

Alaska Fisheries Science Center FY20 and FY21 Surveys

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Presentation to North Pacific Fisheries Management Council
SSC

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NPFMC letter to AFSC

- *Concern and consequences with 2020 survey cancellations*
- *Plan for 2021 surveys...including the northern Bering Sea*
- *Support for technical assistance from SSC to prioritize*
- *Funding scenario for 2021 surveys*
- *Cautious support for UxS (uncrewed systems) and modeling*
- *Support for cooperative research opportunities with industry*
- *Update in October and December*



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AFSC surveys

- Evaluating impacts of missing 2020 survey
 - CPT and GPT: Retrospective analyses, model predictions, sensitivity analyses
 - Mitigation and comms plan
- Survey prioritization (2021 and beyond)
- Plan for 2021 survey
- Funding scenario for 2021 surveys



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Mitigation for data loss in 2020

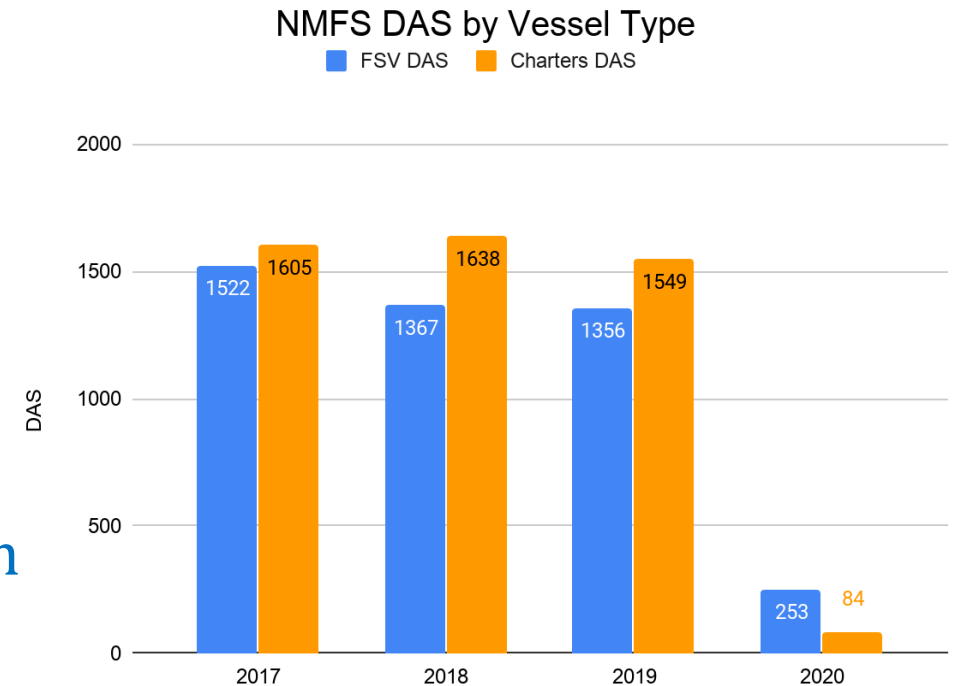
- Longline survey and nearshore research
- Fishery dependent, age composition data
- Acoustic data collection via saildrone to augment pollock assessment.
- Oscar Dyson support acoustic and ecosystem moorings retrieval.
- Ecosystem data collections from communities or vessels of opportunity



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AFSC communication plan for 2020 surveys

- **March 16:** AFSC/NMFS initial survey impact assessment & initial cancellations
- **March 24:** AFSC Stock Assessment Scenario Working Group Formed
- **April:**
 - Council meeting cancelled due to Covid-19
 - AFSC – Council staff and chair initial discussion on survey comms
- **May 13:** Council memo on 2020 survey delays
- **June 8:** AFSC presentation on 2020 survey status
- **July 14:** Council memo on 2020-21 surveys



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AFSC communication plan for 2021-22 surveys

- **October 2020:** update on scenario planning
- **December 2020:** update on update...semi-final plan with criteria for 2021 surveys
- **February or April 2021:** AFSC State of the Center



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AFSC survey priorities informed by:

- SSC-subgroup (2018)
 - 1) eastern Bering Sea shelf; 2) Gulf of Alaska; 3) Aleutian Islands; 4) northern Bering Sea; and 5) Bering Sea slope
- International Council for Exploration of the Sea (ICES) WK on Unavoidable Survey Effort Reduction (e.g. Barnett et al. → two vs three vessels in GOA)
- Bias and uncertainty analyses (e.g. Meaghan Bryan et al. → loss of survey impact)
- SSC-subgroup (2020)
 - northern Bering Sea survey is combined with the eastern Bering Sea Shelf survey
 - Include Norton Sound
 - BS slope and GOA deep **important!** But prioritize NBS



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AFSC planning for 2021 surveys

- Surveys during COVID-19 pandemic: unprecedented consideration to ensure the health and safety of NOAA Fisheries employees, vessel employees, and communities while minimizing impacts to industry.
- Collaborating with NOAA Office of Marine and Aviation Operations (OMAO)
- Planning scenarios **IF** needed
 - Full complement based on current staffing capacity (prioritized core areas)
 - Partial survey coverage
 - Advanced tech and analysis tools/ cooperative research



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Gulf of Alaska

Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
GOA BT vessel 1		Green		Green		Green		Green		Green		Green
vessel 2		Green		Green		Green		Green		Green		Green
vessel 3		Red		Red		Red		Red		Red		Red
Deep shelf and slope groundfish longline	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Winter Acoustic-Trawl Shumagin/Sanak	Green	Red	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Winter Acoustic-Trawl Bogoslof		Red	Green		Green		Green		Green		Green	
Winter Acoustic-Trawl PWS/Kenai	Green					Green		Green		Red		Green
Winter Acoustic-Trawl Shelikof	Green	Red	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Summer Acoustic-Trawl GOA		Green		Green		Green		Green		Green		Green
GOA larval	Red	Red	Red	Red	Green	Green	Green	Green	Red	Red	Red	Red
Spring GOA Ichthyoplankton		Green		Green		Green		Green		Green		Green
Summer GOA Age-0 Kodiak Pacific cod nursery habitat	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Large-Scale GOA Pacific cod nursery									Green	Green	Green	Green
GulfWatch oceanography&forage	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green

- Limited coverage of GOA deep stations in favor of NBS
- Biennial GOA



Aleutian Islands

<u>Survey</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Aleutian Island vessel 1	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green
Aleutian Island vessel 2	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green
Deep shelf and slope groundfish longline	Green	White	Green	White	Green	White	Green	White	Green	White	Green	White	Green

- Biennial AI



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Bering Sea

Survey	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Eastern Bering Sea vessel 1	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
vessel 2	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Summer Acoustic-Trawl EBS	Green	White	Green	White	Green	White	Diagonal	White	Diagonal	White	Orange	White	Green
Bering Sea Slope	Green	White	Green	White	Red	White	Green	White	Red	White	Red	White	Red
Northern Bering Sea vessel 1	Green	White	White	White	White	White	White	Green	Orange	Green	Red	Green	?
vessel 2	Green	White	White	White	White	White	White	Green	Orange	Green	Red	Green	?
Deep shelf and slope groundfish longline survey	White	Green	White	Green	White	Green	White	Green	White	Green	White	Green	White
Spring EBS Ichthyoplankton	Green	White	Green	White	Green	White	Green	White	Green	White	Red	White	Green
Summer EBS Age-0 (Inc. BASIS)	White	Green	White	White	White	White	White	White	White	White	Red	White	White
Spring EBS Ecosystem/Moorings	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	Green	Green
Fall EBS Ecosystem/Moorings	White	Green	White	White	White	Green	White	White	White	White	Diagonal	Green	Green
Northern Bering Sea juvenile salmon and age-0	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Red	?	?
Distributed Biological Observatory (Ecosystem)	AE	AE	AE/RUSALCA A IES	AE EIS	AE RUSALCA	AE	AE	AIERP DBO	DBO AIERP	AIERP DBO	DBO	?	?

- No Slope 2022
- NBS in 2021



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AFSC funding for FY21 surveys

- FY20 costs
- FY21 charter costs increasing and Oscar Dyson days at sea decreasing
 - OMAO protocols: 45DAS/16 days shore
- Dependent on FY21 fiscal process (pre-funded contracts, carry-over funds, base budget)
- New FY20 congressionally directed funds (\$1.1M) to support 2021 surveys as originally planned.



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Alaska Fisheries Science Center FY20 and FY21 Surveys

Take home messages to NPFMC

- AFSC looking forward to getting back to data collection in 2021!
- AFSC will continue to communicate with stakeholders and communities as decisions are made
- AFSC will continue to identify methods to mitigate data losses

Thank You!



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