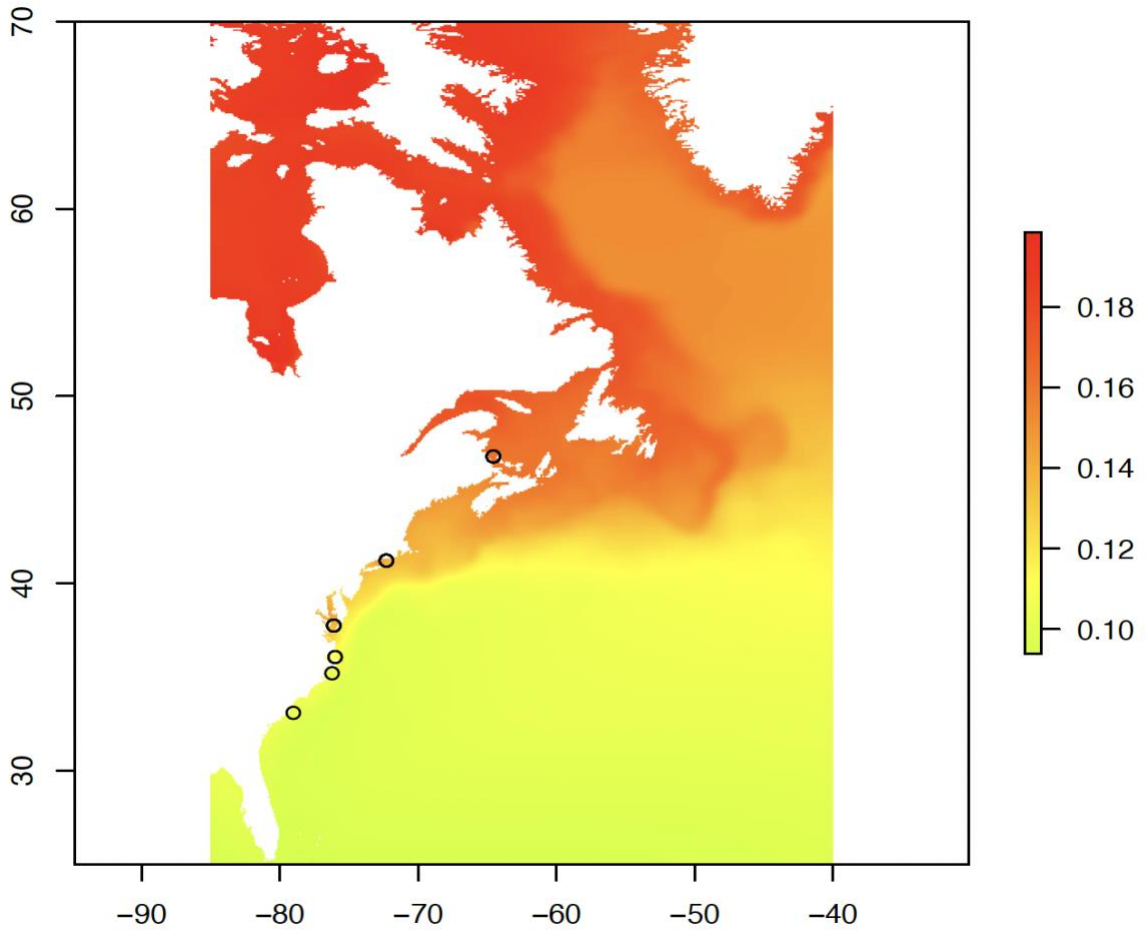
SI.2.60. West Atlantic region - boxplots of per site genetic offsets under a RCP2.6 scenario for the years 2090-2100. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



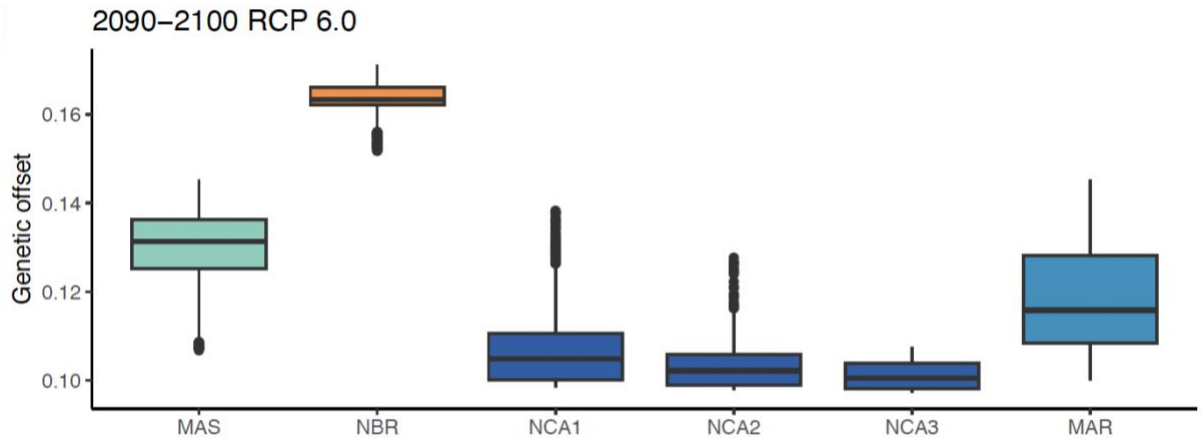
SI.2.61. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP4.5 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



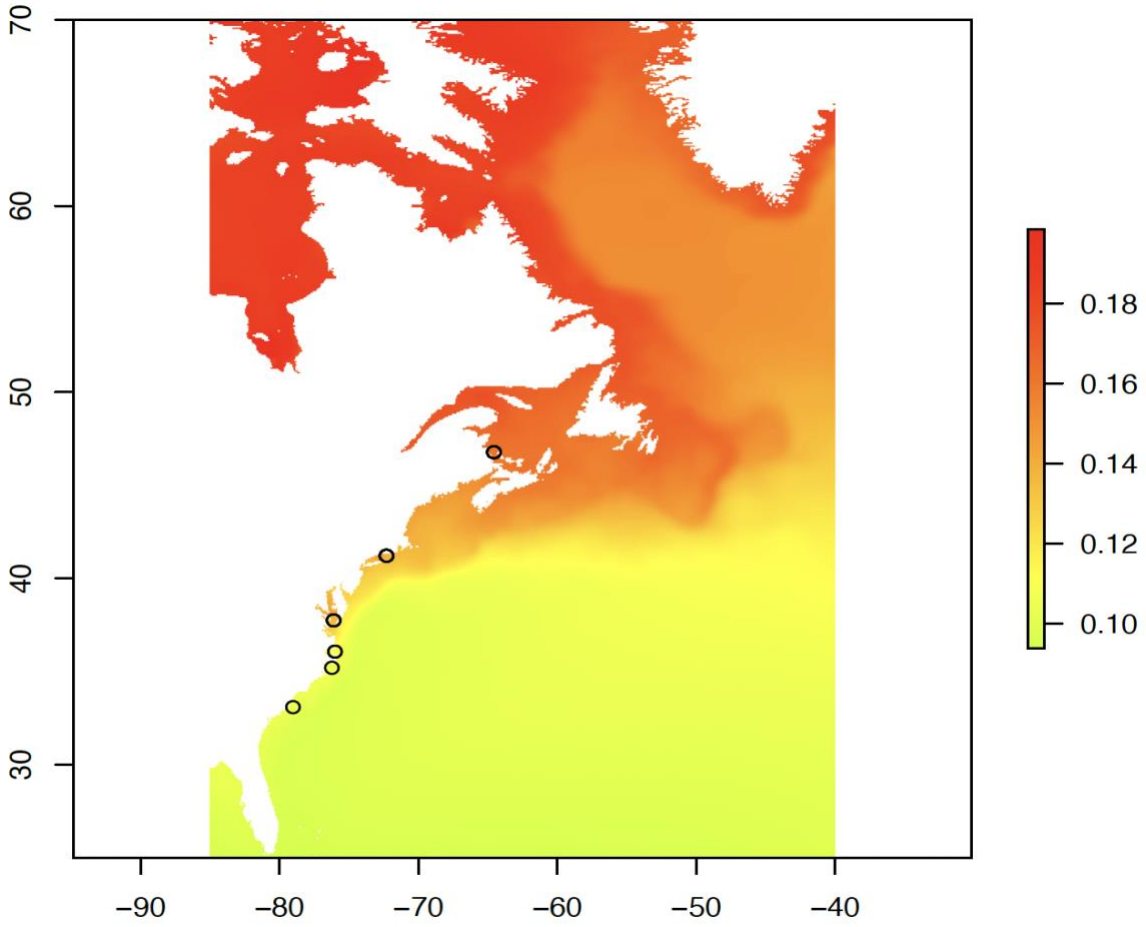
SI.2.62. West Atlantic region - boxplots of per site genetic offsets under a RCP4.5 scenario for the years 2090-2100. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



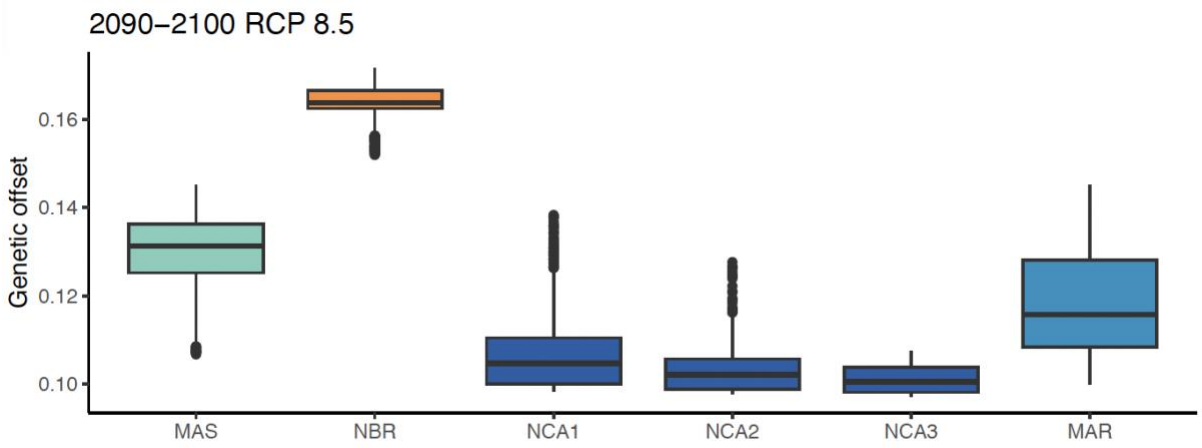
SI.2.63. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP6.0 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



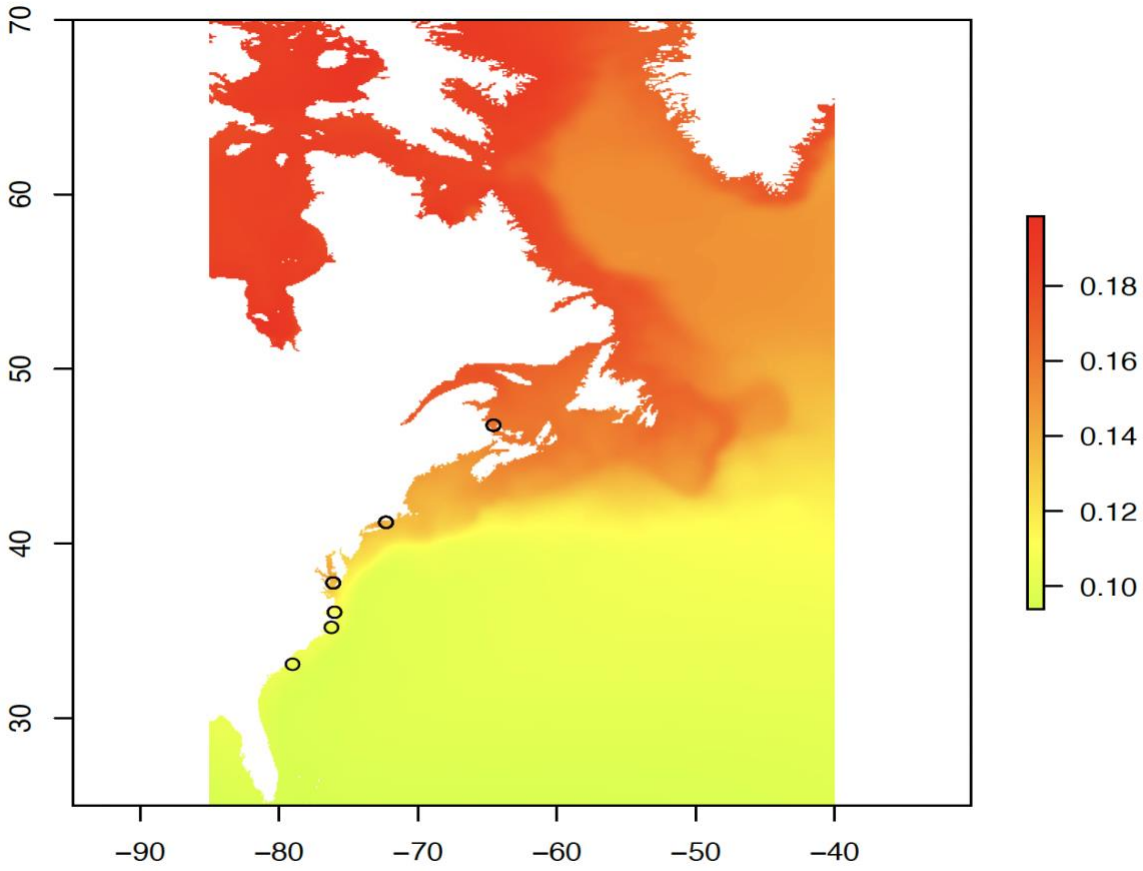
SI.2.64. West Atlantic region - boxplots of per site genetic offsets under a RCP6.0 scenario for the years 2090-2100. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



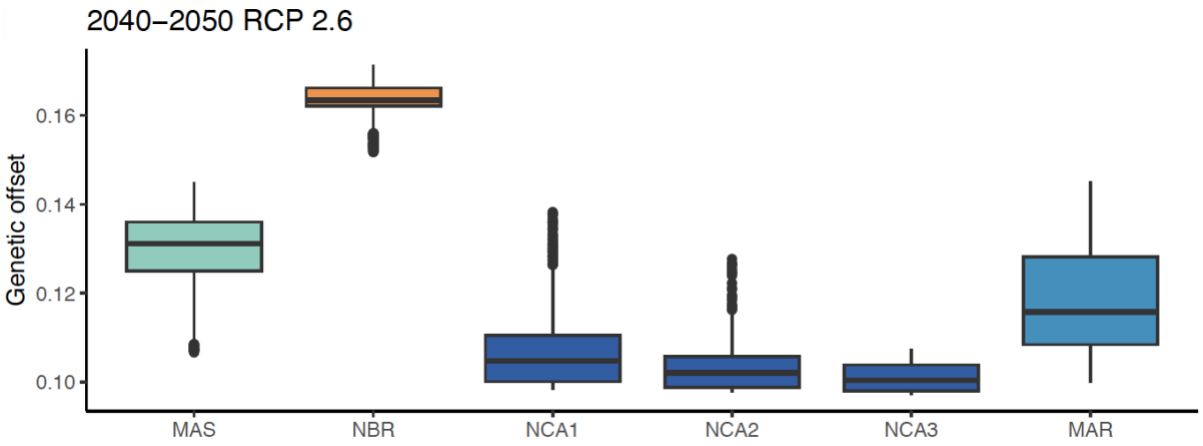
SI.2.65. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP8.5 scenario for the years 2090-2100. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



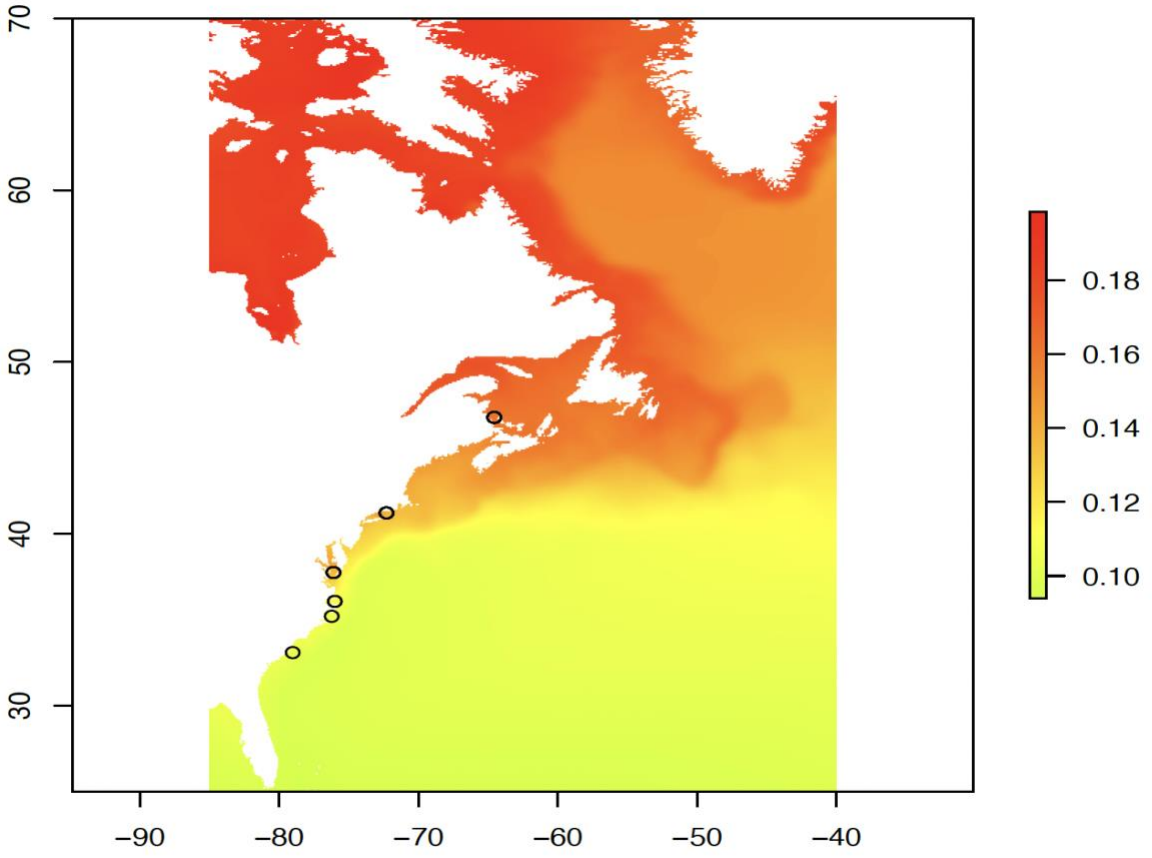
SI.2.66. West Atlantic region - boxplots of per site genetic offsets under a RCP8.5 scenario for the years 2090-2100. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



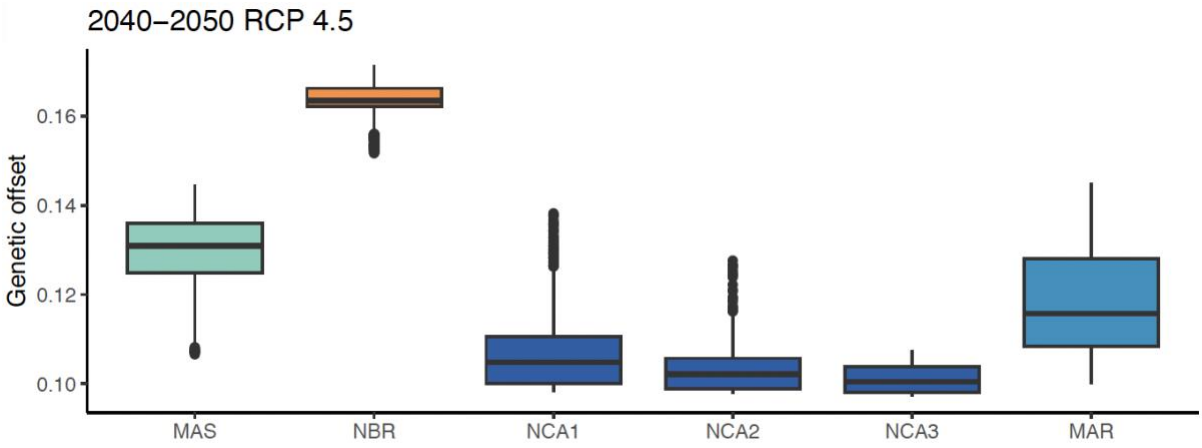
SI.2.67. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP2.6 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



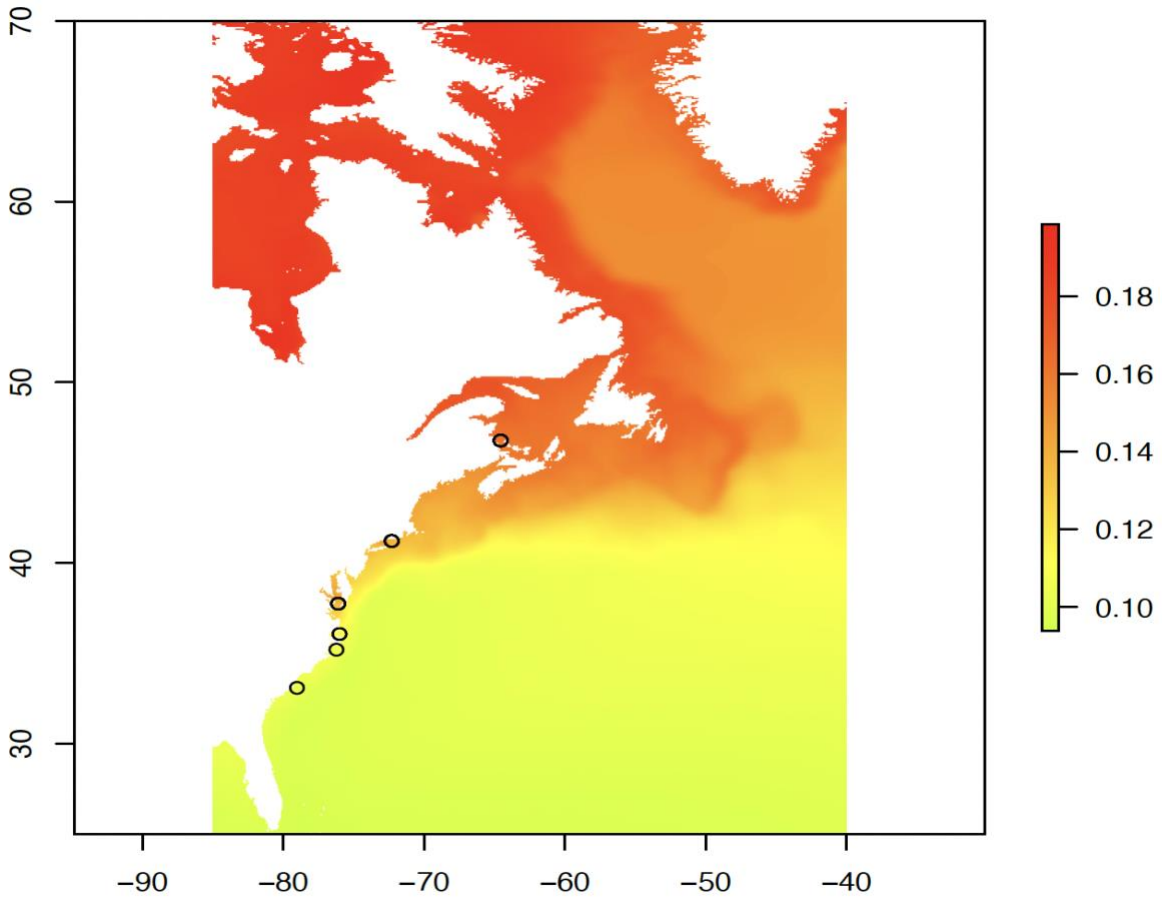
SI.2.68. West Atlantic region - boxplots of per site genetic offsets under a RCP2.6 scenario for the years 2040-2050. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



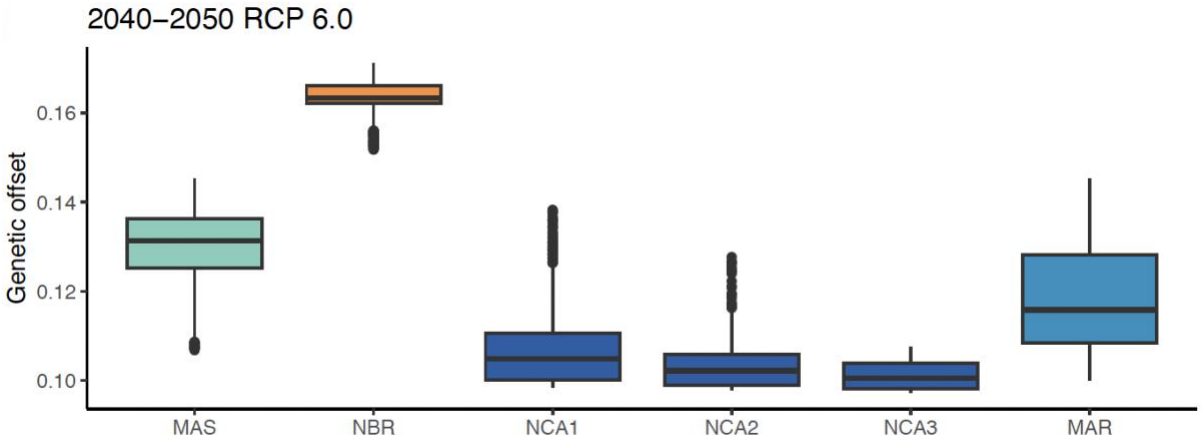
SI.2.69. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP4.5 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



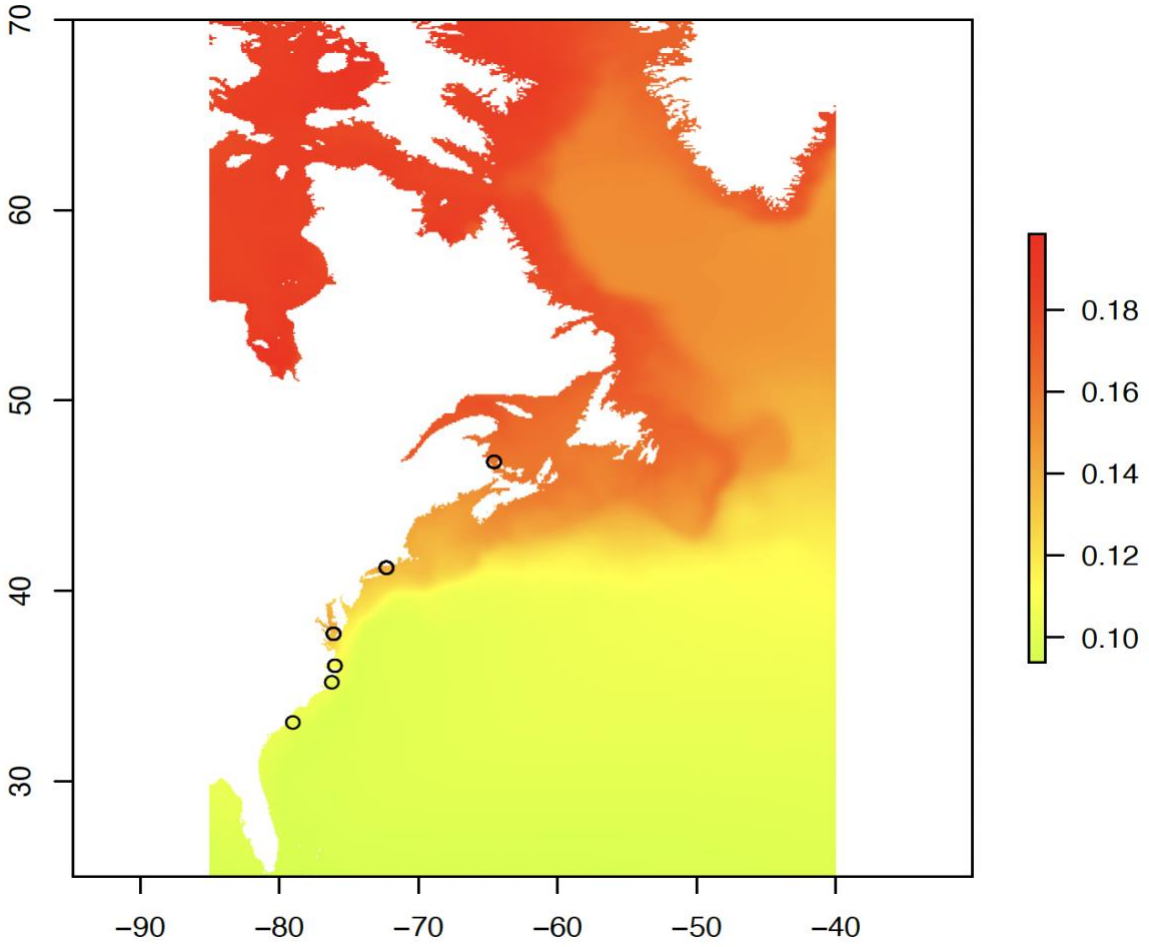
SI.2.70. West Atlantic region- boxplots of per site genetic offsets under a RCP4.5 scenario for the years 2040-2050. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



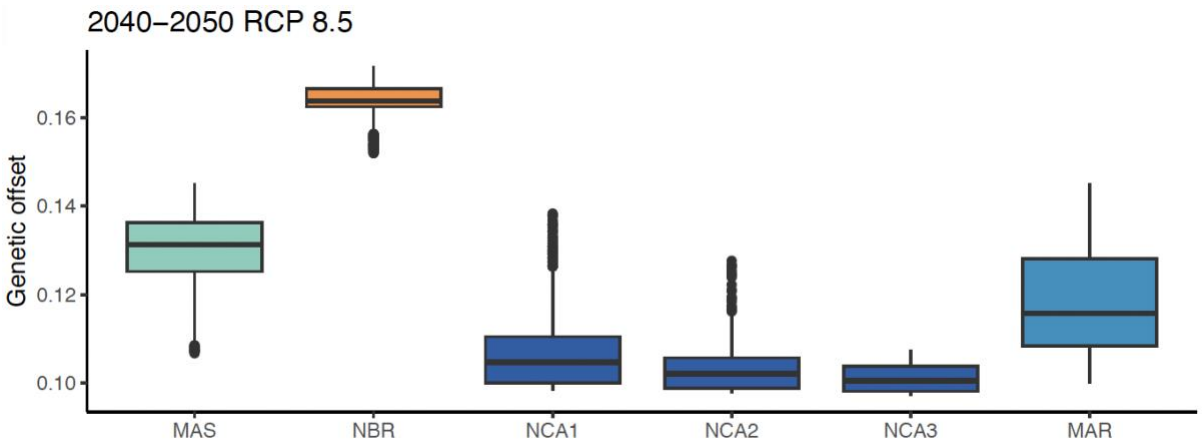
SI.2.71. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP6.0 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



SI.2.72. West Atlantic region - boxplots of per site genetic offsets under a RCP6.0 scenario for the years 2040-2050. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



SI.2.73. West Atlantic region - map of genetic offsets across space and environmental gradients in salinity and temperature under a RCP8.5 scenario for the years 2040-2050. Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].



SI.2.74. West Atlantic region- boxplots of per site genetic offsets under a RCP8.5 scenario for the years 2040-2050. Sites represented as following: Massachusetts (MAS), New Brunswick (NBR), Roanoke River North Carolina (NCA1), Pamlico/Tar & Neuse Rivers North Carolina & (NCA2), Pee Dee River North Carolina (NCA3), Maryland (MAR). Analysis based on the Gradient Forest[4] method and run in the gradientForest R package[5].

References

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