

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:

Steller sea lion satellite telemetry data used to determine at-sea distribution in the western-central Aleutian Islands, 2000-2013

### 1.2. Summary description of the data:

This dataset was used for an analysis of the at-sea distribution of Steller sea lions in the western-central Aleutian Islands, Alaska. This analysis was prepared to support the 2014 Section 7 Biological Opinion evaluating effects of commercial groundfish fisheries on Steller sea lion populations. In this study we combined all telemetry deployments during 2000-2013 in the central and western Aleutian Islands, including recent deployments on adult females, and conducted a spatial analysis to identify patterns of use relative to sea lion critical habitat and bathymetry in an area of intense fisheries management measures intended to reduce potential competition. The analytical approach modeled travel paths using the continuous-time correlated random walk model (CTCRW; Johnson et al. 2008, Ecology 89:1208-1215.). The CTCRW model output was used to show habitat use by individual to indicate intra-animal variation, then aggregated in a by age-class, season, criticalhabitat zone (<3 nmi, 3-10 nmi, 10-20 nmi, >20 nmi), or occurrence inside/outside of the 200 m isobath contour as possible factors. Some of the deployments included in this analysis have also been used in previous published studies (Call et al., 2007; Fadely et al., 2005; Lander et al., 2011a; Lander et al. 2011b; Lander et al., 2010; Lander et al., 2009; Loughlin et al., 2003; Pitcher et al., 2005; Rehberg and Burns, 2008).

### 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:

2000 to 2013

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

W: 170, E: -165, N: 55, S: 48

Bering Sea, Aleutian Islands, North Pacific Ocean

### 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:**

Brian Fadely

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

**2.4. E-mail address:**

brian.fadely@noaa.gov

**2.5. Phone number:**

206-526-6173

**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:**

Michelle Lander

**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?**

Yes

**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):

Lineage Statement:

See Lander et al. (2013) for description of data sources and processing. Data used in this analysis were also used in the following publications, which also provide data acquisition methods. Call, K. A., B. S. Fadely, A. Greig, and M. J. Rehberg. 2007. At-sea and on-shore cycles of juvenile Steller sea lions (*Eumetopias jubatus*) derived from satellite dive recorders: A comparison between declining and increasing populations. *Deep Sea Res. (II Top. Stud. Oceanogr.)* 54: 298-310. Fadely, B. S., B. W. Robson, J. T. Sterling, A. Greig, and K. A. Call. 2005. Immature Steller sea lion (*Eumetopias jubatus*) dive activity in relation to habitat features of the eastern Aleutian Islands. *Fisheries Oceanography* 14: 243-258. Lander, M. E., D. S. Johnson, J. T. Sterling, T. Gelatt, and B. S. Fadely. 2011a. Diving behaviors and movements of juvenile Steller sea lions (*Eumetopias jubatus*) captured in the central Aleutian Islands, April 2005. In: U. S. D. o. Commerce (ed.). NOAA Technical Memorandum. p 41. Lander, M. E., T. R. Loughlin, M. G. Logsdon, G. R. VanBlaricom, and B. S. Fadely. 2010. Foraging effort of juvenile Steller sea lions (*Eumetopias jubatus*) with respect to heterogeneity of sea surface temperature. *Endangered Species Research* 10: 145-158. Lander, M. E. et al. 2009. Regional differences in the spatial and temporal heterogeneity of oceanographic habitat used by Steller sea lions. *Ecol Appl* 19: 1645-1659. Lander, M.E., M.L. Logsdon, T.R. Loughlin, and G.R. VanBlaricom. 2011b. Spatial patterns and scaling behaviors of Steller sea lion (*Eumetopias jubatus*) distributions and their environment. *Journal of Theoretical Biology* 274:74-83. Doi:10.1016/j.jtbi.2011.01.015. Loughlin, T. R., J. T. Sterling, R. L. Merrick, J. L. Sease, and A. E. York. 2003. Diving behavior of immature Steller sea lions (*Eumetopias jubatus*). *Fish B-Noaa* 101: 566-582. Pitcher, K. W. et al. 2005. Ontogeny of dive performance in pup and juvenile Steller sea lions in Alaska. *Can J Zool* 83: 1214-1231. Rehberg, M. J., and J. M. Burns. 2008. Differences in diving and swimming behavior of pup and juvenile Steller sea lions (*Eumetopias jubatus*) in Alaska. *Can. J. Zool./Rev. Can. Zool.* 86:539-5

**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 discussion in: Lander, M., D. Johnson, B. Fadely, and T. Gelatt. 2013. At-sea distribution of Steller sea lions in the western-central Aleutian Islands. Memo submitted to Alaska Science Center. August 2013. 20 pp.

<http://alaskafisheries.noaa.gov/protectedresources/stellers/esa/biop/2014/default.htm>

## 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/28214>

### 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?

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 in the process of being archived with the NOAA National Centers for Environmental Information. Once the archival process is complete and verified, the data set will be publicly available

**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:**

<https://cn.dataone.org/cn/v2/resolve/10667372-9c3b-4fca-a8a4-4067e6148a10>

<https://dataone.researchworkspace.com/mn/v2/packages/application%2Fbagit-097/97904614-82d1-48>

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

Access data through the distribution URL.

**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:**

Data not automatically processed.

**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)*

OTHER

**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.*