Project overview - Understanding fish communities across nearshore habitats in southeast Alaska

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Goals and Objectives

- Goal
  - Understand fish community composition across nearshore habitats in southeast Alaska
- Objectives

1. Build a statistical model to relate community structure (multivariate) to habitat characteristics
2. Build a statistical model to relate juvenile abundance of harvested species/groups (e.g. Salmonidae, Gadidae) to habitat characteristics

Background - Data

- Atlas of Nearshore Fishes of Alaska
  - 1998 - 2011
  - 555 unique sites
  - Walleye pollock, Pacific herring, pink salmon, and chum salmon accounted for 55% of total catch
- Habitats
  - Bedrock
  - Eelgrass
  - Understory kelp
  - sand / gravel

Background - Analyses

- Previous Analyses
  - NOAA technical memoranda and a few peer-reviewed papers
  - Summary statistics, small geographic scale
  - Fish community appears to differ across habitats
- Data analysis in community ecology class project
  - Began to tackle this question of community composition as a function of habitat
  - Results later

Data

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##  [1] "Data_Events_SiteID" "EventID"            "Date"
##  [4] "Season"             "Mon"                "SeasonNo
##  [7] "Year"               "Gear"               "Temp"
## [10] "Salinity"           "SpCode"             "LifeStag
## [13] "ForkLength"         "Unmeasured"         "AtlasID"
## [16] "Data_Sites_SiteID"  "Region"             "Locale"
## [19] "Location"           "SubLocale"          "Nickname
## [22] "Habitat"            "Habitat_LC"         "HabitatV
## [25] "Lat1"               "Long1"
```