

Plastic waste taking toll on Florida wildlife

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The pathway by which plastic enters the world's oceans

Our World in Data

Estimates of global plastics entering the oceans from land-based sources in 2010 based on the pathway from primary production through to marine plastic inputs.

Global primary plastic production:
270 million tonnes per year

Global plastic waste:
275 million tonnes per year
It can exceed primary production in a given year since it can incorporate production from previous years.

Coastal plastic waste:
99.5 million tonnes per year

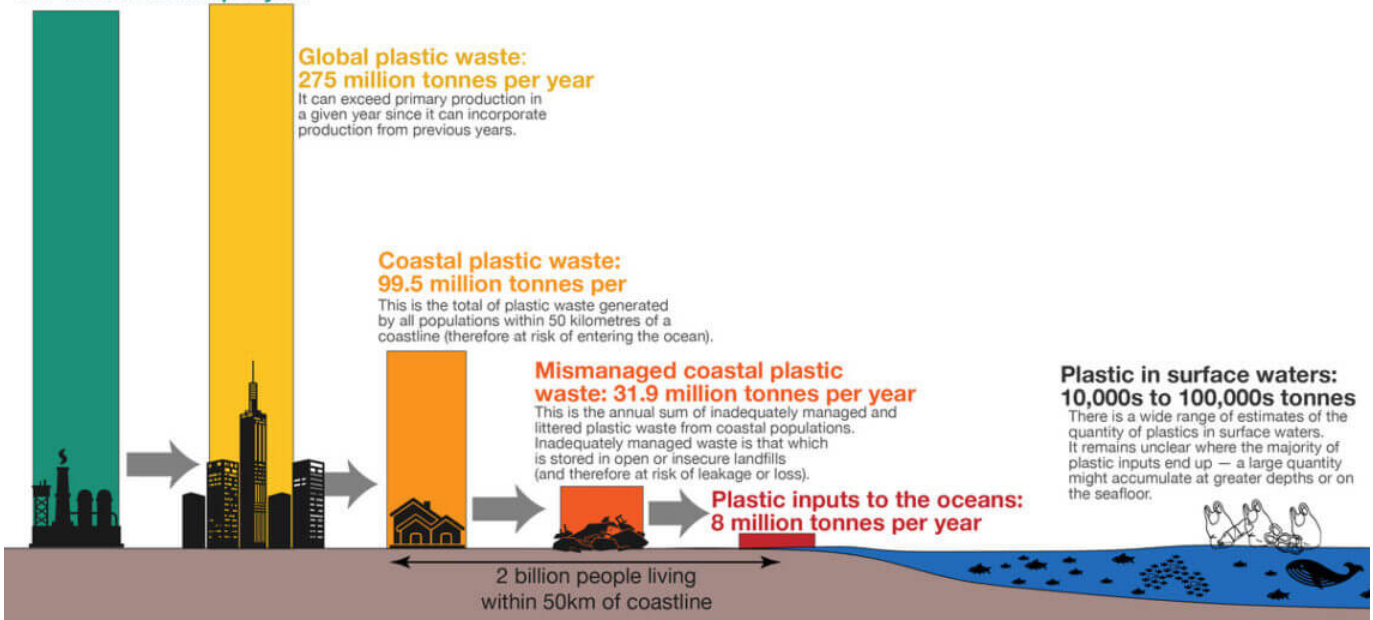
This is the total of plastic waste generated by all populations within 50 kilometres of a coastline (therefore at risk of entering the ocean).

Mismanaged coastal plastic waste:
31.9 million tonnes per year
This is the annual sum of inadequately managed and littered plastic waste from coastal populations. Inadequately managed waste is that which is stored in open or insecure landfills (and therefore at risk of leakage or loss).

Plastic inputs to the oceans:
8 million tonnes per year

Plastic in surface waters:
10,000s to 100,000s tonnes

There is a wide range of estimates of the quantity of plastics in surface waters. It remains unclear where the majority of plastic inputs end up — a large quantity might accumulate at greater depths or on the seafloor.



Source: based on Jambeck et al. (2015) and Eriksen et al. (2014), Icon graphics from Noun Project.

Data is based on global estimates from Jambeck et al. (2015) based on plastic waste generation rates, coastal population sizes, and waste management practices by country.

This is a visualization from [OurWorldInData.org](https://ourworldindata.org), where you will find data and research on how the world is changing.

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Image from Wikipedia.

How much more educating must be done before we begin to attack this problem?

This is the only link provided by [the Tampa Bay Times](https://www.tampabay.com).

Comments by OSFR historian Jim Tatum.

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– A river is like a life: once taken, it cannot be brought back © Jim Tatum

Plastic waste taking toll on Florida wildlife

BY ZACHARY T. SAMPSON

Times Staff Writer Nov. 19, 2020

Kemp's ridleys are the smallest sea turtles in the world and also the most endangered.

In 2010, one such turtle swimming off of Florida in the Gulf of Mexico struggled with a plastic bag, filled with sand, wrapped around its neck. Researchers believe the bag suffocated the turtle, or acted as an anchor, pulling the turtle underwater, where it drowned.

Untold hundreds of animals are killed or hurt by plastic waste just like this in American waters every year, according to a new report estimating part of the toll from the environmental advocacy organization Oceana. The group spent about 6 months gathering reports from 13 organizations across the country. In that short period, it compiled evidence of roughly 1,800 sea turtles and marine mammals affected by plastics, including the Kemp's ridley, dating to 2009.

"It's not a remote problem. The items we found inside these animals are common everyday items that we use," said Kimberly Warner, a senior scientist at Oceana.

The total is a certain undercount of the harm caused by plastic debris. No entity maintains a comprehensive, public accounting

across the nation and across species. Oceana's report does not tally up all the shorebirds wrapped in nets and fishing line, for instance, and the agency acknowledges it "is a partial snapshot of a staggering problem."

But the report nonetheless lists numerous examples of litter, like children's toys and shipping bands, disfiguring or debilitating marine life, slicing into dolphins' skin and filling turtles' stomachs. It mentions 700 Florida manatees, dozens of which Oceana said could have died in part because of plastics, according to the group's review of data from the state Fish and Wildlife Conservation Commission.

Like manatees, nearly 90 percent of the animals included are threatened or endangered. One manatee died with plastic bags wadded into balls in its stomach, one about the size of a cantaloupe, according to state research cited by Oceana.

Florida was not alone in the damage: Scientists wrote of a sandwich bag encircling the neck of a seal in New York and a whale in Virginia with its stomach cut by a DVD case. A dolphin in California swallowed a food wrapper that got stuck in its esophagus.

The most common plastic pollutants include fishing line, bags, balloons and food containers. Many of the animals swallowed garbage, though in a number of cases they were entangled in strips and sheets of plastic, like a sea turtle with a plastic ring over its body.

Plastic production has increased over time, Warner said, and is expected to continue to expand. In many cases, she said, Oceana reviewers were not given animals' exact causes of death, but they nonetheless identified dozens of instances in which plastic was at least a contributor.

For biologists in Florida, the report is unsurprising.

“I’ve seen lots of water bottles, plastic bags. I’ve seen a mattress ... lots of coolers,” said Shannon Gowans, a biology professor at Eckerd College, who is frequently on the water. She has studied dolphins and whales for 25 years and said researchers have long known the dangers of plastic. A floating bag might look like a squid, she said, or a jellyfish. Once eaten, it does not break down.

“When you fill an animal’s stomach they don’t feel hungry, and they don’t go eat,” Gowans said. “They think they’re full even though they’re starving to death...”

“A lot of folks who live inland truly don’t recognize that their one plastic bag, their one plastic water bottle can move out into our waterways,” said Melanie Grillone, who manages the nonprofit’s marine debris program. Stormwater runoff and wind blow garbage into streams and out to the bay or gulf...

Going plastic-free initially can be expensive, Grillone said, and it is not an easy solution for everyone. But manufacturers, she said, may only start to cut back on production when more buyers demand alternatives.

“They’re going to feel they’re held accountable,” Grillone said. “It has to start there.”

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