

Earth Week 2018 Lunch-and-Learn

Recognizing and Reducing Plastic
Waste in Your Everyday Life



INTRODUCTION

Today's Overview

- ✦ Why focus on plastic?
- ✦ Where is the plastic waste in your life?
- ✦ What are alternatives to plastic?
- ✦ Group discussion
- ✦ Take action!



WHY PLASTIC?

Why is plastic bad for the Earth?

- ❖ Poisons and injures marine life
- ❖ Dangerous to humans
- ❖ Debeautifies beaches and landscapes
- ❖ Clogs landfills
- ❖ Negative impacts on groundwater and soil



WHY PLASTIC?



Plastics are now found **inside animals** throughout the ocean food chain – from mussels to fish to sea turtles to whales.

57 Marine Mammals

ENTANGLED ANIMALS FOUND

22 Sharks, Skates & Rays

440 Fish

Trash like **plastic bags, plastic food wrappers and balloons** are among the most common items ingested by sea turtles.

Research shows plastics in the ocean adsorb **chemical contaminants** from surrounding sea water. Animals take in these toxins when they ingest plastic items.

46 Sea Turtles

17 Corals/Sponges

2010-2014 ICC



WHY PLASTIC?



Plastic bag
or jellyfish?

Ingestion = starvation

Many marine animals starve when they ingest indigestible plastic waste.

Others become entangled and trapped in plastic.



WHY PLASTIC?

- Home of 'The Great Pacific Garbage Patch'
- Estimated 3.2 million tonnes of trash
- About the size of Texas by some accounts
- Located between Hawaii and California

- Research trips between Bermuda and Azores document floating garbage
- Soup of micro-particles similar to the 'Great Pacific Garbage Patch'

44% of all seabird species documented with plastic in or around their bodies

Plastics have entangled birds and turned up in fish bellies

Searchers for Malaysia Airlines Flight 370 have found ocean garbage instead of crash evidence



NORTH PACIFIC
GYRE



NORTH ATLANTIC
GYRE



SOUTH PACIFIC
GYRE



SOUTH ATLANTIC
GYRE



INDIAN OCEAN
GYRE

GYRES

Whirlpools of water trapping huge collections of trash in their currents



WHY PLASTIC?

Plastic is harmful to humans

- ❖ BPA and phthalates are believed to be “endocrine disruptors”
- ❖ Exposure to chemicals during production
- ❖ Chemical migration from plastic packaging to food
- ❖ We are what we eat!



WHY PLASTIC?

Plastic is harmful to humans

- ❖ Plastics must be melted down to be recycled which emits potentially harmful fumes
- ❖ Much of plastic is shipped to developing countries with lax laws to recycle
 - ❖ Workers make \$1.5-\$2 a day and put themselves at risk for lung disease and cancer



WHY PLASTIC?

Clogs landfills

- ✦ Plastic takes thousands of years to decay
- ✦ "Humans have produced 18.2 trillion pounds of plastics since large-scale production began in the early 1950s, and nearly 80% now resides in landfills." -USA Today
- ✦ Only 2% of plastic bags are recycled



WHY PLASTIC?

PLENTIFUL PLASTIC

18.2 trillion pounds of plastic has been produced worldwide since the 1950s.
That's equivalent to:



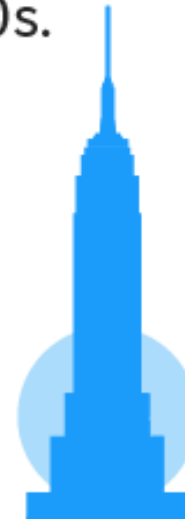
1 billion
Elephants



80 million
Blue
Whales



822,000
Eiffel
Towers



25,000
Empire
State
Buildings

SOURCE University of Georgia /
Science Advances

Janet Loehrke, USA TODAY

 **USA TODAY**



WHY PLASTIC?

Negatively affects groundwater, roots, and soil

- ❖ Toxic seepage from landfills
- ❖ Impedes the flow of ground water and obstructs the movement of roots. This affects the soils organic composition and soil fertility deteriorates.



WHY PLASTIC



THE SOLUTION TO OCEAN PLASTIC



RECOGNIZING PLASTIC WASTE

What sort of plastics do you use/consume?

What sort of plastics did you use for your lunch today?



RECOGNIZING PLASTIC WASTE

- ❖ Plastic bags
- ❖ Plastic straws
- ❖ Plastic baggies and plastic wrap
- ❖ Plastic silverware
- ❖ To-go containers
- ❖ Food containers
- ❖ Produce and meat bags
- ❖ Plastic plates and cups



RECOGNIZING PLASTIC WASTE

If you must use plastic, be sure to recycle!

What Can I Recycle?

RECYCLING DO'S & DON'TS



PAPER

✓ **Accept**
Cardboard
Food Boxes
Milk, Juice & Soup Cartons
Newspapers & Inserts
Books & Magazines
Mail & Office Paper

✗ **Do Not Accept**
No Pet Food Bags
No Tissue
No Gift Wrap



PLASTIC

✓ **Accept**
Bottles, Cups & Containers:
Beverage Bottles
Dairy Containers & Lids
Household Bottles, Jars & Jugs
Produce, Bakery & Deli Containers

✗ **Do Not Accept**
No Plastic Bags, Wrap or Film
No Motor Oil Bottles
No Styrofoam



METAL & GLASS

✓ **Accept**
Aluminum Bottles & Cans
Empty Aerosol Cans
Food & Drink Glass Bottles & Jars
Steel, Tin & Bi-metal Cans

✗ **Do Not Accept**
No Aluminum Pans or Foil
No Empty Paint Cans



ALTERNATIVES TO PLASTIC

What are some alternatives to plastic?



ALTERNATIVES TO PLASTIC

- ✦ Reusable cloth bags
- ✦ Reusable bottles for water and coffee
- ✦ Stainless steel or paper straws or refuse
- ✦ Beeswax food wraps
- ✦ Paper lunch bags or reusable lunch box
- ✦ Mesh produce bags
- ✦ Ceramic or glass containers and jars
- ✦ Canned or glass bottled beverages
- ✦ Wooden toys



DISCUSSION

Thoughts?

Questions?



TAKE ACTION!

Start making changes now and help
END PLASTIC POLLUTION.



SOURCES

- <https://www.earthday.org/>
- <https://ecologycenter.org/factsheets/adverse-health-effects-of-plastics/>
- <https://www.health.harvard.edu/staying-healthy/microwaving-food-in-plastic-dangerous-or-not>
- <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/bpa/faq-20058331>
- https://en.wikipedia.org/wiki/Endocrine_disruptor
- <https://www.nrdc.org/stories/9-ways-avoid-hormone-disrupting-chemicals>
- https://serc.carleton.edu/NAGTWorkshops/health/case_studies/plastics.html
- <https://news.nationalgeographic.com/news/2009/08/090820-plastic-decomposes-oceans-seas.html>
- <http://plastic-pollution.org/>
- <https://www.usatoday.com/picture-gallery/news/nation/2017/07/19/plastics-clog-landfills-worldwide/103832442/>
- <https://bagsbegone.com/resources/>
- <https://news.nationalgeographic.com/2017/07/plastic-produced-recycling-waste-ocean-trash-debris-environment/>



Thank you!

