

**A study of genetic variation at the *Pan I* locus and comparisons with patterns of mtDNA variation in Atlantic cod, *Gadus morhua***

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The aim of the work was to investigate patterns of genetic variation in the Atlantic cod, *Gadus morhua*, by genotyping individuals for the *Pan I* locus using *Dra I* restriction analysis and by studying sequence variation of a region of mtDNA as markers. Samples of adult cod taken in the fall of 2004 in the North and in the South-east of Iceland were studied. Also Atlantic cod samples taken in the Faroe Islands in the fall of 2004 were included for comparison. We compare and contrast patterns of variation at the nuclear encoded *Pan I* and mtDNA in relation to environmental factors to infer potential selective effects.