

## Plan Overview

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*A Data Management Plan created using DMPTool-Stage*

**Title:** Life history constraints and spatial responses of marine fish to climate change

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## Life history constraints and spatial responses of marine fish to climate change

The data analyzed for this project are being collected by the National Oceanographic and Atmospheric Administration (NOAA) and include:

1. Long-term collections of ichthyoplankton (fish eggs and larvae) abundance and distribution from the Gulf of Alaska, Bering Sea, and California Bight regions. These three sites have been chosen for their contrasting oceanographic features, and for having some of the best ichthyoplankton sampling programs currently available nationally and internationally. Ichthyoplankton data go back to the 1950s in the California region and to the late 1970s in the Gulf of Alaska and Bering Sea regions.
2. Station oceanographic data collected during the ichthyoplankton surveys, including profiles of water temperature, salinity, density, nutrients, and dissolved oxygen.
3. Long term collections of pelagic and groundfish abundance from annual groundfish and midwater trawl surveys conducted by NOAA in the Gulf of Alaska, Bering Sea, and US West Coast regions

All of the data listed above are available at the NOAA Southeast, Northwest and Alaska regional science centers. Our project team include NOAA collaborators from each of these centers who can help us to access and prepare the data for the analyses described in the proposal.

The data used for analyses will be placed in comma-separated-values in plain ASCII format, which are readable over long time periods. The final data file will contain dates for each observation (time, day, month and year), geographic coordinates, oceanographic variables (temperature, salinity, etc), and the abundance of ichthyoplankton or adult stages of fish standardized either by volume filtered or area swept. The final data product will occupy 5-10 GB, once oceanographic information is also included.

Metadata is available as contextual information about the data in a text based document.

The data used for analyses are being collected and maintained by NOAA regional centers in the Alaska, Northwest and Southeast regions. The data are already available to the public either through data portals or upon request. Example of data portals for the California region are shown here: <http://calcofi.org/data.html>, for the Alaska region are shown here: <http://access.afsc.noaa.gov/ichthyo/>.

The data products are already available to the public either through data portals or upon request. We will comply to the policies of the NOAA regional centers.

Ichthyoplankton and adult fish abundance, and oceanographic data are archived and available to the general public through the NOAA regional centers. The subset of data downloaded and used in our analyses will also be made available to the general public upon publication, or no later than two years after the termination of this project. We will archive the subset of data through the OSU data archiving site XXXXXX

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