

Abstract

The Resource Ecology and Ecosystem Modeling (REEM) program at NOAA's Alaska Fisheries Science Center (AFSC) focuses on the collection and analysis of data relating to trophic interactions in the North Pacific and incorporation of these data into environmental assessments, single-species and multispecies models. The systematic collection of North Pacific groundfish stomachs began in the early 1980s and continues through present day. The AFSC Food Habits database currently contains diet data from over 400,000 individual stomachs representing over 200 distinct predator species collected from over 33,000 distinct hauls. Online access to summarized data are available through an interactive data map showing annual distribution of predators, prey, and diet composition by sample locations and interactive diet tables showing diet composition by species, region and year. A collection of prey identification photos, key diagnostic characteristics and identification techniques is available on the web via the Stomach Examiner's Tool. Internal data exploration is accomplished with the Diet Analysis Tool. Detailed data are available by request.

Database Highlights

- 1,000,000+ Records.
- 400,000+ Stomach Samples.
- 201 Predator Species.
- 1,265 Prey Species.
- 33,000 Unique Hauls

Sample Locations

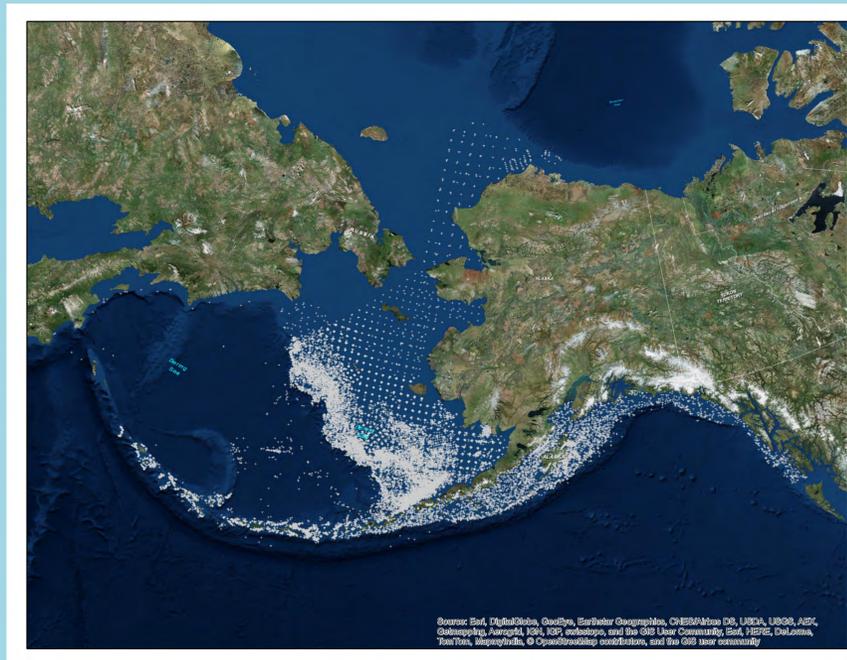


Figure 1. Groundfish stomach sample locations, 1982-present. Collections by Region- Eastern Bering Sea: 293,431 Aleutian Islands: 34,937 Gulf of Alaska: 69,103 Chukchi Sea: 2,542 Beaufort Sea: 85

Diet Composition Maps

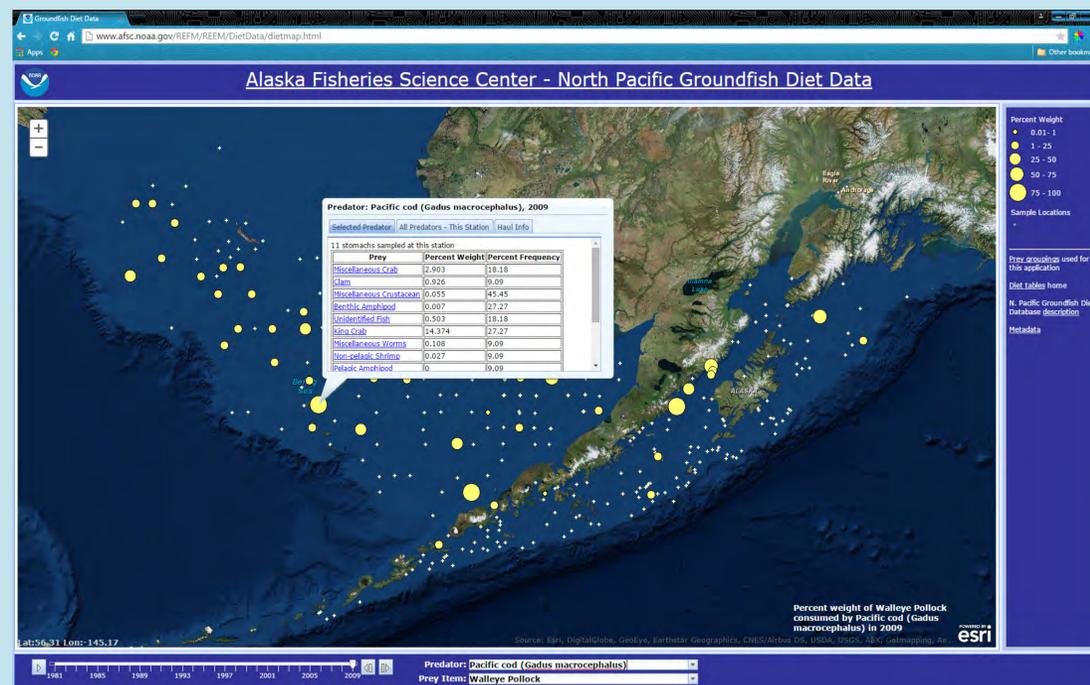


Figure 2. Groundfish diet composition maps, 1982-present. Percent by weight of selected prey in the diet of selected predator. Overall diet composition by weight and frequency of occurrence displayed at each location sampled for major predators by year, observer collected data excluded. <http://www.afsc.noaa.gov/REFM/REEM/DietData/dietmap.html>

Diet Composition Tables



Figure 3. Groundfish diet composition tables, 1982-present. Sample locations, number of stomachs, number of hauls sampled, percent by weight, percent count and percent frequency of occurrence of prey in the diet of selected predator by region and year. Observer collected data excluded. <http://access.afsc.noaa.gov/REEM/WebDietData/DietTableIntro.php>

Stomach Examiner's Tool

Figure 4. Stomach Examiner's Tool. Web based taxonomic identification guide geared towards digested prey. This application is built around a vast collection of digital images of prey collected from stomach contents paired with key identification characteristics and characters such as gill raker counts, vertebral counts, and diagnostic bones. An extensive literature reference list is included as well as links to the diet tables, maps and ITIS pages for many species. <http://access.afsc.noaa.gov/REEM/SET/Index.php>

