

You are cordially invited to join the official inaugural lectures of Carlos Duarte, Professor at Arctic Research Center and Thomas Simonsen, Honorary Professor at Genetics, Ecology and Evolution, Department of Bioscience

Two Inspiring Inaugural Professor Lectures

24 May 2017 11.00

Auditorium F, Ny Munkegade, build. 1534,
Aarhus University

Program

- 11.00 Welcome by Head of Department Hans Brix
- 11.05 - 11.15 Presentation by Hans Brix
- 11.15 - 11.45 Lecture by Thomas Simonsen:
From DNA to species to distributions and adaptations: possibilities and challenges for future biodiversity research
- 11.45 - 11.55 Presentation by Søren Rysgaard
- 11.55 - 12.25 Lecture by Carlos Duarte:
Peeking Through the Crystal Ball: The Future of Arctic Ocean Production
- 12.30 Reception

The lectures will be held in English.



Appetizers

From DNA to species to distributions and adaptations: possibilities and challenges for future biodiversity research

Over the past two decades DNA analyses have become the method of choice for a number of different biodiversity studies from within-species diversity, to species discovery and delimitation, to higher-level phylogenetics and distribution studies (phylogeography) and historical biogeography. Some proponents of DNA-based biodiversity research have argued that advances in sequencing technology and analytical tools could render morphology and classical collections based museum research obsolete in the near future. Nevertheless, recent experiences show that detailed knowledge and understanding of ecology and morphology are crucial to interpreting the results of molecular analyses in a biological context, just as new and apparently controversial molecular results can lead to novel (and more correct) interpretations of both morphological and biological evolution. At the same time well-curated and continuously maintained museum collections hold immense potential biodiversity information at a number of levels, the major challenge is how to unlock it. In this lecture, I give a brief overview of my own collections based biodiversity research focused on Insects (mainly Lepidoptera), and outline some of the major possibilities and challenges I see for future collaborations between natural history museums and universities.

Peeking Through the Crystal Ball: The Future of Arctic Ocean Production

The Arctic Ocean has entered a phase of dangerous climate change where reality outpaces model predictions. Ice loss is, in turn, increasing the extent of human operations in the Arctic, adding to the pressures resulting from climate change. As the Arctic Ocean supports the most productive ecosystem in the world's ocean, understanding the consequences of on-going changes for marine productivity has both regional and global consequences, as this will affect biodiversity and food webs, and possibly trigger feedback mechanisms on climate change. In this Inaugural Lecture, I will give a brief overview of my current and planned Arctic research, largely conducted in collaboration with colleagues at Aarhus University's Arctic Research Center, with a focus on our efforts to understand the productivity regimes of a future Arctic Ocean.

