

**Fukushima Dai-ichi and the Ocean: 10 years of study and insight Abstract Submission Form : Entry # 40**

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**Abstract Title (English, limited to 300 characters)**

Making contamination visible - tools, practices and performances of radiation monitoring in Fukushima

**Abstract (English)**

Because radiation cannot be sensed directly by the human senses, all human understandings of radiation are somehow constructed via various devices. Taking as a given that there is no unmediated way of understanding radiation, my research uses a Science and Technology Studies (STS) approach to look at how scientific information about radiation contamination is constructed after a radiation contamination event. I examine some of the tools and mechanisms humans have developed for making radiation not only visible, but tangible, discussable and open to enquiry (Kuchinskaya, 2014).

For those living and working in the areas affected by events at Fukushima Dai-ichi Nuclear Power plant, measuring and monitoring has become part of daily life since 2011. Bodies get monitored in whole body counters, food gets measured in refrigerator-like machines in community halls, and the air is monitored constantly by radiation monitoring posts. Whilst other social studies have focused on individuals and groups doing the radiation monitoring and their reasons for doing so (Kenens et al 2020, Kimura 2016, Brown et al., 2016 and Wynn 2017 etc.), this study casts its lens firmly on the devices and practices involved. It asks - How are monitoring devices constructing a particular understanding of radiation contamination? What other practices are linked to monitoring, and why? How is the data made into new artefacts such as maps or tables? What is measuring doing and how is this changing over time?

Based on ethnographic fieldwork in Japan, what emerges is that radiation measuring and monitoring is a boundary object (Star and Griesemer, 1989), tightly connected to numerous negotiated practices, enabling life to continue amongst conflicting views. Measuring and monitoring brings people together. It can help start discussion, build consensus, highlight or hide differences of opinion. It is a tool for rebuilding communities and a tool that can and has been abandoned if needed and if the time is right. But most of all, radiological measuring and monitoring is part of the construction of the disaster itself. It is part of the ongoing maintenance, preservation and performance of what Stolz calls the 'toxic Genba' - the lived site of a toxic disaster (2018).