

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:

Benthic Percent Cover Derived from Analysis of Benthic Images Collected during Towed-diver Surveys of the U.S. Pacific Reefs Since 2003

1.2. Summary description of the data:

The data products described herein are part of the NOAA Coral Reef Conservation Program (CRCP) funded projects aimed at documenting the status and trends for benthic cover and composition on coral reef ecosystems across the U.S. Pacific States and Territories, conducted, by the Coral Reef Ecosystem Division (CREED) of the NOAA Pacific Islands Fisheries Science Center (PIFSC).

Benthic habitat imagery collected as a part of Towed-diver Surveys (TDS) and Rapid Ecological Assessment (REA) surveys for corals and fish are quantitatively analyzed implementing the Coral Point Count with Excel extensions (CPCe; Kohler and Gill, 2006) software, whereby 10 stratified random points are projected on each image and the benthic elements falling directly underneath each point will be identified to three functional groups levels: Tier 1 (e.g., hard coral, soft coral, macroalgae, turf algae, etc.), Tier 2 (e.g., Hard Coral = massive, branching, foliose, encrusting, etc.; Macroalgae = upright macroalgae, encrusting macroalgae, bluegreen macroalgae, and Halimeda, etc.), and Tier 3 (e.g., Hard Coral = *Astreopora* sp, *Favia* sp, *Pocillopora*, etc.; Macroalgae = *Caulerpa* sp, *Dictyosphaeria* sp, *Padina* sp, etc.).

Power analyses support the methodological approach outlined above, whereby statistically sound sub-jurisdictional (island) level, benthic cover estimates can be successfully derived from REA and TDS photos. Benthic percent cover at the island level can be determined from data derived from towed-diver survey images while benthic percent cover is calculated at the site level for data derived from stratified random sampling images.

Benthic percent cover has been derived from imagery collected during TDS every other year in American Samoa from 2004 to 2010, Guam from 2005 to 2011, and the Main Hawaiian Islands from 2006 to 2010 as well as 2005, and during REA surveys in American Samoa in 2010, Guam and the Commonwealth of the Northern Mariana Islands (CNMI) in 2011, and the Main Hawaiian Islands in 2010 and 2013, survey

imagery for Guam and the CNMI collected in 2014 is currently being analyzed (as of the publication date of this record).

1.3. Is this a one-time data collection, or an ongoing series of measurements?

Ongoing series of measurements

1.4. Actual or planned temporal coverage of the data:

2003 to Present

1.5. Actual or planned geographic coverage of the data:

U.S. Pacific Islands

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.)

Instrument: Not applicable

Platform: Not applicable

Physical Collection / Fishing Gear: Not applicable

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:

Annette M DesRochers

2.2. Title:

Metadata Contact

2.3. Affiliation or facility:

Pacific Islands Fisheries Science Center

2.4. E-mail address:

annette.desrochers@noaa.gov

2.5. Phone number:

(808)725-5461

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:

Bernardo Vargas-Angel

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:

Benthic imagery is collected at climate stations at select U.S. Pacific Reefs. The imagery is analyzed using Coral Point Count with Excel Extensions (CPCe) or CoralNet to derive benthic cover values.

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):

REQUIRED

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?

Yes

6.1.1. If metadata are non-existent or non-compliant, please explain:

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://inport.nmfs.noaa.gov/inport/item/25384>

6.4. Process for producing and maintaining metadata

(describe or provide URL of description):

Metadata produced and maintained in accordance with the NMFS Data Documentation Procedural Directive: <https://inport.nmfs.noaa.gov/inport/downloads/data-documentation-procedural-directive.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

7.2.1. If data hosting service is needed, please indicate:**7.2.2. URL of data access service, if known:**

<http://accession.nodc.noaa.gov/accession#>

7.3. Data access methods or services offered:

Send email to nmfs.pic.credinfo@noaa.gov

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:

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):

Pacific Islands Fisheries Science Center - Honolulu, HI

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

NOAA IRC and NOAA Fisheries ITS resources and assets.

9. Additional Line Office or Staff Office Questions

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