

*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:**

Building Capacity for Reserves to be Motus Wildlife Tracking Leaders - NERRS/NSC (NERRS Science Collaborative)

### **1.2. Summary description of the data:**

This multi-reserve project led by the ACE Basin Reserve convened a series of workshops to provide guidance and assistance on siting, construction, installation, and interpretation of Motus sites at participating reserves.

The project

Protecting critical habitats for migratory species is increasingly important as sea level rise and climate change reduce the availability and diversity of habitats in the hemisphere. The National Estuarine Research Reserve System (NERRS) operates alongside protected and managed landscapes that provide refuge for a wide array of species that have been deemed research and conservation priorities. Reserves also support a diversity of outreach and education programs that promote environmental stewardship and highlight the importance of protecting habitats for these species.

In 2018, the ACE Basin Reserve received private funding to implement a Motus receiver station at partner State Park, which sparked interest from potential collaborators. The Motus Wildlife Tracking System is an open-source, international network of community hosted radio-telemetry receivers and wildlife researchers designed to investigate a wide variety of wildlife movement questions. Volunteer partners host and operate receiving stations across the world that autonomously listen for flying migratory animals equipped with transmitters called nanotags. Researchers rely on the receivers for movement data for a diversity of tagged wildlife, including birds, bats, and insects.

Through this project, the ACE Basin Reserve facilitated the implementation and expansion of Motus networks in the Mid-Atlantic, West Coast, and Gulf regions. Participants met through a combination of virtual and in-person workshops designed to meet the needs of partners and intended users in the given region. Partners of all four reserves gave examples of unique ideas to reduce construction costs, such as buying components in bulk when constructing multiple towers and splicing wires in-house.

Presentations discussed alternative ways to use Motus towers, such as smaller scale studies to better understand resident population dynamics and species behavior.

**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:**

2021-07 to 2023-06

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

W: -74, E: -73.875, N: 41.33, S: 41

Hudson River NERR, NY

W: -80.67, E: -80.2, N: 32.68, S: 32.33

ACE Basin NERR, SC

W: -88.48, E: -88.39, N: 30.43, S: 30.31

Grand Bay NERR, MS

W: -122.505, E: -122.45, N: 38.014, S: 37.98

San Francisco Bay NERR, CA

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

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

**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:**

Jeremy Cothran

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

**2.4. E-mail address:**

jeremy.cothran@gmail.com

**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:**

**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?**

**4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "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:

This information is detailed within the project links.

Process Steps:

- N/A

**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):**

This information is detailed within the project links.

**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:

- 1.6. Type(s) of data
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.3. Data access methods or services offered
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.2. Data storage facility prior to being sent to an archive facility
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?

**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/71985>

**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?**

**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:**

Office for Coastal Management (OCM)

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

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

<http://www.nerrsciencecollaborative.org/project/Keppler20>

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

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

**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)*

**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):**

**8.3. Approximate delay between data collection and submission to an archive facility:**

**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*

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

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