

An Atlas: Distribution and Habitat of Common Fishes in Shallow Nearshore Waters of Southeastern Alaska

A. Darcie Neff, Scott W. Johnson, and John F. Thedinga

Auke Bay Fisheries Laboratory

Alaska Fisheries Science Center



National Marine Fisheries Service
11305 Glacier Highway
Juneau, Alaska, U.S. 99801

Darcie.Neff@noaa.gov



Problem

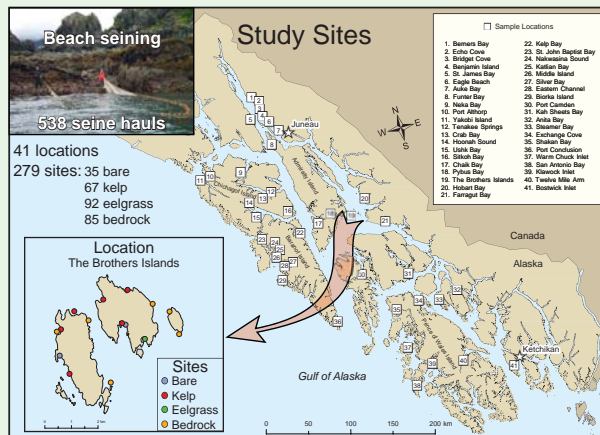
- Information is scarce on distribution and use of nearshore habitats, especially for juvenile stages of species included in fishery management plans (FMP)
- Quantity & quality of essential habitats are unknown
- Nearshore habitats are vulnerable to human disturbance

Objective

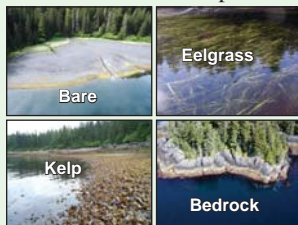
Construct an atlas and database on the distribution and habitat of the 50 most abundant species captured in nearshore waters of southeastern Alaska as a reference for resource managers to identify and protect important fisheries habitat.

Methods

Catch data compiled from beach seine surveys: 1998 to 2004



Four habitats sampled



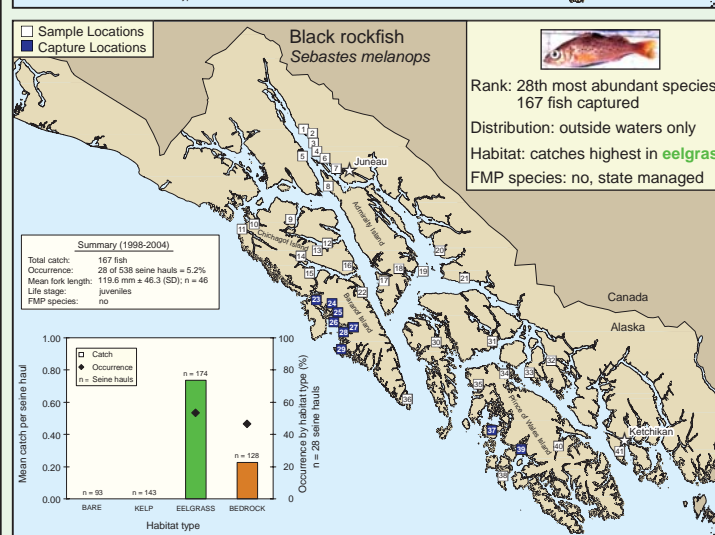
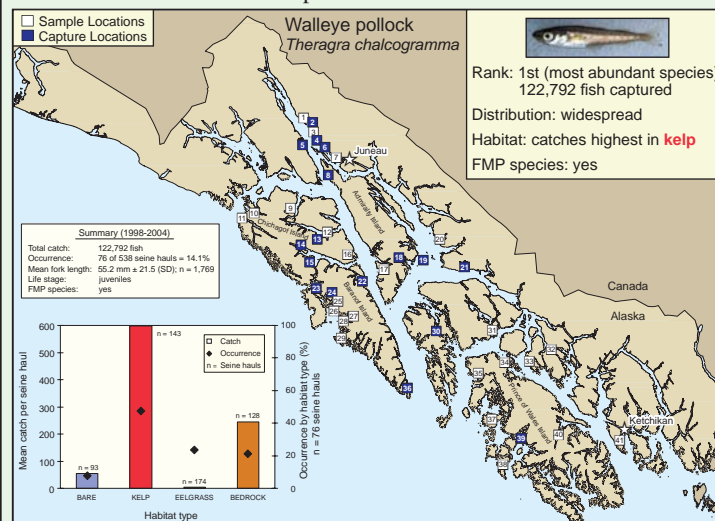
ID, count, and measure fish



Atlas Contents

- Distribution maps for each of the 50 most abundant species
- Fish data - total catch, mean fork length, life stage
- Site data - dates sampled, habitat types, lat/long

Examples of two species with different distribution patterns and habitat use:



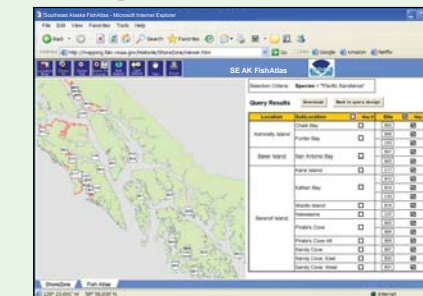
Factoids

- 538 seine hauls yielded 448,164 fish and 79 species
- 10 most abundant species comprised 99% of total catch
- 7 of the top 10 species included in a FMP
- Catch greatest in eelgrass for most species
- Juveniles dominated catch

Future Plans

- Expand atlas beyond SE AK:
Arctic Ocean
Aleutian Islands
Prince William Sound

- Develop ArcIMS web site:



Query database by:

SPECIES
location
site
dates sampled
substrate
salinity
life stage
habitat type

Significance

- Atlas database will allow resource managers to make scientific queries over large spatial and temporal scales:

What habitat types are used by commercially important species?

Where are these habitats located?

Are fish distribution patterns changing relative to global warming?

PDF version of atlas will soon be available at

<http://www.afsc.noaa.gov/Publications/techmemos.htm>