

*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:**

Larval Fish Identification from Cruises at Oahu, TC-85-04, TC-85-05, TC-86-02, TC-86-04

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

Four cruises aboard the NOAA ship Townsend Cromwell were conducted, collectors included George Boehlert and Bruce Mundy. Two transects, oriented in an east-west direction, were established, one each on the leeward and the windward sides of the island. Stations were located 1.8, 9.3, and 27.8 km from shore along the leeward side and 3.7, 9.3, and 27.8 km from shore along the windward side. Larvae were sampled below the surface with a 1 m<sup>2</sup> multiple opening-closing net and environmental sensing system (MOCNESS) and at the sea surface with a 0.49 m<sup>2</sup> Manta net modified to take surface samples to a depth of 0.7 m. All nets were constructed of 0.333 mm Nitex mesh. Estimates of water volumes filtered by both gear types were based on mechanical flowmeter readings. Samples were taken in eight depth strata (neuston, 0-10, 10-20, 20-30, 30-40, 40-50, 50-60, and 60-80 m) at each nearshore station and in nine depth strata (neuston, 0-20, 20-40, 40-60, 60-80, 80-100, 100-120, 120-160, and 160-200 m) at the 4 offshore stations. MOCNESS hauls were 12 minutes duration for each net (stratum), fished in a stepped oblique fashion from deep to shallow with mean tow speeds of approximately 75 cm/sec; the tow speed was adjusted to maintain a net mouth angle near 45°. Neuston tows were 24 minutes, taken during the mid-point of the MOCNESS tows. Replicate tows were taken at each station in both day and night, but only the first replicate sample was sorted for the December, April, and June cruises, whereas both replicates were processed for the September cruise.

All fish larvae were identified to the lowest taxonomic level possible by Bruce C. Mundy. Squid paralarvae were transferred to the Dr. Richard Young (Dept. of Oceanography, Univ. of Hawai'i). Other taxa were not routinely sorted, but heteropods from selected samples have been transferred to Dr. Roger Seapy (Dept. of Biological Sciences, California State Univ. Fullerton; see Seapy 1990. Patterns of vertical distribution in epipelagic heteropod molluscs off Hawaii. *Mar. Eco1.-Prog. Ser.*, 60: 235-246.) and numbers of four species of copepods were obtained from subsamples from certain stations by Dr. R. Patrick Hassett (Dept. of Zoology, Arizona State Univ.; see Hassett and Boehlert 1995. Seasonal, vertical and horizontal distributions of four species of

copepods around Oahu, Hawaii: data report. NOAA Tech. Memo. NMFS, NOAA-TM-NMFS-SWFSC-215, 21 p.).

In 2023, Andrea Schmidt (andrea.schmidt@noaa.gov) provided:

1) RB008AA1\_V\_LAT\_LONG\_MEANS\_V - Latitude and longitude from cruise reports and MOCNESS sensor data were inserted into RB008AA1\_V data.

2) RB008AA1\_UKUSIZES\_V - A dataset with larval measurements for uku, *Aprion virescens*.

**Methodology:** We processed larval uku from a backlog of existing partially processed wet-archived ichthyoplankton samples from O'ahu that were likely to contain larval uku and enhance available record data. We identified and measured uku larvae from ichthyoplankton samples collected around the island of O'ahu on cruises TC8504 (September 6-15, 1985) and TC8604 (June 24-July 2, 1986). These cruises were part of a yearlong series of quarterly surveys described in Boehlert and Mundy (1996). Every three months a series of MOCNESS tows were conducted at 1.8, 9.3, and 27.8 km from shore during the day and the night. Two replicates were collected for each station, but not all replicates were processed. Since the entirety of these samples were archived and stored at PIFSC, we processed the second replicate for TC8604 and measure all previously identified uku from TC8504. These were the only depth integrated samples for which we could generate length data along a gradient from shore. Examination occurred under an EVOCAM2 scope (Vision Engineering Ltd, United Kingdom) and measurements of larval standard length were conducted with the ViPlus software (Vision Engineering Ltd, United Kingdom). The first replicates of the Boehlert and Mundy (1996) dataset were used to review Lutjanidae identification with a focus on uku and were examined several times. Previously unexamined samples from the second replicate were examined and the *Aprion* therein were removed. All identified *Aprion* were measured for standard length using the "line" tool in ViPlus. Flexion larvae were measured in segments, measurement points started from the caudal end of the vertebrae to the lateral line at the deepest point of the curve. The next measurement started from the same point and went to the most protruding point on the nose. Bent larvae, or those curled in on themselves which were not easily flattened without damaging the specimen, were laid vertically and measurements were taken in segments along their dorsal side from nose to tail end. In all other cases, a straight, single line measurement was taken.

**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:**

1985-09-06 to 1986-07-02

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

W: -159, E: -157, N: 22, S: 21

Oahu and Main Hawaiian Islands; Leeward side of the island, west, Kahe Point, latitude

21'21'N and Windward side of the island, east, Kaoio Point, latitude 21'32'N.

**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:**

**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:

Data was collected in the field by PIFSC staff, and entered in table format into electronic spreadsheets.

**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):**

QC review prior to data entry. 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/8791>

#### 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:

Pacific Islands Fisheries Science Center (PIFSC)

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

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

[https://oceanwatch.pifsc.noaa.gov/xfer/PIFSC\\_PIRO\\_bulk\\_data\\_download\\_InPort\\_8791.tgz](https://oceanwatch.pifsc.noaa.gov/xfer/PIFSC_PIRO_bulk_data_download_InPort_8791.tgz)

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

Send written request to PIFSC and get approval by the PIFSC data owner.

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

1 Year

##### 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:**

1 Year

**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.*