



DIVING DEEPER: CRITICAL THINKING & MEDIA LITERACY

Like most environmental issues, the question of marine litter is quite complex with diverse root causes and no single solution. In this activity, learners work on a case related to marine litter. They analyse the causes, and think about the actors involved in terms of their responsibilities, values and benefits including possible ways of addressing the problem.

SUBJECTS

Environmental Studies, Language, Global Economy

LEARNERS' AGE

12-15 yrs

DURATION

90 minutes

OBJECTIVES

- To analyse causes of marine litter in detail based on a real case, preferably local.
- To practice analyzing and synthesizing information from written texts.
- To develop media literacy.

INTERNET SOURCES

www.marlisco.eu/best-practices.en.html <http://e360.yale.edu/>, www.theguardian.com/environment,
www.bbc.co.uk/news/science_and_environment/ <http://marinedebris.info/>

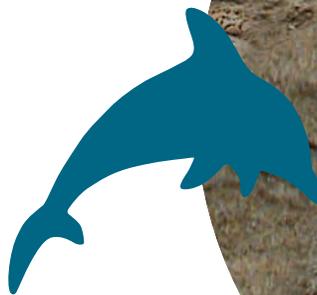
SECTION B

LAND & SEA
BASED SOURCES



**KNOW
FEEL
ACT!**

to Stop Marine Litter



Spanish sperm whale death linked to plastic used in supply chain for UK supermarket

Sperm whale on Spanish southern coast swallows 17 kilos of plastic waste dumped by greenhouses supplying produce to UK supermarkets.

Adapted from an article in The Guardian, 08/03/2013

A dead sperm whale washed up on Spain's southern coast swallowed 17 kilos of plastic waste dumped into the sea by farmers tending greenhouses where tomatoes and other vegetables for British supermarkets are produced.

Scientists were astonished to discover the 4.5 tonne whale had swallowed 59 different pieces of plastic – most of it thick transparent sheeting used to build greenhouses in southern Almeria and Granada. A clothes hanger, an ice-cream tub and bits of mattress were also found.

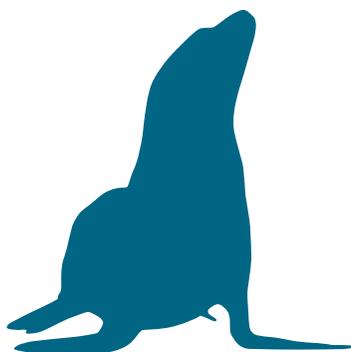
According to researchers from the Doñana National Park research centre in Andalusia, the animal was killed because the plastic eventually blocked its stomach.

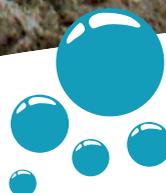
At first, researchers found it hard to believe that the 10-metre animal had swallowed such a vast amount of plastic which they found protruding through a tear in its abdomen.

In total, the whale's stomach contained 24 pieces of transparent plastic, plastic bags, nine metres of rope, two stretches of hosepipe, two small flower pots and a plastic spray canister.

All the items found are typical of the closely packed Almeria greenhouses that cover about 40,000 hectares – and are clearly visible in satellite photographs taken from space.

Desert-like Almeria has transformed itself into Europe's winter market garden thanks to the plastic greenhouses where plants are grown in beds of perlite stones and drip-fed chemical fertilisers. Local farmers report that large UK supermarket chains are amongst valued customers.





Estimates of how much plastic waste is generated vary from 45,000 tonnes to more than 88,000 tonnes.

Much of the waste is treated in special centres but environmentalists say local riverbeds are often awash with plastic. Given that the greenhouses have been built right up to the high-tide line, some waste also ends up in the sea.

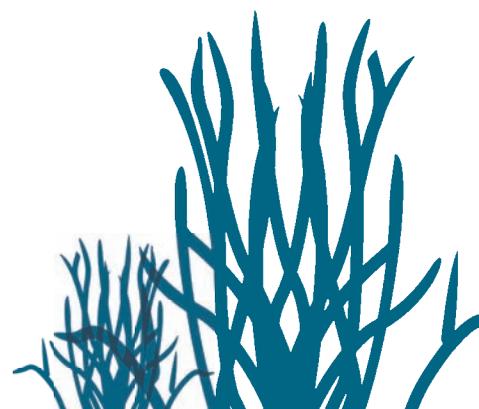
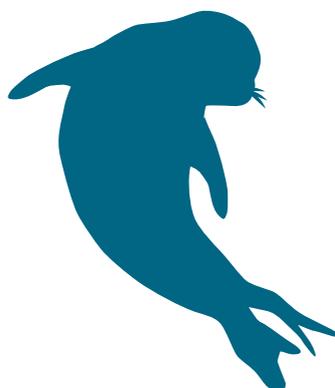
“Degraded plastics which are no longer recyclable is a persistent problem,” reports lead researcher Renaud de Stephanis and his team in the Marine Pollution Bulletin.

Only about 1,000 sperm whales – the world’s largest toothed whales – are thought to live in the Mediterranean. They live up to 60 years and are often killed after becoming entangled in nets or hit by ships.

Yet another man-made danger has now been detected. De Stephanis warns that “These animals feed in waters near areas that have been completely flooded by the greenhouse industry, making them vulnerable to its waste products if adequate treatment of the industry’s debris is not in place”.

Source: www.theguardian.com/world/2013/mar/08/spain-sperm-whale-death-swallowed-plastic

Read another article on the same topic from another source:
www.sciencedirect.com/science/article/pii/S0025326X13000489





Material and Equipment

Notebooks and pens

Instructions step by step

The learners read all texts / articles of the case study independently. Then in groups of four, they discuss the following questions and keep notes on the worksheet:

- What is the key issue at stake? What is the problem?
- Identify the main actors/ stakeholders involved in this situation. What are their views? What is their behaviour? What are the consequences of their actions? What about their interests and values? Underline the exact phrases in the text that support these values.
- Based on your readings and discussions, what are the main causes of the issue? Are they physical, social, cultural, economic? Are the causes the same for other regions around the world?
- How is the specific issue connected to other issues? Is it a local incident? To what extent does it have a global dimension?
- What are the consequences of the issue? For example, how are the ecosystem, tourism, fishing, aesthetics and quality of life affected?
- How does the issue described affect local inhabitants? To what extent does it affect the entire country? Does it have any effect on people elsewhere around the world?
- How could the problem be solved? Are the solutions the same for other people around the world? What can you do as an individual and as a class to address the problem?
- Does the author adequately present all sides of the issue? Can you distinguish between the facts and author's views? Discuss how these differ. What are the author's values? Do you detect any prejudice or bias? If yes, underline the relevant phrases in the text.
- Does the article's title reflect the content? If not, suggest an alternative title.

