

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:

AFSC/REFM: Acoustic trawl cooperative survey near Shumagin Islands 2007-2013

1.2. Summary description of the data:

In May of 2006, scientists from the Alaska Fisheries Science Center participated in a pilot outreach program in Sand Point, Alaska. At the meetings, fishermen raised a number of concerns about the adequacy of walleye pollock (*Theragra chalcogramma*) assessment. The issues appeared to be related to the contrasting observational scales of fishermen and National Marine Fisheries Service (NMFS) scientists responsible for conducting assessment surveys and population modeling. NMFS assessment surveys have a large spatial scale (i.e., the entire Gulf of Alaska) and occur infrequently as they are biennial summer bottom trawl and acoustic-trawl surveys, with annual or biennial winter acoustic-trawl surveys targeting key spawning areas (von Szalay, et al. 2010; Guttormsen and Yasenak, 2007; Guttormsen and Jones, 2010). The stock assessment model for pollock estimates stock abundance for the central and western Gulf of Alaska (Dorn et al., 2011). In contrast, the observational scale of fishermen is spatially restricted but temporally extensive, since they are on the water fishing throughout the year. Fishermen questioned whether NMFS assessment activities were appropriately designed

to monitor the status of pollock in their area. They noted that additional surveys in different seasons and a more comprehensive acoustic-trawl survey effort in winter could help address seasonal issues such as movement between spawning and feeding areas.

Cooperative research projects with the Sand Point fishing community were identified as a potential approach for addressing some of these issues, but fishermen wanted the assurance that their investment of time and effort will lead to improvements in stock assessment. The acoustic-trawl surveys described in this report resulted from collaboration between NMFS scientists, the Aleutian East Borough, and local fishermen to address issues raised during the outreach program. Acoustic-trawl surveys were conducted from a local fishing vessel in the western Gulf of Alaska during 2007-2013. To some extent, the surveys carried out during this period reflected shifting program objectives. The initial objective was simply to demonstrate the feasibility of using local fishing vessels to conduct acoustic-trawl surveys and to collect acoustic and biological information sufficient to estimate walleye pollock biomass and spatial pattern. Once this was demonstrated, the focus of the project expanded

to include other objectives. Specific objectives of the project were the following:

Evaluate the feasibility of conducting acoustic-trawl surveys of pollock using local fishing vessels.

Evaluate the quality of acoustic data collected from the Simrad ES60 echosounder.

Evaluate the appropriateness of the design of the current NMFS acoustic-trawl surveys in the western Gulf of Alaska. Specific issues to be addressed included 1) transect density in bathymetrically complex regions in the western Gulf of Alaska, 2) day/night differences

in pollock density, and 3) temporal variability of pollock density during replicate transects.

Evaluate the timing of the NMFS survey (mid-February) in Sanak Trough by conducting a survey in January prior to the NMFS survey.

Evaluate relationships between adult pollock density, young-of-the-year pollock density, euphausiid density, and the distribution of foraging humpback whales (*Megaptera novaeangliae*).

The estimates of abundance and distribution of walleye pollock were developed for areas covered by cooperative acoustic-trawl surveys conducted aboard a fishing vessel during alternate Septembers and Januarys between 2007-2013. Physical oceanographic and biological composition observations, initial findings from ancillary data collections of marine mammal observations, and dual-frequency differencing techniques to discriminate

different types of acoustic backscatter were also developed.

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

One-time data collection

1.4. Actual or planned temporal coverage of the data:

2007 to 2013

1.5. Actual or planned geographic coverage of the data:

W: -162.3, E: -160, N: 55.4, S: 54.4

Shumagin Islands to Sanak Islands, AK

1.6. Type(s) of data:

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

Map (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:

Metadata Coordinators MC

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:**2.4. E-mail address:**

AFSC.metadata@noaa.gov

2.5. Phone number:**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:

Martin Dorn

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"):

Unknown

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):

Lineage Statement:

View metadata record as uploaded FGDC record.

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):**

See method in uploaded FGDC view.

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/12859>

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?

No

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?

Yes

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

The data set has been analyzed and is available for distribution. Contact the Point Of Contact.

7.2. Name of organization of facility providing data access:

Alaska Fisheries Science Center (AFSC)

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

yes

7.2.2. URL of data access service, if known:

<http://www.afsc.noaa.gov/metadata-images/REFM/stub.png>

7.3. Data access methods or services offered:

Contact point of contact.

7.4. Approximate delay between data collection and dissemination:

na

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

na

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)

TO_BE_DETERMINED

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):**

Alaska Fisheries Science Center - Seattle, WA

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

na

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

IT Security and Contingency Plan for the system establishes procedures and applies to the functions,

operations, and resources necessary to recover and restore data as hosted in the Western Regional

Support Center in Seattle, Washington, following a disruption.

9. Additional Line Office or Staff Office Questions

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