Abundance of Oithona species by depth from the Pacific and Indian Oceans from R/V Hakuho-maru KH76-3 from July 1976 (Nishida-Oithona project)

Website: https://www.bco-dmo.org/dataset/3234
Version: 29 Sept 2009
Version Date: 2009-09-29

Project
» Nishida-Pacific-Oithona (Nishida-Oithona)

Program
» Census of Marine Life (CoML)

Contributors	Affiliation	Role
Nishida, Shuhei	University of Tokyo	Principal Investigator

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Dataset Description

Abundance data of *Oithona* species by depth from the Pacific and Indian Oceans

Related data objects: *Oithona* station data
and
Oithona abundance data

Methods & Sampling

References:

Nishida, S. and R. Marumo 1982. Vertical distribution of cyclopoid copepods of the family Oithonidae in the western
Pacific and eastern Indian Oceans. *Bull. Plankton Soc. Japan*, **29:** 99-118.

Nishida, S. 1985. Taxonomy and distribution of the family Oithonidae (Copepoda, Cyclopoida) in the Pacific and Indian Oceans. *Bull. Ocean Res. Inst. Univ. Tokyo*, **No. 20**, 167 pp.

Nishida, S. 1985. Pelagic copepods from Kabira Bay, Ishigaki Island, southwestern Japan, with the description of a new species of the genus *Pseudodiaptomus*. *Publ. Seto Mar. Biol. Lab*. **30**: 125-144.

Nishida, S. 1986. A new species of *Oithona* (Copepoda, Cyclopoida) from the neritic waters of Australia. *J. Plankton Res*. **8**: 907-915.

Pinkaew, K., S. Nishida and M. Terazaki 1998. Distribution of zooplankton in the Bangpakong River estuary and off Sriracha coast, the Gulf of Thailand, with special reference to copepods. *Proceedings of the Eighth Joint Seminar on Marine Science*: 104-113.

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Data Files

File
oithona_depth_abund.csv (Comma Separated Values (.csv), 173.78 KB) MD5:9fb759ca35093f554eae168c1cf2a933 Primary data file for dataset ID 3234

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Parameters

Parameter	Description	Units
cruiseid	short identifier of the cruise	
year_start	year cruise starts	
instr	instrument used to sample	
station	station name	
lat	latitude of the station North is positive, South is negative.	decimal degrees.
lon	longitude of the station East is positive, West is negative	decimal degrees.
mmdd_start	month and day of start of station; two digit month, two digit day	
mmdd_end	month and day of end of station; two digit month, two digit day	
time_start_local	time the station starts	24 hour clock
time_end_local	time the station ends	24 hour clock
depth	depths sampled by the nets;	meters
species	includes copepodites, number of males, stages and totals for some stations	
num_per_m3	number of individual per cubic meter	

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Instruments

Dataset-specific Instrument Name	Motoda Net XX13
Generic Instrument Name	Motoda Net XX13
Generic Instrument Description	Motoda Net (Motoda, 1971). XX13 indicates a mesh size of 100 microns. This is a "messenger based net system which utilized a framework attached to the towing wire. The circular net (56 cm diameter) was a cylinder (80 cm length)/cone (110 cm length) and was mounted on a wire with a triangular framework so that up to 10 could be towed simultaneously."(P.H. Wiebe and M.C. Benfield, 2003. Progress in Oceanography 56: p.25) Motoda, S. (1971). Devices of simple plankton apparatus V. Bulletin of the Faculty of Fisheries Hokkaido University, 22, 101-106.

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Deployments

KH76-3

Website	https://www.bco-dmo.org/deployment/57937
Platform	R/V Hakuho Maru
Start Date	1976-07-15
End Date	1976-07-30

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Project Information

Nishida-Pacific-Oithona (Nishida-Oithona)

Coverage: North and South Pacific

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Program Information

Census of Marine Life (CoML)

Website: http://www.coml.org/

Coverage: global

The Census of Marine Life is a global network of researchers in more than 80 nations engaged in a 10-year scientific initiative to assess and explain the diversity, distribution, and abundance of life in the oceans. The world's first comprehensive Census of Marine Life - past, present, and future - will be released in 2010.

The stated purpose of the Census of Marine Life is to assess and explain the diversity, distribution, and abundance of marine life. Each plays an important role in what is known, unknown, and may never be known about what lives in the global ocean.

First, diversity. The Census aims to make for the first time a comprehensive global list of all forms of life in the sea. No such unified list yet exists. Census scientists estimate that about 230,000 species of marine animals have been described and reside in jars in collections in museums of natural history and other repositories. Since the Census began in 2000, researchers have added more than 5600 species to the lists. They aim to add many thousands more by 2010. The database of the Census already includes records for more than 16 million records, old and new. By 2010, the goal is to have all the old and the new species in an on-line encyclopedia with a webpage for every species. In addition, we will estimate how many species remain unknown, that is, remain to be discovered. The number could be astonishingly large, perhaps a million or more, if all small animals and protists are included. For comparison, biologists have described about 1.5 million terrestrial plants and animals.

Second, distribution. The Census aims to produce maps where the animals have been observed or where they could live, that is, the territory or range of the species. Knowing the range matters a lot for people concerned about, for example, possible consequences of global climate change.

Third, abundance. No Census is complete without measures of abundance. We want to know not only that there is such a thing as a Madagascar crab but how many there are. For marine life, populations are being estimated either in numbers or in total kilos, called biomass.

To complete the context, it is important to understand the top motivations for the Census of Marine Life. Most importantly, much of the ocean is unexplored. Most of the records in its database are for observations near the surface, and down to 1000 meters. No observations have been made in most of the deep ocean, while most of the ocean is deep.

Another important issue is that diversity varies in space. Marine hot spots, like the rain forests of the land, exist off for large fish off the coasts of Brazil and Australia. The goal is to know much more about marine hot spots, to help conserve these large fish. Their abundance and thus their diversity is changing, especially for commercially important species. Between 1952 and 1976, for example, fishermen and their customers emptied many areas of the ocean of tuna.

The Census has evolved a strategy of 14 field projects to touch the major habitats and groups of species in the global ocean. Eleven field projects address habitats, such as seamounts or the Arctic Ocean. Three field projects look globally at animals that either traverse the seas or appear globally distributed: the top predators such as tuna and the plankton and the microbes. The projects employ a mix of technologies. These include acoustics or sound, optics or cameras, tags placed on individual animals that store or report data, and genetics, as well as some actual capture of animals. The technologies complement one another. Sound can survey large areas in the ocean, while light cannot. Light can capture detail and characters that sound cannot. And genetics can make identifications from fragments of specimens or larvae where pictures tell little.

This mix of curiosity, need to know, technology, and scientists willing to investigate the unexplored and undiscovered will result in a Census of Marine Life in 2010 that provides a much clearer picture of what lives below the surface around the globe. Several reasons make such a report timely, indeed urgent. Crises in the sea are reported regularly. One recent study predicted the end of commercial fishery globally by 2050, if current trends persist. Better information is needed to fashion the management that will sustain fisheries, conserve diversity, reverse losses of habitat, reduce impacts of pollution, and respond to global climate change. Hence, there are biological, economic, philosophical and political reasons to push for greater exploration and understanding of the ocean and its inhabitants. Indeed, the United Nations Convention on Biological Diversity requires signatories to collect information on living resources, but, as yet, no nation has a complete baseline of such information. The Census of Marine Life's global network of researchers will help to fill this knowledge gap, providing critical information to help guide decisions on how to manage global marine resources for the future.

[Text copied from the CoML web site, November 5, 2008]

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Funding

Funding Source	Award
Alfred P. Sloan Foundation (Sloan)	unknown CMarZ_2004-2010 Sloan

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