

Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

1.1. Name of the Data, data collection Project, or data-producing Program:

Gulf of Mexico Ecosystem Status Report

1.2. Summary description of the data:

The Gulf of Mexico is one of the most ecologically and economically valuable marine ecosystems in the world and is affected by a variety of natural and anthropogenic phenomena including climate, hurricanes, coastal development, agricultural runoff, oil spills, and fishing. These complex and interacting stressors, together with the highly dynamic nature of this ecosystem, present challenges for the effective management of its resources. We analyze a compilation of over 100 indicators representing physical, biological, and economic aspects of the Gulf of Mexico and find that an ecosystem-wide reorganization occurred in the mid-1990s. Further analysis of fishery landings composition data indicates a major shift in the late 1970s coincident with the advent of US national fisheries management policy, as well as significant shifts in the mid-1960s and the mid-1990s. These latter shifts are aligned temporally with changes in a major climate mode in the Atlantic Ocean: the Atlantic Multidecadal Oscillation (AMO). We provide an explanation for how the AMO may drive physical changes in the Gulf of Mexico, thus altering higher-level ecosystem dynamics. The hypotheses presented here should provide focus for further targeted studies, particularly in regard to whether and how management should adjust to different climate regimes or states of nature. Our study highlights the challenges in understanding the effects of climatic drivers against a background of multiple anthropogenic pressures, particularly in a system where these forces interact in complex and nonlinear ways.

1.3. Is this a one-time data collection, or an ongoing series of measurements?

Ongoing series of measurements

1.4. Actual or planned temporal coverage of the data:

2011 to Present

1.5. Actual or planned geographic coverage of the data:

W: -98, E: -76, N: 32, S: 18

Gulf Of Mexico

1.6. Type(s) of data:

(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

Table (digital)

1.7. Data collection method(s):

(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:

Michael J Schirripa

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

michael.schirripa@noaa.gov

2.5. Phone number:

305-361-4568

3. Responsible Party for Data Management

Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

Mandy M Karnauskas

3.2. Title:

Data Steward

4. Resources

Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

No

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

0

5. Data Lineage and Quality

NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible

(describe or provide URL of description):

Process Steps:

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**5.2. Quality control procedures employed (describe or provide URL of description):**

Karnauskas M, Schirripa MJ, Craig K, Cook G, Kelble C, Agar J, Black B, Enfield D, Lindo-Atichati D, Muhling B, Purcell K, Richards P, Wang C (2015) Evidence of climate-driven ecosystem reorganization in the Gulf of Mexico. *Global Change Biology* doi: 10.1111/gcb.12894

6. Data Documentation

The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?

No

6.1.1. If metadata are non-existent or non-compliant, please explain:

Missing/invalid information:

- 1.7. Data collection method(s)

6.2. Name of organization or facility providing metadata hosting:

NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:**6.3. URL of metadata folder or data catalog, if known:**<https://www.fisheries.noaa.gov/inport/item/30673>**6.4. Process for producing and maintaining metadata**

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NOAA Data Documentation

Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access

NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

Yes

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:

Southeast Fisheries Science Center (SEFSC)

7.2.1. If data hosting service is needed, please indicate:

No

7.2.2. URL of data access service, if known:

http://www.aoml.noaa.gov/ocd/ocdweb/ESR_GOMIEA/download.html

7.3. Data access methods or services offered:

Please Download From provided links

7.4. Approximate delay between data collection and dissemination:

365

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

N/A

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:

(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To

Be Determined, Unable to Archive, or No Archiving Intended)

NO_ARCHIVING_INTENDED

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):

Southeast Fisheries Science Center - Miami, FL

Location Of The Main Office Of The South East Fisheries Science Center

8.3. Approximate delay between data collection and submission to an archive facility:

365

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

The data resides on a secure government network requiring multi-factor authentication for network access.

9. Additional Line Office or Staff Office Questions

Line and Staff Offices may extend this template by inserting additional questions in this section.