

## ADF&G Ice Seal Harvest Monitoring update for the Ice Seal Committee February 2021

### Community Harvest Reports

- Hooper Bay, 2018 harvest survey approved, partial 2019 harvest survey completed (32 households surveyed by Albert Simon).
- Chevak, 2018 harvest survey not approved\*, 2019 harvest survey agreed upon but not conducted.
- Tununak, 2018 harvest survey not yet been approved due to limited Tribal Council meetings

\*A member of the Chevak Tribal Council felt that the harvest estimates from the household surveys were too high. The per capita harvest estimate was within the typical range for AVCP communities. Total harvest estimates for ringed and bearded seals were comparable to estimates for Hooper Bay in 2018, however, the estimate for spotted seal harvest was much larger for Chevak than Hooper Bay. They requested that a second survey be conducted to compare the results to the first survey, however, the COVID-19 pandemic prevented a survey from occurring in 2020 (for 2019 harvest). In addition, the funding for this project ends 30 June 2021 and we do not have any funding identified to continue harvest surveys into the future. Therefore, if we cannot get Chevak to approve the 2018 survey we may not be able to include those data in the ISC Harvest Report.

Action item: We would appreciate suggestions from the ISC for how to address Chevak's concerns about their harvest results.

### **Report: *The Subsistence Harvest of Ice Seals in Alaska – a Compilation of Existing Information, 1960–2017***

- Available version contains the most current data that can be shared.
- Draft version includes 2018 harvest data (pending approval) and minor revisions.

*Summary prepared for the Ice Seal Committee annual 2020 meeting by Justin Olnes (459-7374; [justin.olnes@alaska.gov](mailto:justin.olnes@alaska.gov)) and Lori Quakenbush (459-7214; [lori.quakenbush@alaska.gov](mailto:lori.quakenbush@alaska.gov)), Arctic Marine Mammal Program, Alaska Department of Fish and Game.*

**Current work: Detailed analysis of annual variability and trends in harvest among AVCP communities. What causes differences in harvest between years? Is harvest increasing or decreasing through time?**

**I. Bounty era (1962-1972):** Data collected during the bounty era includes more communities and consecutive years of data than any point after the bounty ended. Therefore, bounty data was used to explore historical and regional patterns in ice seal harvest (Figure 1).

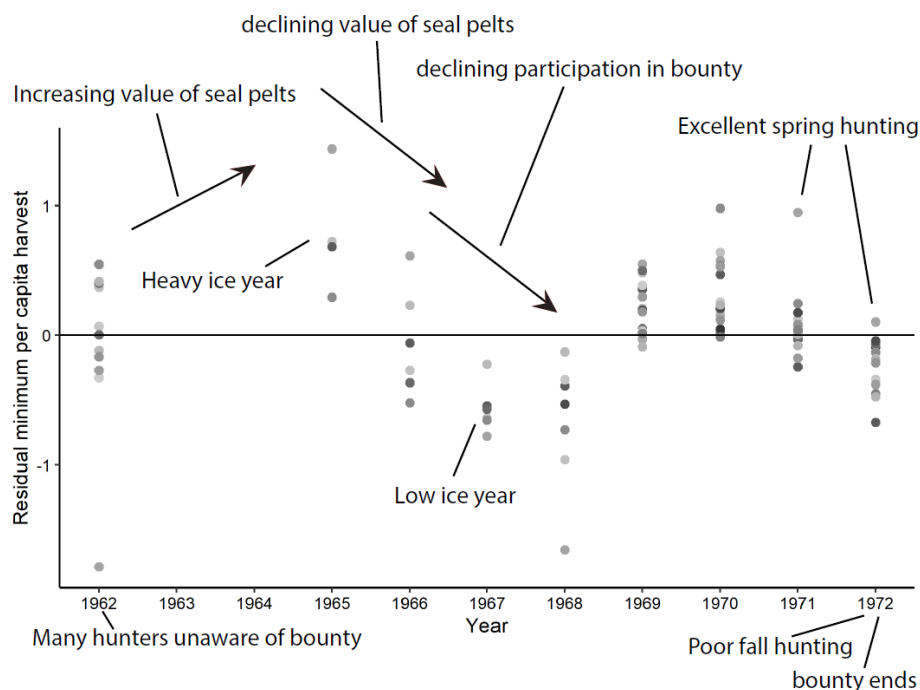


Figure 1. The regional pattern in harvest for the AVCP region during the bounty era (1962 – 1972). Each gray dot is a community and when dots are above the horizontal line, they had above average harvest. When below the line, they had below average harvest. In some years (1965, 1970), all communities had above average harvest, and in other years (1967, 1968), all communities had below average harvest. Possible drivers of regional variability, as documented by John Burns in ADFG’s Marine Mammal Reports, are provided.

**II. Comparing bounty era and more recent household surveys:** For some communities, harvest levels and human population were compared between the bounty era and more recent years when household surveys were conducted. All communities experienced population growth but varied regarding changes in total and per capita harvest.

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**III. Case study: Hooper Bay 2008–2018:** Hooper Bay is the only community with 10 years of consecutive survey data (Thanks, Albert!). We are using these data to explore trends and annual variability at the community level. For example, the percent of households that report using bearded and ringed seals has declined over time (Figure 2).

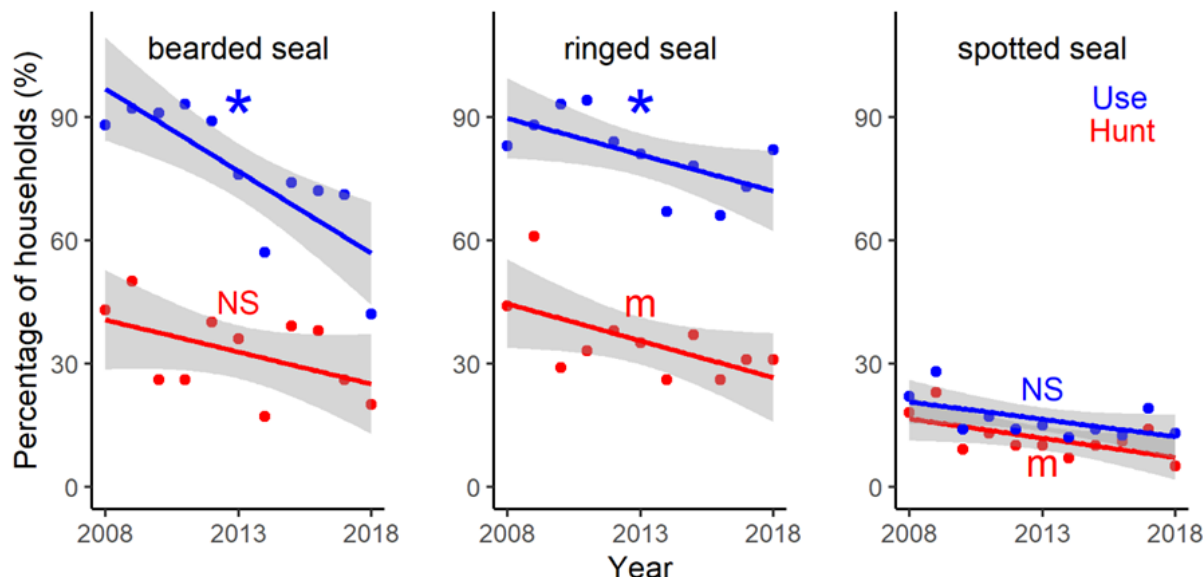


Figure 2. Percentage of households that reported using (blue) or hunting (red) each seal species each year at Hooper Bay. Solid lines are fitted trend lines over time, and grey bands represent standard error around each fit. ‘\*’ denotes significant trend ( $p < 0.05$ ), ‘m’ denotes a marginally significant trend ( $p \sim 0.05$ ), and ‘NS’ denotes trend is not significant.

Action item: Given that harvest information is especially important for ESA listed ringed and bearded seals, that ice and weather conditions are changing hunters’ ability to access seals, and the funding for future household surveys has ended, does the ISC want to revisit the priority of harvest information and decide if additional funding should be requested or pursued?