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Science Enterprise Update: MRIP and Fishery Surveys

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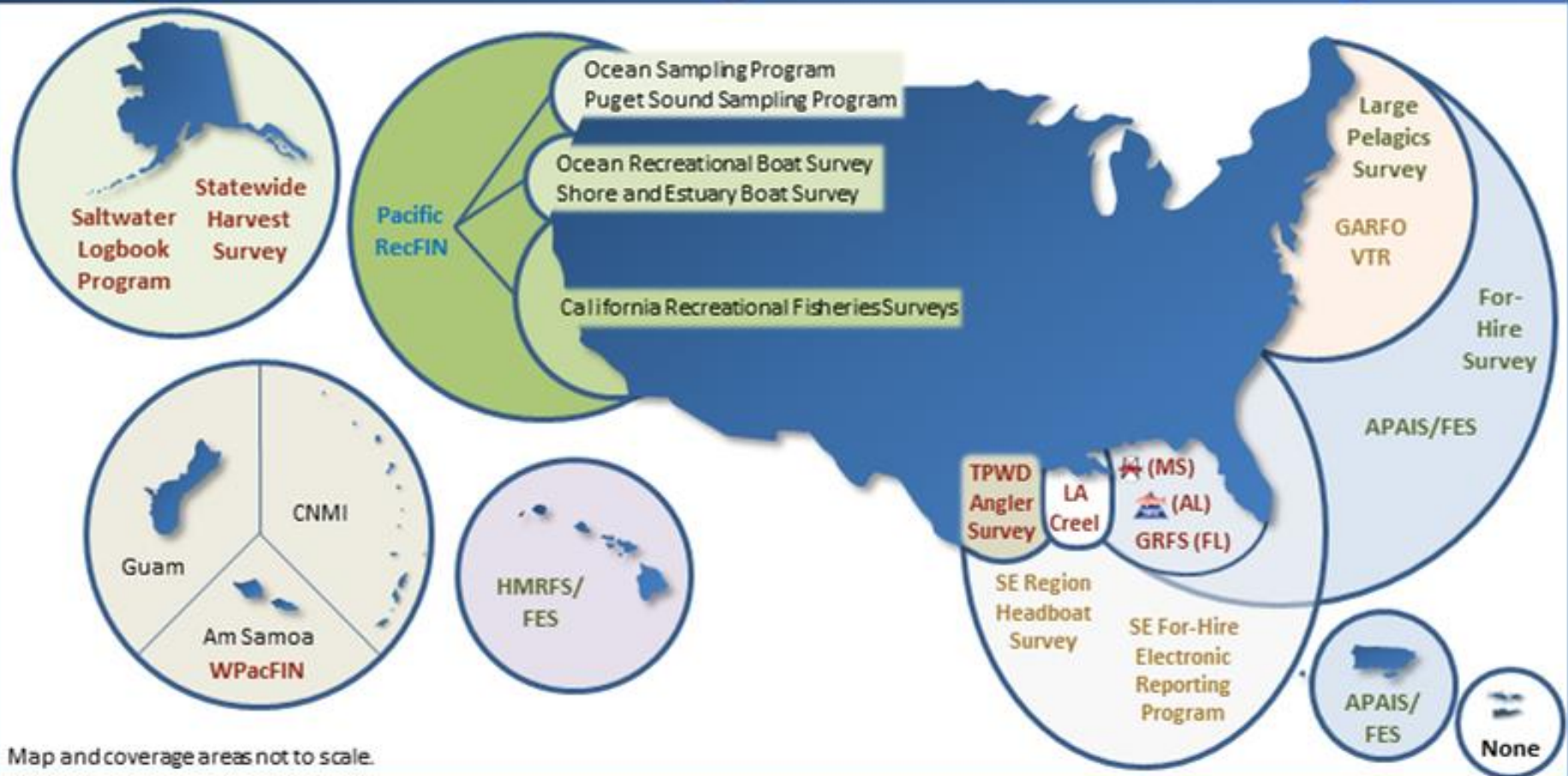
CCC (Virtual Meeting)
September 2020

COVID-19 Impacts to Recreational Fisheries Data Collection



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Regional Recreational Angler Data Collection Programs



Map and coverage areas not to scale.

Introduction

- The pandemic has had **minimal impacts** on the **mail and telephone surveys** used to estimate recreational fishing effort.
- COVID-19 **continues to impact shoreside and at-sea sampling** along the Atlantic, Gulf, and Pacific coasts, creating **significant gaps in the data used to estimate recreational catch**.



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Status of Data Collection



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Access Point Angler Intercept Survey (ME-MS)



- Decisions to suspend, modify, or resume the survey are made at the **state level**.
 - Between March and August, 17 states suspended, reduced, or modified their conduct of the APAIS.
 - As of August 1, all state partners had resumed shoreside angler sampling. At-sea headboat sampling is still suspended.



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Access Point Angler Intercept Survey (ME-MS)



The conduct of the APAIS continues to be impacted by **social distancing guidelines** and **sampler safety protocols**.

This image was taken before the pandemic.



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Large Pelagics Surveys (Intercept and Telephone)

- Sampling proceeding.

At-Sea Program (ME-VA)

- Suspended.

Southeast Region Headboat Survey (NC-TX)

- Suspended.

State Creel Surveys (LA, TX, Pacific RecFIN)

- State partners that administer their own angler intercept surveys experienced similar disruptions and modifications to their standard sampling procedures



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Fishing Effort Survey (ME-MS & HI) and For-Hire Survey (ME-MS)

- **Offsite mail and telephone surveys** that measure fishing effort are being conducted with **minimal disruptions**.
- We continue to publish wave-level fishing effort estimates and to monitor impacts to the effort estimate components normally derived from the APAIS.



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Impacts on 2020 Catch and Effort Estimates



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Impacts on 2020 Effort Estimates

- We have published **preliminary** shore, private boat, and for-hire effort estimates for Wave 2 (Mar-April) and Wave 3 (May-June).
- These estimates were produced using our **standard methodology**, but some lack the components normally derived from the APAIS.
- Note: These estimates can be found on the Recreational Fishing Data Downloads webpage.



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Impacts on 2020 Catch Estimates

- Due to **significant data gaps**, we will **not** publish preliminary catch estimates for Waves 2-6, 2020.
- We are working with Regional Offices and Science Centers to **assess the impacts** of this decision.
- It is impossible to predict the full extent of data gaps or the methods that will allow us to produce reliable catch estimates.



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Catch Estimation Options



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Catch Estimation Options (given limited data)

- We continue to explore possible approaches for estimating catch with limited data. For example:
 - Large domain estimation
 - Data imputation
 - Small area estimation
- Whatever approach we select, **any catch estimates we are able to produce may need to be revisited and revised** once we are able to return to normal sampling and obtain more complete data.



Ongoing Work

- We are working on **alternative estimation programs** to address the 2020 data gaps. We are:
 - Continuing to confer with statistical consultants.
 - Using data collected in 2019 to test programs that incorporate data gaps similar to those experienced in and expected for the remainder of 2020.
- Next steps include:
 - Evaluating **options for imputation** (filling in data gaps/use of proxy data).
 - Application of estimation methods to 2020 data.



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What We Expect for 2021



- States have put a great deal of effort into developing **effective** sampler **safety protocols**, but we anticipate some **impact to samplers' ability to collect lengths, weights, counts**.
- State **budgets** may affect their ability to conduct the survey (e.g., furloughs, hiring freezes).
- **We are optimistic that data collection be closer to normal than 2020.**



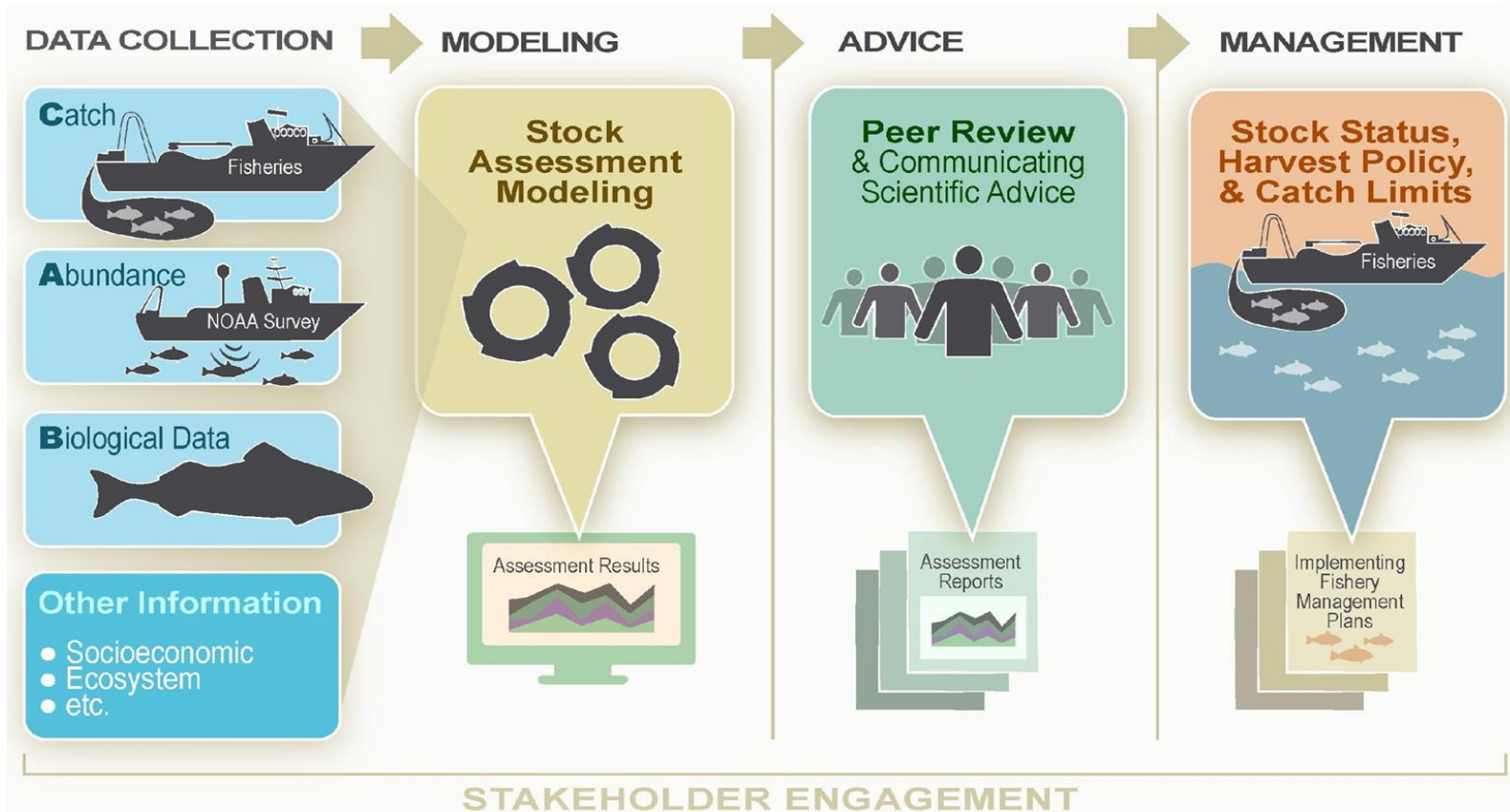
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Funding for Basic Surveys



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NOAA Fisheries Stock Assessment Enterprise

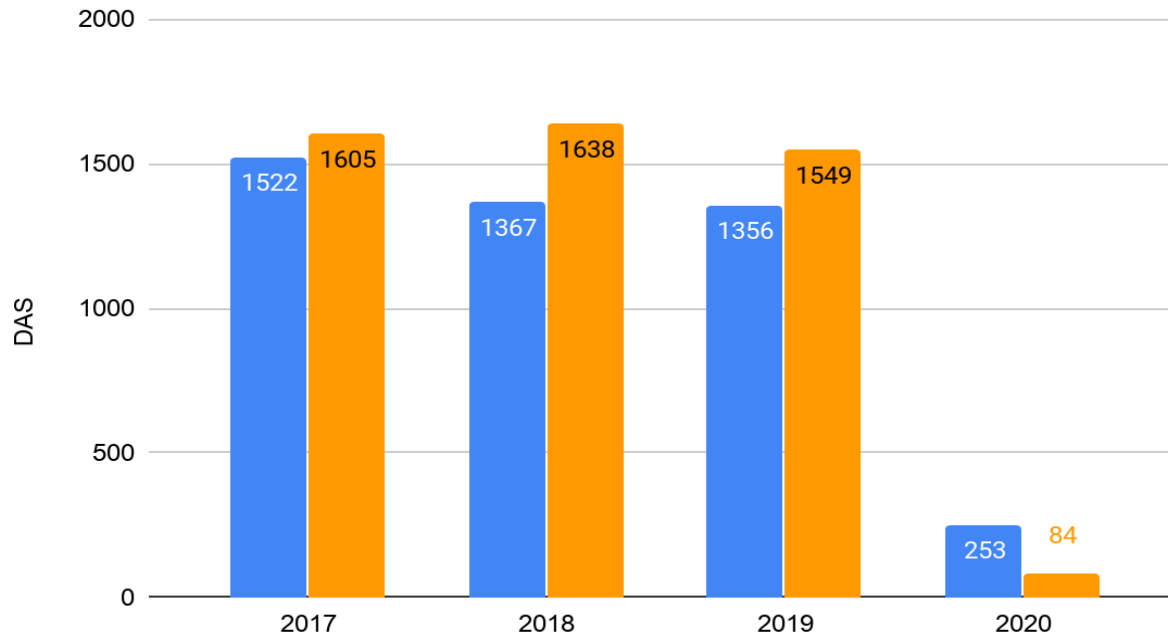


Survey Platforms



NMFS DAS by Vessel Type

■ FSV DAS ■ Charters DAS



UNOLS Charter day rates can range from:

\$16k for R/V *Hugh Sharp* to
\$35k for R/V *Sally Ride*

OMAO Research Vessel day rates can range from:

\$8.7k for *Oregon II*
\$18.2k for *Oscar Dyson*

Commercial charter vessels days rates vary - upper limit ~\$12k



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Messages and next steps

- COVID-19 creating unique challenges in FY20-21
- Conducting an inventory for a full cost analysis
- Evaluating data gaps, prioritizing data collection, and developing a NMFS survey strategy to face these challenges
- Day rates on NOAA ships increasing, while allocated days are decreasing
- Looking to make up gaps with charters, but charter day rates also increasing



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Surveys and Assessments – FY 20 Overview



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Impacts and Mitigation Efforts



Approach

- Sail to/from Alaska
- Three Saildrones
- 40 nmi spacing
- Survey July 4-20 Aug
- Data recovery in mid-Oct

Limitations

- No size/age composition
- Lower sampling density
- No data until vehicles are recovered



What's in Store for FY21 Surveys?



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Surveys in FY21

COVID-19 impacts continued

- Facing reduced DAS on NOAA ships - OMAO quarantine protocols, adjustment to 45DAS/16 days shore cadence
- Options to explore for ongoing mitigation:
 - Utilize more advanced tech (e.g., UxS)
 - Expand partnerships with fishing industry to collect biological samples while fishing
 - Evaluate downstream impacts on stock assessments & management and seek analytical solutions



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Thank You!

