



UNIVERSITY OF GOTHENBURG



Norsk-Svensk Forskerskole i Biosystematikk  
Norwegian-Swedish Research School in Biosystematics

## Marine Macrofauna of Sweden

**First international workshop at Lovén Centre for Marine Sciences (Tjärnö)**

September 5 – 17, 2010

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Göteborg/Tjärnö/Bergen, August 2010

Malin Strand  
Swedish Species Information Centre  
Information Centre  
[Malin.Strand@artdata.slu.se](mailto:Malin.Strand@artdata.slu.se)

Per Sundberg  
University of Gothenburg  
Department of Zoology  
Swedish Taxonomy Initiative's  
Research School in Systematics  
[per.sundberg@zool.gu.se](mailto:per.sundberg@zool.gu.se)

Christiane Todt  
Norwegian Swedish Research School in  
Biosystematics  
[christiane.todt@bio.uib.no](mailto:christiane.todt@bio.uib.no)

The workshop/course is financially supported by the:

University of Gothenburg, Faculty of Science  
[http://www.science.gu.se/forskning/Forskarutbildning/tema/Sustainable\\_Marine\\_Ecosystems/](http://www.science.gu.se/forskning/Forskarutbildning/tema/Sustainable_Marine_Ecosystems/)

Swedish Taxonomy Initiative  
[http://www.artdata.slu.se/svenskaartprojektet/svenskaartprojektet\\_eng.asp](http://www.artdata.slu.se/svenskaartprojektet/svenskaartprojektet_eng.asp)

The Norwegian-Swedish Research School in Biosystematics, via Artsdatabanken/The Norwegian Species Project  
<http://www.artsdatabanken.no/artPage.aspx?m=7>  
and: The Research Council of Norway  
[http://www.forskningsradet.no/en/Home\\_page/1177315753906](http://www.forskningsradet.no/en/Home_page/1177315753906)

## List of experts and taxa represented

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Mollusca:	<i>Lucas Cervera</i> (Spain), <i>Marta Pola Pérez</i> (Spain), <i>John Taylor</i> (U.K.), <i>Emily Glover</i> (U.K.), <i>Christiane Todt</i> (Norway - organizer)
Tunicata:	<i>Thomas Stach</i> (Germany), <i>Rosana M. Rocha</i> (Brazil)
Porifera:	<i>Dirk Erpenbeck</i> (Germany), <i>Claire Goodwin</i> (Ireland)
Bryozoa:	<i>Matthias Obst</i> (Sweden), <i>Dennis P. Gordon</i> (New Zealand)
Annelida:	<i>Christer Erséus</i> (Sweden), <i>Fredrik Pleijel</i> (Sweden)
Crustacea:	<i>Ronald Jenner</i> (U.K.), <i>Les Watling</i> (USA), <i>Stefan Koenemann</i> (Germany)
Cnidaria:	<i>Daphne Fautin</i> (USA), <i>Dale Calder</i> (USA)
Echinodermata:	<i>Bernard Picton</i> (Ireland), <i>Mike Thorndyke</i> (Sweden), <i>Sam DuPont</i> (Sweden)
Nemertea:	<i>Malin Strand</i> and <i>Per Sundberg</i> (Sweden) – organizers

### Schedule

(minor adjustments may still be necessary)

#### Sunday Sept 5

Arrival

#### Monday Sept 6

9:00 a.m. Welcome, introduction, setting up labs etc.

ca. 13:00 p.m. Sampling trip R/V *Nereus*

evening Seminar “The Swedish taxonomy initiative” Anna Karlsson, SLU

Room: Lasse + lab

#### Tuesday Sept 7

ca. 8:30 a.m. Lab

ca. 13:00 p.m. Sampling trip R/V *Nereus*

evening Seminar “Norwegian- Swedish Research School in Biosystematics” Christiane Todt, Bergen

Room: ?? + lab

#### Wednesday Sept 8

ca. 8:30 a.m. Lab

ca. 13:00 p.m. Sampling trip R/V *Nereus*

evening Arrival of graduate students

Room: ?? + lab

#### Thursday Sept 9

8:30 a.m. *course* Echinodermata (Bernard Picton, Mike Thorndyke, Sam DuPont)

Lab

13:00 p.m. *course* Echinodermata cont'd

Sampling trip R/V *Nereus*

evening Seminar “Lifewatch – european biodiversity database” Matthias Obst

Room: big lecture hall a.m. + evening

#### Friday Sept 10

8:30 a.m. *course* Tunicata and Nemertea (Thomas Stach - Rosana M. Rocha, Malin Strand - Per Sundberg - Haixia Chen)

Lab

13:00 p.m. *course* Tunicata and Nemertea cont'd

Lab/sampling (littoral)

Evening Student presentations

Room: big lecture hall a.m. + evening

### **Saturday Sept 11**

8:30 a.m.            *course* Mollusca (Lucas Cervera, Marta Pola Pérez, John Taylor, Emily Glover, Christiane Todt)  
                          Lab/sampling littoral

13:00 p.m.         *course* Mollusca cont'd  
                          Lab

Evening

Room: big lecture hall a.m. + evening

### **Sunday Sept 12**

8:30 a.m.            *course* Porifera (Dirk Erpenbeck, Claire Goodwin)  
                          Lab

13:00 p.m.         *course* Porifera cont'd  
                          Lab

Evening             Student presentations

Room: big lecture hall a.m. + evening

### **Monday Sept 13**

8:30 a.m.            *course* Bryozoa (Matthias Obst, Dennis P. Gordon)  
                          Lab/sampling littoral

13:00 p.m.         *course* Bryozoa cont'd  
                          Sampling trip R/V *Nereus*

evening             Student presentations

Room: big lecture hall a.m. + evening

### **Tuesday Sept 14**

8:30 a.m.            *course* Crustacea (Les Watling, Ronald Jenner, Stefan Koenemann)  
                          Lab/sampling littoral

13:00 p.m.         *course* Crustacea cont'd  
                          Sampling trip R/V *Nereus*

evening             Student presentations

Room: big lecture hall a.m. + evening

### **Wednesday Sept 15**

8:30 a.m.            *course* Cnidaria (Daphne Fautin, Dale Calder)  
                          Lab/ sampling trip R/V *Nereus*

13:00 p.m.         *course* Cnidaria cont'd  
                          Lab

evening             Presentation of the Encyclopedia, Malin Strand, SLU

Room: big lecture hall a.m. + evening

### **Thursday Sept 16**

8:30 a.m.            *course* Annelida (Christer Erséus, Fredrik Pleijel)  
                          Lab

13:00 p.m.         *course* Annelida cont'd  
                          Lab

evening             workshop/course dinner

Room: big lecture hall a.m. + evening

### **Friday Sept 17**

Packing up, departure

## **Information concerning the student course:**

The goal of the course is to provide the students with some up to date phylogenetic/systematic background knowledge on marine invertebrate phyla and to use the local fauna to demonstrate handling, fixation, and species/taxon identification of samples. The goal is NOT to provide a full overview over the local fauna, but to provide the tools and knowledge how to handle invertebrate samples (including use of taxonomic keys and basic museal techniques, such as proper labeling).

### **Overview daily schedule for the course:**

7.30	Breakfast
8.30	Lecture or sampling trip Wet Lab work
12.00	Lunch break
13.00	Lecture or sampling trip Wet Lab Work
17.30	Dinner
Evening	Seminars / Social events / Student presentations / relaxed lab work

### **Course participants (see also attached file):**

Christin Appelqvist (UG, Sweden)  
Nina Blöcher (NTNU, Norway)  
Haixa Chen (GU, Sweden)  
Mona Fuhrmann (UiT, Norway)  
Bastian Fromm (UiO, Norway)  
Daniel Gustafsson (GU, Sweden)  
Christoph Hahn (UiO, Norway)  
Tobias Kånneby (SU, Sweden)  
Anita Kaltenbach (NTNU, Norway)  
Louise Kristensen (DTU Aqua, Denmark)  
Bernt Rydland Olsen (UiB, Norway)  
Joaquin Vierna (U La Coruna, Spain)

As you have seen earlier, we have invited a number of experts for each taxonomic group. This means, there is a group of teachers for every day during the course. We ask you, please, to coordinate the teaching for a day within your group (for e-mail addresses, see Per's recent e-mail with travel information) according to the following outline:

1. A morning session, consisting of a lecture on the phylogeny and systematics of your group (1-2 hours long); feel free to use examples from your own research, but please make sure to give some overview, too.
2. Afternoon session with practical, more improvised teaching "close to the material", where e.g. most important taxonomic characters are explained, how to determine major taxa within the respective phylum, or issues of fixation, handling, ect., - all that using material sampled in the area.

Every student should join some sampling activities, but we want them to use as much time as possible in the lab working with the material at hand. Teaching at a given day will not be dependant on the sampling of the respective day. There will be a stock of living animals at hand even upon our arrival (as well as some fixed material). Thus, you will be able to get a bit of on-site planning done for the practical part before your teaching day.

As this is an advanced course, we expect the students themselves to take the initiative to make as much as possible from the course for their own future work. Thus, we don't want to establish a formal "tutor"-system, where you are obliged to supervise certain students, but we hope you are willing to share your expertise with students turning to you with questions or the wish to take part in your practical work. The students have to attend all the lectures and practical exercises, but they are free to prioritize work with the expert of their choice over a sampling trip or other open timeslots. The course participants will present their projects/work in evening seminars, which of course you are all invited to – please see attached updated schedule.

The course will be graded with "passed" – "non-passed" only. There is no final exam. We expect the students to enjoy meeting all of you and to use this unique chance to learn from your experience and your enthusiasm.