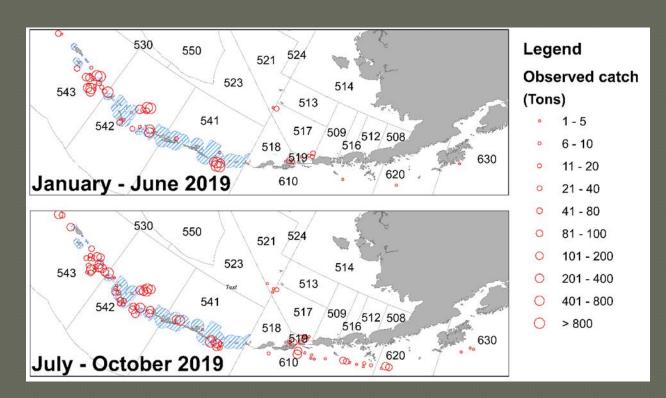
## **GOA Atka Mackerel**

2018 TAC • 3,000 t

2018 Catch • 1,438 t

2019 TAC • 3,000 t

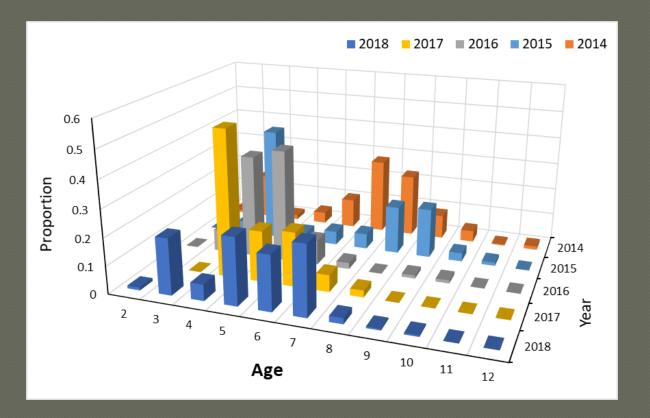
2019 Catch • 1,181 t (10/19/19)



2019 observed catches of Atka mackerel summed for 20 km<sup>2</sup> cells. Shaded areas represent areas closed to directed Atka mackerel fishing (all of GOA).

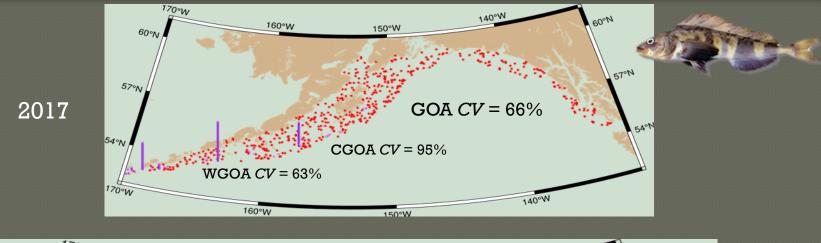




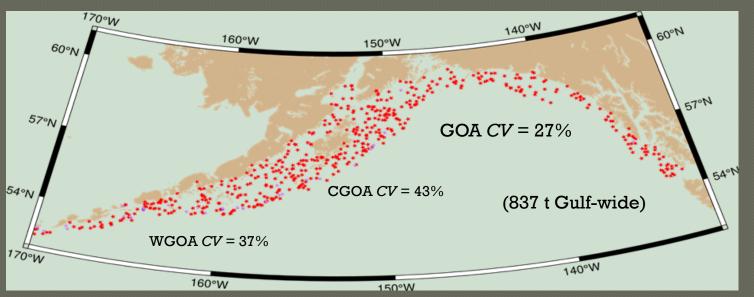


Age frequency distribution of Atka mackerel from the 2014-2018 GOA fisheries. A total of 238, 150, 88, 81, and 186 otoliths were collected and aged from the GOA in 2014, 2015, 2016, 2017, and 2018, respectively



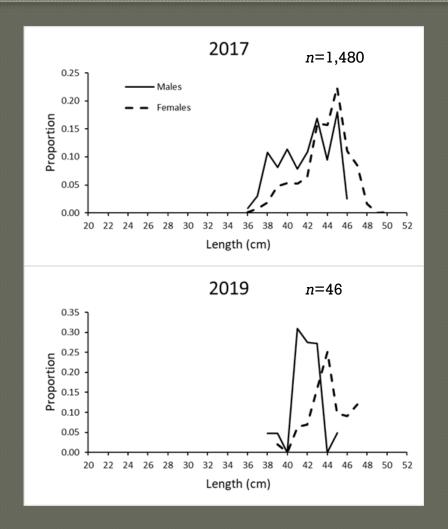


2019



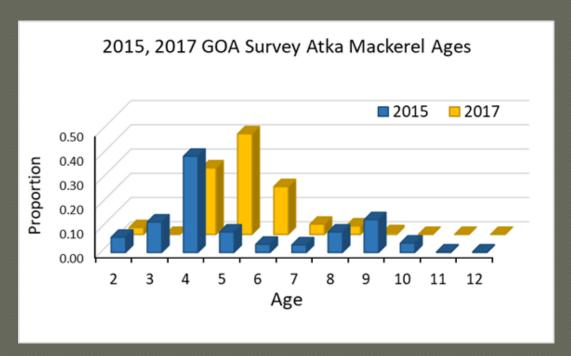
Atka mackerel survey CPUE by station for 2015 and 2017.

stars represent tows where Atka mackerel were absent, height of bars is proportional to CPUE by weight.



Atka mackerel population length frequency distributions from the 2017 and 2019 GOA surveys





Age frequency distribution of Atka mackerel from the 2015 and 2017 GOA surveys. A total of 413 and 142 otoliths were collected and aged from the 2015 and 2017 surveys, respectively.



## Should the ABC be reduced below the maximum permissible ABC?

| Assessment-                                       | Population  | Environmental/   | Fishery  | Overall score (highest of the individual scores) |
|---|---|--|--|--|
| related   | dynamics  | ecosystem  | Performance  |  |
| considerations                                    | considerations                                      | considerations   | considerations   |  |
| Level 1: Typical to moderately increased concerns | Level: UNK Stock and recruitment trends are unknown | Level 1: No apparent environmental/ ecosystem concerns | Level 1: No<br>apparent<br>fishery/resource-<br>use performance<br>and/or behavior<br>concerns | Level 1: Normal                                  |

"The overall score of level 1 suggests that setting the ABC below the maximum permissible is not warranted. Because GOA Atka mackerel are managed in Tier 6, we are not able to set a meaningful ABC based on stock abundance levels and trends which are unknown. Uncertainty for GOA Atka mackerel is accommodated through management with conservative TAC specifications."

## **GOA Atka Mackerel**

|            | As estimated or<br>specified last<br>year for: |       | As estimated or recommended this year for: |       |
|------------|--|-------|--|-------|
| Quantity   | 2019   | 2020  | 2020                                       | 2020  |
| Tier       | 6  | 6     | 6  | 6     |
| OFL (t)    | 6,200  | 6,200 | 6,200                                      | 6,200 |
| maxABC (t) | 4,700  | 4,700 | 4,700                                      | 4,700 |
| ABC (t)    | 4,700  | 4,700 | 4,700                                      | 4,700 |

 $OFL = average \ catch \ 1978-1995$  $ABC = 0.75 \ x \ OFL$ 







## Questions?



"I have just watched the moon set in all her glory, and looked at those lesser moons, the beautiful Pyrosoma, shining like white-hot cylinders in the water" (T.H. Huxley, 1849)

