

Tentative academic program of  
**Summer School**  
**in Coastal Ecology and Biological Safety**  
(June 14-26, 2010; White Sea Biological Station)

***Version of January 27, 2010***

**Module I (4 days): Invertebrates' Diversity of Coastal Zone**

***Lectures + seminars, boat and short hiking excursions, laboratory work, individual work***

- a) Main groups of invertebrates: the resident and endemic species of the White Sea
- b) Gathering and identification of invertebrate inhabitants:
  - **Tidal zone;**
  - **Sea-bottom;**
  - **Bottom soils;**
  - **Plankton**
- c) Analysis of biotic interactions and networks inside the invertebrate communities of the coastal zone
- d) Full systematic identification of a specimen by taxonomic key.

**Module II (4 days): Plant Diversity of Coastal Zone**

***Lectures + seminars, long hiking excursions, laboratory work, individual work***

- a) Analysis of structural heterogeneity of forest community and its position within landscape
- b) Description of the forest phytocoenosis:
  - **Forest layers;**
  - **Understory;**
  - **Edaphic covering;**
  - **Soil**
- c) Coastal plants
- d) Definition and description of zones by moisture/salinity
- e) Bog plants
- f) Field research in biodiversity, plant collection, herbarization and identification techniques

**Module III (2 days): Biological safety**

***Lectures + seminars, individual or team research project, oral presentation***

- a) Actual problems of ecotoxicology and safety of biosystems

b) Analysis of correlation of toxic characteristics and impacts of environmental contaminants (primarily super-ecotoxicants) to zonal climatic landscape and biogeocenosis specifics of ecosystem and to medico biological features of inhabitants