

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:

Results of 2019 Chukchi Sea Acoustic/Trawl Survey

### 1.2. Summary description of the data:

We conducted acoustic-trawl (AT) surveys of the US continental shelf region of the Chukchi Sea during ice-free periods (27 August to 26 September) with a focus on Arctic cod (*Boreogadus saida*), a key species in Arctic ecosystems. These surveys indicate that midwater fishes are dominated by age-0 Arctic cod, with large numbers of age-0 walleye pollock (*Gadus chalcogrammus*) found in the region for the first time. Age-0 Arctic cod abundances were significantly larger than observed in previous surveys. Age-0 Arctic cod were distributed north of 70 °N with the highest densities in the northeastern Chukchi Sea, west of 164 °W. Age-0 pollock were found between 66-72 °N. Additional key pelagic species included capelin (*Mallotus villosus*), saffron cod (*Eleginus gracilis*), Pacific cod (*Gadus macrocephalus*), and Pacific herring (*Clupea pallasii*). These four species were primarily found in coastal areas between 66.5-72 °N. The increase in age-0 pollock abundance suggests that environmental conditions now enable species from the south to colonize the Chukchi Sea, at least on a seasonal basis. Age-0 Arctic cod not found in significant abundance in the central and southern Chukchi as in previous surveys, indicating that changes in the environment may be restricting the southern extent of their distribution.

### 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:

2012-06 to 2013-11

### 1.5. Actual or planned geographic coverage of the data:

Chukchi Sea: <http://www.marineregions.org/gazetteer.php?p=details&id=4257>

Gulf of Alaska: <http://www.marineregions.org/gazetteer.php?p=details&id=4312>

### 1.6. Type(s) of data:

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

Simrad RAW file format

**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:**

Abigail McCarthy

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

**2.4. E-mail address:**

abigail.mccarthy@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:**

Rick Towler

**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:

Acoustic data were recorded at the five split-beam frequencies using ER60 software and, as a backup, acoustic telegram data were logged with Myriax EchoLog 500 software. Acoustic measurements were collected from 16 m below the sea surface to within 0.5 m of the sounder-detected bottom or a maximum of 1,000 m in deep water. Data were analyzed using Myriax Echoview post-processing software. See National Marine Fisheries Service (NMFS) 2013. NOAA protocols for fisheries acoustics surveys and related sampling (Alaska Fisheries Science Center), 23 p. Prepared by Midwater Assessment and Conservation Engineering Program, Alaska Fish. Sci. Center, Natl. Mar. Fish. Serv., NOAA. Available online: [http://www.afsc.noaa.gov/RACE/midwater/AFSC%20AT%20Survey%20Protocols\\_Feb%202013.pdf](http://www.afsc.noaa.gov/RACE/midwater/AFSC%20AT%20Survey%20Protocols_Feb%202013.pdf)

**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):

These data were collected in accordance NOAA protocols for fisheries acoustics surveys and related sampling (Alaska Fisheries Science Center), 23 p. Prepared by Midwater Assessment and Conservation Engineering Program, Alaska Fish. Sci. Center, Natl. Mar. Fish. Serv., NOAA. Available online: [http://www.afsc.noaa.gov/RACE/midwater/AFSC%20AT%20Survey%20Protocols\\_Feb%202013.pdf](http://www.afsc.noaa.gov/RACE/midwater/AFSC%20AT%20Survey%20Protocols_Feb%202013.pdf)

## 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)
- 7.2.1. If data hosting service is needed, please indicate

### 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/64624>

**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](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 is still being analyzed and will not be available for distribution until it has been finalized and all QA/QC practices have been performed. Contact the Data Point Of Contact for estimated time of release.

**7.2. Name of organization of facility providing data access:**

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

**7.2.2. URL of data access service, if known:**

<https://www.ngdc.noaa.gov/mgg/wcd/>

**7.3. Data access methods or services offered:**

Go to <https://www.ngdc.noaa.gov/mgg/wcd/> or email Anderson, Charles (charles.anderson@noaa.gov)

**7.4. Approximate delay between data collection and dissemination:**

180

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

NCEI\_CO

**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:**

180

**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 diserruption."  
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**9. Additional Line Office or Staff Office Questions**

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