Groundfish Science Report
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Overview

• Groundfish Bottom Trawl Survey Vessel Funding Update

• At-sea Hake Fishery Updates
Four Groundfish Bottom Trawl Survey Vessels Funded – FY20

Early summer

Late summer

2020 Hake Management Process

- Pacific Hake/Whiting Treaty's Scientific Review Group Feb 25-28, 2020, Seattle, WA:
  - SRG Endorsed the 2020 assessment as the best scientific information available for managing this year's fishery.
  - The SRG Report and the Final 2020 hake stock assessment are now available:
2020 Hake Management Process

• Joint Management Committee Meeting scheduled March 11-13, 2020, The Graduate Hotel, Seattle, WA.
  • Review the new science and SRG Report
  • Adopt a TAC for 2020, which will be reported to the Council in April.
Sampling in the At-sea Hake Fishery
Thank you
Additional Slides
Typical Haul

~50% of haul sampled for species composition (all species).

Two-predominate Species Subsample (example Hake + dogfish)

~50% of haul sampled for species composition, 2 species in highest abundance are subsampled to determine the relative proportion.
Random Systematic Samples (for high species diversity)

Multiple, distinct samples are taken throughout the randomly chosen half. A random starting point determines the starting place and then systematic samples follow throughout the half.
Random Systematic Samples (for high species diversity)

Multiple, distinct samples are taken throughout the haul. A random starting point determines the starting place and then systematic samples follow throughout the entire haul.
Bycatch as a % of Total Catch

![Graph showing the percentage of bycatch in total catch by at-sea sectors from 2010 to 2019. The percentage increases over time, starting at around 0.5% in 2010 and rising to approximately 2.5% by 2019.](image-url)