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/RACE/SAP/Pathobiology: 2016 Bitter crab disease prevalence in Chionoecetes spp. from eastern Bering Sea upper continental slope

1.2. Summary description of the data:

This dataset contains crab data from a field survey of Chionoecetes spp. collected during the 2016 NOAA/NMFS/AFSC/RACE groundfish and invertebrate resources bottom trawl survey of the eastern Bering Sea continental slope (EBSS). Crabs were taken opportunistically, at any station regardless of location and depth, and at random. Blood samples were taken from collected crab using non-lethal methods and were preserved in 100% ethanol. Samples were tested in a laboratory with a DNA test to detect the presence of the parasite Hematodinium sp., the causative agent of Bitter Crab Syndrome (BCS). The data includes sampling year, sampling station information, species, crab morphometrics, Hematodinium sp. parasite presence/absence based on PCR assay results.

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:

2016

1.5. Actual or planned geographic coverage of the data:

W: -179.483, E: -165.398, N: 60.595, S: 54.266
Eastern Bering Sea, Alaska

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.)

Instrument: n/a
Platform: n/a
Physical Collection / Fishing Gear: n/a

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:
Alaska Fisheries Science Center

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:
Pam Jensen

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):

Process Steps:

- This dataset contains randomly chosen samples of crab collected from the 2016 NOAA/NMFS/AFSC/RACE groundfish and invertebrate resources bottom trawl survey of the eastern Bering Sea continental slope (EBSS). The survey area extended from Unalaska and Akutan Island to the U.S.-Russian maritime boundary and was divided into six geographic subareas. Each tow is one-half hour in duration with a standard speed of 2.5 knots - exact tow duration and distance fished for each haul can be found in RACEBASE.HAUL.
- The sex of the crab is identified (1 = Male, 2 = Female). Individual crab carapaces were measured (± 1 mm), excluding spines, and are reported as size. Shell condition class serves as a semi-quantitative index of molt status and time in shell post-molt. Carapace shell condition was assigned to one of six classes according to specific criteria (0 = premolt or molting, 2 = new hardshell both firm and clean, 3 = oldshell slightly worn, 4 = oldshell worn, 5 = very oldshell). Chela height is measured on right chela at greatest distance (± 0.1 mm) excluding spines. Null or blank fields in data represent no chela height information reported for crab specimen.
- Female crab abdomens were evaluated to determine reproductive condition based on the color of the eggs (0 = no eggs, 4 = orange, 9 = no egg color information reported or does not apply), the condition of the eggs (0 = no eggs, 1 = uneyed, 9 = no egg condition information reported or does not apply), and the size of the egg clutch (0 = immature, 1 = mature female no eggs, 2 = trace to 1/8, 3 = 1/4, 4 = 1/2, 5 = 3/4, 6 = full, 9 = no egg clutch information reported or does not apply).
- DNA was extracted using modified Ivanova et al. (2006) protocol. Extracted DNA was assayed with two primer sets, targeting either 18S or ITS1 rDNA, to determine presence or absence of Hematodinium spp. Refer to metadata Point of Contact for PCR conditions. PCR Result is identified (0 = negative for Hematodinium DNA, 1 = positive for Hematodinium DNA, 3 = undetermined, at the limit of detection).

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):

Data is submitted through a thorough QA/QC process.

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?

Yes

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

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://inport.nmfs.noaa.gov/inport/item/36062

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: https://inport.nmfs.noaa.gov/inport/downloads/data-documentation-procedural-directive.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?

No

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

There are no legal restrictions on access to the data. They reside in public domain and can be freely distributed.

7.2. Name of organization of facility providing data access:

Alaska Fisheries Science Center

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

Yes

7.2.2. URL of data access service, if known:
https://www.ncei.noaa.gov

7.3. Data access methods or services offered:
unknown

7.4. Approximate delay between data collection and dissemination:
unknown

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:
no delay

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-MD

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:
unknown

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.