

Dottorato di Ricerca in Biologia Evoluzionistica ed ecologia – Didattica prevista ed erogata

Training Offer. The PhD program in Evolutionary Biology and Ecology envisions a series of activities and courses for doctoral training. There are compulsory courses in Statistics and Informatics. In addition, ad hoc seminars are delivered to train PhD students in research management, research and funding systems, exploitation of research results and intellectual property. This design is aimed at offering the students with scientific and management views broader than their own immediate research interest.

Attendance is compulsory for all students, and most board members usually take part. Seminars are delivered in English. For each seminar two students take responsibility for organizing the discussion. They receive papers and materials from the international literature on the topics addressed by the speaker(s) and are required to build on these to ask relevant questions. This format has proven fruitful for encouraging all the audience to take part in the discussion. Also, it turned out as a valid alternative to the common practice of delivering “journal clubs”, in which the student often selects very specialistic pieces of literature, poorly accessible to the rest of the audience. Upon each speaker’s consent, the slide presentation remains in the PhD course archive, though open to consultation by the students only.

The entire yearly program is assembled in the fall, with all Board members aiding in the recruitment of potential speakers. This safeguards the marked interdisciplinarity of the PhD course, ensuring that a broad range of topics is covered. Dates are fixed before the beginning of the year, published on the website, and are recalled one week in advance to the board and the students. A mailing list of >200 e-mail addresses, including individuals and organizations, is also used to advertise. Speakers of the “Former Student Series” are given special visibility. These are PhD doctors in Evolutionary Biology and Ecology, who pursued the scientific career, often at prestigious Institutions abroad. Their presentations are meant to report on their scientific achievements as well on their experience in being an Italian PhD in an international milieu, and on the way of life in foreign laboratories and scientific enterprises.

In the year 2019, 4 short courses were delivered, covering advanced statistics, R programming and methods for accessing large databases. 14 seminars were delivered, covering topics as different as monitoring and conservation of endangered species, strategies for applying to EU funding, evolution of the human MHC system. Preferential access to the International Workshop “Human growth and nutrition: the hidden science” was also given by the Organizers.

The program of courses and seminars for the year 2020 (updated 10.4.2020) is reported below and is also available at http://dottoratobee.uniroma2.it/?page_id=2774

As of today, only 4 events suffered cancellation due to the COVID emergency (starred in the table below) but catching up is planned for the late fall or early 2021. This PhD course was among the fastest to move all activities online, through the Teams platform. The experience gained so far was one of larger attendance, with several requests from outside the Department of Biology and the University Tor Vergata.

Speaker/teacher	Affiliation	Topic/Title	Date
Prof. Michele Scardi	Member of the Board	Statistica, total 16 hrs.	starting Wed. May 6, 14:30-18:30
Dr. Tommaso Russo	Member of the Board	Metodi informatici in Biologia	dates t.b.a.
Dr. Margherita Montalbano di Filippo	Istituto Superiore di Sanita'	E. coli and protozoa: ubiquitous and pathogen organisms used as a model' study	13/01/2020 14:30
Dr. Antonella Tabocchini	National Center for Innovative Technologies in Public Health Istituto Superiore di Sanità	Low radiation environment affects the development of protection mechanisms in living organisms: evidence from yeasts, cells and fruit flies	20/01/2020 14:30

Dr. Simon Goodman	School of Biology, University of Leeds	Linking ecology, environment and society to the present and future of Caspian seal conservation	23/01/2020 12:00
Dr. Luisa Garofalo	Centro di Referenza Nazionale per la Medicina Forense Veterinaria, IZSLT	Application of molecular markers in animal forensic caseworks.	27/01/2020 14:30
Prof. Carlo Rondinini	Università di Roma La Sapienza	Biodiversity scenarios and Sustainable Development Goal 15 - Life on Earth	03/02/2020 14:30
Dr. Renata Denaro	Istituto di Ricerca sulle Acque, IRSA, CNR	Marine hydrocarbon-degrading bacteria, their role in the environmental restoration and barriers for their use	16/03/2020 14:30*
Dr. Guadalupe Pinar	University of Natural Resources and Life Sciences, Vienna	Techniques applied in microbial ecology studies	23/03/2020 14:30*
Dr. Guadalupe Pinar	University of Natural Resources and Life Sciences, Vienna	Application of molecular techniques in Cultural Heritage studies	24/03/2020 12:00*
Dr.ssa Anna Barra Caracciolo	Istituto di Ricerca sulle Acque, IRSA, CNR	Bioremediation of contaminated soil and water	20/04/2020 14:30*
Dr. Maria Immacolata Ferrante	Stazione Zoologica Anton Dohrn, Napoli	Diatom genomics and the mechanisms of sex determination in diatoms	20/04/2020 14:30
Dr.ssa Loredana Manfra	Ecotossicologa dell'ISPRA	Nanomaterials and nanoplastics in marine ecosystem: learning from ecotoxicology	11/05/2020 14:30
Dr.ssa Alice Rotini	Ecotossicologa marina dell'ISPRA	Complex feeding behaviour in small seagrass-grazers: role of total phenols and ecological consequences of environmental changes	25/05/2020 14:30
Dr. Giovanna Serino	Università' La Sapienza	Molecular mechanisms of drought response in plants	08/06/2020 14:30
Dr. Luciana Carotenuto, Andrea Monaco, Fabrizio Petrassi	Regione Lazio - Direzione Capitale naturale, parchi e aree protette Area Tutela e valorizzazione dei paesaggi naturali e della geodiversità	Strengths and weaknesses of communicating about biological invasions and their impacts on ecosystems, economy and health	13/7/2020 14:30
Dr. Maurizio Pinna	University of Salento Dept. of Biological and Environmental Sciences and Technologies	Ecological status evaluation of aquatic ecosystems: traditional and innovative approaches	09/11/2020 14:30
Dr. Hovirag Lancioni	Università' di Perugia	From macro to micro-phylogeographic approach to define the genetic history of human and animal populations	16/11/2020 14:30
Dr. Gabriele Scorrano	University of Copenhagen Denmark	Ancient biomolecular studies: state of the art and perspectives	23/11/2020 14:30
Dr. Maria Laura De Marchis	Istituto Zooprofilattico Sperimentale delle Regioni Lazio e Toscana	Sviluppo e realizzazione di strumenti analitici a supporto del controllo ufficiale di organismi geneticamente modificati	30/11/2020 14:30

Finally, an essential component of each student's training is his/her annual presentation of results. There are 4 such presentations scheduled during the course duration, i.e. at the beginning of 1st year, and at the end of 1st, 2nd and 3rd years. Beyond the side-to-side work with the tutor, the student's oral and visual presentation is scrutinized and scored by the entirety of the board. The student is advised on which aspects deserve improvement and how to enhance the main message. The coordinator collects these observations, summarizes them into a table of issues and scores, and returns the results to the student, addressing him/her to the more appropriate member of the board. Each following presentation includes a re-exam of the fulfillment of the student's duties.