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:

Hawaiian monk seal sighting and human-seal interaction data extracted from Instagram postings to support NMFS monk seal recovery efforts in the main Hawaiian Islands, from 2014-10-01 to 2015-09-30.

# 1.2. Summary description of the data:

As social media platforms develop, they potentially provide valuable information for wildlife researchers and managers. NOAA's Hawaiian Monk Seal Research Program ( HMSRP) is exploring how social media can help scientists understand the biology, ecology and threats to this endangered species. By using the media sharing and social networking service Instagram, we extracted pertinent data while disseminating information and inspiring support for Hawaiian monk seals. Specifically, we investigated how Instagram could: 1) expand our normal data set by identifying individual animals not detected by standard methods, 2) help categorize type and severity of human interactions, 3) provide early warning of concerning seal behaviors, and 4) help assess public perceptions of monk seals. We searched the keyword # monkseal examining a total of 640 public posts from a possible 8,808 available. From these, seals were individually identifiable in 80 posts representing 15.6% of the subpopulation and approximately 108 human-seal interaction events ranging from close approaches to physical interactions. The nature of comments on posts indicated that the general public attitude towards seals is less than 1% negative and that selfpolicing sometimes occurs on inappropriate posts. Besides gaining information, we were also able to advise the public about seals of concern and solicit information to aid HMSRP's emergency response. Maximizing benefits on social media requires consideration and tact, especially when promoting a collective mind-shift like responsibly coexisting with wildlife. This relatively new tool has the potential to yield vast amounts of data and soon, developments will streamline data collection, utilization and sharing. Science and technology continue to evolve, and wildlife programs should take advantage of progressive and broadly inclusive tools like social media for the benefit of species conservation.

#### 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:** 2014-10-01 to 2015-09-30
- **1.5. Actual or planned geographic coverage of the data:** W: -180, E: -150, N: 30, S: 10 Hawaiian Archipelago, Pacific Region

# 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:

Mark S Sullivan

- 2.2. Title: Metadata Contact
- 2.3. Affiliation or facility:
- 2.4. E-mail address:

mark.sullivan@noaa.gov

**2.5. Phone number:** (808)725-5727

#### 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:

Mark S Sullivan

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: 10/1/2014 - 9/30/2015

Process Steps:

- Search internet using keywords (Citation: Public postings on the internet)

- Categorize postings with monk seal content and enter into spreadsheet (Citation: Public postings on the internet)

# 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 quality control issues were mitigated by data leader.

#### 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/28587

# 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?

Yes

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?

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

- 7.2. Name of organization of facility providing data access: Pacific Islands Fisheries Science Center (PIFSC)
  - 7.2.1. If data hosting service is needed, please indicate: Instagram - public
  - 7.2.2. URL of data access service, if known: https://oceanwatch.pifsc.noaa.gov/xfer/PIFSC\_PIRO\_bulk\_data\_download\_InPort\_28587.tgz

# 7.3. Data access methods or services offered:

Data are available by following the URL provided in this metadata record. The requester is asked to submit a request to Mark Sullivan (mark.sullivan@noaa.gov) and work with him and other PIFSC Hawaiian Monk Seal Research Program staff to assure proper use of this data.

# 7.4. Approximate delay between data collection and dissemination:

none

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

Data not delayed. Remains publicly accessible.

# 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):** Pacific Islands Fisheries Science Center - Honolulu, HI

1845 Wasp Blvd., Bldg 176, Honolulu, HI 96818 H:\MHI\_hms\Outreach

**8.3. Approximate delay between data collection and submission to an archive facility:** none

# 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

on secure network

#### 9. Additional Line Office or Staff Office Questions

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