



**PERSEUS Training Course: Challenge for Good  
Environmental Status in coastal waters  
Milestone Nr. 26**





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<b>Responsible</b>		Kosyan Ruben (SIO RAS)	
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		<b>Restricted to a group specified by the consortium (RE)</b>	
		<b>Confidential, only for members of the consortium (CO)</b>	



**Report on the  
PERSEUS Training Courses/Summer School**

**“CHALLENGE FOR GOOD ENVIRONMENTAL STATUS  
IN COASTAL WATERS”**



**30 June - 4 July 2014  
Gelendzhik, Russia**

Under the auspices of the EU-FP7 Project “Policy oriented environmental research in the southern European Seas” (PERSEUS) and Russian foundation for basic Research (RFBR), Shirshov Institute of Oceanology, Russian Academy of Sciences (SIO RAS), its Southern Branch (SB SIO RAS) and an Autonomous Non-commercial Organization Scientific Research Center “Coastal Zone Dynamics” carried out a joint event: Training Courses/Summer School “Challenge for good environmental status in coastal waters” and a 3-d International Seminar «Dynamics of the coastal zone in the non-tidal seas» aimed at an overview of the basic problems of the Mediterranean and Black Sea coastal zones. This joint event (hereinafter – Courses/Seminar) was held in Russia at the Black Sea coast in Gelendzhik at the SB SIO RAS territory from 30 of June to 04 of July 2014.

The scientific program of the Courses/Seminar was focused on four main issues:

- Integrated coastal zone management in the Mediterranean and Black Seas and PERSEUS project achievements
- Coastal erosion and dynamical processes in the nearshore zone
- Interaction of the coastal zone with the open sea: impact on the ecosystem
- Studies and monitoring of the coastal and open sea ecosystems

The issues were highlighted in lectures presented by 22 matured specialists from Bulgaria, Germany, Greece, Italy, Israel, Netherlands, Norway, Russia and United Kingdom who shared their knowledge and experience with young scientists and students interested in the study of coastal areas of the Mediterranean and Black Seas. The event was attended by more than 50 participants from different countries, such as Croatia, Greece, Italy, Malta, Russia and Ukraine. They didn't only listen to lecturers, but also they made their own presentations (oral and poster) on topics of the Courses/Seminar. These presentations were a matter of fruitful discussions among the young participants and lecturers. The lists of lecturers and participants of Course/Seminar are given in Tables 1 and 2, respectively.



Table 1. List of lecturers.

<b>NN</b>	<b>Name, e-mail</b>	<b>Financial support</b>	<b>Affiliation</b>
1	Dr. Violeta Velikova velikova_violeta@yahoo.com	PERSEUS	SuRDEP, Varna, Bulgaria
2	Prof. Hans Kunz Hans.Kunz@t-online.de	PERSEUS	Oldenburg University, Germany
3	Prof. George Shapiro <a href="mailto:gshapiro@plymouth.ac.uk">gshapiro@plymouth.ac.uk</a>	PERSEUS	Univ. of Plymouth, UK
4	Dr. Isaac Gertman isaac@ocean.org.il	PERSEUS	IOLR, Haifa, Israel
5	Dr. Eugeny Yakushev evgeniy.yakushev@niva.no	PERSEUS	NIWA, Oslo, Norway
6	Dr. Evangelos Papathanassiou vpapath@hcmr.gr	PERSEUS	HCMR, Anavissos, Greece
7	Dr. Alessio Giardino Alessio.Giardino@deltares.nl	-	DELTAIRES, Netherlands
8	Dr. Eleonora Rinaldi eleonora.rinaldi@artov.isac.cnr.it	-	Institute of Atmospheric Sciences and Climate (ISAC) of the Italian National Research Council (CNR), Rome, Italy
9	Dr. Sergey Stanichny sstanichny@mail.ru	PERSEUS	MHI, Sevastopol, Crimea
10	Dr. Sergey Kuznetsov kuznetsov@ocean.ru	RFBR	SIO RAS, Moscow, Russia
11	Dr. Alexander Mikaelyan mikaelyan@ocean.ru	RFBR	SIO RAS, Moscow, Russia
12	Dr. Peter Zavalov peter@ocean.ru	RFBR	SIO RAS, Moscow, Russia
13	Prof. Vladimir Zhmur zhmur-vladimir@mail.ru	RFBR	SIO RAS, Moscow, Russia
14	Dr. Alexander Ostrovskii osasha@ocean.ru	RFBR	SIO RAS, Moscow, Russia
15	Dr. Andrey Zatsepin zatsepin@ocean.ru	RFBR	SIO RAS, Moscow, Russia
16	Dr. Elena Arashkevich aelena@ocean.ru	RFBR	SIO RAS, Moscow, Russia
17	Dr. Irina Chubarenko irina_chubarenko@mail.ru	RFBR	AB SIO RAS, Kaliningrad, Russia
18	Dr. Boris Chubarenko	RFBR	AB SIO RAS, Kaliningrad,



	chuboris@mail.ru		Russia
19	Dr. Vladimir Silkin vsilkin@mail.ru	-	SB SIO RAS, Gelendzhik, Russia
20	Dr. Valery Chasovnikov chasovn@mail.ru	-	SB SIO RAS, Gelendzhik, Russia
21	Dr. Marina Krylenko krylenko@mail.ru	-	SB SIO RAS, Gelendzhik, Russia
22	Prof. Ruben Kosyan rkosyan@hotmail.com	-	SB SIO RAS, Gelendzhik, Russia

**Table 2. List of participants**

NN	Name, e-mail	Financial support	Affiliation
1	Pavel Starovoyitov starovoitov@list.ru	-	MSU, Moscow, Russia, student
2	Yulia Selivanova yulia-sel@mail.ru	-	MSU, Moscow, Russia, student
3	Aljona Titova ZDESSSSS@yandex.ru	-	MSU, Moscow, Russia, student
4	Fedor Gippius fedor.gippius@gmail.com	-	MSU, Moscow, Russia, Ph.D. student
5	Stanislav Myslenkov stasocean@gmail.com	-	MSU, Moscow, Russia, senior researcher, , Ph.D. student
6	Sergey Mukhametov puffin@bk.ru	-	MSU, Moscow, Russia, researcher, Ph.D. student
7	Elena Esiukova elena_esiukova@mail.ru	RFBR	AB SIO RAS, Kalinigrad, Russia, senior researcher
8	Olga Lobchuk olga_may87@mail.ru	RFBR	AB SIO RAS, Kalinigrad, Russia, researcher, Ph.D. student
9	Vasiliy Pilipchuk Vasex90@mail.ru	RFBR	AB SIO RAS, Kalinigrad, Russia, researcher, Ph.D. student
10	Mariya Golenko mariya.golenko@atlantic.ocean.ru	RFBR	AB SIO RAS, Kalinigrad, Russia, researcher, Ph.D. student
11	Evgeniya Gurova evguruna@gmail.com	RFBR	AB SIO RAS, Kalinigrad, Russia, researcher, Ph.D. student
12	Konstantin Karmanov mr.pocketoff@rambler.ru	RFBR	AB SIO RAS, Kalinigrad, Russia, researcher, Ph.D. student



13	Mariya Smirnova smirnova-mm@mail.ru	RFBR	AB SIO RAS, Kalinigrad, Russia, researcher
14	Oleg Podymov huravela@yahoo.com	-	SB SIO RAS, Gelendzhik, Russia, researcher, , Ph.D. candidate
15	Anna Kostyleva ventis-ire@yandex.ru	-	SB SIO RAS, Gelendzhik, Russia, researcher, , Ph.D. student
16	Anna Lifanchuk lifanchuk.anna@mail.ru	-	SB SIO RAS, Gelendzhik, Russia, researcher
17	Alisa Kosyan kosalisa@yandex.ru	-	SB SIO RAS, Gelendzhik, Russia, researcher
18	Anastasia Gusakova anastasia.gusakova@gmail.com	-	SB SIO RAS, Gelendzhik, Russia, researcher
19	Nikolay Esin esinnik@rambler.ru	-	SB SIO RAS, Gelendzhik, Russia, researcher
20	Irina Sherina narciss182@yandex.ru	-	SB SIO RAS, Gelendzhik, Russia, researcher
21	Pavel Chernyshov pavel_chv89@mail.ru	-	SB SIO RAS, Gelendzhik, Russia, researcher, , Ph.D. student
22	Anna Chernyshova <a href="mailto:annette91@ngs.ru">annette91@ngs.ru</a>	-	SB SIO RAS, Gelendzhik, Russia, researcher, , Ph.D. student
23	Olga Yasakova yasak71@mail.ru	-	(IAZ SSC RAS), Rostov-On-Don, Russia, researcher
24	Nina Kalashnikova ninak90@mail.ru	-	Space Research Institute of RAS, Moscow, Russia, researcher, Ph.D. student
25	Natalya Stepanova nata_chu@mail.ru	-	MIPT, Moscow, Russia, Ph.D. student
26	Olga Kovaleva olya_pavlikova@mail.ru	-	VSEGEI, Saint-Petersburg, Russia, PhD-student
27	Elkin Dmitriy dmelkin@mail.ru	RFBR	SIO RAS, Moscow, Russia, researcher, Ph.D. student
28	Valentina Sergeeva vsergeeva@gmail.com	RFBR	SIO RAS, Moscow, Russia, reearcher
29	Nadezhda Romanova ndromanova@gmail.com	RFBR	SIO RAS, Moscow, Russia, researcher
30	Aleksandr Polukhin aleanapol@gmail.com	-	SIO RAS, Moscow, Russia, researcher, Ph.D.-student

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31	Ksenia Silvestrova ksenia.ocean@yandex.ru	RFBR	SIO RAS, Moscow, Russia, researcher
32	Margarita Shtremel 6805919@mail.ru	PERSEUS	SIO RAS, Moscow, Russia, Ph.D. student
33	Buniak Oxana bynyako@ukr.net	PERSEUS	National Mechnikov University, Odessa, Ukraine Ph.D. student.
34	Kharitonova Luidmila lukharitonova@rambler.ru	PERSEUS	Marine Hydrophysical Institute, Sevastopol, Crimea Junior Researcher. Ph.D. candidate
35	Kubryakov Arseny arskubr@gmail.com	PERSEUS	Marine Hydrophysical Institute, Sevastopol, Crimea Junior Researcher. Ph.D. candidate.
36	Kubryakova Elena elena.kubr@gmail.com	PERSEUS	Marine Hydrophysical Institute, Sevastopol, Crimea Senior Engineer. Ph.D. Student.
37	Zhuk Elena zhuk.elena@nodc.org.ua	PERSEUS	Marine Hydrophysical Institute, Sevastopol, Crimea Engineer.
38	Sytnik Oxana Ox.sytnik@gmail.com	PERSEUS	Univ. Of Bologna, Bologna, Italy, Ph.D. candidate
39	Bordbar Leila Leila.bordbar@gmail.com leilbor@geol.uoa.gr	PERSEUS	University of Athens-Hellenic centre for marine research. Athens, Greece Ph.D. candidate
40	Edwards Kristina Nash74@hotmail.fr	PERSEUS	University of Malta, Ph.D. researcher on MSFD
41	Furlan Elisa Elisa.furlan@unive.it	PERSEUS	CMCC, Padova, Italy Ph.D. student.
42	Lusic Jelena lusic@izor.hr	PERSEUS	Institute of Oceanography and Fisheries, Junior researcher.
43	Markulin Kreshmir markulin@izor.hr	PERSEUS	Institute of Oceanography and Fisheries, Split, Croatia, Junior researcher. Ph. D. student.
44	Darina Podzorova d.podzorova@mail.ru	PERSEUS	IBSS, Sevastopol, Crimea Ph. D. student
45	Skejic Sanda sanda@izor.hr	PERSEUS	Croatia, Split, Institute of Oceanography and Fisheries. Split, Croatia, Research Associate. Ph.D.



			candidate, Marine Biology
46	Suaria Guseppe giuseppe.suaria@sp.ismar.cnr.it	PERSEUS	CNR-ISMAR, Lerici Italy Postgraduate research fellow. MS degree in Marine Biology
47	Minenkova Vera	-	Kuban State University, Krasnodar, Russia. Ph.D. candidate
48	Belikov Mikhail	-	Kuban State University, Krasnodar, Russia. Professor
49.	Pogorelov Anatoliy	-	Kuban State University, Krasnodar, Russia. Professor
50	Antonenko Mikhail	-	Kuban State University, Krasnodar, Russia. Ph.D. candidate
51	Boyko Elena	-	Kuban State University, Krasnodar, Russia, researcher
52	Gulin Maksim	-	IBSS, Sevastopol, Crimea Associated Professor
53	Ivanova Ekaterina	-	IBSS, Sevastopol, Crimea

As follows from the table, only a part of the lecturers and students received financial support from the PERSEUS project and RFBR grant. Particularly, 15 of students received the PERSEUS fellowship (there were 19 applications for the PERSEUS fellowship), 12 – the fellowship of RFBR grant and 19 27? – have participated without financial support from organizers. The fellowship covered the travel and accomodation expences and meals for lecturers and students.

In order to get a fellowship the students had to apply to the PERSEUS Project Scientific Steering Committee or to the RFBR conference grant officials. The selection of successful applicants was based on the CV, the motivation for application and its relevance to Courses/Seminar objectives. The preference was given to those who have sent an abstract of a report containing the results of applicant research related with the main topics of the Courses/Seminar.

The extended abstracts of lectures and reports of students were published in a book: **“Challenge for good environmental status in coastal waters” // Divinsky B.V., Kosyan R.D., Silvestrova K.P., Zatsepin A.G. – editors. Gelendzhik, 2014, 214 p.** , which was distributed to all participants of the event before it start. The electronic version of this book is contained in Annex 1.

The program of the Courses/Seminar is given below.

### **Program of a joint event:**

**Training Courses/Summer School “Challenge for good environmental status in coastal waters” and**

**3-rd International Seminar «Dynamics of the coastal zone in the non-tidal seas»**

**Monday, 30 June**





**OPENING OF THE MEETING**

- 09:00-09:30** Opening of the meeting, welcome words from the organizers
- SESSION 1. Integrated coastal zone management (ICZM) in the Mediterranean and Black Seas and PERSEUS project achievements**
- 09:30-10:15** **Violeta Velikova** (SuRDEP, Varna, Bulgaria) ICZM in the Black Sea region: history of governance and management in rehearsal
- 10:15-11:00** **Violeta Velikova** (SuRDEP, Varna, Bulgaria) Coastal zone – the terra incognita et quanto aqua sensitivus est (What the Black Sea region says about that?)
- 11:00-11:30** **Coffee break**
- 11:30-12:15** **Evangelos Papathanassiou** (HCMR, Anavissos, Greece) "PERSEUS" project – Contribution to better governance for Mediterranean and the Black Sea based on scientific results.
- 12:15-13:00** **Elena Arashkevich** (SIO RAS, Moscow, Russia) Pressures and impacts on the Mediterranean and Black Sea coastal ecosystem: present knowledge and gap analysis in the frame of "PERSEUS" project
- 13:00-13:45** **Isaac Gertman** (IOLR, Haifa, Israel) Oceanographic cast data processing and analysis (CTD, Bottle, Floats and Sea Gliders) from raw data to "PERSEUS" project DB
- 13:45-14:30** **Marina Krylenko** (SB SIO RAS, Gelendzhik, Russia) Monitoring of the Black Sea coast dynamics
- 13:45-15:15** **Lunch**
- 15:15-17:15** **Poster presentations:** **K.Edwards, E.Furlan, I.Sherina, O.Sytnik, E.Zhuk, M.Gulin**
- 19:00-22:00** **Outdoors ice-break party (barbecue)**

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*Tuesday, 1 July*

**SESSION 2. Coastal erosion and dynamical processes in the nearshore zone**

- 09:30-10:15** **Ruben Kosyan** (SB SIO RAS, Gelendzhik, Russia) Basic lithodynamical problems for the Black Sea coasts and related physical processes
- 10:15-11:00** **Hans Kunz** (Oldenburg University, Germany). Current state of the coasts protection methodology
- 11:00-11:30** **Coffee break**
- 11:30-12:15** **Alessio Giardino** (Deltares, Unit Marine and Coastal Systems, Netherlands) Erosion control and coastline management at different spatial and temporal scale: recent concept and tool developments.
- 12:15-13:00** **Sergey Kuznetsov** (SIO RAS, Moscow, Russia) Nearshore hydrodynamics
- 13:00-13:45** **Petr Zavalov** (SIO RAS, Moscow, Russia) Dynamics of the river plumes and its impact on the contamination transport in the marine coastal zone.
- 13:45-15:15** **Lunch**
- 15:15-17:15** **Poster presentations:** **O.Buniak, P.Chernshev, A.Chernysheva, N.Esin, F.Gippius, O.Gusakova, K.Karmanov, O.Kovaleva, S.Myslenkov, A.Pogorelov, M.Shtremel, N.Zhurbas**
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**Wednesday, 2 July**

**SESSION 3. Interaction of the coastal zone with the open sea: impact on the ecosystem.**

**09:30-10:15** **Boris Chubarenko** (AB SIO RAS, Kaliningrad, Russia) Distinctive characteristics of coastal lagoons and estuaries: hydrological and lithodynamical studies

**10:15-11:00** **Georgy Shapiro** (University of Plymouth, Plymouth, UK) Exchange processes between shelf and deep sea

**11:00-11:30** **Coffee break**

**11:30-12:15** **Irina Chubarenko** (AB SIO RAS, Kaliningrad, Russia) Sea-shelf heat and mass exchange: diagnostics and quantification on the base of SST data

**12:15-13:00** **Vladimir Zhmur** (MIPT, Moscow region, Russia) Underground intrusion of marine waters in the coastal zone of the sea

**13:00-13:45** **Evgeniy Yakushev** (NIVA, Oslo, Norway) Coastal zone biogeochemical regime studies in NE Black Sea

**13:45-15:15** **Lunch**

**15:15-17:15** **Poster presentations:** **M.Golenko, A.Kostyleva, E.Kubryakova, O.Lobchuk, S.Mukhametov, A.Polukhin, V.Pilipchuk, M.Smirnova, N.Stepanova**

**Thursday, 3 July**

**SESSION 4. Studies and monitoring of coastal and open sea ecosystems**

**09:30-10:15** **Alexander Mikaelyan** (SIO RAS, Moscow, Russia) Temporal changes of phytoplankton in the open and coastal waters of the Black Sea

**10:15-11:00** **Vladimir Silkin** (SB SIO RAS, Gelendzhik, Russia) Phytoplankton and good environmental status in coastal waters

**11:00-11:30** **Coffee break**

**11:00-12:15** **Eleonora Rinaldi** (CNR, Roma, Italy) Satellite products for developing environmental indicators: a necessary tool for the European Marine Strategy Framework Directive

**12:15-13:00** **Sergey Stanichny** (MHI, Sevastopol, Ukraine) Long-term studies of the Black Sea dynamics and its potential impact on the ecosystem on the base of satellite data

**13:00-13:45** **Alexander Ostrovskii** (SIO RAS, Moscow, Russia) Modern methods for the long-term multidisciplinary studies of coastal zone

**13:45-15:15** **Lunch**

**15:15-17:15** **Poster presentations:** **L.Bordbar, A.Kosyan, A.Kostyleva, A.Lifanchuk, J.Lusic, K.Markulin, O.Podymov, N.Romanova, V.Sergeeva, I.Sherina, S.Skejic, O.Yasakova**

**Friday, 4 July**



**SESSION 4 (continuation). Studies and monitoring of coastal and open sea ecosystems**

- 09:30-10:15** Andrey Zatsepin (SIO RAS, Moscow, Russia) SIO RAS hydrophysical testing area at the Black Sea near Gelendzhik: scientific background, measuring platforms and their usage for permanent monitoring of the marine environment
- 10:15-11:30** Andrey Zatsepin, Alexander Ostrovskii, Vladimir Soloviev (SIO RAS, Moscow), Sergey Kuklev, Oleg Podymov (SB SIO RAS, Gelendzhik, Russia) Demonstration of measuring platforms and the real time data transmission systems
- 11:30-12:00** Coffee break
- 12:00-12:45** Valery Chasovnikov (SB SIO RAS, Gelendzhik, Russia) Methods and instruments for hydrochemical studies and monitoring of the Black Sea shelf-slope zone
- 12:45-14:00** Valery Chasovnikov et al. (SB SIO RAS, Gelendzhik, Russia) Demonstration of the analytical chemistry equipment facilities of SB SIO RAS Chemical Laboratory
- 14:00-15:15** Lunch
- 15:15-17:15** Poster presentations: D.Elkin, E.Esiukova, E.Gurova, N.Kalashnikova, A.Kubryakov, K.Silvestrova, G.Suaría,
- 17:15-18:00** Closing Session
- 19:00-22:00** Barbecue party
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**Abbreviations:**

HCMR – Hellenic Center of Marine Research

OGS – National Institute of Oceanography and Experimental Geophysics

SuRDEP – Nongovernmental **Organization** for Sustainable Regional Development and Environmental Protection

SIO RAS – Shirshov Institute of Oceanology of Russian Academy of Sciences

SB SIO RAS – Southern Branch of SIO RAS

AB SIO RAS - Atlantic Branch of SIO RAS

MIPT – Moscow Institute for Physics and Technology (State University)

MSU – Moscow State University

NIVA – Norwegian **Institute** for Water **Research**

MHI –Marine Hydrophysical Institute

IOLR - Israel Oceanographic and Limnological **Research Institute**

The basic goal of Courses/Seminar was to share knowledge and experience between matured specialists and young scientists dealing with studies of Mediterranean and Black Sea coastal zones. This goal was achieved successfully. The participation in the event of young professionals was essential to mobilize new talents and to broad field of their expertise. The Courses/Seminar highlighted new approaches in research and familiarize the participants with modern international activities. The event has contributed also to the creation of personal networks between participants from the European and Non-European countries that can be fruitful for future cooperation.

The moments of working sessions of the Courses/Seminar and of the participants at rest are depicted at the photos given in Annex 2.

**Report with the Annexes is placed at the Websites:**

<http://www.perseus-net.eu>

[www.ocean.ru](http://www.ocean.ru)

