

Commercial Herring Fisheries in Southeast Alaska

2022 Report to the Alaska Board of Fisheries

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by

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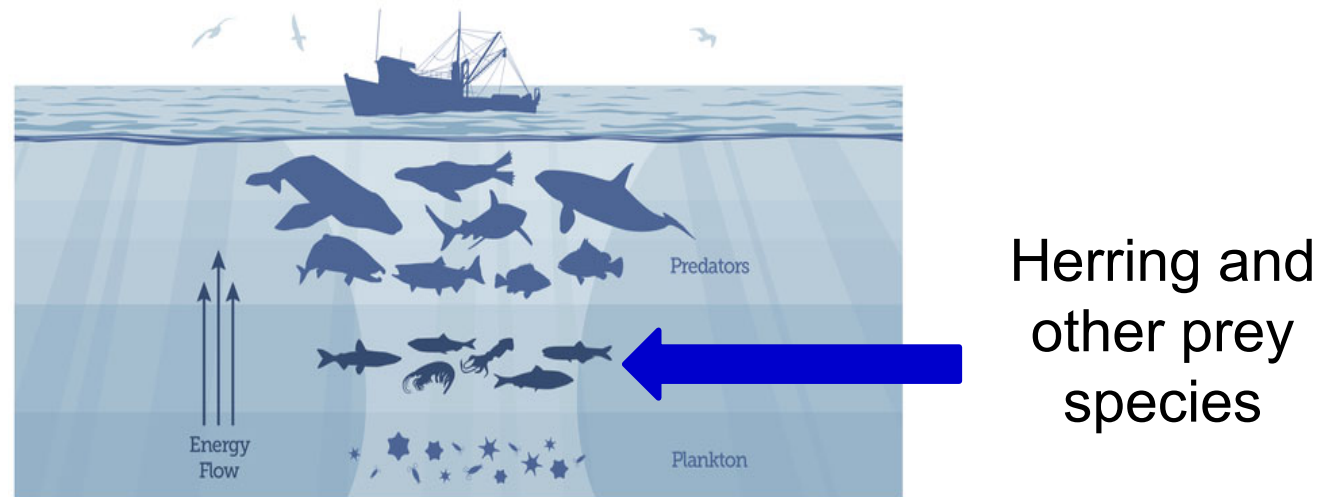
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Topics

- Ecosystem considerations for herring
- Orientation of stocks and fisheries
- Management plan overview; Harvest rates; Closed waters
- 15 herring proposals – presentation will focus on pertinent issues
 - Sitka Sound:
 - Harvest rate strategy (Props 156-158)
 - Sitka Sound Management Plan (159)
 - Closed waters (160)
 - Subsistence roe fisheries (Props 161, 162)
 - Equal quota shares (Props 163-164)
 - Allocation of unharvested sac roe (165)
 - Alternative gear usage (166)
 - Redefine fishery boundaries (167)
 - Other areas:
 - Repeal sac roe fisheries in West Behm Canal and Revilla Channel (168-169)
 - Remove districts 13-A and 13-B from Northern Southeast herring spawn on kelp pound fishery administrative area (233)

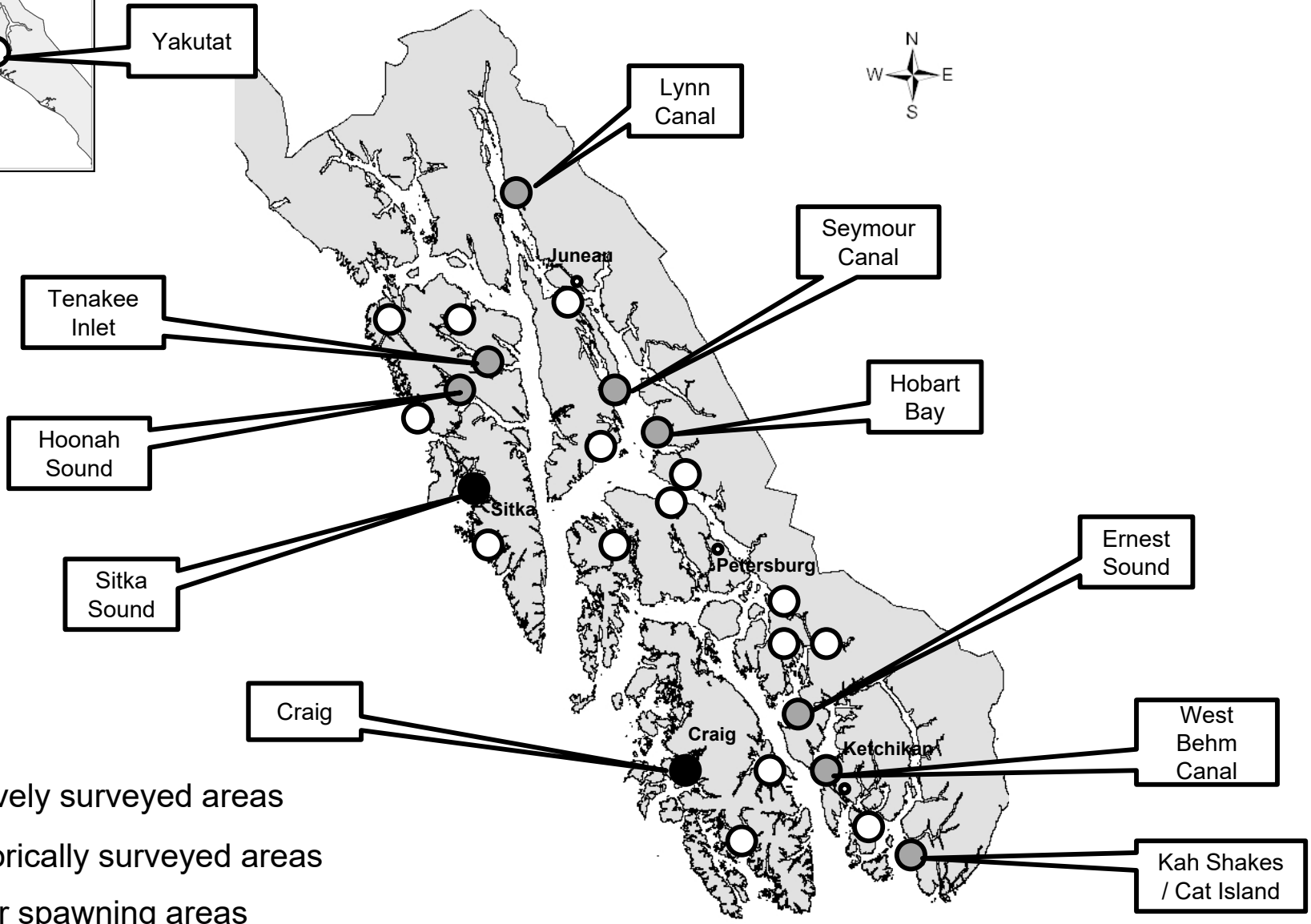
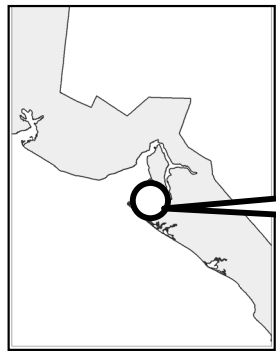
Ecosystem Considerations

- Herring play an important role in ecosystem, linking lower and higher trophic levels



- Important as prey for many marine mammals, fish, birds

Location of Spawning Areas



Southeast Herring Fisheries and Gear Types

- Subsistence spawn on branches and kelp
 - Traditional and culturally important harvest of eggs
 - Harvested in spring by placing hemlock branches in spawn areas or collecting eggs on kelp
- Commercial Sac-roe
 - Purse seine or gillnet
 - Spring fisheries just prior to spawning
 - Largest fishery for landings and usually for overall value
- Commercial Spawn on kelp
 - Closed or open pounds; herring collected with purse seine
 - Spring fisheries
- Commercial Bait/food
 - Purse seine
 - Fall/Winter fisheries
 - Smallest fishery for landings and overall value

Southeast Herring Management Plan (5 AAC 27.190)

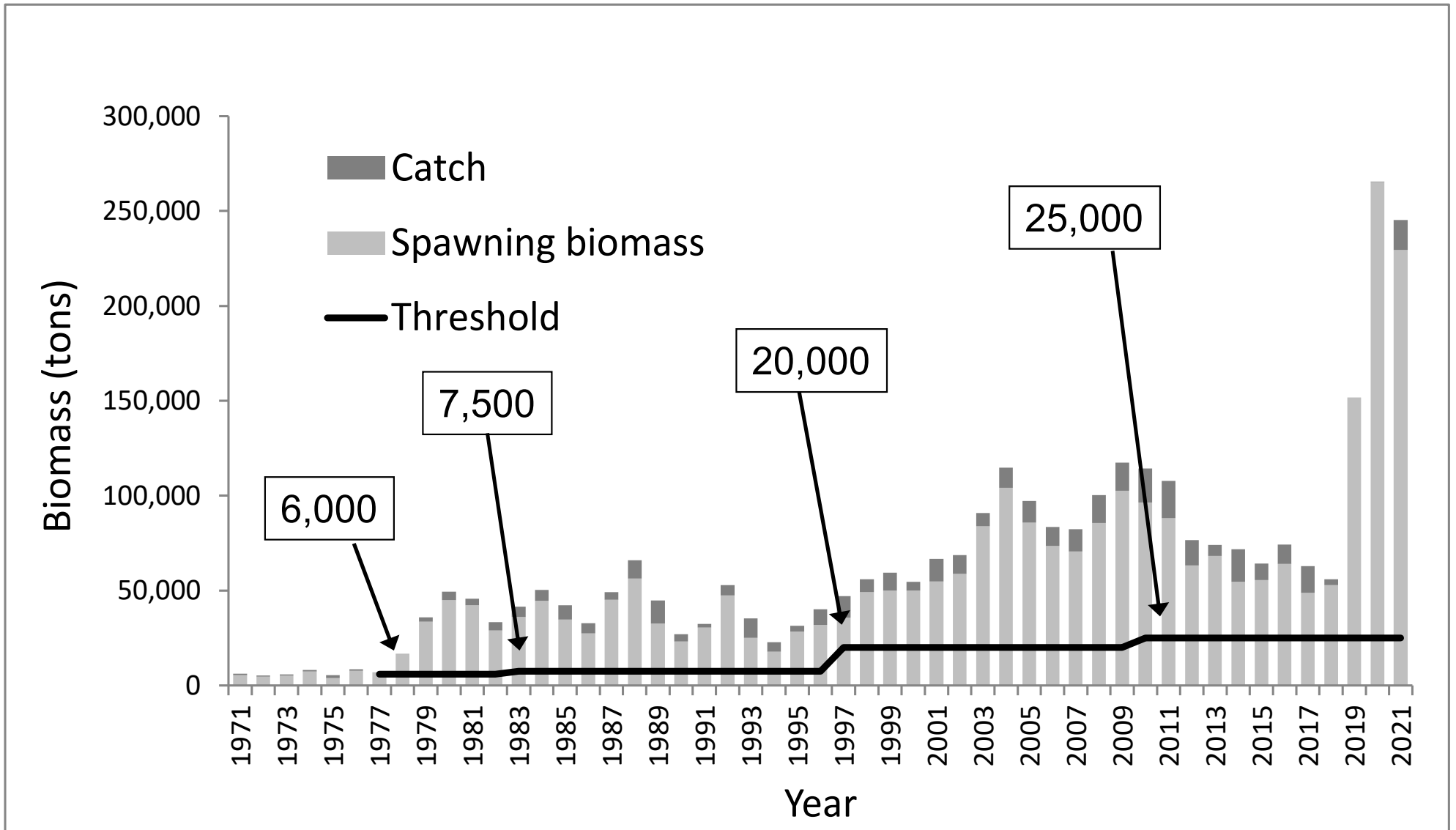
For management of herring, the department :

- 1) Shall identify stocks on a spawning area basis;
- 2) Shall establish minimum spawning biomass thresholds;
- 3) Shall assess abundance of mature herring before fishing;
- 4) May set exploitation rate between 10% and 20%;
- 5) May consider sources of mortality;
- 6) May modify fishing periods to minimize incidental mortalities.

Thresholds

- Goals
 - Allow stock to rebound more quickly when at low levels
 - Provide spawning base for reproduction / future recruitment
 - Use with corresponding appropriate harvest rate
- Established based on one of two approaches:
 - 25% of estimated pristine biomass, a commonly used approach
 - Set based on estimates of historical abundance and data quality
- Research suggests thresholds above 25% of pristine biomass may be necessary for other species, and to allow low productivity stocks to recover

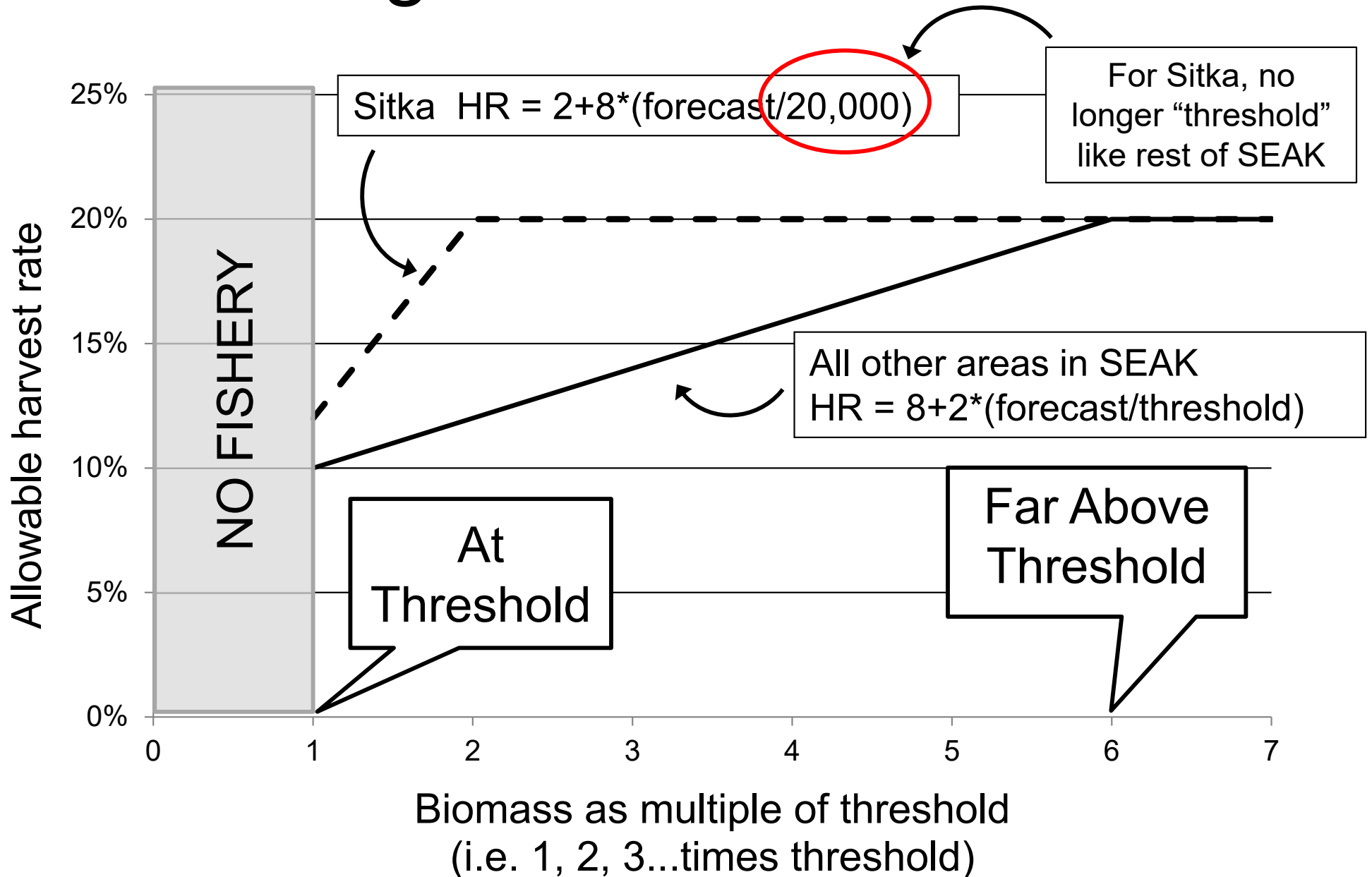
Sitka Sound Biomass, Catch and Threshold



Harvest Rates

- Goals: sustainability; optimize yield; minimize closures
- Established based on analysis of other Alaskan herring stocks; 20% maximum of the whole spawning biomass (i.e. all ages)
- Southeast uses sliding scale as an additional measure of protection
- Research suggests that a fixed 20% harvest rate with a threshold set at 25% of pristine biomass:
 - successful at maintaining and rebuilding populations in high productivity states and possibly for maintaining populations in low productivity states
 - might not be successful at rebuilding populations in low productivity states

Sliding Scale Harvest Rate



Sitka Sound Herring 2017-2021 Spawn and Fishery Areas

- Proposal 160
- Map shows:
 - subsistence closure areas (light blue)
 - 2017-2021 areas of commercial openings (gray)
 - Shoreline with spawn (red line), 2017-2021

