

NEWS  
A new environmental concern: Plastic and fibers are showing up in fish  
Sept. 25, 2015 Updated Sept. 26, 2015 11:19 a

Full scale of plastic in the world's oceans revealed for first time

Over five trillion pieces of plastic are floating in our oceans says most comprehensive study to date on plastic pollution around the world  
Microplastic deposits found deep in world's oceans



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## Tiny plastic, big problem

Scientists find that tiny pieces of plastic travel great distances, threatening the ocean ecosystem  
BY ALISON PEARCE STEVENS 7:15AM, APRIL 30, 2015

# ARE YOU "PLASTIC AWARE"?


www.plasticaware.org



Plastic straw removed from turtle's nose by marine biologists in heartbreaking video

Video is released showing the moment a plastic straw is removed from the nose of an endangered sea turtle to warn of the dangers of dumping rubbish in the sea

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The Great Lakes Are Teeming With Tiny, Plastic Fibers, Scientists Say

By John Fleisher  
Posted: 01/10/2015 11:21 am EST Updated: 01/10/2015 11:59 am EST

We need to ban microbeads to protect our oceans, say scientists

Your face scrub is clogging up our waterways.

## What are microplastics?

Microplastics are small plastic items that are less than 5 mm (0.2") in size.

- **Primary microplastics** are plastics that are deliberately made as small items. Primary microplastics include "microbeads," which are found in many personal care products.
- **Secondary microplastics** come from the breaking down of larger plastic items through ultraviolet light, chemical, or microbial processes. Secondary microplastics also include plastic fibers released when synthetic fabrics are laundered
- Many microplastics enter the ocean in effluent from wastewater treatment plants, which are not designed to remove these very small plastics.

## What's the problem ?

Petroleum-based plastics never biodegrade. Over time, they just break down into smaller and smaller pieces.

In the ocean, toxins stick to the surface of plastics. They may be a million times more concentrated on the plastic than in the water. Plastics can also contain toxic chemicals like BPA.

Aquatic animals eat plastic thinking that it is food. Microplastics are small enough to be consumed by filter-feeders. Plastic can clog an animal's digestive system, leading to starvation. Toxins on/in the plastic can get into the animal's body.

## What can we do?

- **Read labels.** Choose personal care products that do not contain polyethylene (plastic).
- **Refuse, reduce, reuse, and recycle plastics.** Do you really need that plastic bag or drinking straw? Use a refillable water bottle instead of buying a single-use plastic one. Use reusable (preferably cotton) shopping bags. Take your own food storage container to use as a "to go" box. Select natural fabrics rather than synthetics.
- **Take the pledge** on plasticaware.org (use the QR code to get there now!)
- **Volunteer** with the Florida Microplastic Awareness Project.



Microplastics found in ocean water samples (photographed through a microscope)  
Left: Plastic fragment  
Right: Plastic fiber



## What is the Florida Microplastic Awareness Project (FMAP)?



Funded by a 2015 NOAA Marine Debris grant to the University of Florida/IFAS Extension, FMAP is a citizen science project using volunteers to collect and analyze coastal water samples around the state for the presence of microplastics. Data are available on an online map.

