TRANSNATIONAL EDUCATION PROGRAMMES

TRAINING COURSE ON BALTIC SEA ZOOPLANKTON IDENTIFICATION



ARCHIPELAGO RESEARCH INSTITUTE OF THE UNIVERSITY OF TURKU

The Archipelago Research Institute is a special unit under the Centre of Environmental Research of the University of Turku. The Institute is located in the middle-region of the archipelago, on an island known from its nature and particularly interesting history.

The Archipelago Research Institute has over 50 years of experience in participating in multidisciplinary research of the Baltic Sea, with a special focus on the Archipelago Sea. The institute provides long-term monitoring data e.g. on hydrography, zooplankton and Baltic herring, and strong scientific expertise on long-term environmental monitoring and modeling decadal datasets. Additionally, the institute offers facilities and services for courses, seminars and research groups.

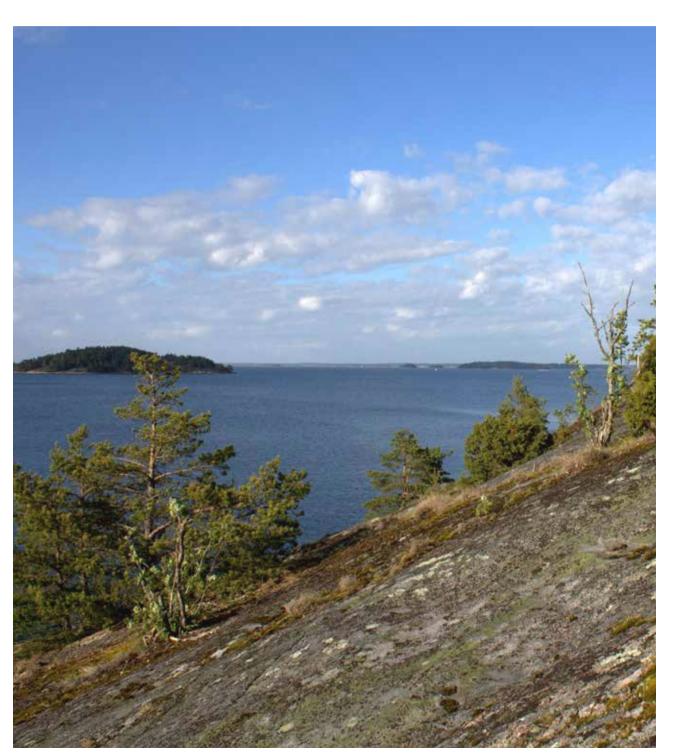
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Training Course on Baltic Sea Zooplankton Identification

CONTENTS AND STRUCTURE OF THE COURSE

The course includes expert lectures on zooplankton ecology and processes important for understanding the Baltic Sea ecosystem, and hands-on training on zooplankton sample analysis and species identification.

The course starts with 2-days of lectures introducing various groups of zooplankton with reference to their morphology, ecology, diversity, research methodology, and interaction with hydrography and food-web. The lectures are then followed by practical experiences that will include zooplankton sampling and exercises in the laboratory on zooplankton sample processing and species identification for the major groups of zooplankton in the Baltic Sea: copepods, cladocerans, and rotifers. The participants are separated into groups for practices with person-to-person instruction, such as dissection techniques of copepod appendages. The last day is reserved for group presentations and discussion on the results from laboratory practice by each participant-group.

Course topics include:

- Zooplankton ecology with reference to oceanographic and ecological interactions that determine the species' spatial and temporal abundance patterns
- Food-web interactions in the Baltic Sea coastal and pelagic zone
- Zooplankton communities' impact on the ecosystem
- Impact of climate change and human activities on zooplankton community patterns
- Sampling cruise to the Archipelago Research Institute's monitoring buoy and Airisto basin
- · Common zooplankton sampling practises with reference to monitoring and statistics
- Processing of zooplankton samples
- Light microscopy and Zoolmage identification
- Taxonomy and identification of marine, brackish-water and freshwater zooplankton in the Baltic Sea





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TARGET GROUP

The participant should have at least a Bachelor's degree or diploma in science. MSc-students, PhD-students, post-docs, early career researchers and monitoring personnel in the Baltic Sea countries interested in learning more about Baltic Sea zooplankton taxonomy and ecology are invited to apply for this course.

Criteria for selection will be motivation and usefulness of the training for ones career.

Credits: 2 ECTS, in total 54 hours of teaching. **Max. number of participants:** 15 participants.

LEARNING OUTCOMES

The aim of the course is to transfer knowledge between current and future generations of researchers by providing high quality education on the biology, ecology, and taxonomy of Baltic Sea zooplankton and methods dealing with these subjects, with emphasis on the practical aspects of sample analysis and species identification. Other objectives of the course are to encourage mobility and to promote networking with other researchers.

Upon completing the course, the participant will:

- Have up-to-date knowledge of the ecology of common zooplankton species and taxa found in the Baltic Sea.
- Be capable of operating common sampling equipment for zooplankton and processing the collected zooplankton samples
- Have knowledge and skills on methods and techniques used in species identification.
- · Be able to identify the main taxonomic characteristics, sort the zooplankton samples into major groups.
- Be able to count species abundance and biomass from a sample, and understand the statistics behind the counting methods.

Course language: English.

Date and duration: May-September 2017, 5 days.

Location: Archipelago Research Institute, Seili island, Nauvo, Finland, www.utu.fi/seili/en.

Course organizer: University of Turku.

TEACHERS (TO BE CONFIRMED)

Prof. Ilppo Vuorinen, Archipelago Research Institute, University of Turku Dr. Marjut Rajasilta, Archipelago Research Institute, University of Turku Satu Zwerver, Company Zwerver