

PLASTIC SEA

BROUGHT TO YOU BY
THE MALTA NATIONAL
AQUARIUM



OUR OCEAN
MALTA. 5-6 OCTOBER 2017

8TH JUNE 2017 WORLD OCEAN DAY
"PLASTIC OCEAN" SCREENING

OVER 3 TRILLION PIECES OF PLASTIC
CURRENTLY LITTER THE OCEAN.
DO YOU WANT MORE PLASTIC THAN FISH IN THE SEA?



WHAT IS A MARINE DEBRIS?

Marine debris is:

“any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment”

(U.S. Environmental Protection Agency)

Marine debris are



The most buoyant types of debris are made of

PLASTIC



Another characteristic, **degradability**, affects how long debris will remain in the marine environment.



An object is **degradable** if natural forces cause it to be broken down into smaller pieces.

In nature, materials are typically broken down through a process known as biodegradation.

Biodegradation occurs when microorganisms (such as *bacteria* and *fungi*) decompose a material, causing it to be broken down into compounds (such as nutrients) that can be **reused** in the environment.



Plastic, glass, synthetic rubber, synthetic fabric and metal are typically resistant to biodegradation.

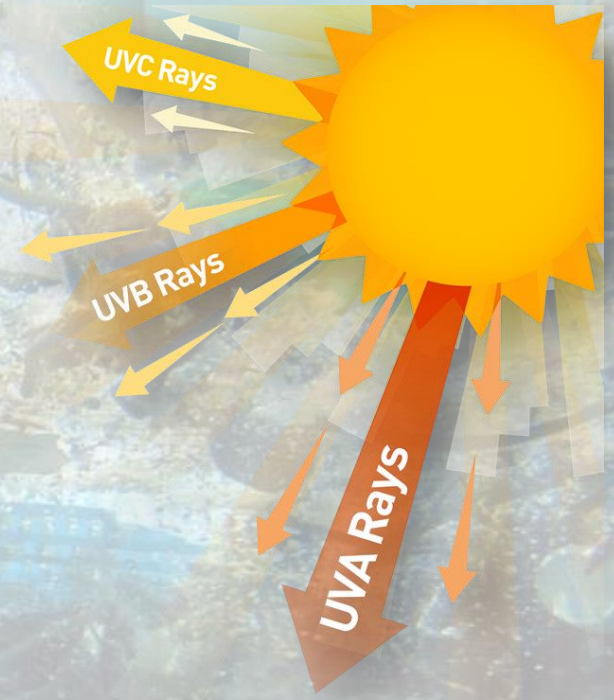
Debris that does not easily degrade remains in the environment for a long time and is therefore **PERSISTENT**.



Plastic debris can come in all shapes and sizes but the pieces that are **less than 5 mm** in length are called “**MICROPLASTIC**”



Microplastic come from a variety of sources, including larger plastic debris that degrades into smaller pieces when exposed to sunlight, a process called **photodegradation**.



In addition, **MICROBEADS**, a type of microplastic are very tiny pieces of manufactured *polyethylene* plastic that are added as exfoliant to halt and beauty products, such as some cleaners and toothpastes.



Marine debris can have serious impacts on marine wildlife.

ENTANGLEMENT



- Wounds
- Infection
- Loss of limbs

INGESTION

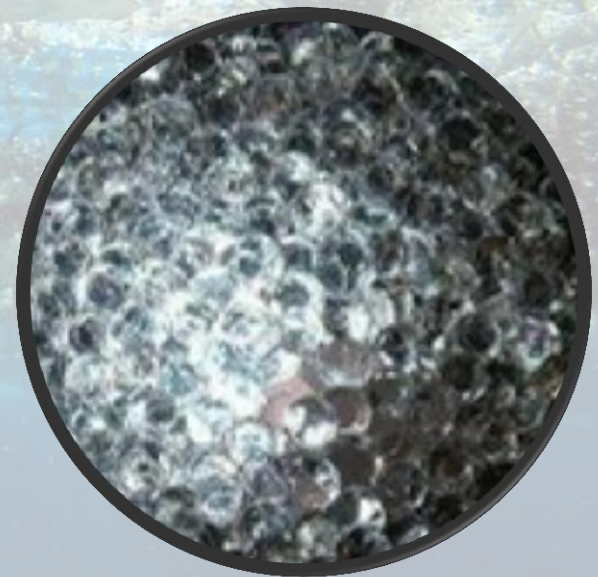


- Strangulation
- Choking
- Suffocation

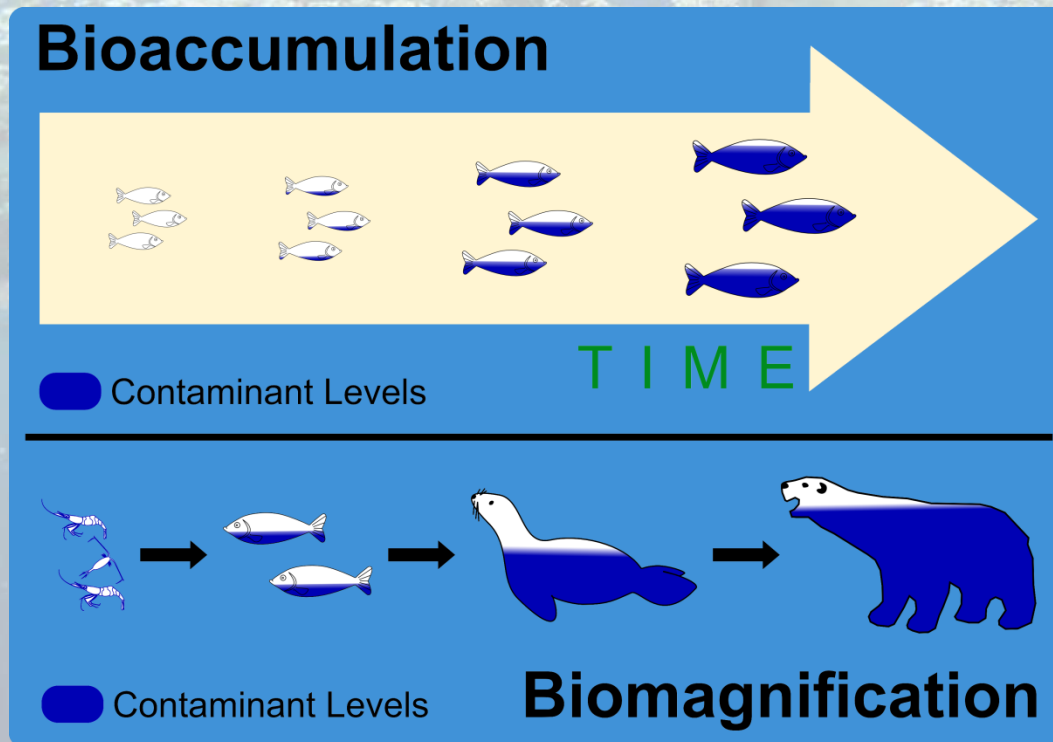
Ingestion sometimes happen accidentally, but generally animals ingest debris because **it looks like food.**

Resin pellets (microbeads) can resemble fish eggs

Floating plastic baggie can look like a jellyfish



Marine animals ingest small pieces of debris that can accumulate in their bodies. When animals higher on the food chain eat those smaller animals, they also ingest the debris accumulated in their bodies.



More than **100.000** marine mammals die every year from entanglement or ingestion of marine debris.



Decline of the northern fur seal of Alaska



Endangered
Hawaiian monk seal



Whales have been found entangled in derelict fishing nets and with marine debris in their stomach



Manatees entangles in crab pot lines

Thousands of seabirds are thought to die from entanglement or ingestion each year.



Entanglement in fishing line has been a particular problem for the **brown pelican**, which has been listed as an **endangered** species.

Fish and crustaceans are frequently caught in lost or discarded fishing nets and fishing line. This phenomenon is called **ghost fishing**.



Recycling is one way to reduce the amount of trash that must be disposed.

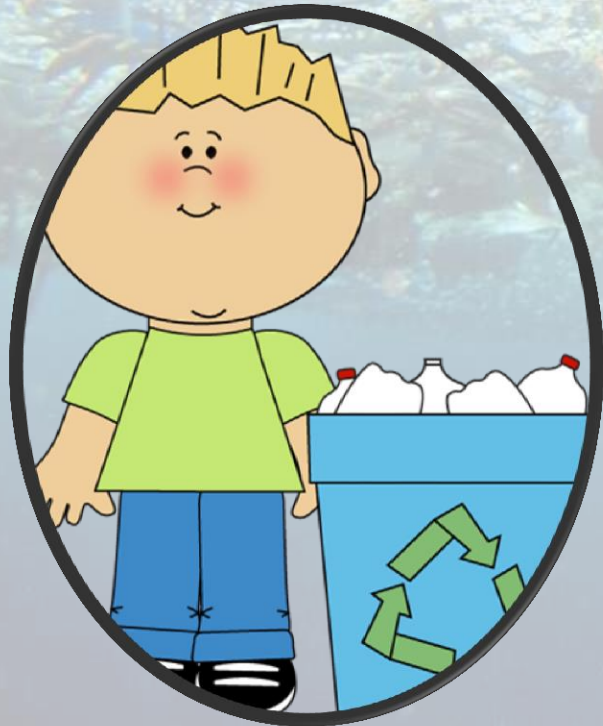
Recycling not only reduces the amount of solid waste going to landfills, but also prevents the emission of many greenhouse gases and water pollutants, saves energy...



Adopting **pollutions prevention strategies** that produce less waste in the first place is even a better solution than recycling alone.



EVERYONE CAN MAKE A DIFFERENCE!!



**AND WE ARE STARTING TOO...
ARE YOU???**

**11th October 2016
Clean Up**

