

products throughout the 1940s, 50s, and 60s, as well as waterways into which chemicals from the plant leached: the lower Passaic River and Newark Bay. High levels of the dangerous toxin dioxin have been detected at the site. While the facility has since been capped, a long stretch of the river remains unremediated.

#### 4 Bainbridge, Washington

The Wyckoff wood-treating facility operated in Washington's Puget Sound for some 85 years, contaminating soils, groundwater, and sediment at the bottom of Eagle Harbor with creosote and other chemicals. Several cleanup projects have been completed at Wyckoff-Eagle Harbor Superfund site, but further remediation is required. Under President Obama, regional EPA officials had begun to develop climate-smart remediation plans for the area, which is vulnerable to both flooding and sea level rise, as well as for other Superfund sites in the region. Those plans were waylaid during the Trump administration.

#### 5 Redding, California

Climate change puts 234 Superfund sites across the country at heightened risk from wildfires. One of those is the 4,400-acre Iron Mountain Mine site outside of Redding, California, which was for years mined for iron, gold, silver, copper, zinc, and pyrite. The underground mine, tailing piles, and an open mine pit all remain at the site, which is considered one of the most toxic mining sites in the world. In 2018, the Carr Fire came dangerously close to the site, highlighting the risk faced by the former mine and other toxic sites as climate change increases the frequency and intensity of wildfires in the Golden State. Had firefighters not been able to defend the Iron Mountain Mine, the fire could have caused a toxic explosion and destroyed the nearby water treatment plant used to clean acid mine drainage.

### TABLE TALK

## MICROPLASTICS ON YOUR PLATE



New research from India adds to the growing body of evidence that humans are ingesting plastic with their seafood.

PHOTO PER-OLOF FORSBERG

Visuals of marine life choking on plastic pollution caused by humans have become commonplace. Now, we are coming full circle as humans ingest microplastics via seafood.

Microplastics, plastic particles less than 5 millimeters in length, are entering edible parts of fishes meant for human consumption, Indian scientists from Cochin University of Science and Technology and Central Institute of Fisheries Technology in Kochi, Kerala have found. Their study, published in the journal *Environmental Pollution*, is the first from India examining the prevalence of microplastics in edible parts of fish, the authors say.

In India, many people depend on seafood for nutrition. India is also the second-largest fish producer in the world and a major exporter of seafood, meaning contaminated fish caught there could pose a hazard both locally and globally.

Microplastics have for some time been found in the guts and gills of pelagic fish all over the world, and the researchers' findings were in line with this trend: They found

microplastics in the inedible parts of over 41 percent of fish in their study. However, it was the prevalence of microplastics in the *edible* parts of the fish, like the muscle and skin, that was more surprising. Of the 270 fish studied, the scientists found that 7 percent had microplastics in parts that humans consume. This was across nine commercially important species.

The findings add to the growing body of evidence that humans are ingesting at least some plastic with their seafood.

Some 4.8 to 12.7 million tons of plastic enter the oceans every year. As ocean plastic pollution continues to accumulate, microplastics may emerge as a food safety issue, the authors note, though the health impacts of consuming them remain poorly understood. What we do know is that given their small size and often invisible presence, it is hard to screen fish for microplastics. Which means the best way to limit our fish-related plastic consumption — aside from not eating fish — is to stop plastic pollution at the source.

— MAHIMA JAIN

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