

# Alaska Department of Environmental Conservation Division of Environmental Health

Safety of Alaska's food sources



**Kristin Ryan**

Program Director

Alaska Department of Environmental Conservation

Division of Environmental Health

Anchorage, Alaska

Email: [kristin.ryan@alaska.gov](mailto:kristin.ryan@alaska.gov)

# Radioisotopes of concern:

- Cesium 134, with a half life of 2 years
- Cesium 137, with a half life of 30 years
- Iodine 131, with a half life of 8 days

Half life means the level of radiation drops by half in that time frame.

# Risk characterization

Does radiation release from the Fukushima nuclear accident pose a risk to Alaska's fisheries, wild foods or human health?

And the answer is ..... NO



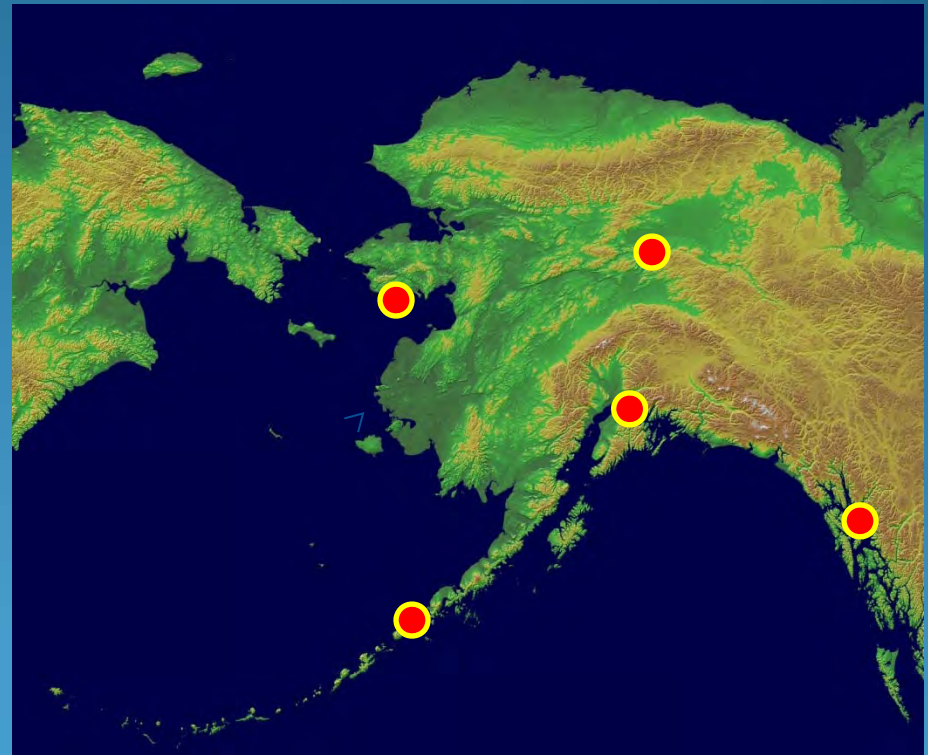
# Exposure Assessment

- Air monitoring
- Water monitoring
- Modeling
- Sampling



# Air Monitoring

- EPA RadNet Monitors
  - Nome
  - Dutch Harbor
  - Fairbanks
  - Anchorage
  - Juneau
- All results thousands of times below conservative levels of concern....



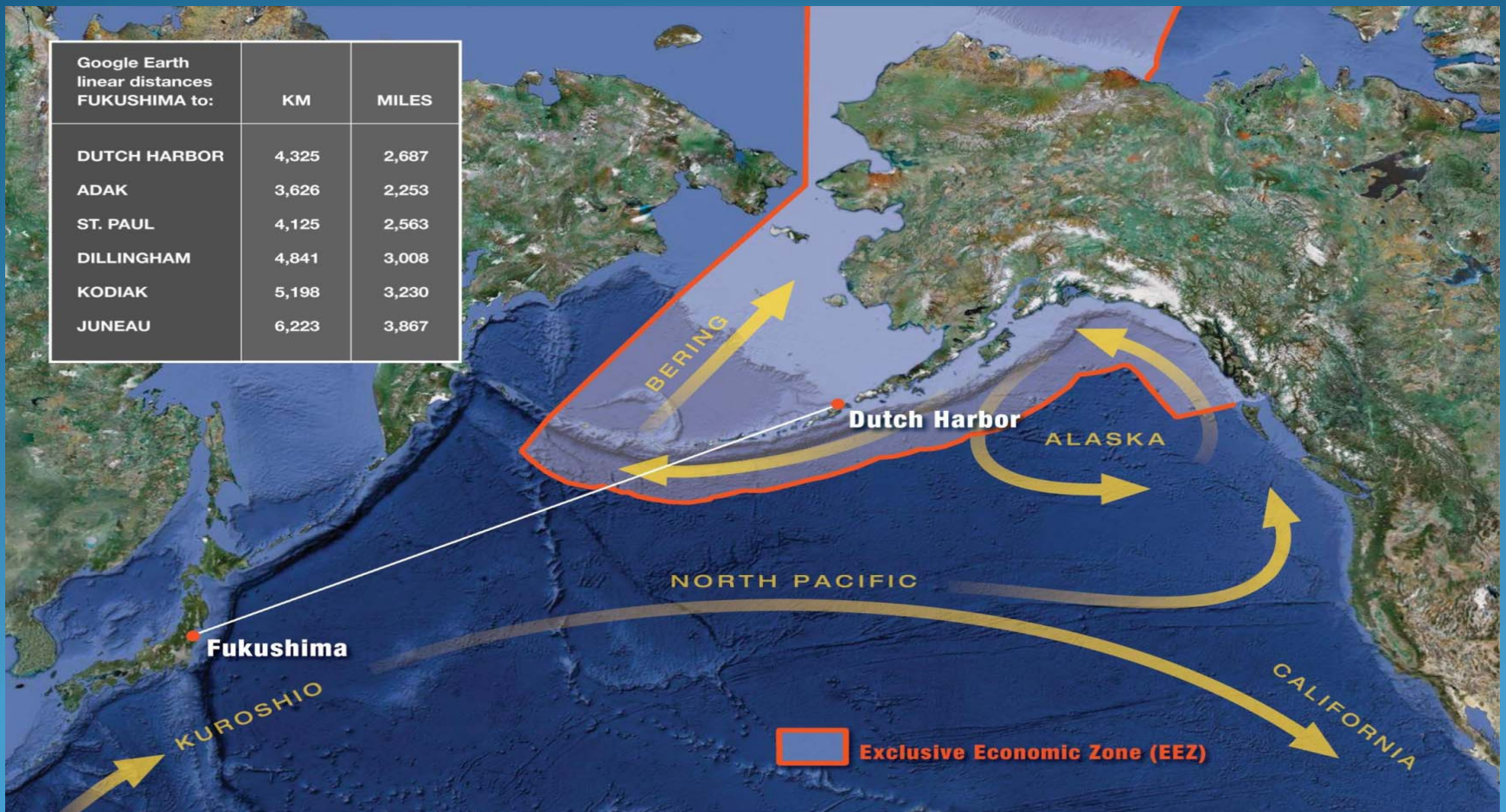
NOAA National Geophysical Data Center



# Water Monitoring

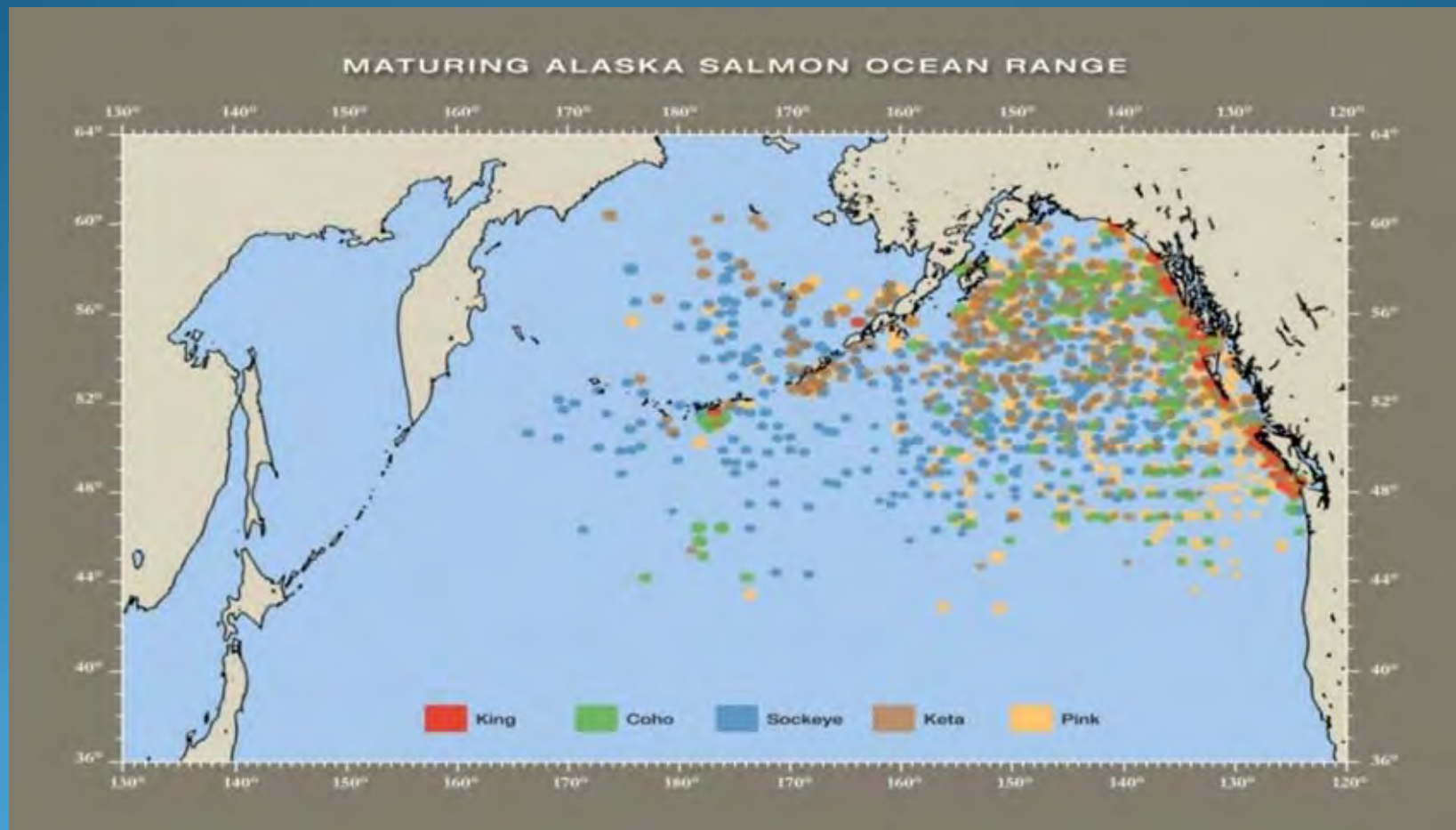
- Japan – marine waters tested & found to meet drinking water standards 30km from shore
- Alaska
  - ocean current modeling would preclude potential contamination reaching Alaska
  - AWWU tested Anchorage's drinking water resource
  - RadNet testing of Fairbanks drinking water source
  - DOE Amchitka surface water sampling

# Distance from Fukushima and North Pacific Currents



Courtesy Alaska Seafood Marketing Institute

# Distribution of Alaska Salmon



Courtesy ASMI



# Fish Monitoring

- FDA has not detected levels of concern in fish & continues to monitor
- FDA's latest data as of January 10, 2011 is available at:
- <http://www.fda.gov/newsevents/publichealthfocus/ucm247403.htm#sofar>
- EPA, FDA, and NOAA maintain that seafood is safe & World Health Organization reinforces this
- European Commission monitoring fish in the Food and Agriculture (FAO) Major Fishing Area 61 (Northwest Pacific) for Cesium-134 and Cesium-137.

# Other Sampling Efforts

- North Slope Borough – caribou, lichen & marine mammals (seals, bowhead whale)
- Aleutian Pribilof Island Association – lichen
- DOE Amchitka Island – fish, shellfish, sediment, and numerous marine species

# Potential Data Gaps

Although available resources for DEC suggest that the risk of radionuclide impacts to Alaska is low, there may be potential data gaps that warrant our consideration.

- Long-term deposition of contamination
  - Air
  - Water
  - Land
  - Food chain