



A cross discipline and cross bordure integrated project on eutrophication offering information, education and science to stakeholders and the public at large in the Interreg 2 Seas Zone (Belgium, England, France and the Netherlands).

Editorial

What is this foam on our coasts?

Have you ever asked yourself: why is there so much foam on the beach? What is that stinking smell of the sea? How do these large amounts of green algae come in my fishnets? Why do we speak about 'Death Zones' in seas and how do they arise? Why certain cultured mussels are not suitable for consumption? Why is this happening now? And most of all...how can we help?

ISECA's mission

To answer all these questions, scientist from various institutions and research disciplines get united in an European project called ISECA (Information System on Eutrophication of our Coastal Areas).

Since many years, they observe the anarchic development of algae on the coastline, independently of each other, with their own scientific tools.

Bringing out together their knowledge in a single database will help anticipating the phenomenon evolution and to warn authorities and stakeholders (farmers, industrials, tourism actors ...), so that they can apply appropriated measures.

General public's perception of the phenomena

A survey applied to 300 persons from Belgium and France revealed the following information:

- The majority (61%) are aware of the foam's phenomenon (more belgians observed it 76%)
- They suppose it's a natural phenomenon but they think it is amplified with human activities (78%)
- Therefore, they don't know the specific reasons (belgian people admit easier they don't know them)
- 85% of them are incommoded by foams
- 54% of them don't know if it is dangerous (81% in Belgium)
- 84% don't know eutrophication phenomenon
- And they feel some concern ...



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Science

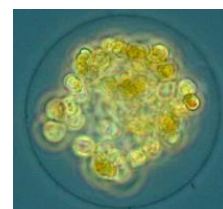
What is eutrophication?

Algae grow in the sea feeding on nutrients in the water. Algae grow better when more nutrients (nitrates and phosphates) are present in the water column. A small increase in algal biomass has no adverse effects on the ecosystem and can even lead to an increase of certain fish populations. **An overgrowth however can lead to an algal bloom which may disturb the water.** These algae keep out the light and when they die, they are decomposed by bacteria which consume oxygen in the process so that **the water can become temporarily anoxic (hypoxia)** which may be toxic to aquatic life. This phenomenon is called eutrophication. Depending on the environment (quiet bay or rough seas) and the type of algae (microscopic or macroscopic), it is observed in different forms: **foam or a green tide on the beach.**

Eutrophication is one of the causes of the deterioration of water quality. In the North Sea and the English Channel, this is mainly due to human activities.

Such environmental problems have not only an effect on aquatic life, but can also have a negative impact on the economic activities of the sea (fishing, tourism, recreation ...).

Phaeocystis
(Micro-algae)



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and D.J. Patterson
(CCMP)

Zoom

ADRINORD, the project's coordinator, first ensures an optimal implementation of both financial and technical parts.

This technical coordination brings out together the different project aspects and creates a link between the multidisciplinary partners' interventions: how to answer to the general public's concerns identified through a questionnaire, what are the authorities in charge of the management's needs regarding water quality out of the regulatory aspects, what scientific and technical answers can ISECA bring?

The satellite is one of the marine environment monitoring tools. The water color observed from space helps to quantify key parameters of eutrophication such as the amount of chlorophyll pigments and light penetration into the water. But the atmosphere significantly hides satellite images so it is necessary to correct some atmospheric effects to better use the water color. This is the ADRINORD's contribution: from well-known optic principles, the association develops atmospheric corrections adapted to our region and applies them to a database of satellite images.



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Agenda

Info Day in Boulogne-Sur-Mer, 28th of November 2012

So that the different stakeholders involved in water quality can share their knowledge on eutrophication, Nausicaá organized an Info Day **in its premises on Wednesday 28th of November 2012.**

Four experts, including a scientist, an industrial, a water quality manager and a farmer, answered to the 24 participants' questions on eutrophication. It was an opportunity for Nausicaá to present the project and ISECA partners' missions.

Recreational activities punctuated this day, such as the "World goûter" and the educational activity "Why the sea foams?".

Two other "Info Days" will be held, one in Belgium and one in England.

To have further information on this event, let's have a look to the next ISECA newsletter this winter!

With the participation of:

