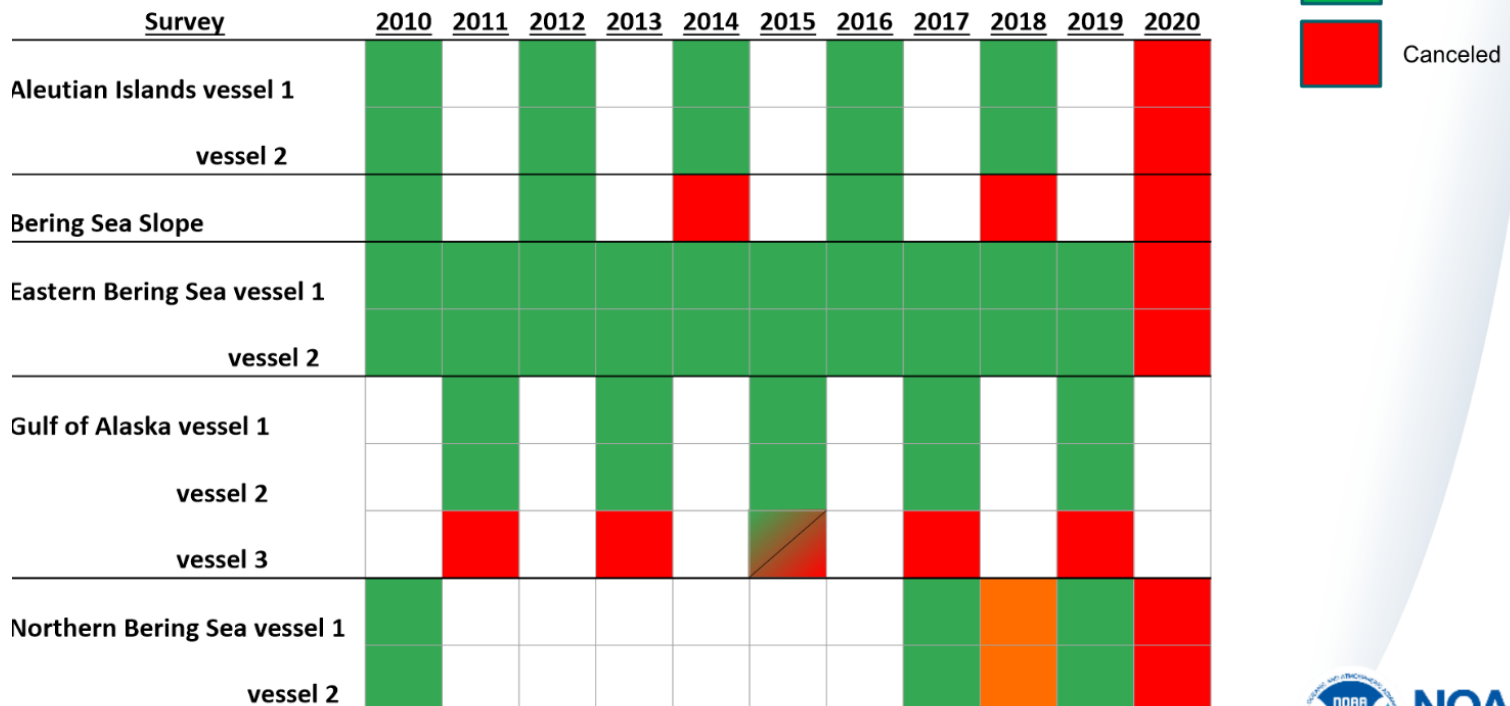


## SSC Members:

Anne Hollowed (chair), Sherri Dressel, Chris Anderson, Dana Hanselman, George Hunt, Dayv Lowry, Franz Mueter, Andrew Munro, Alison Whitman

# August 28<sup>th</sup> SSC sub-group meeting with NMFS on survey planning

## AFSC Bottom Trawl Surveys (2010-2020)



**NOTE:** Draft discussion points, just start of discussion

- Following paraphrased by me for Plan Team brevity...

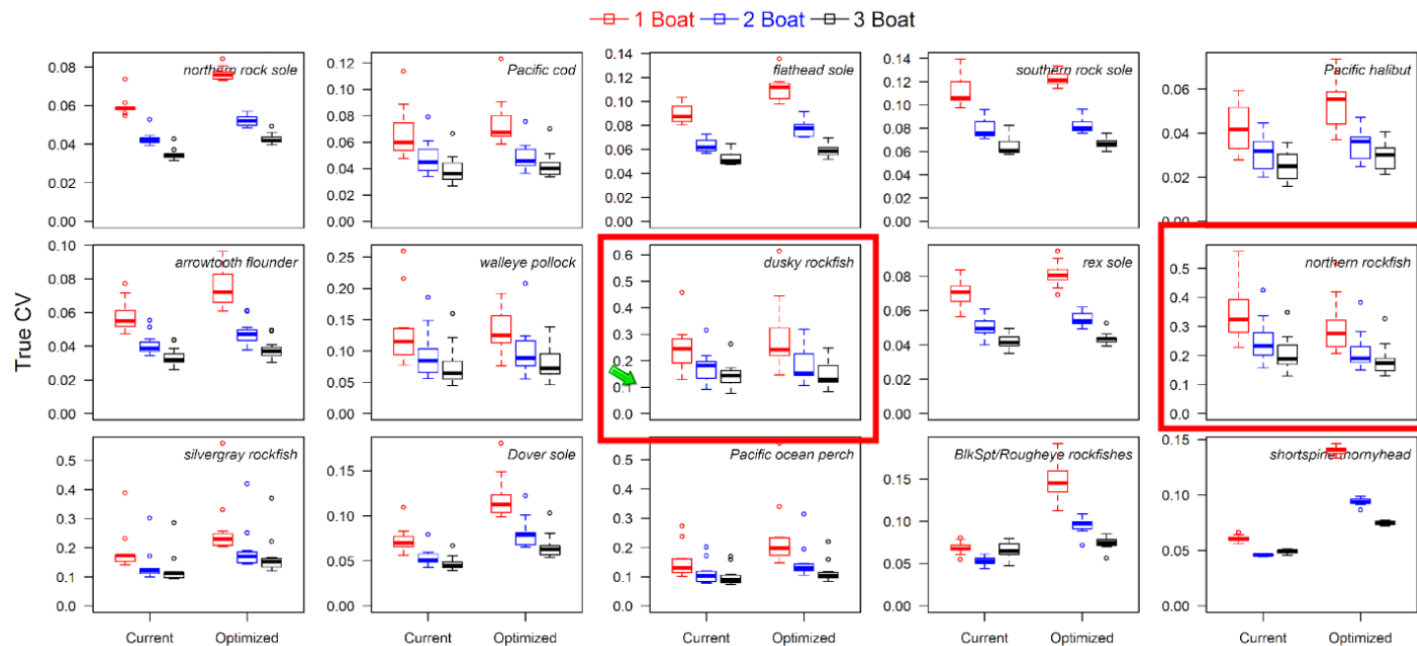
# AFSC Questions to SSC (given survey reductions)

1. Northern Bering Sea or increase GOA station density and deep station coverage?
2. Consideration of annual GOA surveys
3. If the northern Bering Sea becomes a standard survey:
  1. Biennial be ok?
  2. Include Norton Sound?
  3. Station spacing If surveys become severely limited would it be better to focus on a full survey in one core area or partial surveys in multiple core regions?
4. What is the value in considering any surveys in the Chukchi Sea to assess the northern edge of gadid distributions? Should such a survey come at the expense of a core survey area (e.g. EBS slope)?

# ICES working group on unavoidable survey effort reduction

Hosted by AFSC in January 2020 (Stan Kotwicki organizer and presenter)

- Addressed several of the issues regarding reductions in sample size, dropping depth strata, and modifications to survey frequency.
- Document now available
- Costs and benefits of alternative survey designs considered



**Question 1.** Northern Bering Sea or increase GOA station density and deep station coverage?

**Sub-committee recommended dropping GOA deep stations in favor of NBS**

- But not at expense of main GOA survey area (stations <500m)

## **Note**

- Two-boat survey would cover stations to 500m depth (550 stations)
- Three-boat survey would allow the full survey of 820 stations including stations deeper than 500m.

*Dropping the EBS slope survey and and/or GOA deep stations undesirable*

# 1. Question 2. Consideration of annual GOA surveys

Given constraints (and 5 large marine ecosystems covered by AFSC) sacrificing one area to achieve annual GOA surveys was considered undesirable

- Sampling stations in the western GOA as part of the Aleutian Islands bottom trawl survey could provide useful information on the westernmost portion of the GOA gadid stock...

**Question 3.** Should the northern Bering Sea become a standard survey?

Biennial ok?

- *Combine with the EBS near term*
- *Assess feasibility of biennial NBS surveys in a few years*

Include Norton Sound?

- *Yes*

Station spacing?

- *Retain NBS and EBS remain systematic until an alternative design for the EBS is brought forward as long as survey effort could remain consistent.*

**Question 4.** If surveys become severely limited would it be better to focus on a full survey in one core area or partial surveys in multiple core regions?

Biennial schedule proposed:

- EBS and NBS one year
- GOA and AI another

*Reducing station density to accommodate a GOA and AI survey should be carefully examined to ensure surveys provide reliable biological and population trend information*



**Question 5.** What is the value in considering any surveys in the Chukchi Sea to assess the northern edge of gadid distributions? Should such a survey come at the expense of a core survey area (e.g. EBS slope)?

Highest priority for information to manage existing fisheries

- Chukchi Sea region currently secondary importance relative to other areas
- But, explore options for research partnerships with outside entities or AFSC