

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:

AFSC/RACE/GAP/Palsson: Gulf of Alaska and Aleutian Islands Biennial Bottom Trawl Survey estimates of catch per unit effort, biomass, population at length, and associated tables

### 1.2. Summary description of the data:

The GOA/AI Bottom Trawl Estimate database contains abundance estimates for the Alaska Biennial Bottom Trawl Surveys conducted in the Gulf of Alaska and the Aleutian Islands in alternate years. The estimates build upon raw and summary data available from the RACEBASE database and include calculated catch-per-unit-effort (cpue)s for principal species of groundfish and key invertebrates for each survey region. The cpues are averaged by survey strata, and then average cpues are multiplied by stratum areas which results in estimates of biomass and numerical abundance. Length and age data are combined with abundance to estimate the population at length and sex and population at age and sex.

### 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:

1980 to Present

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

Gulf of Alaska and Aleutian 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.)

**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:**

Nancy Roberson

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:****2.4. E-mail address:**

nancy.roberson@noaa.gov

**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:**

Wayne Palsson

**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?**

No

**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:

NOAA's Alaska Fisheries Science Center conducts the Alaska Biennial Bottom Trawl Survey of the Gulf of Alaska (GOA) and Aleutian Islands (AI) in alternate years. These surveys have been conducted since 1980 in the AI and since 1984 in the GOA and conform to NOAA Protocols for Groundfish Bottom Trawl Surveys of the Nation's Fishery Resources (2004, G. Stauffer compiler, NOAA Technical Memorandum NMFS-SPO-65). The survey consists of three chartered commercial fishing vessels that tow a bottom trawl at randomly-selected stations stratified by region, depth, and in the case of the GOA, habitat. For the GOA survey, the sampling frame is known trawlable or new sites throughout the survey area, stratified by management areas; by shelf, slope, or gully habitats; and by depth zones including 0-100 m, 101-200 m, 201-300 m, 301-500 m, 501-700 m, and 701-1000 m (for GOA survey methodology, see von Szalay et al. 2010 Data Report: 2009 Gulf of Alaska Bottom Trawl Survey, NOAA Technical Memorandum NMFS-AFSC-208). For the AI survey, the sampling frame is past successfully towed stations, stratified by management region and the same GOA depth zones but only as deep as 500 m (for GOA survey methodology, see von Szalay et al. 2011. Data Report : 2010 Aleutian Islands Bottom Trawl Survey. NOAA Technical Memorandum NMFS-AFSC-215). At each station the research trawl is set for a targeted period of 15 min and if the tow is successful, the catch is processed. Catch processing includes identifying, counting, and weighing all living taxa, collecting length measurement for commercially and ecologically important groundfish and invertebrate species, and collecting other materials, such as age structure, for laboratory or other scientific analysis. For each tow, detailed data are collected about the characteristics of the sample including position, time, depth, surface and bottom temperatures, and net characteristics. Sensors on the net measure how the net is fishing, and we track the contact of the foot rope with the seafloor, the width of the net at the wing tips, and the height of the headrope. Tow-by-tow data are entered into computer databases or acquired electronically. Once the survey is completed, the data are error checked and finalized into a database known as RACEBASE. These data are further processed into estimates of abundance in terms of biomass and numbers of organisms. Estimates of abundance are based upon the area-swept technique whereby the catch per unit of effort (cpue) is computed for each successful station as the weight or count of each species divided by the area that the net contacted the seafloor during the tow. These calculated cpues are then averaged among the stations in each stratum and then multiplied by the calculated area of the stratum ( as measured from digitized nautical charts and a geographic information system). The product of these terms is an estimate of the biomass or numerical abundance (see von Szalay et al. 2010 Data Report: 2009 Gulf of Alaska Bottom Trawl Survey, NOAA Technical Memorandum NMFS-AFSC-208 and von Szalay et al. 2011. Data Report : 2010 Aleutian Islands Bottom Trawl Survey. NOAA Technical Memorandum NMFS-AFSC-215 for more complete methods). The abundance estimates for the strata are combined by area-depth categories for convenient analysis. In addition, the population-at-length is estimate by applying length-sex frequency observations to the population abundance estimates. As age structures are evaluated for age determination, the

population-at-size estimates are used with an age-length key to estimate the population-at-age structure of selected species.

**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):**  
unknown

## 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)
- 7.2. Name of organization of facility providing data access
- 7.2.1. If data hosting service is needed, please indicate

**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/22956>

**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?**

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:**

"FISMA Controls are in place to protect stored data from unauthorized access and/or disclosure"

**7.2. Name of organization of facility providing data access:**

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

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

<http://www.akfin.org/>

[https://access.afsc.noaa.gov/data-zips/22956\\_RooperCTD.zip](https://access.afsc.noaa.gov/data-zips/22956_RooperCTD.zip)

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

Go to the AKFIN website <http://www.akfin.org/> and create a user account.

**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):**

Alaska Fisheries Science Center - Seattle, WA

network\Oracle database and AKFIN

**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*

"IT Security and Contingency Plan for the system establishes procedures and applies to the functions, operations, and resources necessary to recover and restore data as hosted in the Western Regional Support Center in Seattle, Washington, following a diserruption."  
"

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

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