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/Long: Data from: Embryo development in golden king crab, Lithodes aequispina.

1.2. Summary description of the data:

The data from this study, describes embryo development in Golden king crab, Lithodes aequispinus. Six female multiparous golden king crab were captured from the Aleutian Islands, Alaska, and mated in the laboratory. Their embryos were photographed and staged on average once every 9 days throughout embryogenesis.

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:

2006-09 to 2008-08

1.5. Actual or planned geographic coverage of the data:

W: -152.395268, E: -152.395268, N: 57.782403, S: 57.782403
Kodiak Fisheries Research Center

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:
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:
Chris Long

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:

- <methtype>Lab</methtype> <methdesc>Golden king crab for this experiment were caught in commercial pots along the Aleutian Islands, Alaska, in the falls of 2005 and 2006 and transported to the ASFC Kodiak Laboratory via air cargo. Crab

were held in 2,000 l tanks with flow-through seawater chilled to 3-4 degrees Celsius, and fed chopped frozen fish and squid to excess. Tanks were covered with opaque sheets of foam to both provide insulation and to keep the females in mostly-dark conditions. Six females, 4 captured in 2005 and 2 in 2006, were used in this study. Females were either late-stage ovigerous, as evinced by eyed embryos, or hatched out, as evinced by empty egg cases when collected and were between 120 and 141 mm in carapace length (CL). Six mature males, CL 128-132 mm, were present with the females in a pre-mating holding tank. After the females molted, they mated and extruded a new clutch of eggs. At this point they were placed into another tank where all the post-mating females were held together with no males.</methdesc> </method> <method> <methtype>Lab</methtype> <methdesc>Embryos were collected regularly throughout development from a random location within the clutch. Time between samples varied with the developmental stage and averaged once every 9 days or a mean of 48 times (range 42-54) throughout development for each female. At sampling, embryos were examined and photographed under a stereo microscope. Uneyed embryos were stained for 5 min in Bouin's solution to enable staging. The median stage of development (see results for descriptions) was determined for each female on each sampling day. In addition, up to 10 unstained embryos were photographed at 90° to the sagittal plane under a stereo microscope for image analysis. The images were calibrated each day with a micrometer because the scope had an adjustable zoom and this ensured accurate measurements. Measurements were made using Image-Pro Plus V. 7.0 (Media Cybernetics, Inc. , Rockville, MD). In this data, the term egg; refers to the entire embryo (i.e. the entire contents of the fertilized egg) and the term embryo; refers to the differentiated part of the egg as distinct from the yolk, and yolk; refers to the undifferentiated deutoplasm. For each egg, the area and the mean, minimum, and maximum diameter of the egg was measured. The mean, minimum, and maximum diameters were determined from 180 measurements of the diameter at 2 degree intervals around the entire egg. When the embryo became visible, the yolk area was also measured by tracing the yolk in Image-Pro and the percent area yolk (yolk area x 100/egg area; prior to the embryo becoming the yolk area = egg area) and the embryo area (egg area minus the yolk area) were calculated. Finally, when the eyes became visible, the eye area and the mean, minimum, and maximum diameter of the eyes were measured using the same techniques as above.</methdesc> </method>

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):
unknown

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. Name of organization of facility providing data access

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/26894

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?

No

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 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:
yes

7.2.2. URL of data access service, if known:
https://console.cloud.google.com/storage/browser/_details/nmfs_odp_afsc/RACE/SAP/Long%3B%20Da

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):
Kodiak Fisheries Research Center - Kodiak, AK

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.