Scientific sampling event log from the R/V Ka`imikai-O-Kanaloa KOK1108 cruise (Fukushima Radionuclide Levels project)

Website: https://www.bco-dmo.org/dataset/3558
Version: 24 July 2012
Version Date: 2012-07-24

Project
» Establishing Radionuclide Levels in the Atlantic and Pacific Oceans Originating from the Fukushima Daiichi Nuclear Power Facility (Fukushima Radionuclide Levels)

Contributors	Affiliation	Role
Buesseler, Kenneth O.	Woods Hole Oceanographic Institution (WHOI)	Chief Scientist
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Dataset Description

The cruise is complete. The sampling event log is being reviewed.

The event log includes a record of all scientific sampling events completed during the cruise. The event log includes information about event dates and times, latitude and longitude position, event type and the name of the lead scientist for each event.

Cruise Participants:
Lead scientist names that appear in the event log:
Kenneth (Ken) Buesseler (Woods Hole Oceanographic Institution)
Steven Jayne (Woods Hole Oceanographic Institution)
Jun Nishikawa (University of Tokyo)
Hiroomi Miyamoto (University of Tokyo)
Nuria Casacuberta (University Barcelona Autonama)
Hannes Baumann (State University of New York at Stony Brook)
Jarvis Caffrey (Oregon State University)

Other cruise participants:
Steven Pike (Woods Hole Oceanographic Institution)
Crystal Brier (Woods Hole Oceanographic Institution)
Alison Macdonald (Woods Hole Oceanographic Institution)
Kenneth Kostel (Woods Hole Oceanographic Institution)
Sachiko Yoshida (Woods Hole Oceanographic Institution)
Irina Rypina (Woods Hole Oceanographic Institution)
Kamila Stastna (University of Hawaii)
Taylor Alexander Borrius Broek (University of California Santa Cruz)
Jennifer George (State University of New York at Stony Brook)
Melissa Truth Miller (Scripps Institution of Oceanography)

Data Processing Description

Modified 24 July 2012

Two entries added:

Drifter #36037

Drifter #36473

These drifters were not logged. Information on their deployment was provided by Steve Jayne from his personal log.

Modified 9 July 2012

Entry corrected to
11168_2212,20110617,2212,20110617,1312,36,59.070,142,0.030,36.984,142.000,32,35263,Drifter #35263,Jayne
from incorrect association with 35228
(correspondence via email from Steven Jayne on July 9 2012)

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Data Files

File
Event_log.csv (Comma Separated Values (.csv), 15.78 KB) MD5:20e1919c37f0e4045675cd5491fe0741 Primary data file for dataset ID 3558

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Parameters

Parameter	Description	Units
event	Cruise event identifier	dimensionless
date_local	local date of sample	YYYYMMDD
time_local	local time of cast	hhmm
date	Date of sample	YYYYMMDD
time	time of cast	hhmm
lat	latitude	decimal degrees
lon	longitude	decimal degrees
sta	cruise station number	dimensionless
cast	event station number	dimensionless
event_type	description of science event	dimensionless
lead_scientist	lead scientist	dimensionless
comment	comment	dimensionless

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Deployments

KOK1108

Website	https://www.bco-dmo.org/deployment/58727
Platform	R/V Ka`imikai-O-Kanaloa
Report	http://bcodata.whoi.edu/Fukushima/Fukushima_KOK1108_dailyBlog.pdf
Start Date	2011-06-04
End Date	2011-06-19
Description	The purpose of the 16 day KOK1108 cruise aboard the University of Hawaii research vessel Ka'imikai-o-Kanaloa was to study the fate of radiation released into the ocean from the Fukushima Daiichi nuclear power plant that was badly damaged by a tsunami on March 11, 2011.

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Project Information

Establishing Radionuclide Levels in the Atlantic and Pacific Oceans Originating from the Fukushima Daiichi Nuclear Power Facility (Fukushima Radionuclide Levels)

Website: http://www.whoi.edu/page.do?pid=67796

Coverage: Northwest Pacific Ocean

The March 11, 2011 earthquake in Japan and the subsequent tsunami damaged and disrupted cooling systems at the Fukushima Daiichi nuclear power facility causing contamination of land and seas surrounding the site, as well as food supplies and drinking water. Small but measurable quantities of radioactivity have been detected in the atmosphere over the United States, including aerosol samples collected at the Woods Hole Oceanographic Institution, where I-131 was seen to increase to detectable levels as of March 21-22, 2011.

With major funding from the Moore Foundation, as well as a contribution from the National Science Foundation through a 2011 Grant for Rapid Response Research (RAPID) and support from the Woods Hole Oceanographic Institution, collaborating investigators from the United States, Japan, Spain, Monaco, and the United Kingdom were able to obtain samples off Japan for an early assessment of impacts.

From June 4 through June 19, 2011, a research cruise was carried out aboard the RV Kaimikai-O-Kanaloa, a research vessel operated by the University of Hawaii. During the cruise, hundreds of samples were collected in an area off the coast of Japan as close as 30 kilometers from the Fukushima Nuclear Power Plant and extending as far out as 600 kilometers off shore. The essential components of the program include: radionuclide measurements of water and particles; a radioecological study of biota, especially species at the base of the food chain and key fish species and a physical oceanographic study to characterize transport and water masses. A baseline radionuclide data set for the Atlantic and Pacific was obtained along an east to west network of sampling stations. Three hundred sampling events took place at thirty major stations for a total of more than 1500 samples. Along with 41 CTD stations, bottle samples of salinity, oxygen, radionuclides, and particulates were taken to depths of about 1000 meters. A list of the radionuclides sampled and a sampling summary map is available. One hundred net tows resulted in approximately fifty pounds of biological samples, including plankton and small fish. Daily samples of aerosol were also taken.

Early investigation following an accidental release of man-made radionuclides is key to understanding the magnitude of the release and the relationship to public health issues The research results also set the stage for the use of the longer lived radionuclides as tracers in subsequent studies by the community to understand ocean processes.

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1136693
Gordon and Betty Moore Foundation (GBMF)	unknown Fukushima Radionuclide Levels Moore

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