

Pacific ocean perch 2017 Assessment

Biology and Data

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STAR Panel
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Outline

Biology

Overview

Maturity

Fecundity

Growth

Removals

Indices of Abundance

Length Compositions

Age Compositions

Pacific ocean perch (*Sebastes alutus*)

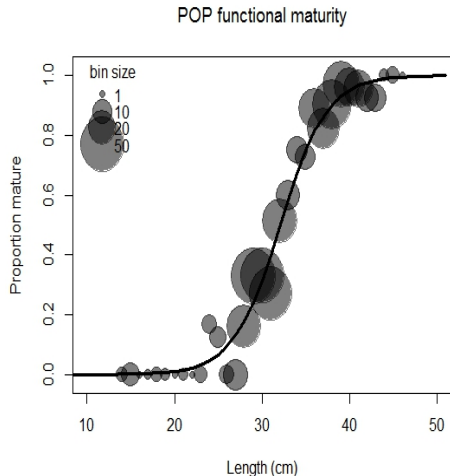
- Distributed from Alaska Aleutian Islands to Northern California
- Typically 200 - 400 meters during summer months
- Semi-demersal and can be pelagic
- Both sexes move to deeper water with age
- Female move to deeper waters post-spawning during winter months and return inshore in spring.



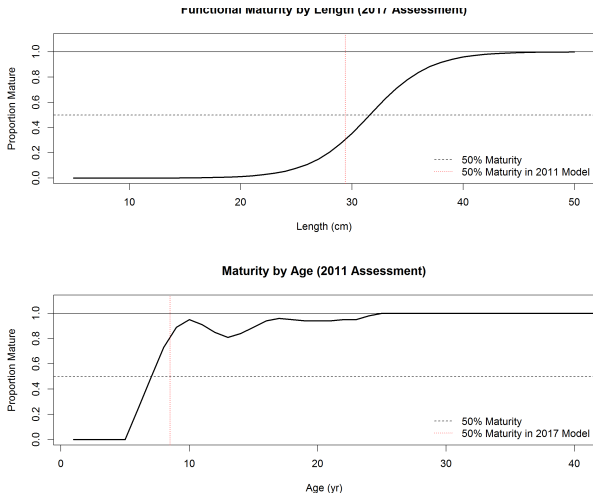
Maturity

Functional maturity-at-length

- Categorized mature and immature fish based on the proportion of vitellogenin in the cytoplasm and atretic cells
- 50% maturity is at larger lengths vs. biological maturity
- functional 50% = 32.1 cm vs. biological 50% = 30.1 cm

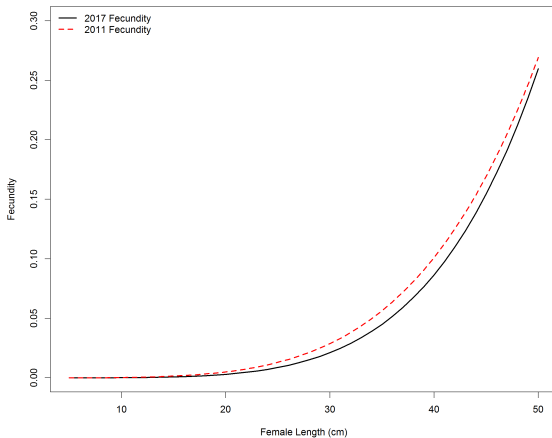


Maturity Comparison



*Sensitivity assumed maturity shown to not have a large impact on results

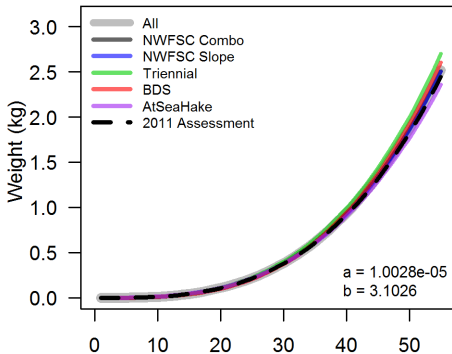
Fecundity



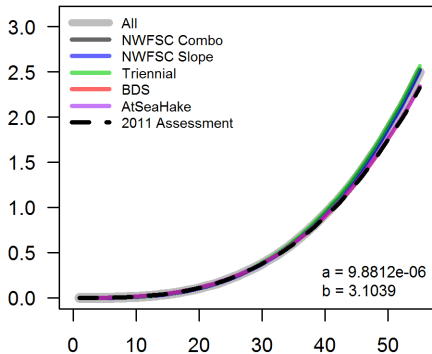
*Sensitivity to assumed fecundity shown to not have a large impact on results

Weight-at-length

Female



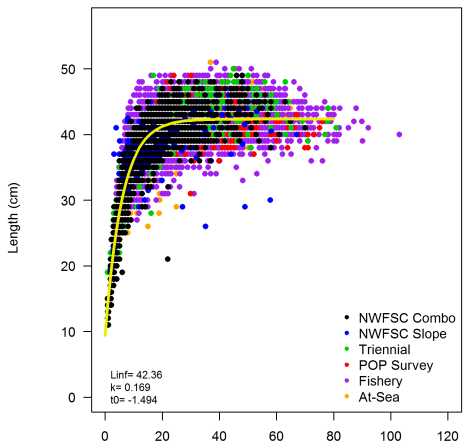
Male



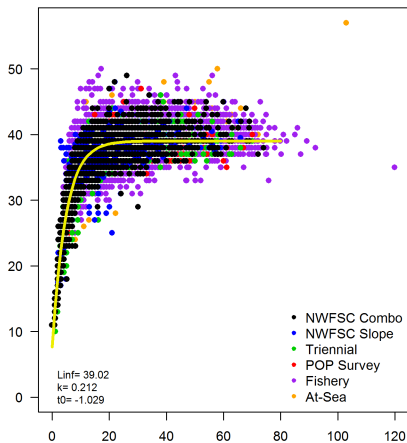
Length (cm)

Length-at-age

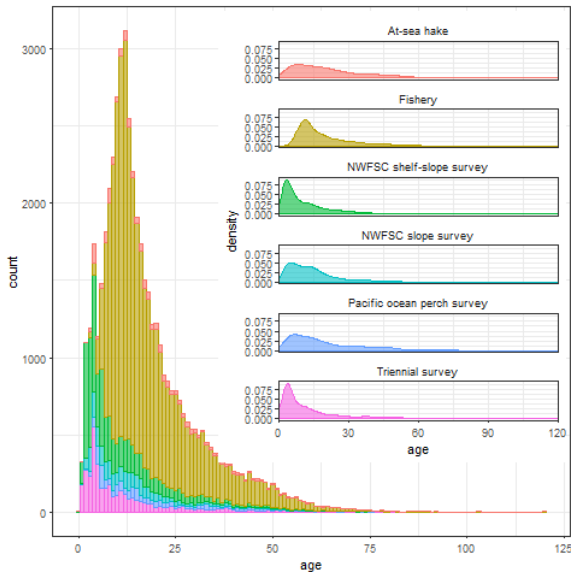
Female



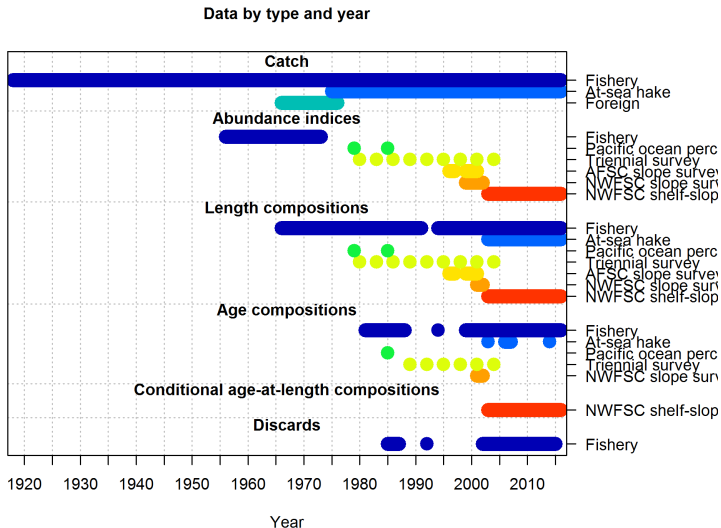
Male



Observed Ages



Data Summary Used in the 2017 Assessment



Outline

Biology

Removals

- Landing histories

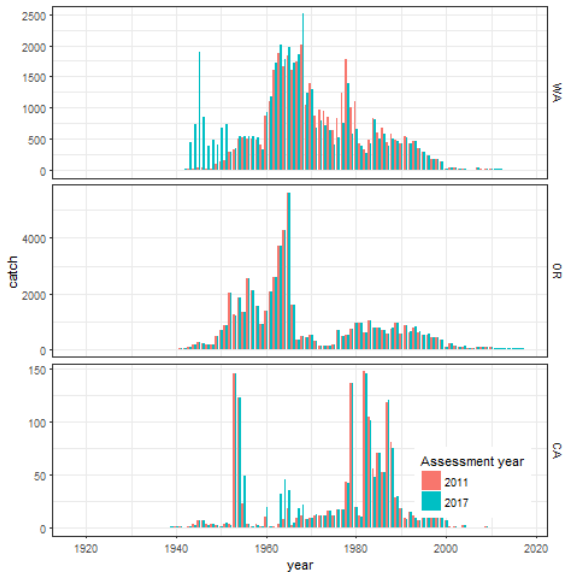
- Discarding practices

Indices of Abundance

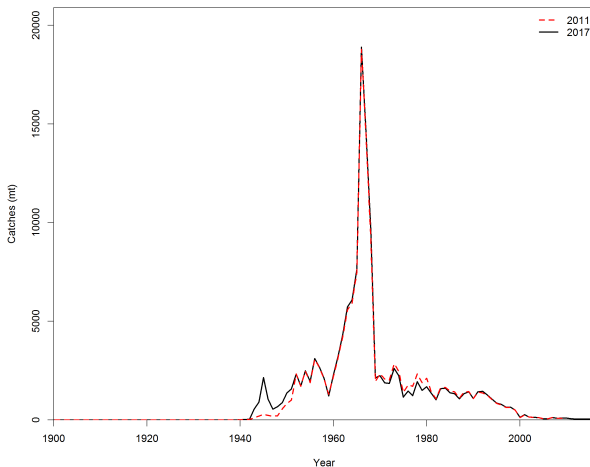
Length Compositions

Age Compositions

Landings Data: 2017 vs. 2011



Cummalative catch difference



*Resulted in $< 1\%$ change in $R0$

Discard Data

Discarding rates

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Fishery CPUE

Survey Indices

Length Compositions

Age Compositions

CPUE

CPUE

Survey

Survey

Outline

Biology

Removals

Indices of Abundance

Length Compositions

Fishery Lengths

Survey Lengths

Age Compositions

Fishery

lengths

Survey

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Outline

Biology

Removals

Indices of Abundance

Length Compositions

Age Compositions

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