Marine litter impact – an increasing problem

As *Coe and Rogers* suggest, "Marine litter or debris is any persistent, manufactured or processed solid material discarded, disposed of or abandoned in the marine and coastal environment from any source".

As everybody knows marine litter poses not only an aesthetic problem, but also is extremely threatening to the marine life, the coastal environment and the public health. This is due to the fact that most marine litter consists of material that degrades slowly. It comes from not recycled trash washed into sewers, storm drains or rivers after the rain, from people who go to the beach and leave their trash behind, from fishermen who lose or discard large fishing nets in the sea or even from ships and recreational boats that intentionally or accidentally dump their trash in the sea. However, the worst kind of marine litter comes from industrial and manufacturing facilities as well as construction and demolition sites.

Marine litter affects negatively the environment, public health and marine life. The extend of the impact depends on the type of marine litter and where it settles in the sea (e.g. floating, underwater or near sensitive marine habitats). In particular, trash on the beach is harmful to the health and safety of humans. It also makes the beach look dirty and ugly, thus unattractive to visitors. Therefore, local communities lose money from tourism or spend money on cleaning efforts. Additionally, marine animals (such as seals, turtles, birds, fish etc.) can be wounded or even killed if they consume or become entangled in marine litter. Marine animals could also starve or suffocate because of marine debris. For example, there are known cases of sea turtles swallowing clear plastic bags because they mistook them for jellyfish.

Keeping all this information in mind, we should all work together to become ocean literate: everyone should realize that the ocean with its various features is inextricably interconnected with humans and therefore it is our job to protect it. It may be widely unexplored but there are some things we know for a fact about the ocean. It is a major influence on weather and climate, it made Earth habitable and it is the ocean and its life that shape the features of Earth.

It is absolutely clear that we need efficient, clear and strict regulations and laws from the national governments and the European Union. Those who do not follow them should receive concrete penalties, since this is a problem that affects the whole planet.

We all have to encourage the monitoring of the problem and support the use of apps like the "marine litter watch application". This particular application is very useful as it enables its users to conduct surveys at beaches having a useful tool, a European list of marine litter. This list can include commonly found beach litter such as plastic bags, cigarette butts, bottles etc.

Five words include the essence of our efforts:

- **Refuse** \rightarrow to use more plastic bags or to buy products with fancy and unnecessary package
- **Reuse** → we are living in a throw-away society, strongly influenced by over-consumption we really do not need all this disposable items.
- **Reduce** \rightarrow consumption, we really do not need so many goods
- **Recycle** \rightarrow The importance of recycling extends beyond environmental to political and ethical reasons.
- **Respect** \rightarrow our nature, ourselves, our precious blue planet

Bibliography

- <u>http://oceanservice.noaa.gov/education/literacy/ocean_literacy.pdf</u> \rightarrow Ocean literacy
- <u>http://oceanliteracy.wp2.coexploration.org/</u> \rightarrow Ocean Literacy
- θαλάσσια απορρίμματα: Το αποτύπωμα του ανθρώπου στο θαλάσσιο και παράκτιο περιβάλλον, Γιώργος Παπαθεοδώρου, Χρήστος Ιωακειμίδης, Εκπαιδευτικό Υλικό για το δίκτυο σχολείων "Το σχολείο μου ταξιδεύει με τον ΠΕΡΣΕΑ"
- Marine Debris an Overview of a Critical Issue for Our Oceans, Seba B. Sheavly, "6th Meeting of the UN Open-ended Informal Consultative Process on Oceans & the Law of the Sea
- <u>http://www.helmepacadets.gr/gr/sea-human/threats/pollution/solid-waste</u> \rightarrow οι Ναυτίλοι της HELMEPA