



1st summer school in Zoology



An integrated approach to marine invertebrate biodiversity: evolutionary and functional adaptations

TRAINING COURSE

Chioggia (VE) - June, 17-22, 2013

Marine Biological Station of the Department of Biology, University of Padova

The school aims to present the biology and ecology of marine invertebrate species in relationship to their habitat, for a better understanding of the marine environment and for an efficient use of it. It consists of lectures, laboratory activities and tutorials and students will be encouraged to make observations on living invertebrates, do experimental bench work, analyse results, and discuss recent bibliography.

Students of the master courses and PhD students are encouraged to apply. Knowledge of the fundamentals of molecular, cell and developmental biology is required for the participation to the school. A maximum number of 20 persons will be selected.

The registration fee of 150 euros will contribute to cover course fees and full board accommodation.

Send applications as single pdf file to
Loriano Ballarin (loriano.ballarin@unipd.it).

Registration deadline: June 5, 2013

Applications should include: full department address, phone, fax, e-mail together with a short curriculum vitae, description of the applicant's current research interest, and a letter of presentation written by a tutor from applicant's home

Course contributors and lecturers

Loriano Ballarin, University of Padova
Matteo Cammarata, University of Palermo
Maria Daniela Candia Carnevali, University of Milano
Nicola Franchi, University of Padova
Tsuyoshi Momose, Station Zoologique, Villefranche-sur-mer (F)
Nicolò Parrinello, University of Palermo
Stefano Piraino, University of Salento
Michela Sugni, University of Milano
Stefano Tiozzo, Station Zoologique, Villefranche-sur-mer (F)
Moshe Tom (Israel Oceanogr. and Limnol. Research, Haifa (IL)
Jacopo Vizioli, University of Lille (F)

TOPICS ADDRESSED IN THE COURSE:

- Introduction to systematics: phylogeny and taxonomy
- Features of the main groups of marine metazoans (cnidarians, platyhelminthes, echinoderms, tunicates): including anatomical body plan of the phylum and/or the main taxa
- Morphological and functional adaptations of species, with regard to their natural environment and their vertical zonation
- Lifestyles and their adapted major functions (respiration, nutrition, locomotion and reproduction)
- Stress responses and Immunobiology

LECTURES

- Functional Biology of Echinoderms: a new insight on well-known models
- Development without embryo: colonial ascidians and platyhelminthes as models for regenerative and stem cell biology
- Annelids: not simply a tube inside a tube!
- *Clytia hemisphaerica*, cnidarian model for developmental and cell biology
- Cnidarians and the evolution of Metazoa: old dogmas and new perspectives
- The compound ascidian *Botryllus schlosseri* as a model organism for developmental and immunobiology: introduction and practice
- Experimental approaches and in vivo reaction during *Ciona intestinalis* inflammatory response

PRACTICAL LABORATORIES

- Mutable connective tissues and their adaptive potential in echinoderms: handling animals and in vivo observation
- Regeneration in Platyhelminthes and colonial ascidians
- Cnidarians and the evolution of Metazoa
- The compound ascidian *Botryllus schlosseri* as a model organism for immunobiology
- *Ciona intestinalis* inflammatory response

For detailed information: <http://www.biologia.unipd.it/> or
<http://www.unipa.it/~siics/>

