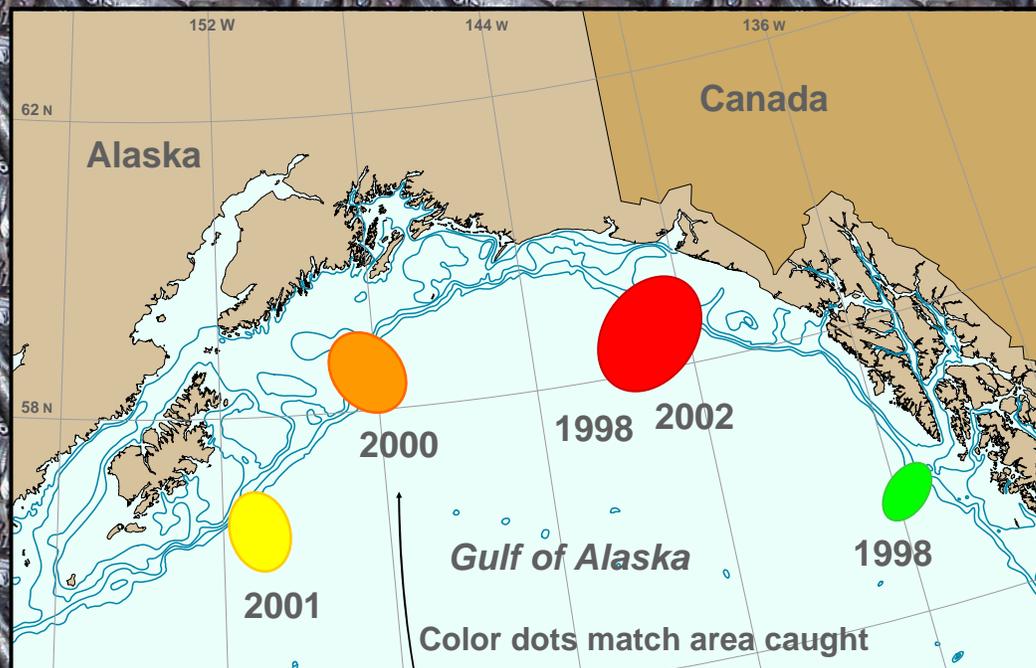


Species of Juvenile Rockfish Collected in the Gulf of Alaska, 1998–2002

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Introduction

- Many rockfish species are morphologically similar during the juvenile stage.
- The juvenile stage of some rockfish species has never been observed.
- Little is known about the distribution of juvenile rockfish in the Gulf of Alaska.
- Juvenile rockfish were incidentally caught during the Auke Bay Laboratory's Ocean Carrying Capacity juvenile salmon research surveys.



Approach

- A subset of 55 fish collected across the northern Gulf of Alaska between 1998–2000 were identified to species.
- Morphologic and genetic characters were used to identify species.

Species Identification

- **Morphologic:**
 - pigmentation
 - body shape
 - head spine patterns
 - meristics of fins & vertebrae
- **Genetic:**
 - mtDNA restriction enzyme fragments based on patterns of known species

S. alutus



● ● ● ● n = 40
27 – 50 mm

Pacific ocean perch

S. aleutianus



● n = 1
30 mm

Roughey rockfish

S. borealis



● ● n = 2
28 – 31 mm

Shorttraker rockfish

S. ciliatus



● n = 2
30 mm

Dusky rockfish

S. crameri



● ● n = 4
32 – 44 mm

Darkblotched rockfish

S. entomelas



● n = 3
57 – 59 mm

Widow rockfish

S. reedi



● ● n = 3
39 – 40 mm

Yellowmouth rockfish

Results

- Both genetic and morphological characters were necessary to ID species.
- Seven *Sebastes* rockfish species were identified (see above).
- The majority of the fish were Pacific ocean perch (*S. alutus*).

Ongoing Research

- Complete species identification of ~1000 young-of-the-year rockfish.
- Describe spatial and temporal distribution in the Gulf of Alaska.
- Examine population genetic structure of Pacific ocean perch juveniles.



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