



## Backgrounder U.S.-Caught Alaska Pollock and Fukushima Radiation Concerns

### Top Line Talking Point:

We are confident that our products made from U.S.-caught Wild Alaska Pollock are 100 percent safe and most people would be healthier with a diet that includes more seafood rather than less.

### Situation:

On March 11, 2011, a large earthquake struck northeastern Japan and caused significant damage to the Fukushima Daiichi Nuclear Power Plant. The event caused radiation-contaminated water to seep into the ocean near the plant. Since the incident, questions of food safety have arisen. Specifically, will consumption of seafood from the North Pacific, including U.S.-caught Alaska Pollock and products made from the fish, have detrimental effects on human health?

Studies have been conducted by numerous scientific and health organizations and they have all reached the same conclusion: consumption of Pacific seafood and Pacific seafood products such as those containing U.S.-caught Alaska Pollock pose no threat to human health.<sup>12</sup>

In the United States, the U.S. Food and Drug Administration (FDA) is the lead Federal agency responsible for food safety as it relates to seafood and has been monitoring commercial foods, including fish from the North Pacific. FDA's response to the Fukushima Daiichi Nuclear Power Facility Incident includes publishing a summary of their monitoring efforts and the lack of risks posed to U.S. seafood<sup>3</sup>.

In April of 2021, the Japanese government announced a decision to begin the dumping of treated wastewater out of the storage tanks it has been held in into the Pacific Ocean. The water, which is an accumulation of ocean and groundwater seepage, has been treated with the Advanced Liquid Processing System (ALPS) to remove harmful radionuclides such as cesium and strontium, leaving only the mildly radioactive and less harmful isotope, tritium. This water will then be released over a period of decades to allow additional dilution. That release started on August 24, 2023.

Given the Japanese government's commitment to adhere to the established nuclear safety standards, the lack of risk associated with the release as stated by the FDA, as well as the continued absence of perceptible radiation in seafood following the original event as outlined below, there is no reason to believe that this new development will impact the safety of U.S.-caught Alaska Pollock.

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<sup>1</sup> U.S. Food and Drug Administration Response to the Fukushima Daiichi Nuclear Power Facility Incident: <https://www.fda.gov/news-events/public-health-focus/fda-response-fukushima-daiichi-nuclear-power-facility-incident>.

<sup>2</sup> U.S. State of Alaska Department of Environmental Conservation, Division of Environmental Health "Fukushima Radiation Concerns in Alaska": <https://dec.alaska.gov/eh/Radiation/>.

<sup>3</sup> U.S. Food and Drug Administration Response to the Fukushima Daiichi Nuclear Power Facility Incident: <https://www.fda.gov/news-events/public-health-focus/fda-response-fukushima-daiichi-nuclear-power-facility-incident>.

## Monitoring and Reporting:

Beginning in 2014, the Alaska Department of Environmental Conservation (ADEC), Division of Environmental Health, in collaboration with the Department of Health and Social Services and the FDA has tested fish samples collected in Alaskan waters for cesium-134, cesium-137 and iodine-131 radioisotopes. The Fish Monitoring Program (FMP) developed the sampling plan for this project to collect relevant species from important fishery areas around the State with all samples tested by the FDA through April 11, 2023, resulting in non-detects<sup>4</sup>. ADEC and the Alaska Seafood Marketing Institute<sup>5</sup> (ASMI) have worked to expand the scope of monitoring done by the FMP, with tritium now being one of the primary contaminants being tested for in the commercial harvest by the monitoring program.

In Japan, the International Atomic Energy Agency (IAEA) has conducted a thorough and robust testing on site before release and will continue to do so during and after release while also providing updated reports and information to the international community<sup>6</sup>. On August 22, 2023, the Director General of the IAEA, Rafael Mariano Grossi, issued a statement saying, “Based on its comprehensive assessment, the IAEA has concluded that the approach and activities to the discharge of ALPS treated water taken by Japan are consistent with relevant international safety standards. Furthermore... would have a negligible radiological impact on people and the environment.”

## Dispersal and Dilution:

According to a study by the U.S. Congressional Research Service, the small amount of contaminated water released from Fukushima was quickly and efficiently diluted as it entered the massive Pacific Ocean<sup>7</sup>.

The ocean currents and tides in the area acted to further disperse the radiation. In fact, according to the Nuclear Regulatory Commission, water samples collected less than 20 miles from the coast of Japan have shown radiation levels below U.S. Environmental Protection Agency (EPA) drinking water standards<sup>8</sup>. Furthermore, samples taken between 18 and 125 miles from Fukushima have shown levels of Cesium 137, one of the potentially harmful radio nucleotides, to be at very low levels, more than 1800 times below the EPA standard for drinking water.

U.S.-caught Alaska Pollock are harvested only in the Bering Sea and the Gulf of Alaska. The below three images show the prevailing currents of the North Pacific Ocean, the harvest grounds for U.S.-caught Alaska Pollock, and the migratory patterns of U.S.-caught Alaska Pollock. As these three images show, there is no direct overlap between the prevailing currents from the Fukushima region with either the harvest areas or migratory patterns of U.S.-caught Alaska Pollock.

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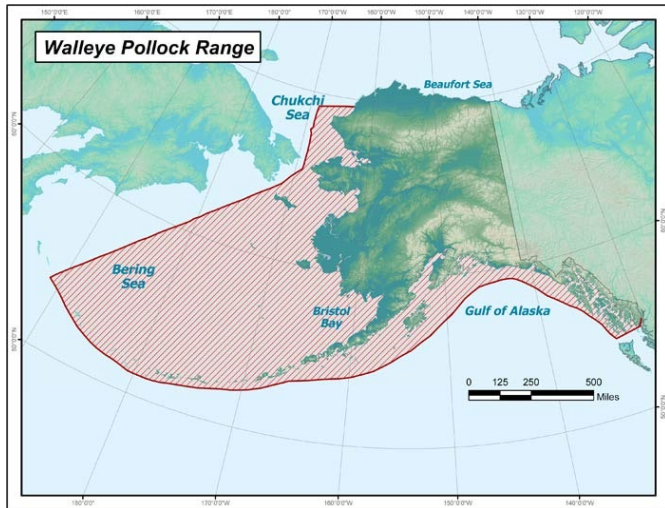
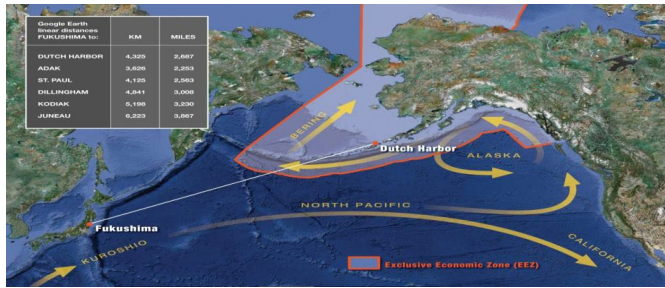
<sup>4</sup> Alaska Division of Environmental Health, Radioisotopes in Fish Caught in Alaska Waters: <https://dec.alaska.gov/eh/vet/fish-monitoring-program/radioisotopes-in-fish-caught-in-alaskan-waters>.

<sup>5</sup> Alaska Seafood Marketing Institute: <https://www.alaskaseafood.org/>.

<sup>6</sup> International Atomic Energy Agency Comprehensive Report on the Safety Review of the ALPS-Treated Water at the Fukushima Daiichi Nuclear Power Station: [https://www.iaea.org/sites/default/files/iaea\\_comprehensive\\_alps\\_report.pdf](https://www.iaea.org/sites/default/files/iaea_comprehensive_alps_report.pdf).

<sup>7</sup> U.S. Congressional Research Service Report on the Effects of Tohoku Tsunami and Fukushima Radiation on the U.S. Marine Environment: <https://health.alaska.gov/dph/Emergency/Documents/01-External/R41751.pdf>.

<sup>8</sup> U.S. Nuclear Regulatory Commission Report, Water Contamination-Impacts on the U.S. West Coast: <https://www.nrc.gov/docs/ML1326/ML13263A306.pdf>.



Stock structure draft EBS pollock

September 2015 Plan Team Draft

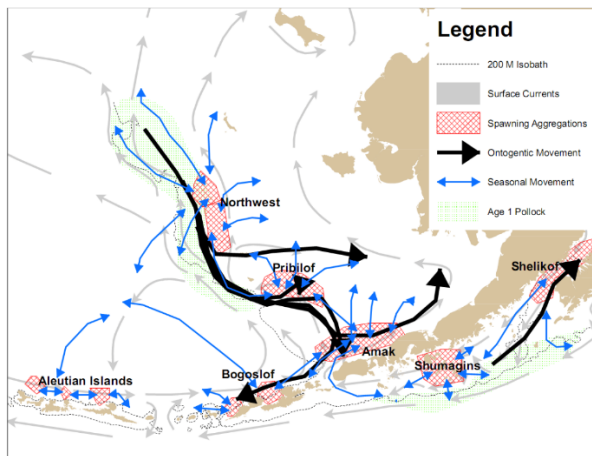


Figure 18. Conceptual model of walleye pollock seasonal and ontogenetic movements with shaded areas representing recent spawning locations (from Quinn et al. 2011).

## Radiation and Exposure

Tritium is a radioactive isotope of hydrogen that while can be a result of human activities, is also naturally present naturally in the environment and carries very low-risks of impact to human health unless present in amounts far greater than that found in foods or the environment, and to date no human health events have been recorded from exposure via these sources.

There was some concern following the original 2011 incident that migratory fish that passed through the eastern Pacific, near Fukushima, may transport the radiation towards the western United States. However, studies published in the Proceedings of the National Academy of Sciences of the United States of America found this concern to be unfounded<sup>9</sup>. For example, radionuclide level increases in tuna that were caught in the Eastern Pacific were found to be equivalent or less than the typical radiation exposure from medical exams, air travel, and other peripheral sources, and 300 times below levels that would trigger an FDA health investigation, thus posing very little threat to human health.

### **Additional Resources**

The U.S. seafood industry maintains a resource page entitled “Fukushima Fish Facts Science and Reporting about Fukushima and Seafood” that is routinely updated at the following link: <https://fukushimafishfacts.wordpress.com/>.

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<sup>9</sup> Evaluation of Radiation Doses and Associated Risk from the Fukushima Nuclear Accident to Marine Biota and Human Consumers of Seafood: <https://www.pnas.org/doi/pdf/10.1073/pnas.1221834110>.