

## Symposia



- Opening lecture

**Invited speaker: Alessandra della Torre - Sapienza University of Rome**

*"Cryptic divergence and sympatric speciation in the main Afrotropical malaria vector species of the Anopheles gambiae complex".*

- Advanced models and technologies for the study of Evolution

Chair: Marco Passamonti

**Invited speaker: James Mcinerney - University of Manchester**

*"The importance of mergers and acquisitions in evolution"*

Evolutionary studies have always being boosted up by new discoveries and technologies. This symposium wants to gather the new fields of biological sciences, and other sciences as well, to highlight their contribution to Evolutionary Biology. In this symposium we will consider all contributions from -omics fields, as well as other state-of-the-art approaches and experimental models.

- Biogeography and systematics

Chair: Omar Rota Stabelli

Co-chair: Giuliana Allegrucci

**Invited speaker: Nicola Segata - University of Trento**

*"Microbial population structure and biogeography from metagenomic data"*

This symposium deals with spatial and temporal variation of species and populations, as well as phylogenetics and phylogeography, with different methodological approaches.

## Symposia

- **Evo-Devo**

*Chair: Alessandro Minelli*

*Co-chair: Giuseppe Fusco*

**Invited speaker: Paolo Sordino - Stazione Zoologica Anton Dohrn, Napoli**

*"The fin-to-limb transition"*

Common to all phenotypes on which selection operates as well as to those that evolve by drift is the fact that they managed to arrive to the arena. Evolvability, or 'the arrival of the fittest', is one of the major questions addressed by Evolutionary Developmental Biology, or Evo-devo. But this young discipline's contribution to Evolutionary Biology is itself rapidly evolving, as the symposium will show.

- **Evolution and conservation**

*Chair: Paolo Ciucci*

*Co-chair: Gabriele Gentile*

**Invited speaker: David R. Vieites - Museo Nacional de Ciencias Naturales (MNCN), Madrid**

*"Integrating evolution into conservation: from genes to ecosystems"*

The symposium deals with the identification of evolutionary patterns and trajectories to address conservation problems (e.g., evolutionary responses of natural populations to climate change, human impact and introduction of alien species).

- **Coevolution and symbiosis**

*Chair: Maurizio Casiraghi*

**Invited speaker: Francis Jiggins - University of Cambridge**

*"Symbionts and genes: the coevolution of *Drosophila* and its viruses"*

The symposium considers researches on host-parasite relationships, mutualistic and symbiotic strategies, and the role of symbiosis in Evolutionary Biology.

- **Evolutionary and behavioral ecology**

*Chair: Andrea Pilastro*

*Co-chair: Lisa Locatello*

**Invited speaker: Tommaso Pizzari - University of Oxford**

*"The Polyandry revolution: from societies to genes"*

Life history and behavioral traits are typically highly plastic, yet they evolve rapidly. The symposium will focus on the ecology of behavioral and life-history strategies, their phenotypic plasticity and evolution.

- **The effects of drift and selection on populations and genomes: expectations and observations**

*Chair: Giorgio Bertorelle*

*Co-chair: Silvia Ghirotto*

**Invited speaker: Anna Malaspinas - University of Bern, Switzerland**

*"A genomic history of Aboriginal Australia"*

Two major forces in evolution are genetic drift and selection. Both leave specific signatures on the genomic variation

## Symposia

within a species, and their effects can be inferred from modern molecular and statistical techniques, and can be used to reconstruct evolutionary patterns such as selective sweeps or migration processes. In this symposium we consider all theoretical and empirical contributions related to this field.

- **Round Table: Popularization of Evolution (*Divulgazione dell'Evoluzione* - dibattito in italiano)**

*Chair: Telmo Pievani*

Is there a correct way to divulgate and share ideas of Evolutionary Biology in the era of social media? What are the commonest mistakes, misinterpretations and constraints when popularizing Evolutionary Theory? What are the possible effects on general public?