

DOTTORATO TOSCANO IN SCIENZE DELLA TERRA (Università degli Studi di Firenze, Pisa e Siena)

nell'ambito dell'offerta formativa proposta per il Dottorato Toscano in Scienze della Terra, il Laboratorio di Paleontologia di Vertebrati del Dipartimento di Scienze della Terra dell'Università di Firenze propone il seguente "corso avanzato in Paleontologia dei vertebrati"

Investigating the evolution of mammals: new methods and analytic tools for old bones

Il corso, a cura del Dr. Luca Pandolfi, si terrà presso il Dipartimento di scienze della Terra (via G. La Pira 4, Firenze) dal 7 al 10 maggio 2019

<u>About the course</u>: The course provides an overview on the discipline of Vertebrate Paleontology, in particular on the investigation of Neogene and Quaternary mammals by means of different new approaches.

Fossil mammals provide insightful data on evolutionary patterns, adaptations and environmental changes as well as on the origin of extant taxa. Classical morphological and morphometric comparisons have been extensively applied in several studies on fossil species. In recent times, researchers are investigating morphological changes and evolution by means of additional new methodologies and analytical tools, such as, among others, Cladistics, and Geometric Morphometrics.

Students will be introduced to a general framework on classical and advanced methods to investigate evolution and morphological changes in mammals and to apply comprehensive analyses in the study of fossil vertebrates. Case-studies on the use of different methods to analyze evolutionary patterns in Eurasian and African fossil mammals will be presented.

About the teacher: Dr. Luca Pandolfi, after getting a PhD in Vertebrate Paleontology at the University of RomaTre in 2015, had research experience in several institutions in Italy, UK and other countries around Europe. He presently holds a two-years Research fellowship at the Univerity of Florence (*Giovani Ricercatori Protagonisti*) responsible of the project 'Ecomorphology of fossil and extant Hippopotamids and Rhinocerotids'.

The course (4 CFU) is organized in three day of lessons, with theoretical and practical contents (6 hours/day) and one day of fieldtrip (Late Miocene locality of Brisighella and the Civic Natural Science Museum of Faenza, 8 hours)