

## Theme Session N

The pelagic fish complexes in the North Atlantic Ocean: Distribution, productivity, and interspecific competition during changing climate

### *Conveners:*

*Asta Gudmundsdottir, Iceland (asta@hafro.is)*

*David Miller, the Netherlands (david.miller@wur.nl)*

*Geir Huse, Norway (geir.huse@imr.no)*

The North Atlantic is the habitat of many large stocks and highly migratory pelagic fish species. Changes in their distribution, migratory patterns, abundance, and productivity cause continuous challenges for sustainable fishery management. A number of publications suggest that these changes are driven by environmental variability and its impact on ecological processes.

Many of these pelagic fish stocks support valuable fisheries and have over time showed dramatic fluctuations in stock size and spatial and temporal distribution. Their dynamics are governed by primary and secondary production influencing the survival of early life history stages and thus recruitment dynamics as well as the feeding success of older life stages. Climate change, acting through ecological and environmental factors, can be expected to contribute and facilitate further displacement of pelagic fish stocks in a poleward direction. Changes in spatial and temporal overlap in distribution of these pelagic fish stocks cause variation in interspecies predation pressure and competition for food.

The aim of the session is to:

- 1) Map recent changes in migration patterns of highly migratory pelagic fish stocks on both sides of the northern North Atlantic;
- 2) Explore ecological and stock-related effects of changes in their migration patterns;
- 3) Explore the interaction between different fish stocks as a foundation for a more ecosystem-based fishery management;
- 4) Elucidate the importance and need of multidisciplinary surveys in order to make integrated assessment for the areas and stocks under consideration.

Contribution of papers dealing with pelagic fish stocks both in northeast and northwest Atlantic are encouraged. That will allow comparison between the areas and determine the current state of the research and future challenges in this field.