

Greetings. My name is Lawrence Reichard. I am a freelance journalist based in Belfast, and I have been investigating and reporting on land-based aquaculture for five years.

Much will be said here today about the considerable pollution caused by this industry, but I wish to address another environmental harm caused by land-based aquaculture and that is fish escapes.

In my hometown of Belfast, Nordic Aquafarms, a land-based aquaculture company, has been saying that fish can't escape from land-based industrial fish farms, but this is simply false. Fish can and do escape from land-based industrial fish farms.

This happens for a variety of reasons. In 2018, I interviewed Professor Are Nylund in his office at the University of Bergen, in Norway. Professor Nylund is perhaps the world's foremost academic expert on aquaculture and he told me that small, juvenile fish escape through tears in water filters. And they escape during transport from hatcheries to grow-out facilities, and because of various things that can - and do - go wrong in plant operations.

On that 2018 trip I also spoke with Bent Urup, who is probably the world's foremost designer and builder of land-based industrial fish farms, and he said that land-based fish farms are extremely complicated and there are always problems, and mistakes made.

According to one report, approximately 140,000 fish escaped from Norwegian land-based fish farms from 2010 to 2018 - and that's just Norway. There have also been escapes from land-based fish farms in Canada.

It's hard to overstate the overall environmental damage caused by such escapes. Escaped fish breed with wild fish and produce offspring less able to survive in the wild. They also carry with them lice, and diseases that are unknown to wild fish and for which wild fish have little or no resistance. They also compete with wild fish for spawning grounds and they destroy the spawning grounds of wild fish.

The overall impact on wild fish populations can be devastating, and that is why some places,

such as British Columbia, are moving to ban sea-based aquaculture. But again, the same holds true for land-based aquaculture, and this should be a grave concern for any maritime area, such as here in Maine, where wild fisheries have historically been, and continue to be, an important part of our economy and our way of life.

In conclusion, as I said before, fish escapes are but one of the considerable environmental problems and hazards associated with land-based aquaculture. I have studied and reported on a number of these issues, and I'd be happy to share what I have learned with anyone, either now or anytime in the future.

Thank you very much for your time and attention.

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