OUR CLEANER PLANET

OCP

Fact Sheet

About Our Cleaner Planet

Our Cleaner Planet is a non-profit organization on a mission to develop sustainable technologies that improve the health of our oceans, create a cleaner planet, and empower a truly circular economy through scalable and profitable solutions. Established in 2018, the company has an innovative approach and patent-pending design to remove plastic from our oceans. Our Cleaner Planet has successfully tested its 1:164-scale prototype proving the efficiency and effectiveness of its design. It expects to launch additional model demonstrations and tests in early 2022 and is on schedule to launch its first full-sized ship in early 2025. For more information on Our Cleaner Planet, the Plastic Problem, Our Cleaner Planet's unique solution, or its development timeline, visit

OurCleanerPlanet.com

THE PROBLEM

Now, more than eight million tons of plastic refuse finds its way into the oceans around the world each year,

8,000,000 Tons of Plastic EACH YEAR

These plastics do not biodegrade. They break down into smaller and smaller pieces,

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References
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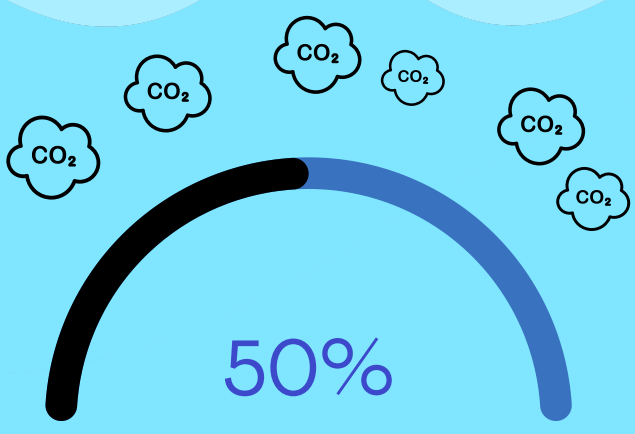
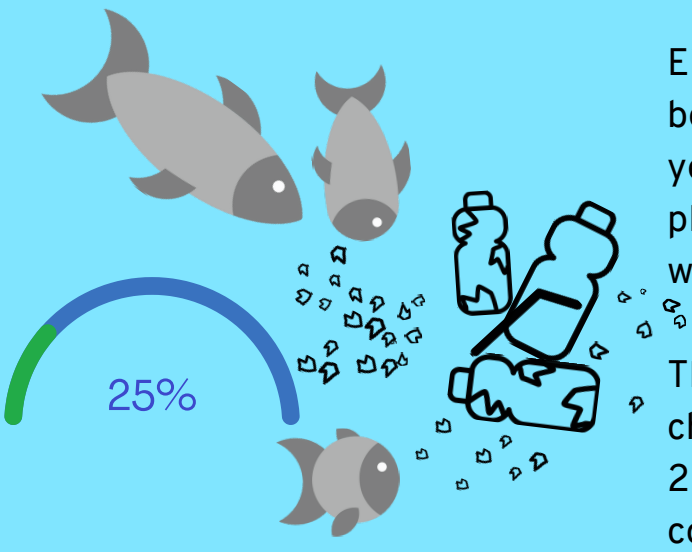


FACT 2

Climate change is a major issue today, triggered in large part by carbon dioxide (CO2) in the atmosphere. The ocean absorbs a huge amount of this carbon, including 30-50% of the CO2 produced by the burning of fossil fuel.(1)

FACT 3

A group of tiny marine organisms (plankton), the coccolithophores, create shells and skeletons for themselves by turning the carbon dioxide into structural calcium carbonate (CaCO3). When these organisms die, their shells sink into deep waters of the ocean. At the bottom, they form layers of carbon-rich sediments which develop into limestone – like the cliffs of Dover. This process of trapping carbon dioxide in the deep ocean is called carbon sequestration. (3)



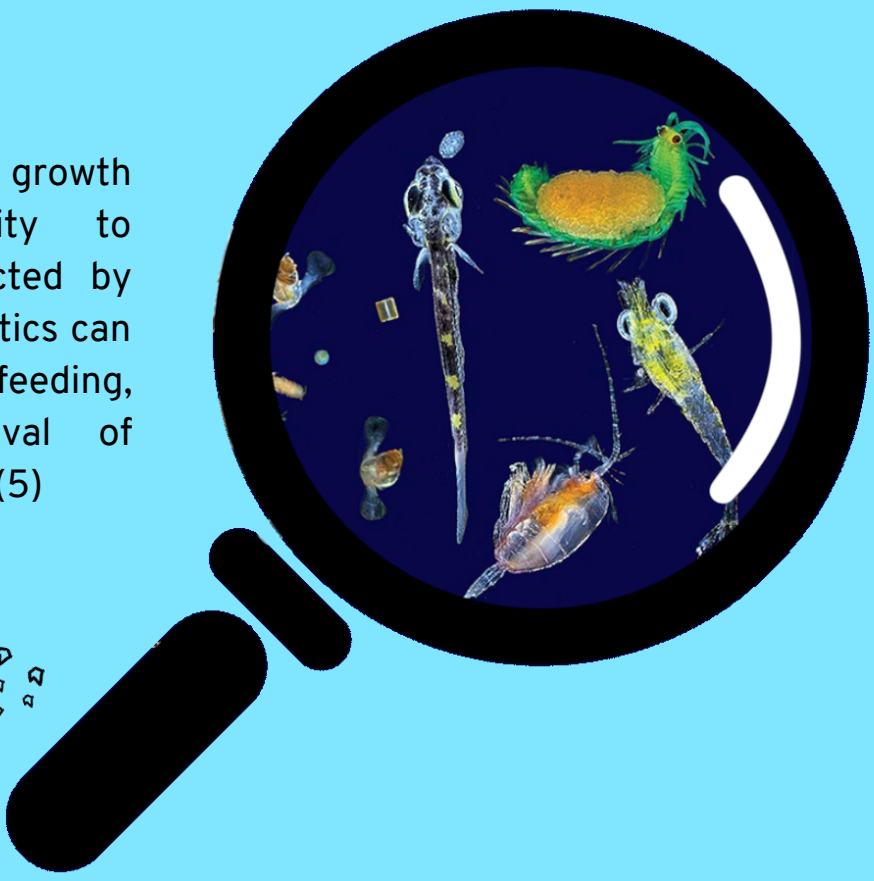
FACT 4

Eight million tons of plastics are being dumped into our oceans each year. By 2050, we may find more plastic in the ocean than fish (by weight)(1)

These plastics are entering our food chain. In California alone, in 2018, 25% of processed commercial fish contained microplastics.(2)

FACT 5

Phytoplankton (tiny plants) growth rates and their ability to photosynthesize are affected by microplastics. Further, plastics can impair the growth, feeding, reproduction, and survival of zooplankton (tiny animals).(5)

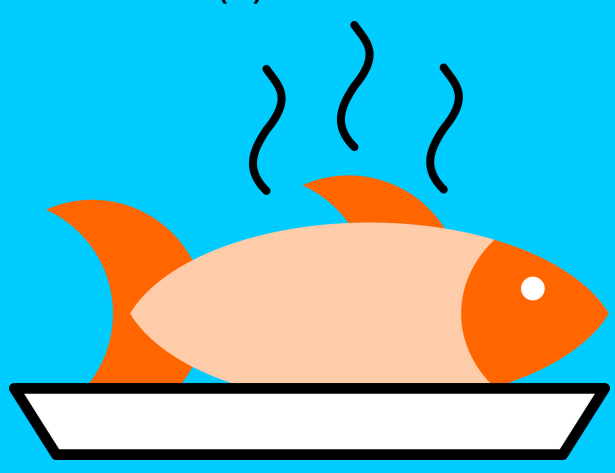


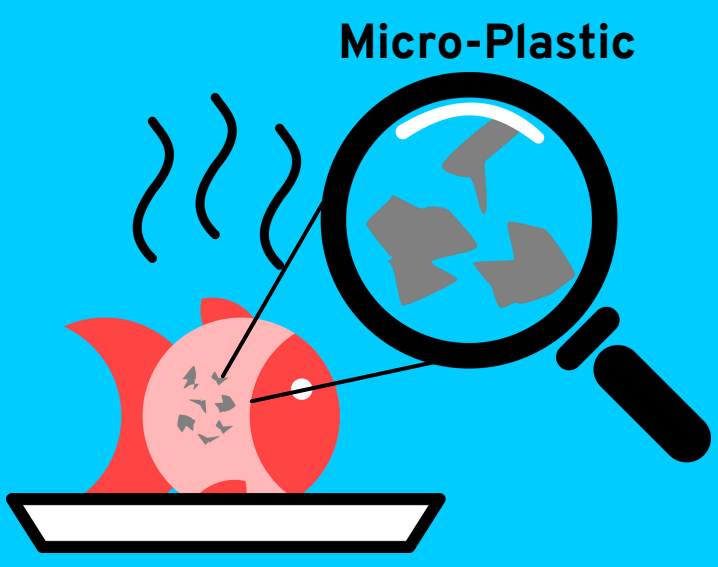
FACT 6

Research in larger animals has linked micro and nanoplastic exposure to infertility, inflammation and cancer. (6)

For instance, in Japanese rice fish, nano polystyrene that is only 39.4 nanometers in size, can be absorbed through an embryo's outer membrane (chorion) and be taken into the yolk and gallbladder while the embryo is developing. Nanoplastics have also been found in the brain, testis, liver and blood.

As a result, Kashiwada (2006) suggested that the nanoplastics were capable of passing the blood–brain barrier. (6)





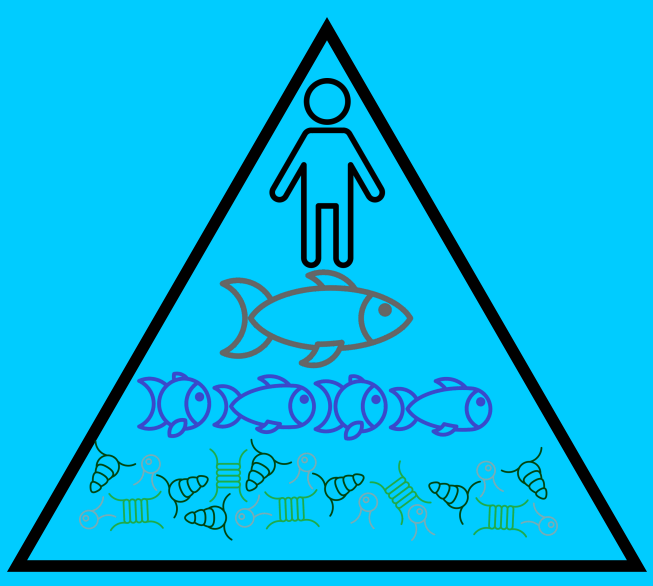
FACT 7

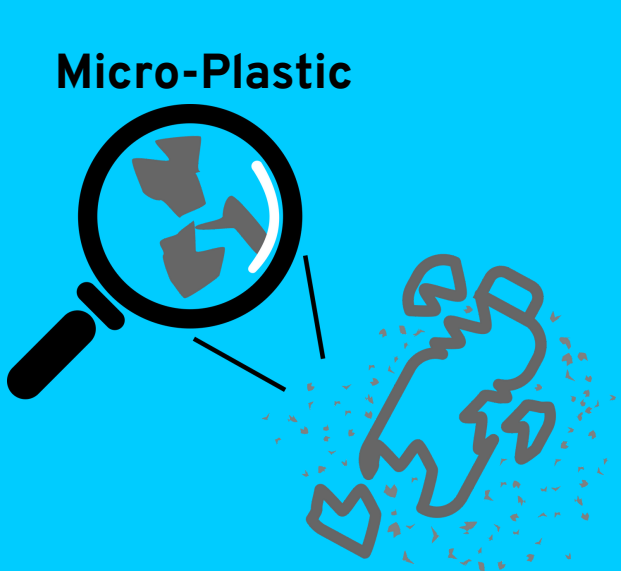
Scientists have stated that coatings (biofilms) on microplastic debris in the ocean can concentrate Persistent Organic Pollutants (POPs that leach out of the plastics) up to a million times their levels in the surrounding seawater.

When these microplastics are eaten by marine life forms, the POPs endanger both the creatures that ingest them and humans higher up on the food chain, especially infants. (7)

FACT 8

This is because the POPs increasingly accumulate (bioaccumulation) as increasingly larger animals eat the smaller ones along the food web, and the damage they can cause increases in intensity (biomagnification).(8)





OUR SOLUTION

The current focus of many "clean up" projects is to collect the larger macro-plastics that float near the surface of the ocean. They are unable to gather the much smaller microplastics that pose the more immediate danger. Using our proprietary technology, Our Cleaner Planet will not only remove the larger macro-plastics, but we will also remove the microplastics down to an incredibly tiny size (less than 5 microns across)... and at much deeper levels beneath the surface.

Resource Page

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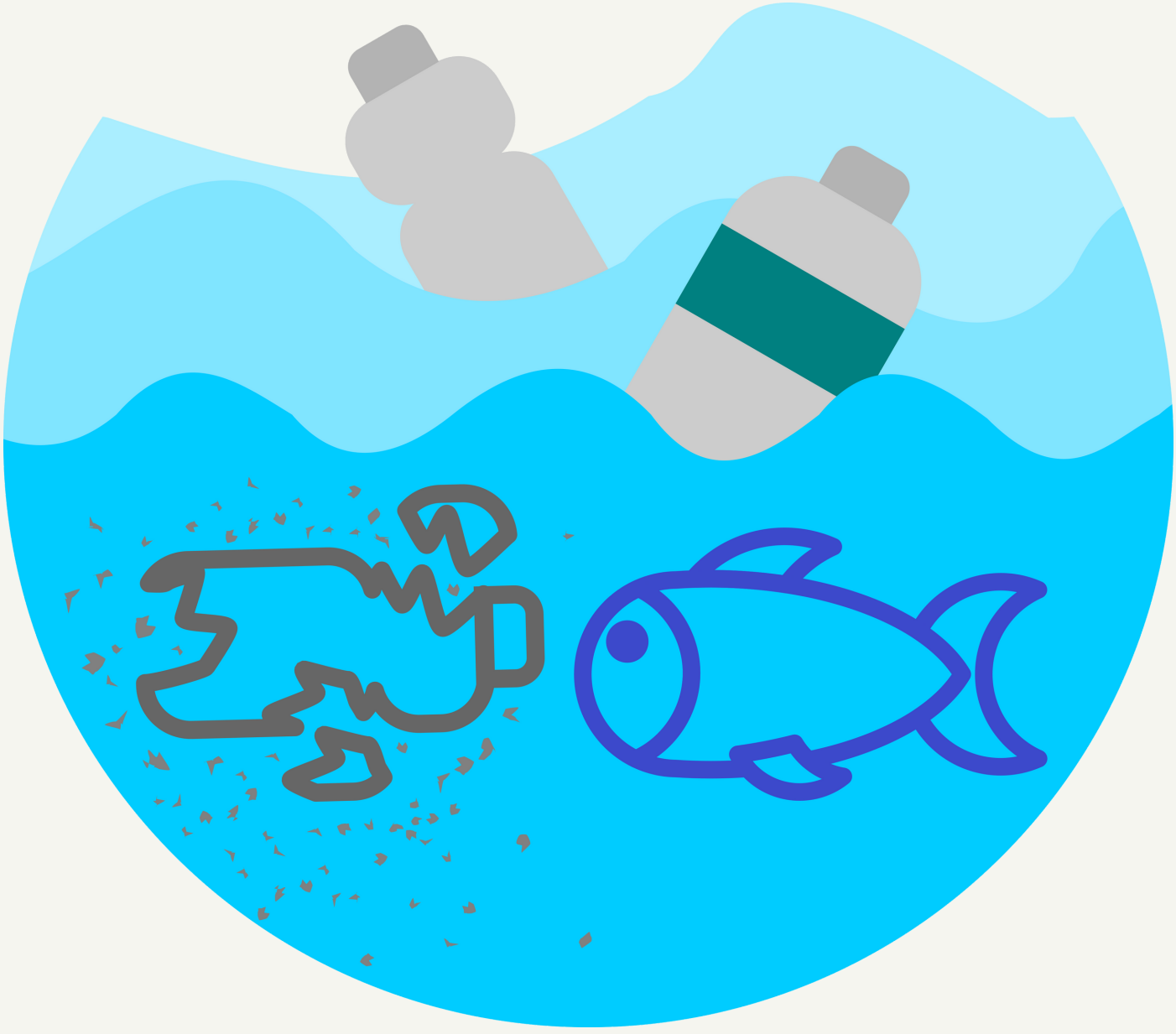

Thank You

For reading