

Genetic structure, speciation, hybridization and epigenetics of two exceptionally awful model species, the Atlantic eels (*Anguilla anguilla* and *A. rostrata*)

Date	18th Dec (Fri.)	
Time	16:00 (UTC+8)	
Venue	Zoom	

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European and American eel are some of the most enigmatic vertebrates. They spawn in an overlapping region of the remote Sargasso Sea, thousands of kilometres from their foraging areas in European and North American coastal regions. Their exceptional life history has profoundly affected genetic population structure and speciation history. Hence, despite their widespread geographical distribution both species are remarkable by being panmictic. The overlapping spawning regions and ongoing hybridization between species suggest that they could be the result of sympatric, ecological speciation, but analysis of genomic data nevertheless provides evidence for allopatric speciation, possibly linked to glacial cycles. Finally, the fact that European eel is panmictic precludes genetically based local adaptation. We test the hypothesis that epigenetic (methylation) variation underlies their remarkable ability to persist in a wide range of climatic and environmental conditions.



About Prof. Michael Møller Hansen:

I am professor at the Department of Biology, Aarhus University, Denmark. My research interests are in the broad field of population genomics. I am particularly interested in understanding if and how organisms can adapt to rapid environmental change, such as climate change, and in understanding interactions between adaptive processes and long-term demographic history of species and populations. I am also interested in the application of population genomics for practical conservation problems. I focus particularly on fishes, with eels, salmonid fishes and threespine sticklebacks among my favourite study organisms.