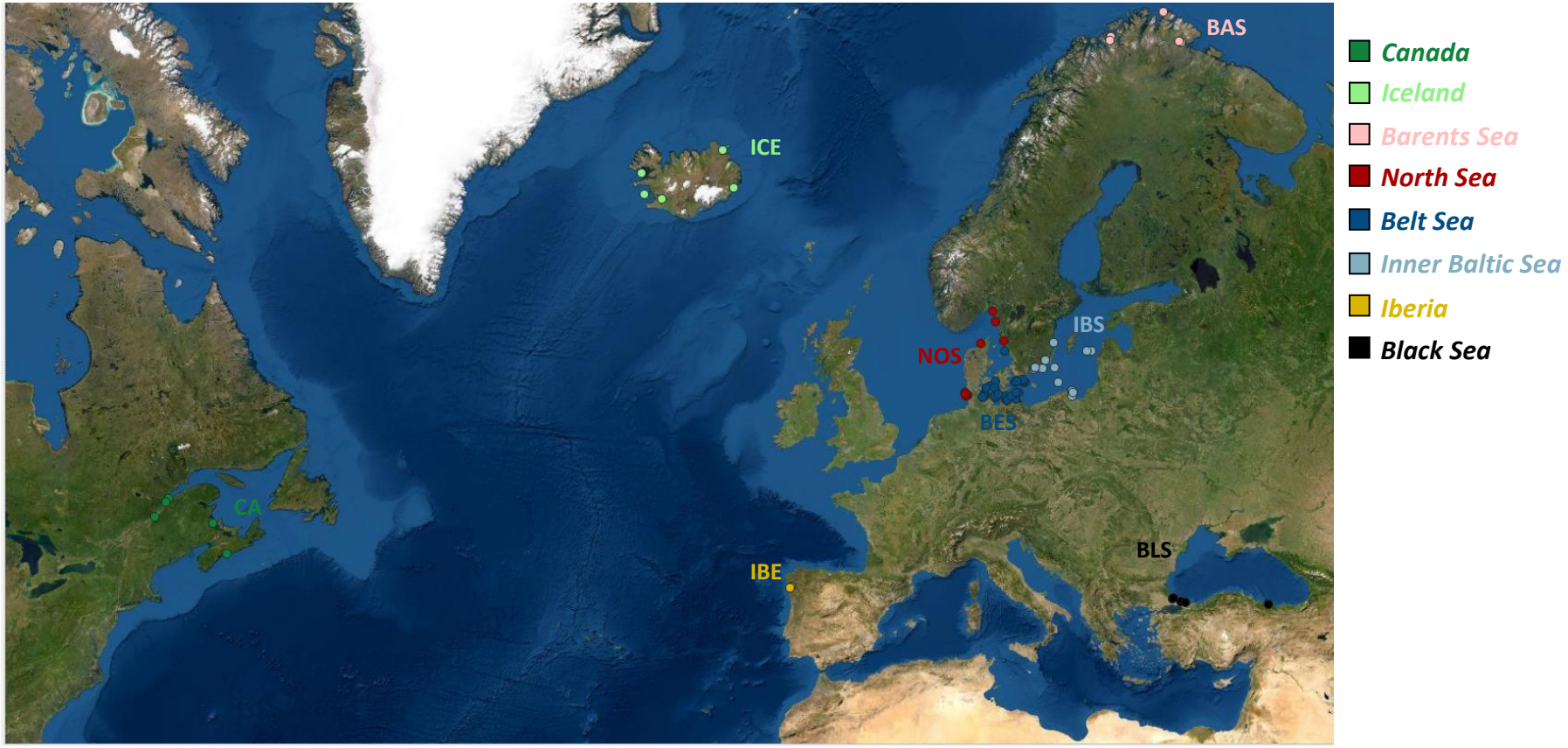
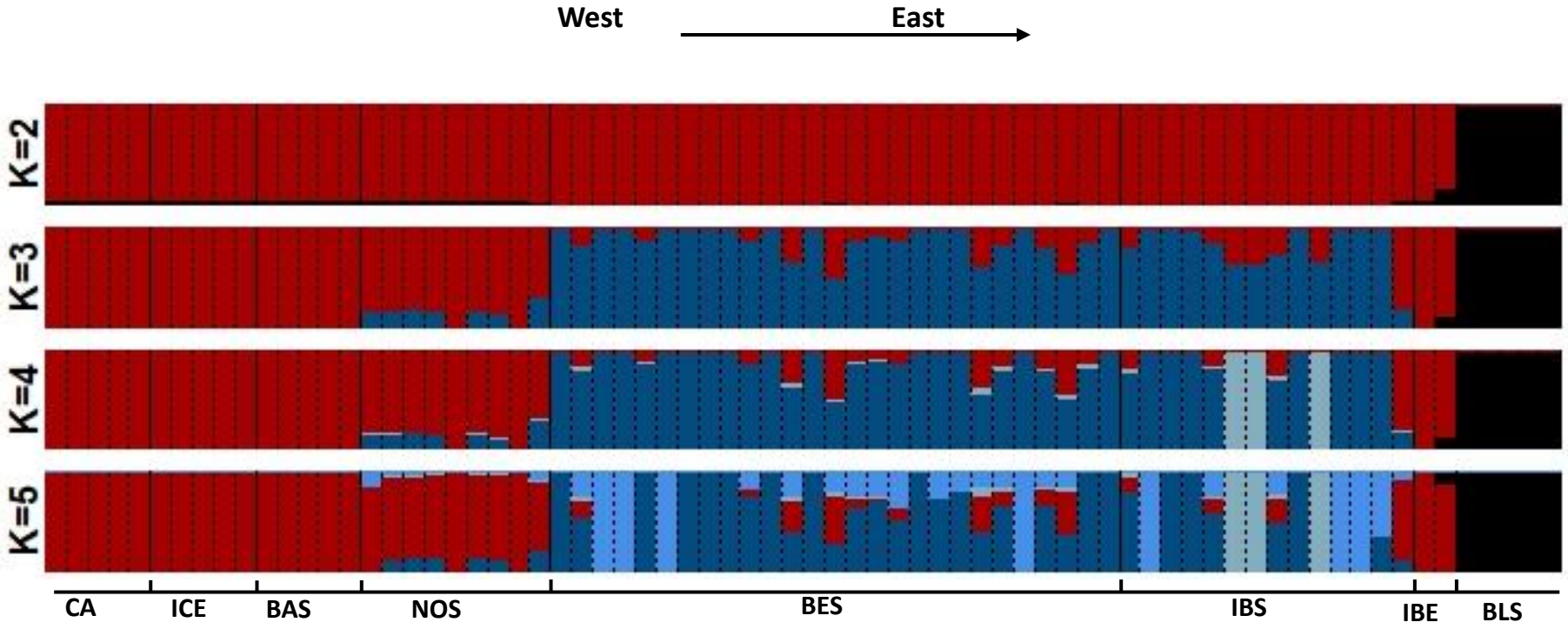
74 Harbour porpoise whole genomes across the North Atlantic (mapped onto own reference genome)

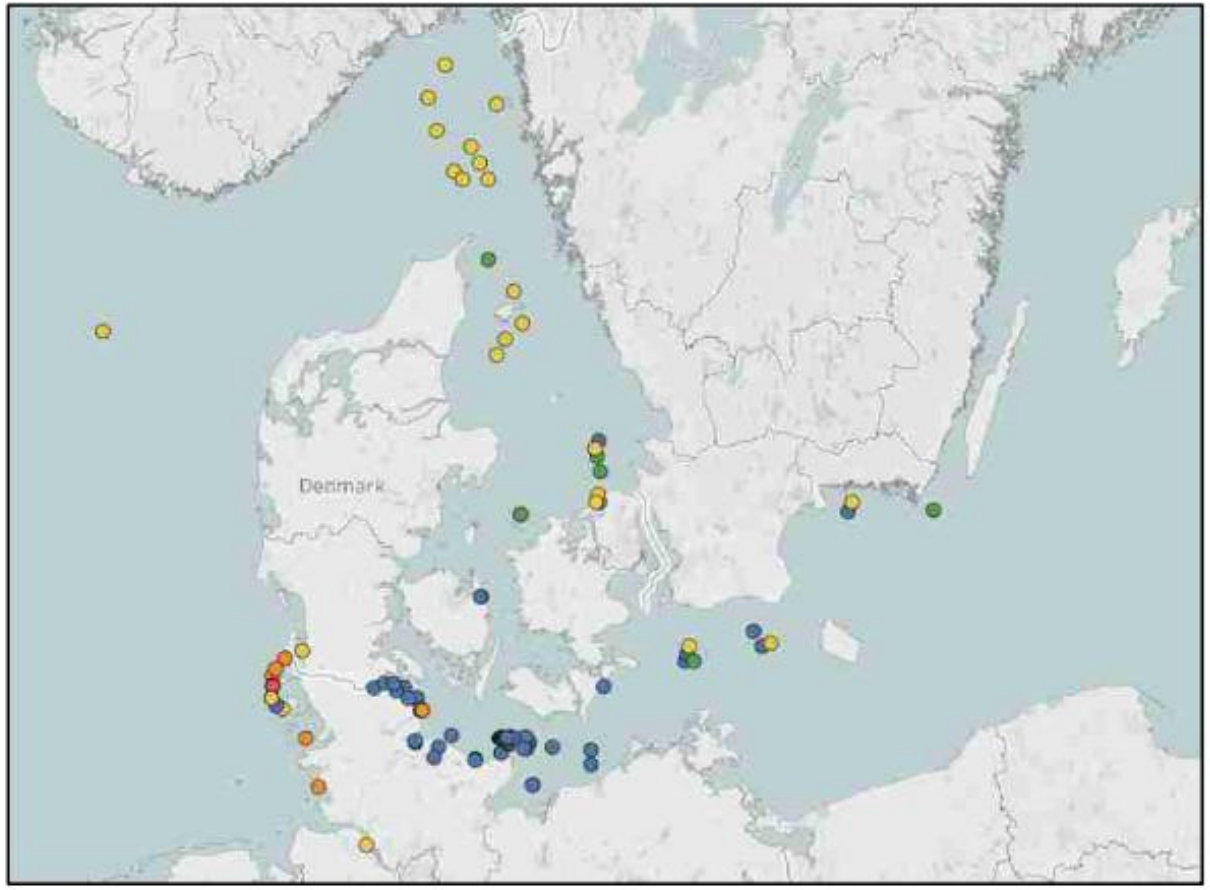


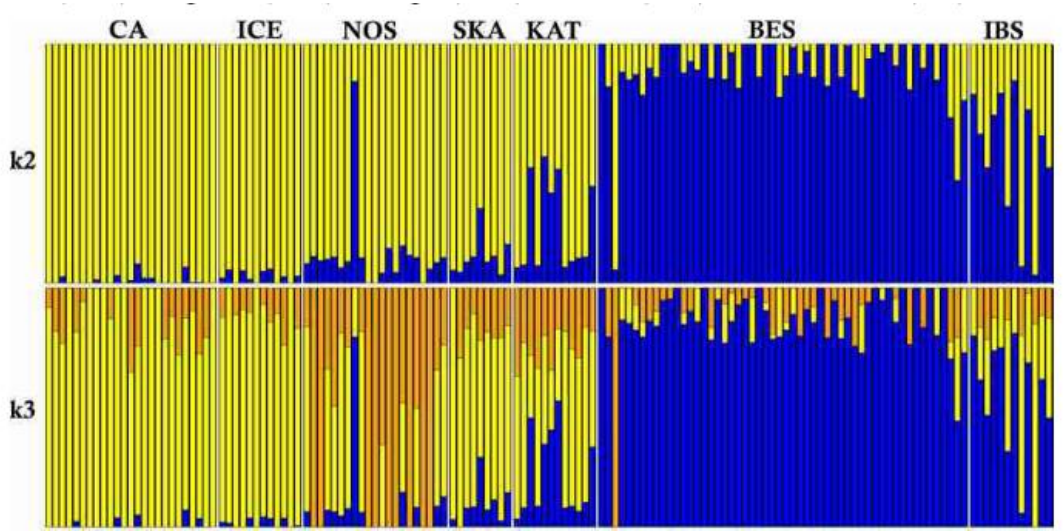
Population Structure – 72 unrelated porpoises (two close kin specimens removed) Whole Genomes



Genome assembly and ddRAD (11,978 SNPs)

- Whole genome assembled Kattegat porpoise: 2.39 Gb in 13,498 scaffolds
- Genome annotated: 22,154 predicted coding genes





- NOS more distinct than IBS?
- 13,5ºE IBS border
- Very few (only 3) samples from Baltic Proper

- Autenrieth M, Hartmann S, Lah L, Roos A, Dennis AB, Tiedemann R (2018) High quality whole genome sequence of an abundant Holarctic odontocete, the harbour porpoise (*Phocoena phocoena*). *Molecular Ecology Resources* **18**, 1469-1481.
- Autenrieth M, Havenstein K, De Cahsan B, Canitz J, Benke H, Roos A, Pampoulie C, Sigurðsson GM, Siebert U, Olsen MT, Biard V, Heide-Jørgensen MP, Öztürk AA, Öztürk B, Lawson JW, Tiedemann R (2024) Genome-wide analysis of the harbour porpoise (*Phocoena phocoena*) indicates isolation-by-distance across the North Atlantic and potential local adaptation in adjacent waters. *Conservation Genetics* **25**, 563-584.
- Celemín E, Autenrieth M, Roos A, Pawliczka I, Quintela M, Lindstrøm U, Benke H, Siebert U, Lockyer C, Berggren P, Özturk AA, Özturk B, Lesage V, Tiedemann R (2025) Evolutionary history and seascape genomics of Harbour porpoises (*Phocoena phocoena*) across environmental gradients in the North Atlantic and adjacent waters. *Molecular Ecology Resources* **25**, e13860.