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Marine life soaking up radiation along Fukushima coast

Blogpost by **Greg McNevin** - May 26, 2011 at 4:40 8 comments

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week's ago we released preliminary results from our marine radiation monitoring work off the coast of Japan, near the melted-down and leaking Fukushima Daiichi nuclear plant. These results showed worrying levels of radioactive contamination in seaweed – a staple of the Japanese diet.

After having difficulties finding a lab in Japan to do detailed analysis, we sent samples of seaweed, fish, and shellfish collected by our radiation monitoring teams both onshore and on the Rainbow to professional labs in France and Belgium. The results of the details analysis are back – and we can say that the situation in the ocean along the Fukushima coast is worse than we originally thought.

The new data shows that some seaweed contamination levels are not only 50 times higher than safety limits – far higher than our initial measurements showed – but also that the contamination is spreading over a wide area, and accumulating in sea life, rather than simply dispersing like the Japanese authorities originally claimed would happen.

Other samples showed lower than expected concentrations of caesium, but much higher levels of iodine than expected, which raises serious concerns that contaminated water is continually leaking from the nuclear plant.

Iodine has a short half-life of around eight days, comparing to caesium isotopes' half-lives of two years or more. Having higher iodine levels than caesium indicates that there is a significant, ongoing discharge of contaminated water coming from the damaged plant - despite the authorities only officially admitting to three releases into the ocean to date. This could have severe, prolonged effects on the marine ecosystem and all those that rely on it for their

livelihoods.

Most of the fish and shellfish we sampled were found to contain levels of radioactivity above legal limits for food contamination, whichis just one of the multiple, chronic sources of radiation exposure those living in the greater Fukushima area are faced with.

In April, the authorities raised official limits for levels of radiation exposure to 20 mSv per year for everyone – including children. However, this only accounts for external exposure - radioactive materials that are ingested, inhaled or absorbed through the skin increase exposure and the risk of developing cancer and other radiation-related illnesses.

It is not enough for the authorities to keep putting band-aids on each problem as it appears. The Japanese government must launch a comprehensive, ongoing analysis of the marine environment along the Fukushima coast, fully disclose all information about the release of contaminated water, and make proactive protection and compensation efforts to support the people most affected and at risk from this disaster.

You can access all of Greenpeace's radiation testing data from the Fukushima area here »

Image - Collecting Samples near Fukushima. Left to right: Giorgia Monti of Greenpeace Italy (far left of pic), Sakyo Noda of Greenpeace Japan, Tuomas Heikkila (driving boat), Jacob Namminga (at rear of boat). Crew from the Rainbow Warrior collect sea water and seaweed samples to monitor for radiation contamination levels as the Greenpeace ship sails up the eastern coast of Japan, in the vicinity of Fukushima. 05/05/2011 © Jeremy Sutton-Hibbert / Greenpeace