Cruise track position data from R/V Pelican cruises PE03-NGOMEX, PE04-NGOMEX, PE06-NGOMEX, PE07-NGOMEX, PE09-05, PE11-06 in the Northern Gulf of Mexico, 28-30N 89-94W; 2003-2010 (GoMX NGOMEX project)

Website: https://www.bco-dmo.org/dataset/3364
Version: 23 September 2011
Version Date: 2011-09-23

Project
» NGOMEX - Living Marine Resources of the Northern Gulf of Mexico (GoMX - NGOMEX)

Program
» Gulf of Mexico - Deepwater Horizon Oil Spill (GoMX - DHOS)

Contributors	Affiliation	Role
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Dataset Description

Multi Year Cruise Track - 5min ship navigation from MIDAS data

Methods & Sampling

Raw data acquired via ship's MIDAS system

Data Processing Description

Generated from MIDAS .dat files contributed by Jamie Pierson

BCO-DMO Processing Notes
- Simple awk generated to extract date, time, lat, lon from full MIDAS record

- 10 seconds MIDAS data decimated to 5 minute data for cruise track

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Data Files

File
CRUISETRACK.csv (Comma Separated Values (.csv), 756.60 KB) MD5:3d2fe890d21735b83de7b8891487a918 Primary data file for dataset ID 3364

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Parameters

Parameter	Description	Units
date	date (GMT)	yyyymmdd
time	time(GMT)	hhmmss
lon	longitude (West is negative)	decimal degrees
lat	latitude (South is negative)	decimal degrees
Year	Year of data collection	yyyy
Cruise_Id	Cruise Id	text

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Instruments

Dataset-specific Instrument Name	Multiple Instrument Data Acquisition System
Generic Instrument Name	Multiple Instrument Data Acquisition System
Generic Instrument Description	MIDAS System

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Deployments

PE03-NGOMEX

Website	https://www.bco-dmo.org/deployment/58120
Platform	R/V Pelican
Start Date	2003-06-30
End Date	2003-08-05
Description	2003 Sampling cruise to the Northern Gulf of Mexico Note: Deployment Id assigned by BCO-DMO staff (not official)

PE04-NGOMEX

Website	https://www.bco-dmo.org/deployment/58121
Platform	R/V Pelican
Start Date	2004-07-28
End Date	2004-08-02
Description	2004 Sampling cruise to the Northern Gulf of Mexico Note: Deployment Id assigned by BCO-DMO staff (not official)

PE06-NGOMEX

Website	https://www.bco-dmo.org/deployment/58122
Platform	R/V Pelican
Start Date	2006-08-04
End Date	2006-08-13
Description	2006 Sampling cruise to the Northern Gulf of Mexico Note: Deployment Id and Chief Scientist assigned by BCO-DMO staff (not official)

PE07-NGOMEX

Website	https://www.bco-dmo.org/deployment/58123
Platform	R/V Pelican
Start Date	2007-07-21
End Date	2007-08-07
Description	2007 Sampling cruise to the Northern Gulf of Mexico Note: Deployment Id and Chief Scientist assigned by BCO-DMO staff (not official)

PE09-05

Website	https://www.bco-dmo.org/deployment/58124
Platform	R/V Pelican
Start Date	2008-08-01
End Date	2008-08-12
Description	2008 Sampling cruise to the Northern Gulf of Mexico Note: Cruise ID confirmed with R2R catalog Original cruise data are available from the NSF R2R data catalog

PE11-06

Website	https://www.bco-dmo.org/deployment/58640
Platform	R/V Pelican
Start Date	2010-09-01
End Date	2010-09-07
Description	2010 Sampling cruise to the Northern Gulf of Mexico Note: Cruise ID confirmed with R2R catalog Original cruise data are available from the NSF R2R data catalog

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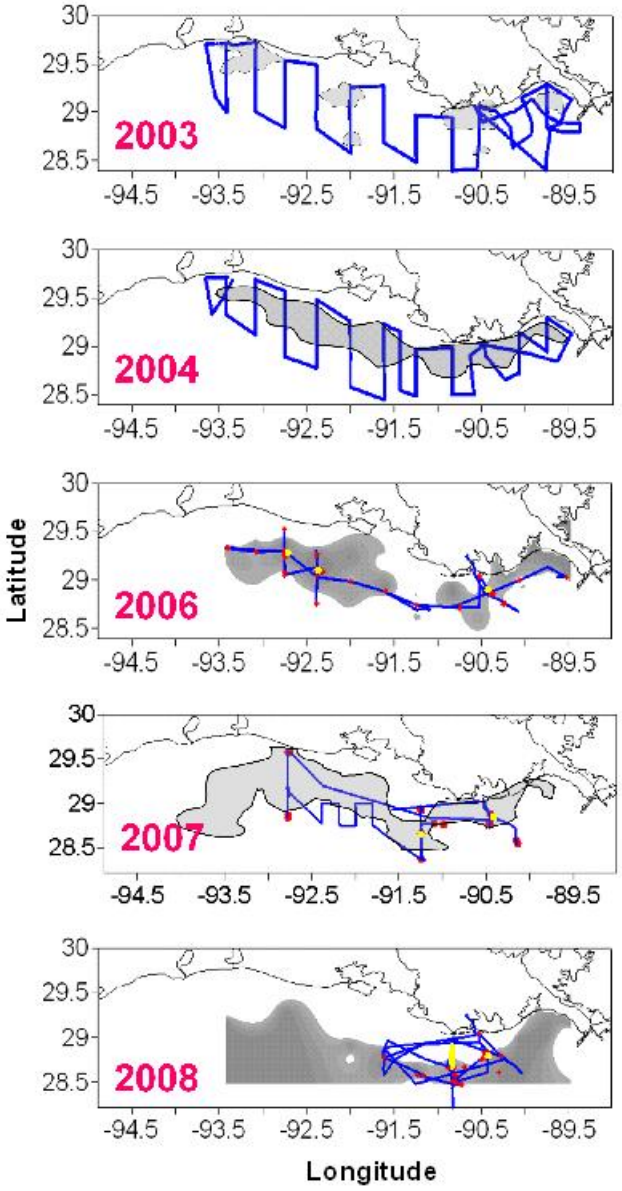
Project Information

NGOMEX - Living Marine Resources of the Northern Gulf of Mexico (GoMX - NGOMEX)

Coverage: Northern Gulf of Mexico, 28-30N 89-94W

NGOMEX - Living Organisms of the Northern Gulf of Mexico
A synthesis of data collected in the Northern Gulf of Mexico from 2003-2004, 2006-2008 and 2010
Data include:
- CTD Profiles
- Rosette Samples
- MIDAS underway metereological
- Towed SCANFISH
- Net Trawls
- Zooplankton counts

High-resolution mapping of the major ecosystem components of the NGOMEX by year



References:

Kimmel, D. G., W. C. Boicourt, J. J. Pierson, M. R. Roman, X. Zhang. 2010. The vertical distribution and diel variability of mesozooplankton biomass, abundance and size in response to hypoxia in the northern Gulf of Mexico USA. Journal of Plankton Research 32(8): 1185-1202. doi:10.1093/plankt/fbp136

Pierson, J. J., M. R. Roman, D. G. Kimmel, W. C. Boicourt, & X. Zhang. 2009. Quantifying changes in the vertical distribution of mesozooplankton in response to hypoxic bottom waters. Journal of Experimental Marine Biology and Ecology 381: S74-S79. doi.org/10.1016/j.jembe.2009.07.013

Kimmel, D. G., W. C. Boicourt, J. J. Pierson, M. R. Roman, & X. Zhang. 2009. A comparison of the mesozooplankton response to hypoxia in Chesapeake Bay and the northern Gulf of Mexico using the biomass size spectrum. Journal of Experimental Marine Biology and Ecology 381: S65-S73. doi.org/10.1016/j.jembe.2009.07.012

Zhang, H., S. A. Ludsin, D. M. Mason, A. T. Adamack, S. B. Brandt, X. Zhang, D. G. Kimmel, M. R. Roman, & W. C. Boicourt. 2009. Hypoxia-driven changes in the behavior and spatial distribution of pelagic fish and mesozooplankton in the northern Gulf of Mexico. Journal of Experimental Marine Biology and Ecology. 381: S80-91. http://dx.doi.org/10.1016/j.jembe.2009.07.014

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Program Information

Gulf of Mexico - Deepwater Horizon Oil Spill (GoMX - DHOS)

Coverage: Northern Gulf of Mexico

Grants for Rapid Response Research (RAPID)
The RAPID funding mechanism is used for proposals having a severe urgency with regard to availability of, or access to data, facilities or specialized equipment, including quick-response research on natural or anthropogenic disasters and similar unanticipated events.

GOM - Broader Impacts
The need to understand the impact of this largest oil spill to date on ecosystems and biochemical cycling is self evident. The consequences of the disaster and accompanying clean up measures (e.g. the distribution of dispersants) need to be evaluated to guide further mediating measures and to develop and improve responses to similar disasters in the future. Would it be advantageous if such oil aggregates sink, or should it rather remain suspended? Possibly measures can be developed to enhance sinking or suspension (e.g. addition of ballast minerals) once we understand their current formation and fate. Understanding the particle dynamics following the input of large amounts of oil and dispersants into the water is a prerequisite to develop response strategies for now and in the future.

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Funding

Funding Source	Award
NSF Division of Ocean Sciences (NSF OCE)	OCE-1043261
NSF Division of Ocean Sciences (NSF OCE)	OCE-1043248
NSF Division of Ocean Sciences (NSF OCE)	OCE-1043249

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