

Alaska Fisheries Science Center FY20 Surveys

Covid-19 Response

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Presentation to North Pacific Fisheries Management Council
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AFSC Covid-19 response

- Timeline for decision-making for FY20 field season
- AFSC 2020 fish and marine mammal surveys
- AFSC survey decision criteria
- Planning for FY21



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AFSC survey decision timeline

- **March 16:** AFSC/NMFS initial survey impact assessment
- **March 17:** NOAA/OMAO initial suspension of vessel operations
- **March 23:** Department of Commerce mandatory telework
- **March 24:** AFSC Stock Assessment Scenario Working Group Formed
NMFS issues emergency measures on observer coverage during COVID-19
- **April 3:** AFSC Fieldwork Planning Working Group formed
NOAA/OMAO ship and plane survey cancellation through April
- **April 20:** NOAA/OMAO ship surveys canceled through May
- **May 18:** NOAA/OMAO suspension of vessel operations through July 1 (or later)
- **May 28:** Longline survey underway



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AFSC survey decision criteria

- What is the mission criticality of the field work?
- Are there initial logistical constraints?
- Are the required criteria for health considerations feasible?
- What are the long term impacts of delay or cancelation?
- Are there risk mitigation strategies to achieve objectives with alternative or innovative methods?
- Can we adequately staff the survey?
- NOAA travel approval (mission critical and cannot be deferred)



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AFSC survey decision criteria

<u>Decision date</u>	<u>Project/survey</u>	<u>Status</u>	<u>Rationale</u>
March 17	Ice-Associated Seal Ecology	Postponed: 2021	Vessel/Aircraft availability
April 1	Gulf Watch Alaska -Integrated Marine Predator-Prey (IMPP)	Postponed: late 2020	Health and safety; travel restrictions relative to mission
April 3	EMA-FOCI Larval Groundfish Assessment	Canceled	Vessel availability
April 14	EBS, AI, and EBS pollock bottom trawl	Postponed: mid-June	Logistical constraints, health and safety; charter relief
April 14	GOA-AI Longline survey	Proceed as planned	
April 23	Steller sea lion brand resighting	Canceled	Aircraft availability



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AFSC survey decision criteria

Decision date	Project/survey	Status	Rationale
May 6	Southeast Alaska Coastal Monitoring	Proceed as planned	
May 18	EBS pollock acoustic survey	Postponed: mid-August	vessel availability
May 19	Steller sea lion abundance estimate	Canceled	Aircraft availability
May 22	EBS, AI, and EBS pollock bottom trawl & pollock acoustic survey	Canceled	Health and safety; travel restrictions relative to mission



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AFSC survey decision criteria

<u>Decision date</u>	<u>Project/survey</u>	<u>Status</u>	<u>Rationale</u>
	Northern fur seal	TBD	
	Cook Inlet beluga	TBD	
	Bycatch reduction and habitat effects of fishing	TBD	
	GOA cod IBM (NPRB)	TBD	
	GOA nearshore surveys	TBD	
	EMA-FOCI Age-0 Groundfish Assessment	TBD	
	Northern Bering Sea Mid-Water Acoustic Survey	TBD	
	Alaska Harbor Seal Ecology: Western Aleutian Islands	TBD	
	Cod tagging (NBS)	TBD	



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Longline survey



Sablefish



Pacific cod



G turbot



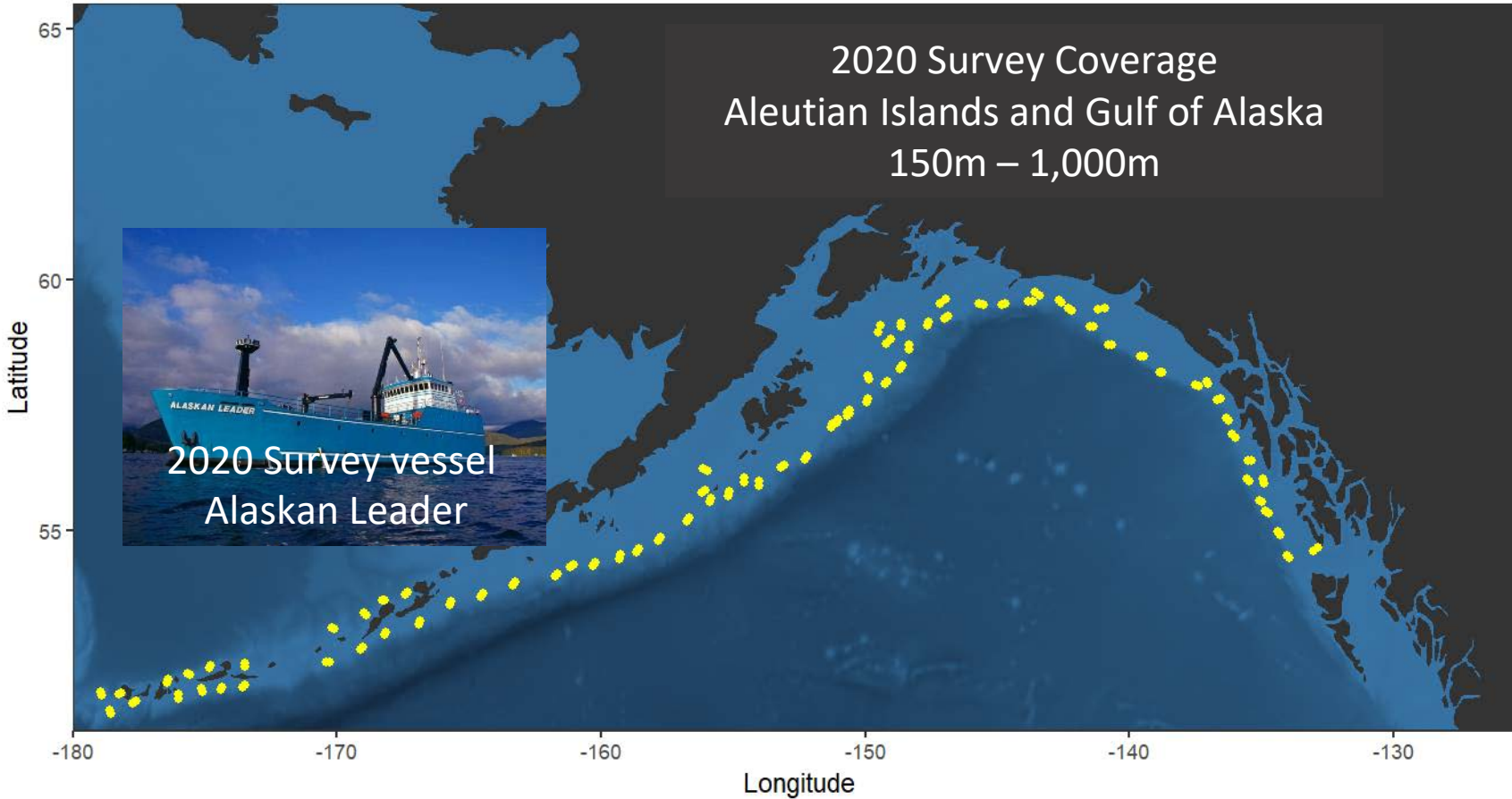
rougheye



blackspotted



shorttraker



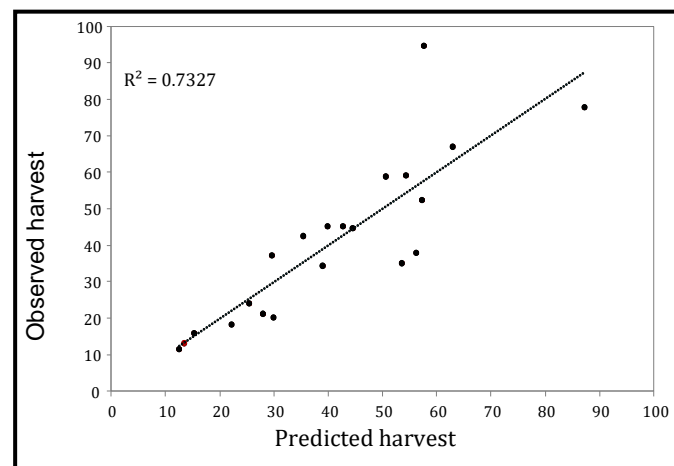
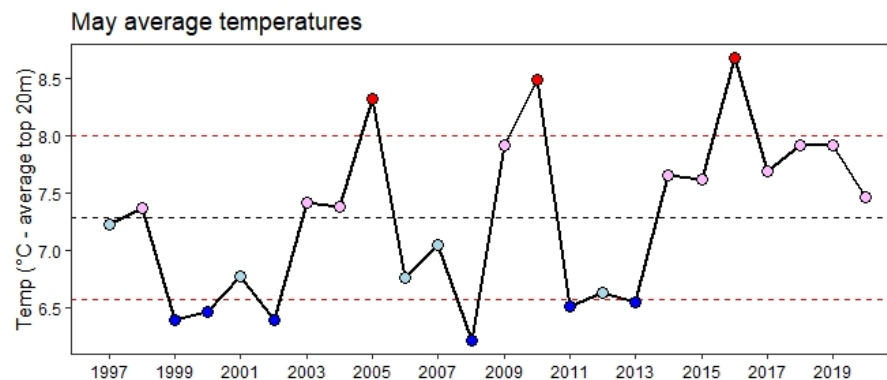
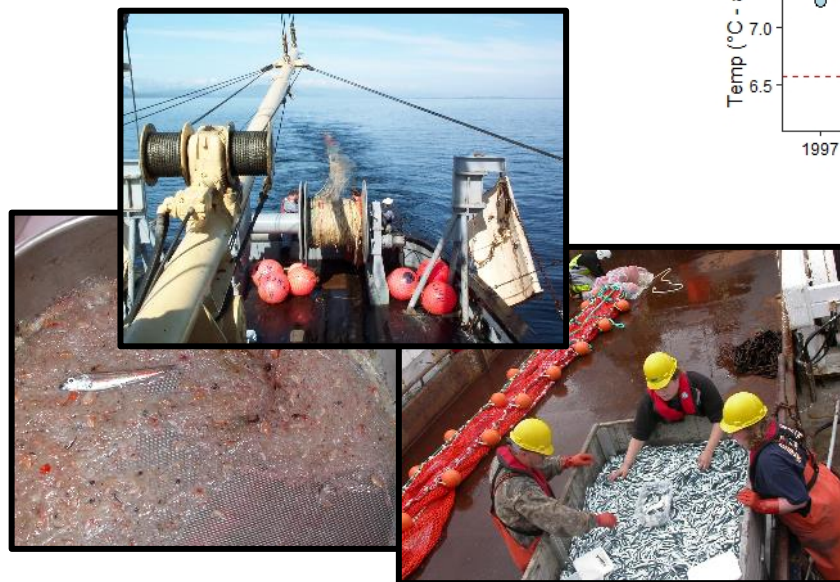
- Biology
 - Sablefish length, weight, sex, maturity, and otoliths
 - Lengths for all other spp.
- Sperm whale observations
- Temperature @ depth
- Other spp:
 - GOA cod, BSAI turbot, GOA rougheye & BS rockfish, GOA shorttraker, shortspine thornyhead, sharks, and giant grenadier.



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Southeast Alaska Coastal Monitoring survey

Surface Trawl Catch Data (distribution, abundance, origin)



- Pink salmon harvest forecast
- Ecosystem Status Report data
- Salmon biology
 - Growth, diet, condition
- Surface trawl
- Oceanographic indices
 - Temperature, zooplankton

AFSC Eastern Bering Sea-AI survey decisions

- Scenarios for EBS-AI surveys
- Survey health considerations



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AFSC Scenarios for EBS-AI surveys

- Scenarios: June 20, July 11, August 1, no surveys.
- 2020 Stock Assessments
 - BSAI: 25 full stock assessments and 2 reports due for Bering Sea and Aleutian Islands groundfish.
 - GOA: 9 full stock assessments, 5 partial assessments and 2 reports
- Stock Priority Considerations
 - Stock assessment expectations relative to survey data influence on TAC or scientific uncertainty (modeling or population dynamics concern)
 - Socio-economic considerations.



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AFSC Scenarios for EBS-AI surveys

- Potential for TAC changes (TAC/ABC)

- Blackspotted/Rougheye rockfish (1.0)
- Other rockfish (1.0)
- EAI/BS Atka mackerel (1.0)
- CAI Atka mackerel (1.0)
- CAI POP (0.99)
- EAI POP (0.96)
- EBS Pacific cod (0.91)
- EBS sablefish (0.86)
- Kamchatka flounder (0.70)
- Shortraker rockfish (0.69)

- 2020 survey data would be expected to substantially affect uncertainty:

- BB RKC, snow crab, EBS pollock, EBS Pacific cod, AI Pacific cod, Atka mackerel, BSAI blackspotted/rougheye rockfish, Greenland turbot

- Species by ex-vessel value (2018 data):

- BSAI pollock, BSAI Pacific cod, EBS/AI/GOA sablefish, Bering Sea snow crab, and BSAI yellowfin sole.



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AFSC Scenarios for EBS-AI surveys

- Ecosystem considerations and management tools
 - Several ecosystem indicators used in the current ESPs, ESRs, and risk tables are derived from information collected on several AFSC surveys.
 - E.g. larval and juvenile abundance, diet, and condition as well as indicators on the surface and bottom temperatures, extent of the cold pool, zooplankton, euphausiid abundance, and bottom trawl survey guilds (e.g., apex predator, motile epifauna).



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AFSC Scenarios for EBS-AI surveys

- **BOTTOM LINE**

- Given the survey delay, prefer a single 6-8 week survey focused on the EBS using all vessels (4 charter and 1 NOAA)
- Acknowledged importance of Aleutian Islands but better to complete one full region than partial region coverage



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AFSC Survey Health Considerations

- Dual testing
- Quarantine (Alaska State Health Mandate 10)
- Charter or NOAA vessel operating with approved SOA plan
- Transportation
 - Seattle to Seattle preferred
 - Minimize survey legs (typically 4 legs to complete EBS/NBS)
 - No contact with Nome/St. Paul...respect local communities
- On-board infection
 - On board isolation preferred
 - Expectations for medevac/return to Seattle



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AFSC survey decision criteria

- **Decision to cancel AI, EBS, and NBS surveys**
- **Full survey on focused region necessary**
- **Health considerations resulted in increased risk**
 - **Family quarantine: 14-28 days**
 - **Extended time at sea: 42-48 days (+quarantine) instead of 21**
 - **NOAA/OMAO 24 hr from port requirement**
- **NOAA travel requirements**



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Mitigation for data loss in 2020

- Fishery dependent, age composition data available by fall
- A saildrone study was funded to augment midwater acoustic data for the pollock assessment.
- Oscar Dyson may be able to support acoustic and ecosystem moorings retrieval.
- Ecosystem data collections from communities or vessels of opportunity



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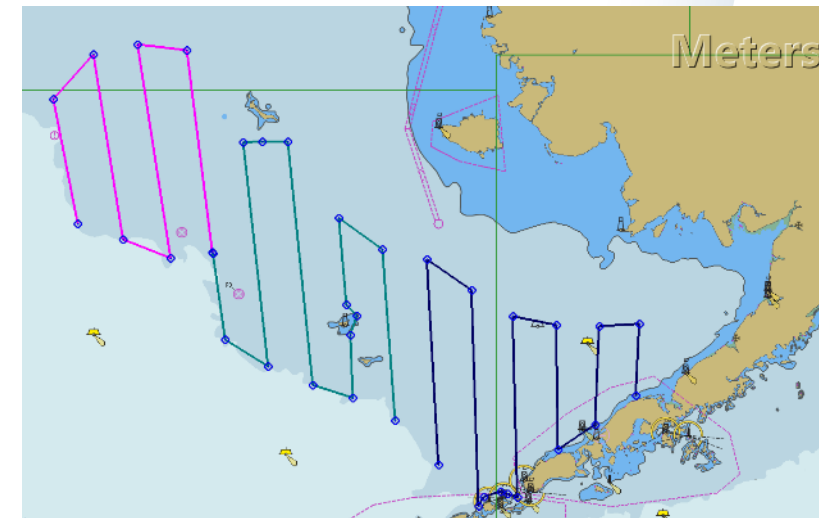
2020 Saildrone Mission

- Mission

- Echosounders calibrated before deployment.
- On track to arrive in the EBS first week of July
- 40 nmi spacing (half the resolution of the typical survey)
- Acoustic estimate of pollock abundance (i.e. no size information) similar to Acoustic Vessels of Opportunity index already used in the assessment model.

- Other considerations

- Drones need to be recovered (or sailed back to CA) to process data
- 2020 herring density may affect estimates (<1% impact on acoustic estimate)



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Remainder of 2020 & 2021

- Surveys
 - Support for 2021 surveys
 - GOA or AI? Both?
 - GOA 3rd vessel or NBS?
- Assessments
 - Changes to SA cycles?
 - Additional assessment considerations for October CPT and Nov GPT.



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Alaska Fisheries Science Center FY20 Surveys

Covid-19 Response

NPFMC take home messages

- 2020 survey decisions made with extensive process
- 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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