

# 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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| <a href="#">Gegg, Stephen R.</a>     | Woods Hole Oceanographic Institution (WHOI BCO-DMO)                 | BCO-DMO Data Manager               |

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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  |
|---|
| <b>CRUISETRACK.csv</b> (Comma Separated Values (.csv), 756.60 KB)<br>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

|   |   |
|---|---|
| <b>Dataset-specific Instrument Name</b> | Multiple Instrument Data Acquisition System |
| <b>Generic Instrument Name</b>          | Multiple Instrument Data Acquisition System |
| <b>Generic Instrument Description</b>   | MIDAS System                                |

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## Deployments

### PE03-NGOMEX

|                    |   |
|--------------------|---|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/58120">https://www.bco-dmo.org/deployment/58120</a>                 |
| <b>Platform</b>    | R/V Pelican   |
| <b>Start Date</b>  | 2003-06-30  |
| <b>End Date</b>    | 2003-08-05  |
| <b>Description</b> | 2003 Sampling cruise to the Northern Gulf of MexicoNote: Deployment Id assigned by BCO-DMO staff (not official) |

### PE04-NGOMEX

|                    |   |
|--------------------|---|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/58121">https://www.bco-dmo.org/deployment/58121</a>                 |
| <b>Platform</b>    | R/V Pelican   |
| <b>Start Date</b>  | 2004-07-28  |
| <b>End Date</b>    | 2004-08-02  |
| <b>Description</b> | 2004 Sampling cruise to the Northern Gulf of MexicoNote: Deployment Id assigned by BCO-DMO staff (not official) |

#### PE06-NGOMEX

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

#### PE07-NGOMEX

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

#### PE09-05

|                    |  |
|--------------------|--|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/58124">https://www.bco-dmo.org/deployment/58124</a>  |
| <b>Platform</b>    | R/V Pelican  |
| <b>Start Date</b>  | 2008-08-01   |
| <b>End Date</b>    | 2008-08-12   |
| <b>Description</b> | 2008 Sampling cruise to the Northern Gulf of MexicoNote: Cruise ID confirmed with R2R catalog Original cruise data are available from the NSF R2R data catalog |

#### PE11-06

|                    |  |
|--------------------|--|
| <b>Website</b>     | <a href="https://www.bco-dmo.org/deployment/58640">https://www.bco-dmo.org/deployment/58640</a>  |
| <b>Platform</b>    | R/V Pelican  |
| <b>Start Date</b>  | 2010-09-01   |
| <b>End Date</b>    | 2010-09-07   |
| <b>Description</b> | 2010 Sampling cruise to the Northern Gulf of MexicoNote: Cruise ID confirmed with R2R catalog Original cruise data are available from the NSF R2R data catalog |

## Project Information

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

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

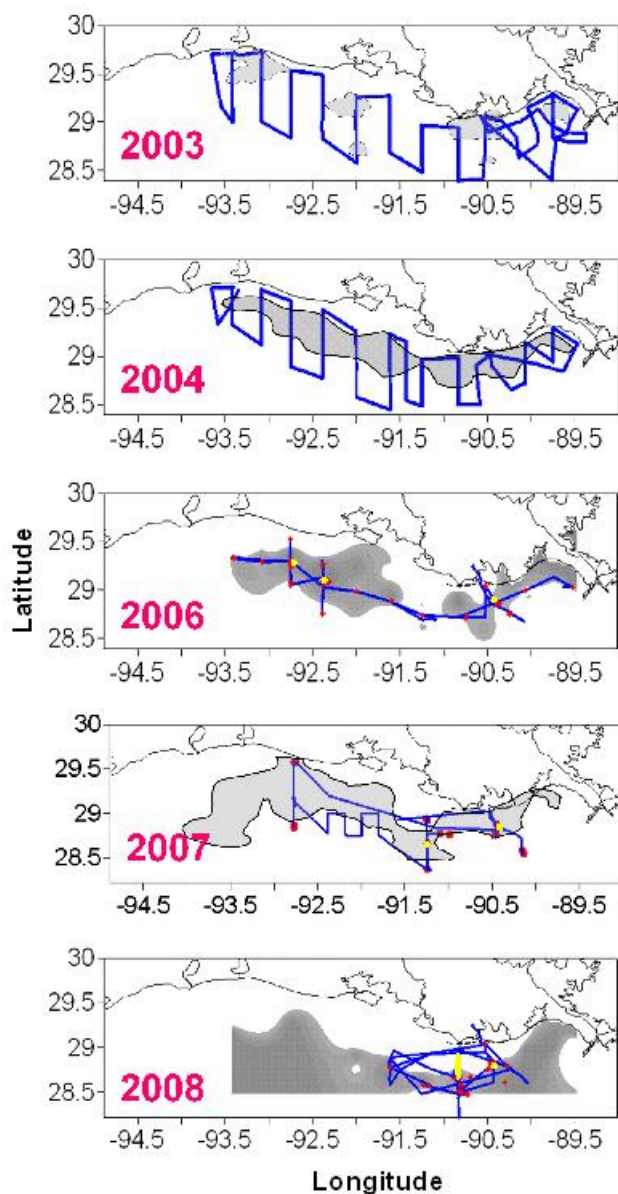
#### NGOMEX - Living Organisms of the Northern Gulf of Mexico

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 meteorological
- 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                       |
|--|-----------------------------|
| <a href="#">NSF Division of Ocean Sciences (NSF OCE)</a> | <a href="#">OCE-1043261</a> |
| <a href="#">NSF Division of Ocean Sciences (NSF OCE)</a> | <a href="#">OCE-1043248</a> |
| <a href="#">NSF Division of Ocean Sciences (NSF OCE)</a> | <a href="#">OCE-1043249</a> |

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