



February, 18 2021

Marine Science Consultant
Proprietor, Long Cove Sea Farm
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Stonington, Maine

TESTIMONY AGAINST LD 108 BEFORE THE ENVIRONMENTAL AND NATURAL
RESOURCES COMMITTEE OF THE MAINE LEGISLATURE

Abigail Barrows, MPhil

As a marine researcher I have studied plastic pollution in water from around the world, including from the Gulf of Maine and Maine's rivers. I mainly have studied microplastic, pieces of plastic between 1 micron and 5 millimeters. Of the over 1,000 samples collected from the surface of every ocean on the planet, we found an average of 12 microplastic per liter of water ([Barrows et al., 2018](#)). Plastic is the most common type of marine litter. In 2010, an estimated 5 to 13 million metric tons (Mt) of plastic waste entered the ocean from both developing countries with insufficient solid waste infrastructure and high-income countries with very high waste generation. In 2016, the United States generated the largest amount of plastic waste of any country in the world (42.0 Mt) ([Lavender Law, et al., 2020](#)). This number is several years old and due to the COVID-19 pandemic, plastic use and waste has changed and increased dramatically. With less than 5% of plastic recycled in the US, recycling is just a very small part of reducing plastic waste in our environment. Stopping the reliance on single-use plastic, such as plastic bags, is essential to reduce plastics in the environment and the inevitable microplastics created by plastic fragmentation over time.

As an oyster farmer in Deer Isle, high water quality is crucial to my livelihood and the future of fisheries in Maine. Plastic bags are not easily recycled and due to their light weight and shape are often lost into the environment. We know that marine species ingest plastic, particularly fish and filter feeders (such as mussels, clams and oysters). We are still learning about the short and long-term individual and population level impacts caused by plastic ingestion but it is clear that we need to stop the flow of plastic pollution. Enacting legislation to stop single-use plastic bags is absolutely necessary for preserving the health of future of environmental resources and jobs in Maine.

In regards to public safety, there has been no documentation of COVID-19 virus transmission through surface contact. Based on the best available science and guidance from public health professionals, reusable bags and foodware can be used safely by employing common sense and widely-used hygienic practices.

Sincerely,

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