

*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:**

Environmental Monitoring of Coral Bleaching and Disease in the Hawaiian Islands: assessment of coral reef communities in Hawaii, Maui, and Oahu of the Main Hawaiian Islands from March 8, 2010 to November 8, 2011 using the Line-point Intercept (LPI) method

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

This data package contains coral reef community composition data gathered during Line-Point-Intercept (LPI) surveys around the islands of Maui, Hawaii, and Oahu of the main Hawaiian Islands from March 8, 2010 to November 8, 2011 as part of a joint project with the NOAA Coral Reef Ecosystem Division (CRED) and the State of Hawaii Division of Aquatic Resources (DAR). The line-point-intercept (LPI) method (Hill and Wilkinson 2004) is used to assess the percentage of cover for live corals and other benthic elements.

The surveys were conducted by a SCUBA diver swimming along two pre-selected 25-m transect lines, during which the benthic element falling directly beneath the transect line was recorded at 25- or 50-cm intervals for 100 or 50 total points/observations per transect, respectively. Benthic elements were assigned to one of ten benthic categories: live (scleractinian) corals, octocorals, dead corals, coralline algae, macroalgae, turf algae, cyanophytes, zoanthids, other sessile macro-invertebrates, and sand. Benthic organisms were identified to the lowest taxonomic level possible (corals, macroalgae, and zoanthids to genus or species). Turf algae included pavement, rock, rubble, and turf algae observations.

**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:**

2010-03-08 to 2010-05-06, 2010-07-06 to 2010-08-10, 2010-09-28 to 2010-11-11, 2011-03-17 to 2011-04-21, 2011-09-06 to 2011-11-08

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

W: -157.82596, E: -155.84877, N: 21.47695, S: 19.36916

**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:**

Annette M DesRochers

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:****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:

The line-point intercept survey method to generate coral reef community composition data. Counts are ultimately used to generate benthic cover (%).

Process Steps:

- The line-point-intercept (LPI) method (Hill and Wilkinson 2004) is used to assess the percentage of cover for live corals and other benthic elements. The selection of survey sites was made in close consultation local partners. Factors considered during site selection included: (1) budgetary feasibility; (2) accessibility; (3) replicability; (4) overlap with other local/Federal monitoring efforts; and (5) NOAA-CRCP programmatic site prioritization and the majority of surveys were conducted along the forereef slopes at depths between 1 and 15 m. During surveys, the diver followed structured protocols that were repeated at each site and identified hard corals, octocorals, macroalgae, crustose coralline algae, turf algae, cyanobacteria, and sessile macroinvertebrates to the highest possible taxonomic resolution. Data were recorded for each benthic element identified (or if it was sand) at 25- or 50-cm intervals (LPI method version C and version D, respectively) along two 25-m transect lines set in a single file row (and separated by a 5-m inter-transect space). These surveys generated 100 or 50 points per transect, respectively, which were used to determine percentage of cover of benthic organisms and sand at each survey site. (Citation: Hill, Josh, and Clive Wilkinson. 2004. "Methods for Ecological Monitoring of Coral Reefs." Australian Institute of Marine Science, Townsville. Townsville.)

**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):**

Observations are periodically checked during expeditions for consistency. Data entry is usually conducted on the same day as the surveys using a data entry interface with several data controls employed, and are quality controlled by the observer. Following a mission, the data is then run through rigorous quality control checks by the data management team before the data are migrated to the Oracle database. Given the size of

the data set, there remains some possibility of typographical or other errors.

## 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/25349>

### 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?

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:**

NOAA National Centers for Environmental Information (NCEI)

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

<https://accession.nodc.noaa.gov/0168913>

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

Data can be accessed online via the NOAA National Centers for Environmental Information (NCEI) Ocean Archive.

**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.*