

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:**

Kure coral - Bomb radiocarbon record (1939-2002)

1.2. Summary description of the data:

Corals of the Hawaiian Archipelago are well situated in the North Pacific Gyre (NPG) to record how bomb-produced radiocarbon (^{14}C) has been sequestered and transported by the sea. While this signal can be traced accurately through time in reef-building corals and used to infer oceanographic processes and determine the ages of marine organisms, a comprehensive and validated record has been lacking for the Hawaiian Archipelago. In this study, a coral core from Kure Atoll in the Northwestern Hawaiian Islands was used to create a high-resolution bomb ^{14}C record for the years 1939–2002, and was then used with other ^{14}C measurements in fish otoliths and seawater to explore differences and similarities in the bomb ^{14}C signal throughout the Hawaiian Archipelago. The Kure Atoll sample series produced a well-defined bomb ^{14}C curve that, with some exceptions, was similar to other coral ^{14}C records from the Hawaiian Archipelago. Subtle differences in the coral ^{14}C records across the region may be explained by the large-scale ocean circulation patterns and decadal cycles of the NPG. The most rapid increase of ^{14}C , in the 1950s and 1960s, showed similar timing across the Hawaiian Archipelago and provides a robust basis for use of bomb ^{14}C dating to obtain high precision age determinations of marine organisms. Reference otoliths of juvenile fish demonstrated the use of the post-peak ^{14}C decline period as a viable reference in the age validation of younger and more recently collected fishes, and effectively extended the utility of bomb ^{14}C dating to the latest 30 years.

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:

1939 to 2002

1.5. Actual or planned geographic coverage of the data:

Kure Atoll, Hawaiian Islands

1.6. Type(s) of data:

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

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

2.4. E-mail address:

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?

Yes

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):

Lineage Statement:

See publication: Andrews, A.H., D. Siciliano, D.C. Potts, E.E. DeMartini, and S. Covarrubias. 2016. Bomb radiocarbon and the Hawaiian Archipelago: Coral, otoliths and seawater. Radiocarbon 58(3): 531-548 ([dx.doi.org/10.1017/RDC.2016.32](https://doi.org/10.1017/RDC.2016.32))

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):

Further QC after data entry.

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)
- 2.1. Point of Contact Name
- 2.4. Point of Contact Email
- 3.1. Responsible Party for Data Management

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/36740>

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:

NA

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:

NCDC

7.2.2. URL of data access service, if known:

<https://www.ncdc.noaa.gov/paleo-search/study/21192>

7.3. Data access methods or services offered:

NA

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:

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):

Pacific Islands Fisheries Science Center - Honolulu, HI

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

PIFSC ITS performs scheduled back-ups.

9. Additional Line Office or Staff Office Questions

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