

Summer course on embryology of marine invertebrates - 3

The White Sea Biological Station (WSBS)

09-30.06.2019

TENTATIVE SCHEDULE

Daily schedule: from 9:00 up to 20:00 – study hours includes 1-2 lectures and lab work. The labs are always open and students can work there as long as they want. After dinner, teachers of the Course give facultative lectures for participants of the Course and all visitors of the station. Normally we have breakfast from 8:00 to 9:00, lunch - 13:00-14:00, and dinner - 20:00–21:00. Time of coffee breaks is flexible; usually they are between lunch and dinner.

Lab work includes obtaining embryonic material, culture setups (if possible), observations of the development as long as possible, drawing of the most important stages, facultative photography and video-recording of developmental stages. Students will also train their experimental approach: they will plan and perform experiments, and analyze their results using the modern research equipment available at the WSBS.

Along the first and second weeks, students of the course will give talks on their scientific work in the home labs in order to discuss with course instructors. All students participate in the collection of animals or egg clutches during field trips in close vicinity to the station, exact time of trips will be determined by the tidal schedule. Animals from the subtidal zone are collected by divers.

	Classes/ Activity	Teachers	Skills/ Experimental projects	Field trips
9-Jun	Arrivals. Tour around the WSBS. Welcome party			
10/06-15/06/2019				
10-Jun	Intro to the lab	Nadezhda Rimskaya-Korsakova (NRK)		Plankton sampling at the pier
	Embryos and larvae in plankton	Andrey Prudkovsky	Zoological drawing & light microscopy Stanislav Kremnyov (SK)& NRK	
11-Jun	Nematoda	Vladimir Malakhov	Zoological drawing and light microscopy SK&NRK	
12-Jun	Echinodermata	Ina Arnone, Carmen Andrikou & Denis Nikishin	Zoological drawing and light microscopy SK&NRK	
13-Jun	Echinodermata	Ina Arnone, Carmen Andrikou & Denis Nikishin	Zoological drawing and light microscopy SK&NRK	
14-Jun	Crustacea	Carsten Wolff	Zoological drawing and light	

			microscopy SK&NRK	
15-Jun	Crustacea	Carsten Wolff	Zoological drawing and light microscopy SK&NRK	
16-Jun	Free day: tour to the Bay of Biofilters			collection of annelids, mollusks & bryozoans
17/06-22/06/2019				
17-Jun	Mollusca	Andreas Wanninger	Cell proliferation experiments Yulia Khramova (YuK)&NRK	
18-Jun	Mollusca	Andreas Wanninger	Cell proliferation experiment YuK&NRK	
19-Jun	Annelida	Vitaly Kozin	Cell proliferation experiment YuK&NRK	
20-Jun	Annelida	Vitaly Kozin	Cell proliferation experiment YuK&NRK	collection of cnidarians & sponges at the Eremai rapid
21-Jun	Cnidaria: Scyphozoa	Igor Kosevitch & Yulia Kraus	Pharmacological experiments Grigory Genikhovich&Stanislav Kremnyov (GG&SK)	
22-Jun	Cnidaria: Hydrozoa	Yulia Kraus & Igor Kosevitch	Pharmacological experiments GG&SK	
23-Jun	Free day. BBQ on the Olenevsky Island			
24/06-29/06/2019				
24-Jun	Functional studies of signaling pathways in development: pharmacological approach	Grigory Genikhovich & Stanislav Kremnyov (GG&SK)	Pharmacological experiments GG&SK	
25-Jun	Metazoan deep phylogeny	Casey Dunn	Pharmacological experiments GG&SK	
26-Jun	Porifera	Andrey Lavrov & Alexander Ereskovsky	Pharmacological experiments GG&SK	
27-Jun	Bryozoa	Olga Kotenko	Pharmacological experiments GG&SK	
28-Jun	Deep embryology of Spiralia	Andreas Hejnol	Pharmacological experiments GG&SK	
29-Jun	CREDIT (drawings&results of experiments) FAREWELL PARTY	all teachers		
30-Jun	lab cleaning and departure from the WSBS			