

The Cruiser

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First Multinational Cruise to the Black Sea

The Hellenic Center for Marine Research (HCMR) is planning an oceanographic expedition R/V "AEGAEON" in the Black Sea for the collection of scientific data in the territorial waters of Bulgaria, Romania and Ukraine. This multinational expedition is part of the SESAME project and will be made in close collaboration with the "Institute of Oceanology" from Varna, Bulgaria, the National Institute for Marine Research and Development "Grigore Antipa" from Costantza and

the National Institute of Marine Geology and Geoecology "GeoEcomar" from Bucharest, Romania.



The Bulgarian Research vessel Akademik2

Scientists from the R/V "AEGAEON" will meet scientists from Bulgaria and

Romania, who will board the vessel to start sampling in designated stations indicated in the map. R/V "AEGAEON" will complete work in Bulgarian, Romanian, and finally, Ukrainian waters, before beginning its journey home

During the oceanographic expedition, measurements of physical, chemical, biological and geological parameters will be obtained from the water column as well as the sediments ...

(more details on page 2)

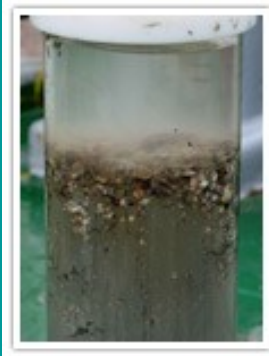
About SESAME

SESAME is a 4-year European Union-funded project designed to study the Mediterranean and Black Sea ecosystems and their abilities to provide goods and services with high societal importance, such as tourism, fisheries and ecosystem stabil-

ity through conservation of biodiversity. The need for consistent information, together with the indispensable linking of natural and socio-economic sciences, on these two ecosystems have mapped out SESAME's research path. Both the

Mediterranean and Black Sea have been experiencing intensive development and exploitation due to their strategic geographical position, and are equally susceptible to human pressures and climate change.

Small dead mussels in a core



“Later that afternoon, R/V Aegaeo contacted the Romanian vessel Steaua de Mare I (Star of the Sea) for the first time, via a satellite telephone connection. Our second meeting has now been set for 4 in the afternoon, near the Romanian coast.”

Sunset in the middle of the Black Sea

... Sampling the Seabed

The 7th day was overcast, and that made the Black Sea look even...darker, yet the weather was no obstacle to their efforts. They began sampling the seabed, and discovered plenty of dead mussels! They witness communities of tiny mussels that have died and been deposited on the seabed. At this point, the Romanians said that these mussels died, most likely, from the lack of nutrients in the water. This is, in turn, due to changes in the circulation pattern of the water near the Danube

delta. Yet again, they are unable to collect deep-water samples. The reason is again obvious: a layer of mussel shells has covered the seabed, and the core sampler cannot penetrate the seabed surface... At the same station, far from the Danube delta, they carry out the primary production experiments. The scientists who run the sediment experiments work non-stop. The samples are crucial, and A second meeting has now been set for 4 in the afternoon, near the Romanian coast. The rain

that begins to fall does not intimidate them, and the meeting of the two vessels continues as planned. A small inflatable boat carries six of the Romanians onto R/V Aegaeo. The meeting takes place on the deck bridge, which is sheltered from the rain, and is complemented by tasty snacks, which have been meticulously prepared by their chef! The day ends with a final water sample, taken at the station which the Romanian vessel will visit at a later date.

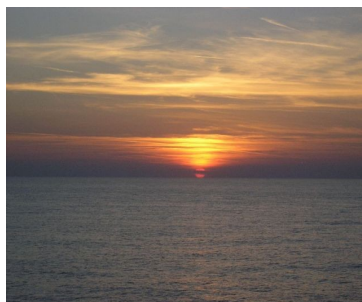
Plankton

Plankton consist of any drifting organisms (animals, plants, archaea, or bacteria) that inhabit the pelagic zone of oceans, seas, or bodies of fresh water. Plankton are defined by their ecological niche rather than their phylogenetic or taxonomic classification. They provide a crucial source of food to more familiar aquatic organ-



isms such as fish. Zooplankton are initially the sole prey item for almost all fish larvae as they use up their yolk sacs and switch to external feeding for nutrition. Fish species rely on the density and distribution of zooplankton to coincide with first-feeding larvae for good survival of larvae, which can otherwise starve.

Photo of the Day



While I was reading at board, I raised my eyes and I was impressed by the fusion of the colors. I took a picture, using a filter in order to reduce the contrast of the sea and emphasize the color of the sky.

Interview with Dr. Evangelos Papathanassiou



Dr. E Papathanassiou is the Chief Scientist and the coordinator of the Scientific Steering Committee.

What is your education?

Well, in 1975 a B.Sc. in Biology,

Dr. Evangelos Papathanassiou

University of Athens, Biology Dept. and in 1979 Ph.D. in Marine Zoology, University of Wales, University College of Swansea, UK.

What were your activities in the past?

From March 1995 to June 1996 I was the Director for the Directorate for Support and Documentation of NCMR. The last 3 years, from July 1996 to June 1999 I was seconded in the European Environ-

ment Agency, Copenhagen as a Project Manager for Marine and Coastal Environment.

In the first place: what made you participate at this expedition?

Well, I have always been curious to discover the treasures of the nature. Black sea hides a lot of things that people use to ignore.

What was the goal of your mission?

I wanted to study the effects of pollutants in marine organisms.

Are the results of your research the one you expected?

Yes, I had not just success with my research, but a great time. The crew was amazing, the places were also very beautiful. It was a magnificent expedition.

Message from the Youngsters on Land to the Scientists at Sea



We look forward to the expedition. We hope you will come back with more video and photographic materials. This mission may have a particularly important role in solving environmental problems. We can hardly wait the research results.

A Flash-forward of the Seashore

There are two situations. The first one, if people continue to ignore the environmental issues, soon on the shores will be human construction, widely spread on huge platforms in the sea, hiding behind them stacks of rubbish.

The second one, in case people

will cease to ignore environmental issues, we have big chances to keep the nature and its beauty. Then the living creatures will not be endangered, and we'll still be able to admire the landscapes we love so much. We, the youngsters will have the opportunity to enjoy a clean shore, a healthy environ-

ment. Also, we could study the various species that hide in the depths because they will not be gone. Following generations deserve to have access to an unpolluted nature with all its life forms.



Footprints to the future

Amazing Creatures of the Black Sea: The Dolphins

Dolphins are the only whales occurring in the Black Sea: they are small-sized toothed whales (as compared to their relatives such as sperm-whale or orca). At the same time, they are the largest marine animals in the Black Sea; it may be worth reminding, that dolphins are not fish, they are mammals - which means that they are viviparous, and feed their calves with milk, and they use lungs to breathe air. To breathe they have to come up to the surface; at those moments we see their backs emerging among waves, and often can hear sounds they produce exhaling the used air. Dolphin's "nose" - blow hole - is situated on the back of animal's head. Usually, dolphins dive for only one to three minutes, but

they are capable of staying underwater for ten minutes, going down for dozens meters. Bottlenose dolphin (*Tursiops truncatus*) is the most common species of dolphin in the Black Sea nearshore waters; this



dolphin is common at the coasts of all continents, in all oceans, except polar regions. Bottlenoses are also most popular actors in dolphin shows, they endure

captivity easier than other dolphin species. They learn show tricks very fast: dolphin trainers tell that it's usually enough just single correct performance awarded by a fish, for the signal-trick-award procedure became a habit. On the other hand, dolphins may as easily forget the learned trick - if not awarded, even once

Bibliography:

<http://www.sesame-ip.eu/public/SESAME-public-home>
<http://en.wikipedia.org/wiki/Plankton>
<http://blacksea.orlyonok.ru/dolphins.shtml>

Clasa a X-a B—10 STUDENTS
Liceul Teoretic "Ovidius", Constanta, Romania
Age 16-17
Professor: Carmen Bucovala

Weather Forecast



News flash!

In the first day, Dr. Papathanassiou made a photo to a giant jelly fish.

In the second day, we had an unexpected problem with the food, but the doctor solved it.

The fifth day, we saw a few poacher trying to practice fishing without license, so we contacted the authorities.

Menu

First Day

- Breakfast: boiled eggs, bread, butter, orange juice/milk.
- Lunch: Chicken soup, Fries, chicken roast
- Dinner: Barbeque with vegetables

Second Day:

- Breakfast: bread, omelets, vegetables
- Lunch: Fish with fresh vegetables
- Dinner: vegetables with chicken barbeque

Third Day:

- Breakfast: milk with cereals
- Lunch: fish soup, shells with fries
- Dinner: sandwiches