Black Sea
The Blue Treasure

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Out in the 'Great Blue' : The start of the Second Sesame Romanian Expedition !

After the big success of the first Sesame Romanian Expedition on the Black Sea, the scientists decided to explore the Great Blue Ecosystem more in depth.

This time again, with the occasion of the expedition, scientists from different countries gathered together to explore the unknown and make another step in the Oceanographic Evolution.

Their research strategy is generally based on the understanding and quantification of the links between (ecosystem) functions and (human) uses, (nature's) services and (societal) well being.

Their researches will contain a study on the effects of the ecosystem variability on key goods and services with high societal importance like tourism, fisheries, ecosystem stability through conservation of biodiversity and mitigation of climate change through carbon sequestration in water and sediments.

Because of them we might understand better the real value of our 'Big Blue Friend' : The Black Sea!

All about PLANCTON!

Most of us think of plankton as tiny plants and animals. But most of us don't know how complex their structure and lifestyle is. This little plants and animals could change the entire world. Find more about it on page 2!

HOT NEWS:

The one and only interview with Dr. Dan Secrieru ! Do you want to find more about the wonders of the see ? Go to page 3 for more information !

A DAY on THE EXPEDITON!

Want to find more about the daily routine of the explorers on the expedition? About the conditions out in the 'Great Blue' ? You will find it all on page 4 !

What is The SESAME Project ?

SESAME is an international research project that incorporates a variety of disciplines to explore and study the ecosystem changes of the Mediterranean and the Black Seas as well as their surrounding environments.

The multidisciplinary nature of the project, supported by the European Commission, means that it will bring together scientists with expertise in marine biology, biodiversity, physical and chemical oceanography, and socio-economics, in order to better understand past and future ecosystem changes.

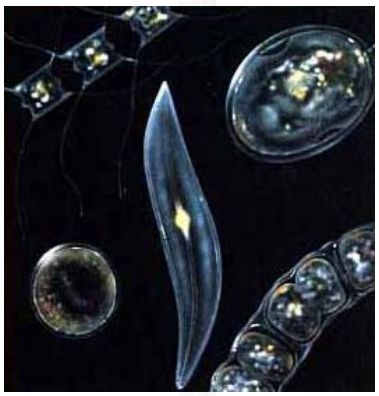
Do you know what PLANKTON is?

If you could give a precise definition to plankton you would do it like this: " Plankton represents all the little plants and animals which live under the water surface and supply the aquatic animals with food. "

But this is just a naïve definition. Plankton is much more than this. It is the key to all the answers that we need to find in order to understand the evolution of the Earth and its climate changes.

Phytoplankton are microscopic floating photosynthetic organisms in aquatic environments, both freshwater and seawater. In seawater, the most common types of phytoplankton are diatoms and dinoflagellates. Their photosynthetic activities remove carbon dioxide from the environment and release oxygen; thus they are responsible for mitigating some of the effects of increased carbon dioxide in the atmosphere

Since they need sunlight in order to photosynthesize, they are found only in the upper, sunlit layers of the water. When excessive nutrients are present, there may be excessive blooms of phytoplankton, which when they die and sink to the bottom, may use up much of the oxygen in the deeper water and create a hypoxic layer. Some species of phytoplankton may produce toxins, and a bloom of such a species is referred to as a "harmful algal bloom" since they may poison other marine organisms.



Plankton comes in a variety of shapes and in varied colors due to their different photosynthetic pigments.It can be unicellular and microscopic or colonial forming plate-like colonies, thread-like filaments, net-like tubes, or hollow balls. Many planktonic algae species bear horns, ridges or wings to increase their surface area to volume ratio which not only increases their ability to obtain scarce nutrients from the environment, but also protects them from herbivores.

Each day of the expedition brings a new challenge to the researchers' team.

Today the team moved the net from the starboard to the larboard and

How do they do it ?

Florin Timofte, from NIMRD, started the sampling. Aurel Cristea supervised the winch operation. This time the sampling intervals were 0-25 m, 25-50 m, 50-100m, 100-200m, and 0-200m for zooplankton and mezooplankton.

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Once the net brought on the deck, Mihaela Muresan from GeoEcoMar, together with her colleagues from

Mihaela Muresan from GeoEcoMar, together with her colleagues, analyzing the plankton.

Exclusive interview with Mihaela Muresan!

1. What had determined you to become a marine biologist/researcher?

When I was a kid, I enjoyed walking on the beach with my grandfather who was a fisherman. I was fascinated by the millions of little shells which I used to study carefully. My grandfather told me a lot of stories about his adventures on the sea and, through them, he transmitted me his passion. I think those were the moments when I fell in love with the sea and all the things related to it.

2. How do you manage to keep a balance between your family life and your job?

It isn't that hard. My family loves the sea as much as I do. That's why they understand me this well. Besides, when the areas which we study are near home, they enjoy coming with me.

3. In your opinion, what is the best thing about your job?

By studying all the micro-organisms from the sea, we can find more information about how they influence the climate changes and the sea. The part I enjoy the most is the time spent collecting and analyzing the samples.

4. Are there any risks that your job implies?

Every job has its own dangerous, hazardous situations. The worst that ever happened to me was getting caught on the research vessel during an awful storm that almost sunk the ship. Then I realized which are the dangers that this job implies.

5. Is there something that you would like to transmit to our readers or to your friends at home?

My message for your readers is to protect the Earth and have an ecological behavior. And for my friends and family hugs and kisses!

How do you think the seashore will look in 50 years?

Coastal zones are transitional areas in which processes are controlled by complex interactions and fluxes of material between the land, ocean and atmospheric systems. As a result, coastal zones are among the most dynamic, rapidly changing and most vulnerable environments on Earth. Natural factors that are expected to have the largest impact on coastal systems are temperature changes, sea-level rise, river runoff, wind patterns, and frequency and severity of storms.

The scientists predictions, based on the data that they collected during several years, are quite negative. They have noticed that the Black Sea level rose by 2.87 to 3.14 mm/yr between 1921 and 1997, and that in 50 years there will be no seashore.

In order to prevent the costal zones from disappearing, we should protect the nature with all our might. This will stop the global warming from destroying the beaches.

"Thank you for all your efforts done until now for discovering the secrets of the sea and for collecting an important amount of data which will allow us to continue your work ! We'll be waiting anxious on the shore!" is the message from the youngsters on the land to the scientists at sea .

2nd International Black Sea Symposium

"The Black Sea Region: the State of Play and the Way Forward"

Building on the successful 2008 event, the ICBSS will host the 2nd International Black Sea Symposium which will be held on the island of Kalymnos, Dodecanese/Greece.

The International Black Sea Symposium (IBSS) provides a forum for study, dialogue and networking in a multicultural and interdisciplinary environment, thus contributing to understanding and cooperation in the Black Sea region and beyond.

The event targets young professionals (22-35 years old), primarily from the countries of the wider Black Sea area, EU member states, the United States and Central Asia. A maximum of 40 participants will have the opportunity to gain insights into issues of importance for the future development of the Black Sea region during a four-day intensive course of interactive sessions led by prominent experts. Sessions alternate with conflict resolution workshops guided by expert facilitator Prof. Benjamin Broome of Arizona State University.

12 September :

The weather forecast for the day brought some smiles on the researchers` faces. It was a sunny day, mostly clear, and they had to deal only with light, but, yet, variable winds . It was a good day for making their wanted experiment.

Sweet News Flash

One of the members of the team couldn't stay away too long from his most beloved pet: Ringo, a cute Golden Retriever. At the start, Ringo was afraid to get on the researchers' vessel, but then he was more than glad to run on the boat freely. He got used to the crew and everyone started to like him more and more. So now Ringo is the mascot of the Black Sea Expedition.

A peak in the Daily Menu

Breakfast : Tea/Coffee, Bread, Jam, Cereals, Fruits,

Lunch : Grilled fish, Steamed Vegetables, Rice, Salad

Dinner : Vegetable soup, Sea fruits, Rice, Salad

With a good alimentation, work gets easier and easier !

Name / Address of the class : X B4, Liceul Teoretic "Ovidius ", Constanta , Romania

Age group of the class : 16

Number of children : 10

Name of the teacher: Carmen Bucovală