

THE RED TIDE PHENOMENON



BEAGLE
CHANNEL

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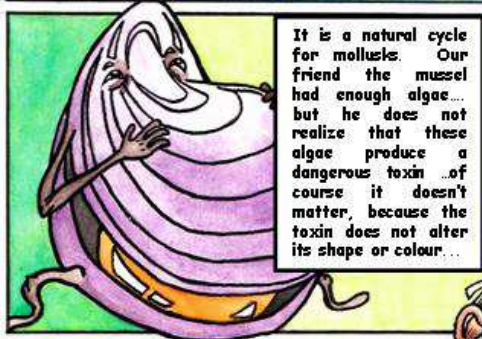


Spring is starting in the southernmost part of the continent and a strange phenomenon begins in the waters of the Beagle Channel

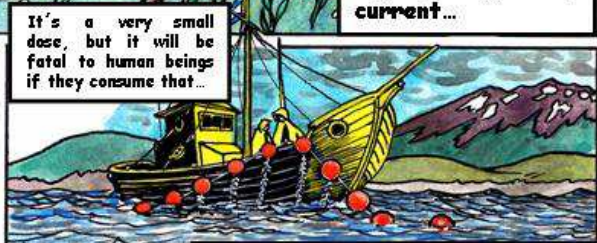
The productivity of the sea increases and thousands of microscopic algae reproduce so rapidly, that they may change the colour of sea water to yellow-brown or red.



At the same time, mussels feed by filtering these algae, dragged by current...



It is a natural cycle for mollusks. Our friend the mussel had enough algae... but he does not realize that these algae produce a dangerous toxin... of course it doesn't matter, because the toxin does not alter its shape or colour...

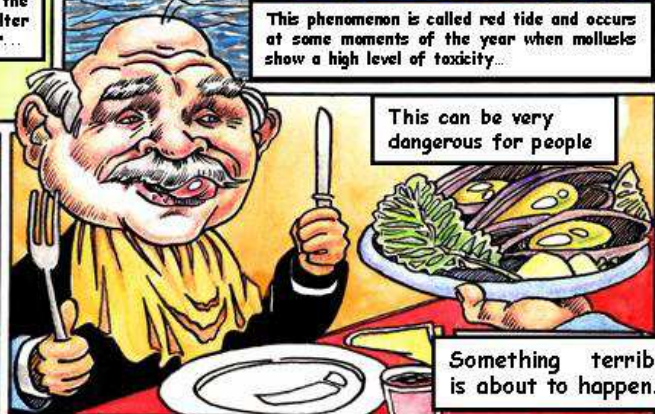


It's a very small dose, but it will be fatal to human beings if they consume that...

This phenomenon is called red tide and occurs at some moments of the year when mollusks show a high level of toxicity...

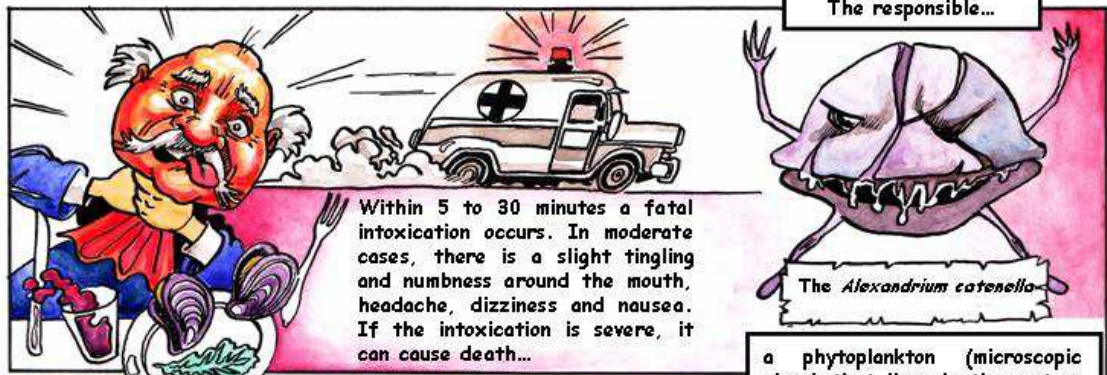


...if they are not properly controlled by sanitary authorities...



This can be very dangerous for people

Something terrible is about to happen...

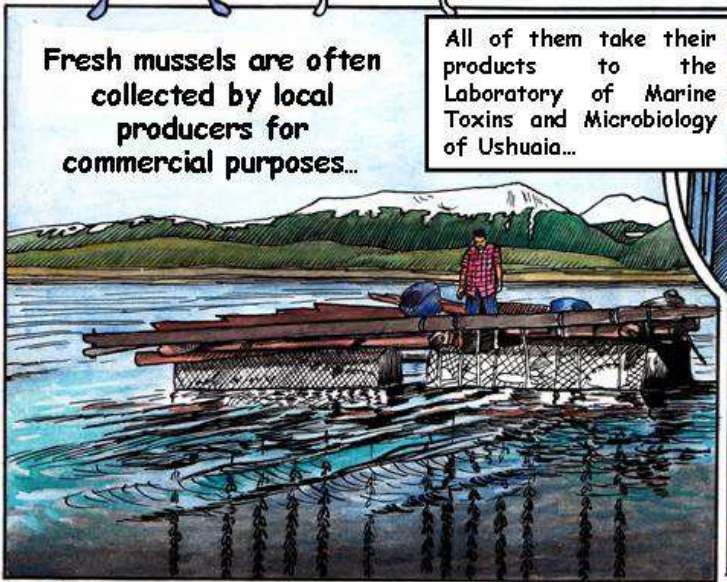


The responsible...

Within 5 to 30 minutes a fatal intoxication occurs. In moderate cases, there is a slight tingling and numbness around the mouth, headache, dizziness and nausea. If the intoxication is severe, it can cause death...

The *Alexandrium catenella*

a phytoplankton (microscopic algae) that lives in the waters of Beagle Channel and produce a toxin that affects the following shellfish...



Fresh mussels are often collected by local producers for commercial purposes...

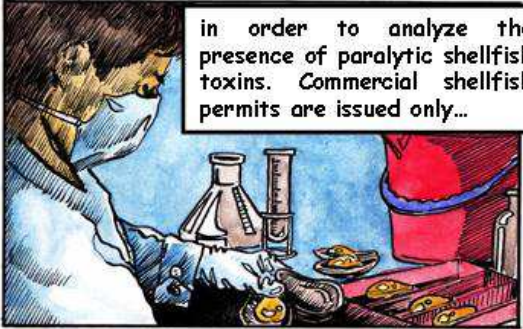
All of them take their products to the Laboratory of Marine Toxins and Microbiology of Ushuaia...



...to be analyzed



laboratory staff takes a sample for testing...



in order to analyze the presence of paralytic shellfish toxins. Commercial shellfish permits are issued only...



if the levels of toxins are below the established limit for human consumption...



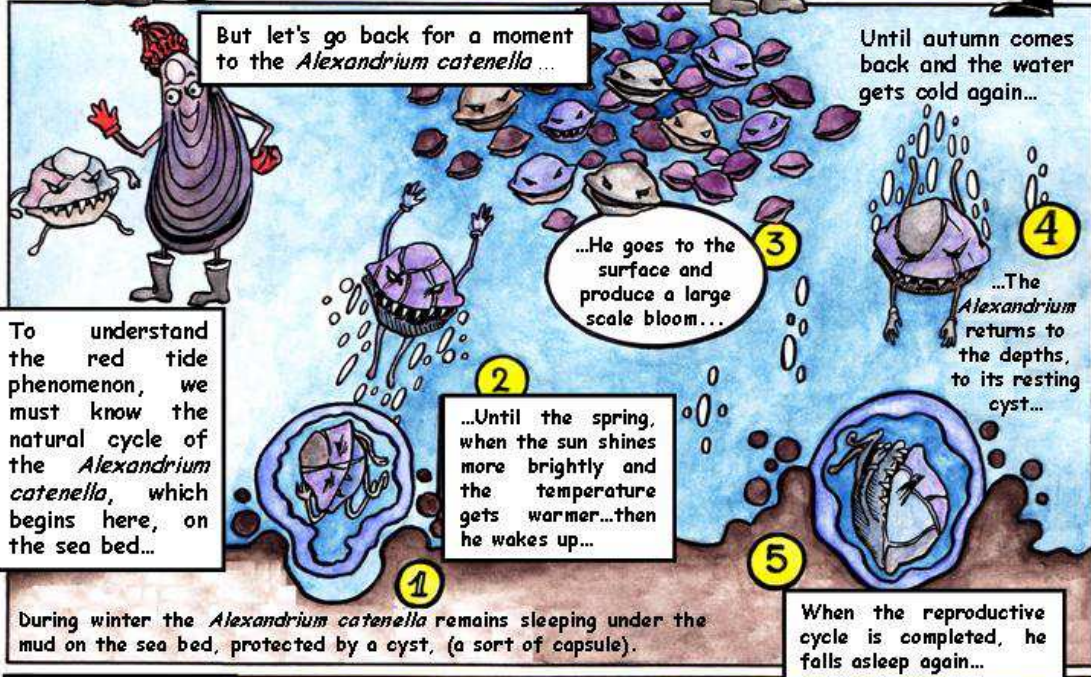
(R)

If the product is in good conditions, the certificate stating that it is fit for human consumption is issued...

The producer can sell his shellfish, always handing in a copy of the certificate of analysis to his clients...

CERTIFICATE
LABORATORY OF MARINE TOXINS AND MICROBIOLOGY
"FIT FOR HUMAN CONSUMPTION"

Now it's done!...



But let's go back for a moment to the *Alexandrium catenella* ...

Until autumn comes back and the water gets cold again...

To understand the red tide phenomenon, we must know the natural cycle of the *Alexandrium catenella*, which begins here, on the sea bed...

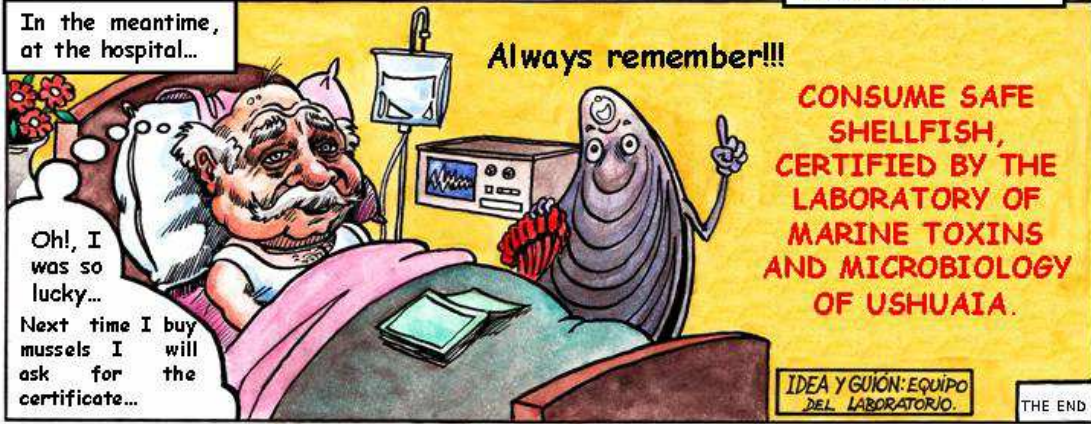
...He goes to the surface and produce a large scale bloom...

...The *Alexandrium* returns to the depths, to its resting cyst...

...Until the spring, when the sun shines more brightly and the temperature gets warmer...then he wakes up...

During winter the *Alexandrium catenella* remains sleeping under the mud on the sea bed, protected by a cyst, (a sort of capsule).

When the reproductive cycle is completed, he falls asleep again...



In the meantime, at the hospital...

Always remember!!!

CONSUME SAFE SHELLFISH, CERTIFIED BY THE LABORATORY OF MARINE TOXINS AND MICROBIOLOGY OF USHUAIA.

Oh!, I was so lucky...
Next time I buy mussels I will ask for the certificate...

IDEA Y GUIÓN: EQUIPO DEL LABORATORIO.

THE END