

# Subsistence Harvest of Herring Eggs in Sitka Sound



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Alaska Department of Fish and Game





# Outline of Presentation

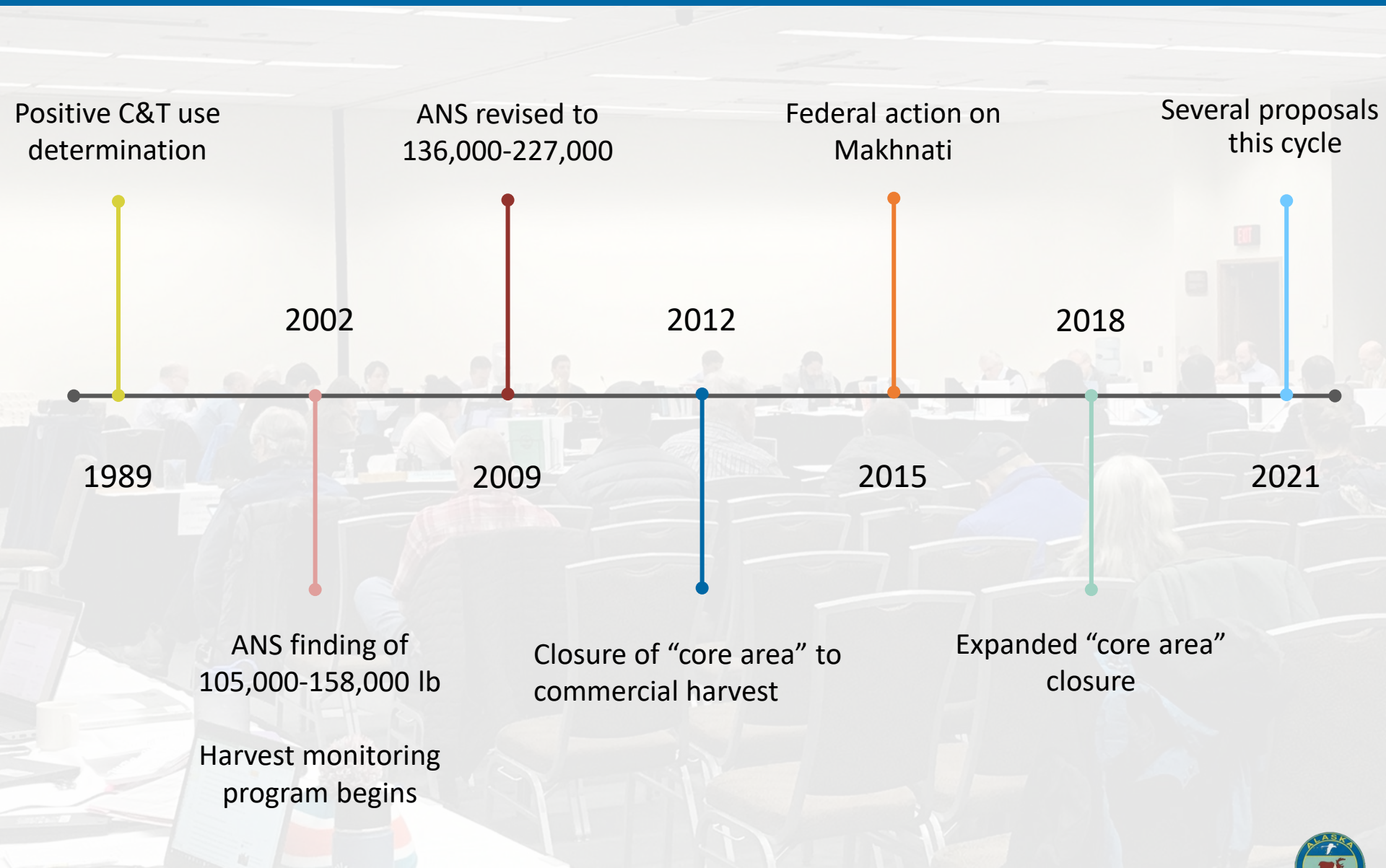
- Regulatory history
- Harvest assessment program
- 2021 survey results
- 2022 survey planning





# Board of Fisheries actions

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# Harvest Monitoring Program

## HERRING EGG SUBSISTENCE HARVEST SURVEY

SITKA, ALASKA

2019

This survey is used to estimate subsistence harvests of herring eggs from Sitka Sound and to describe community subsistence economies. We will publish a summary report which will be available to all households in your community. We share this information with the Sitka Tribe of Alaska, the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service and the National Park Service. We work with the Federal Regional Advisory Councils and with local Fish and Game Advisory Committees to better manage subsistence, and to implement federal and state subsistence priorities.

This project is guided by the research principles adopted by the Alaska Federation of Natives in 1993. We will NOT identify your household. We will NOT use this information for enforcement. Participation in this survey is voluntary. Even if you agree to be surveyed, you may stop at any time.

|                  |           |
|------------------|-----------|
| HOUSEHOLD ID:    |           |
| COMMUNITY ID:    | Sitka 313 |
| INTERVIEWER:     |           |
| INTERVIEW DATE:  |           |
| DATA CODED BY:   |           |
| DATA ENTERED BY: |           |
| SUPERVISOR:      |           |



- To conduct in-person interviews with households who harvest herring spawn.
- To produce estimates of the total pounds of herring spawn harvested on hemlock branches, Macrocyctis kelp, hair seaweed and “other” substrates; and,
- To identify locations where herring spawn are harvested.



### COOPERATING ORGANIZATIONS

RESOURCE PROTECTION DEPARTMENT  
SITKA TRIBE OF ALASKA  
429 KATLIAN STREET  
SITKA, AK 99835

907-747-7188

DIVISION OF SUBSISTENCE  
ALASKA DEPT OF FISH & GAME  
802 3RD STREET  
JUNEAU, AK 99801

907-465-3617







# Conversion factors

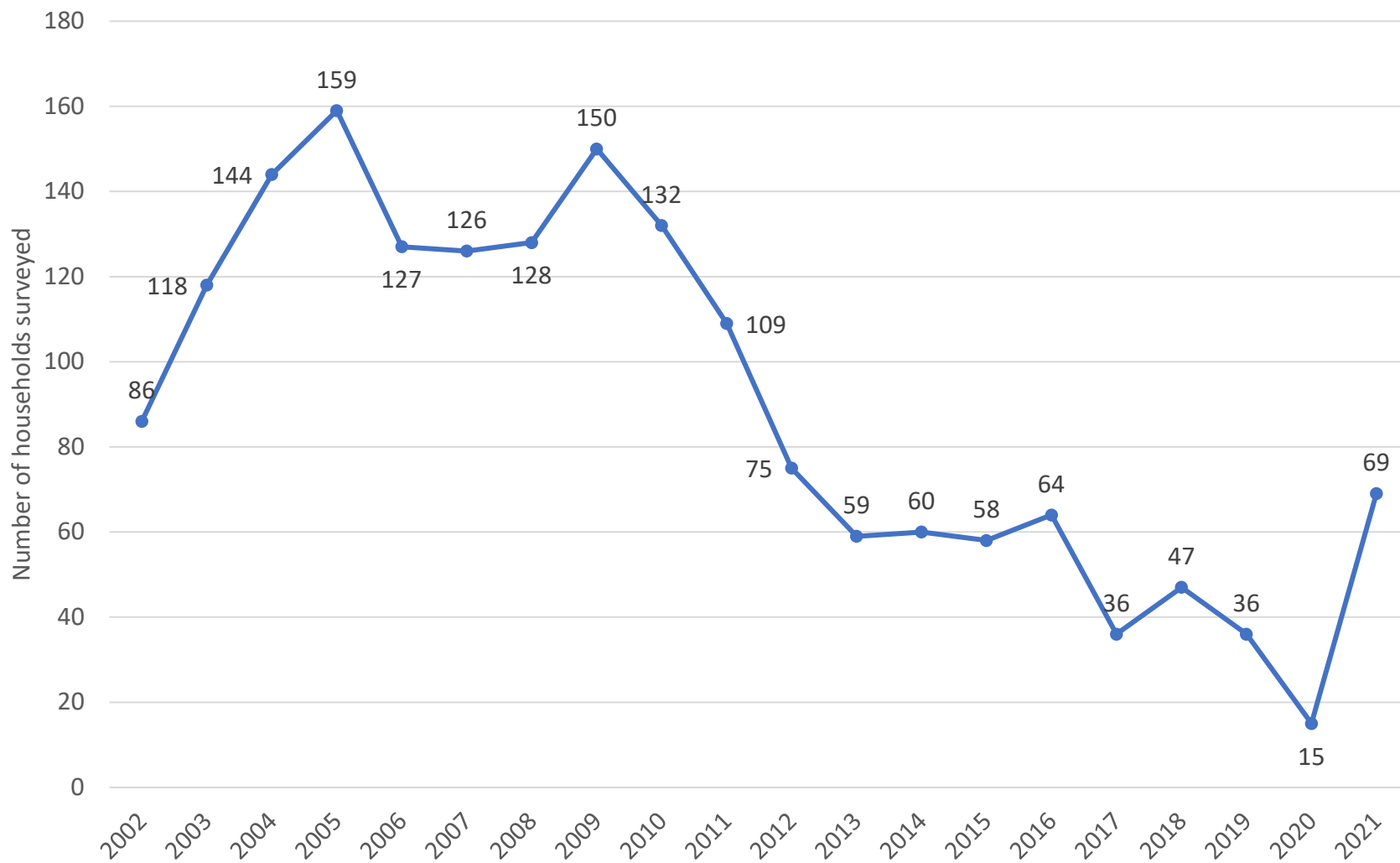
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- Determining harvest weights
  - STA and the department work together to develop a set of conversion factors.
  - Apply to most common types of containers.
  - Average weights developed through multiple measurements.



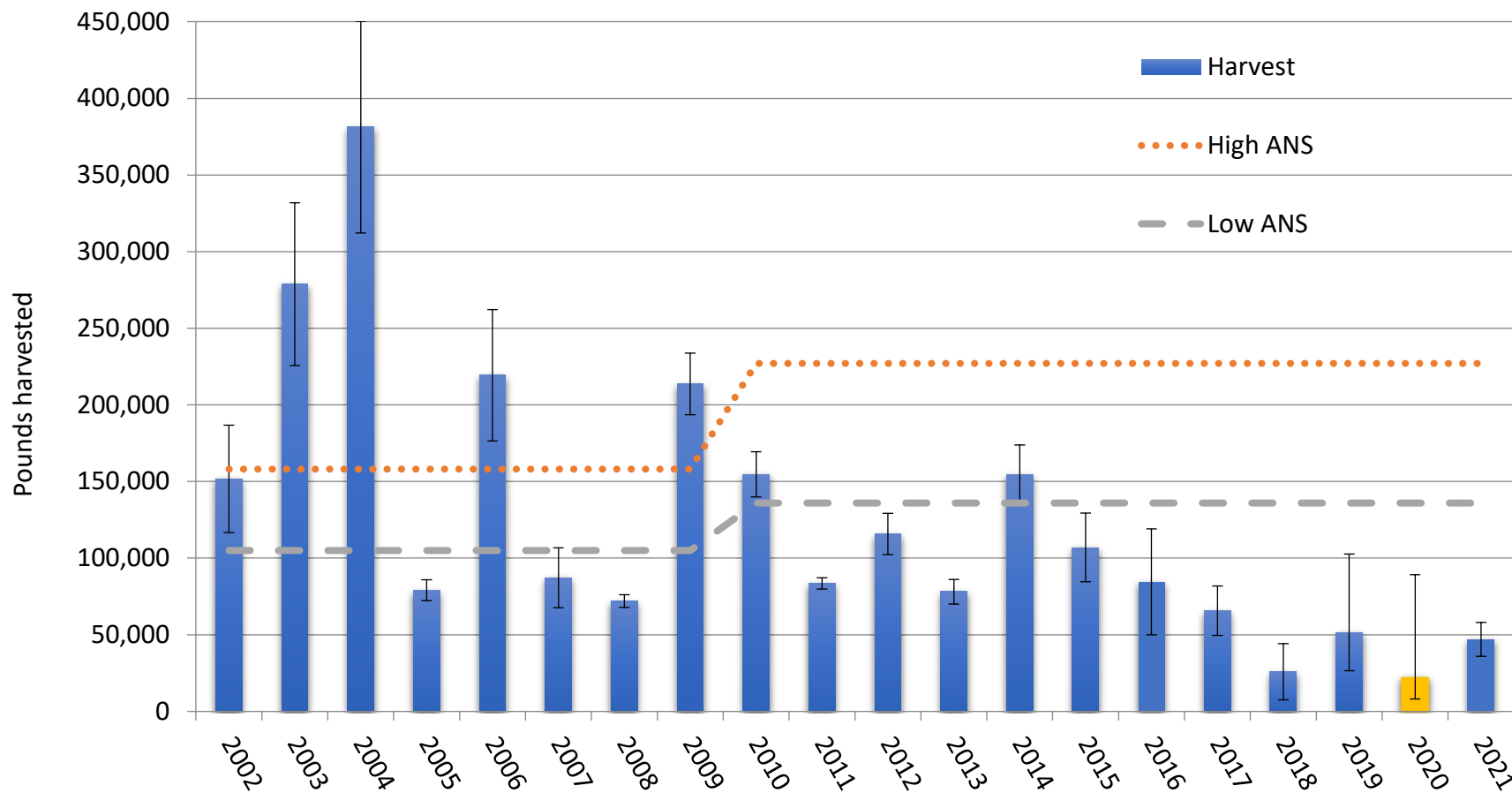


# Survey Sample Achievement





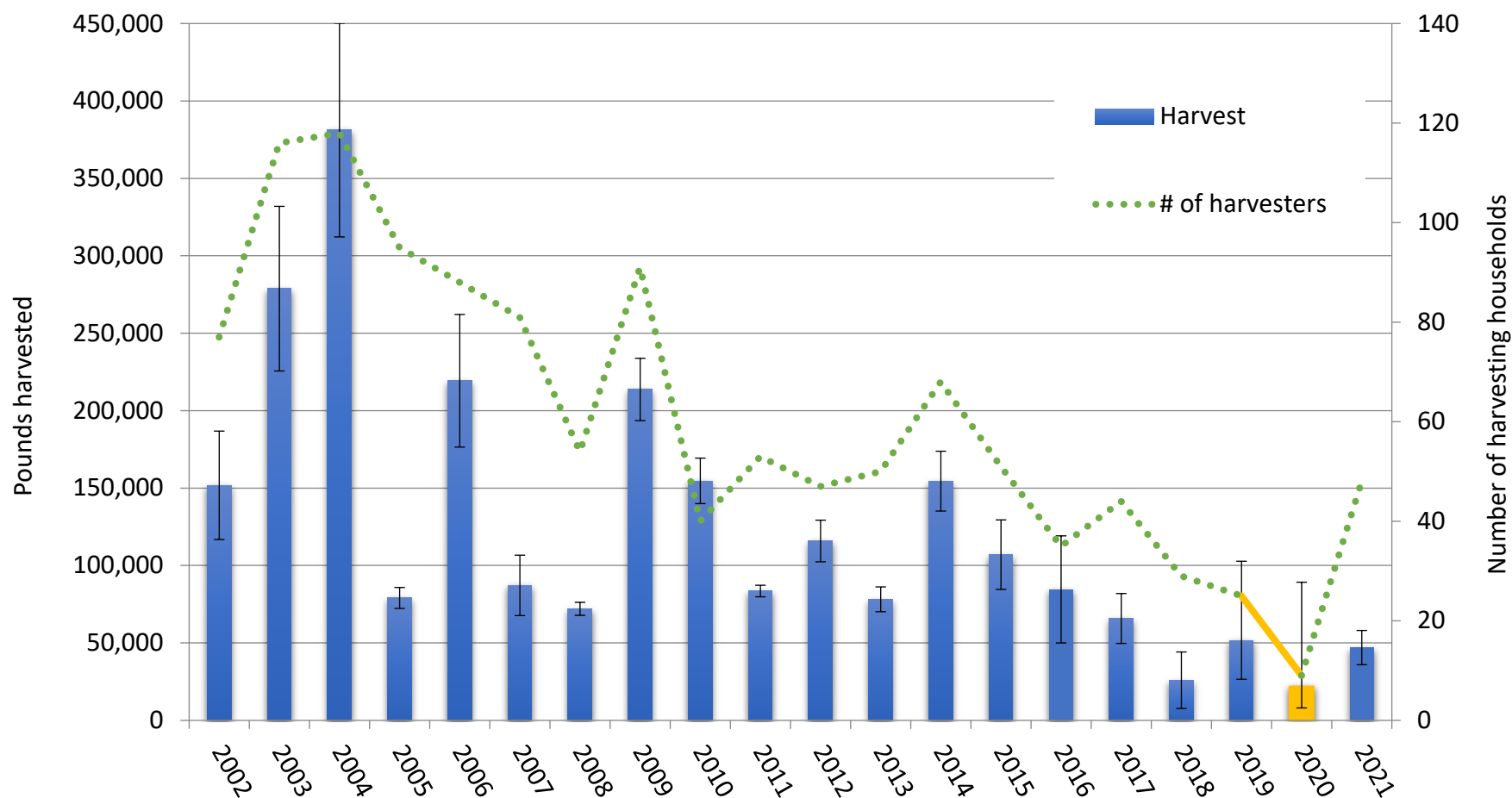
# Estimated Harvest



Note The 2020 harvest is shown in yellow to reflect an atypical harvest year, perhaps due to the COVID-19 pandemic.

Total pounds useable weight and amount necessary for subsistence (ANS) of herring spawn on all substrates in Sitka Sound, 2002–2021.

# Harvest Effort



Note The 2020 harvest is shown in yellow to reflect an atypical harvest year, perhaps due to the COVID-19 pandemic.

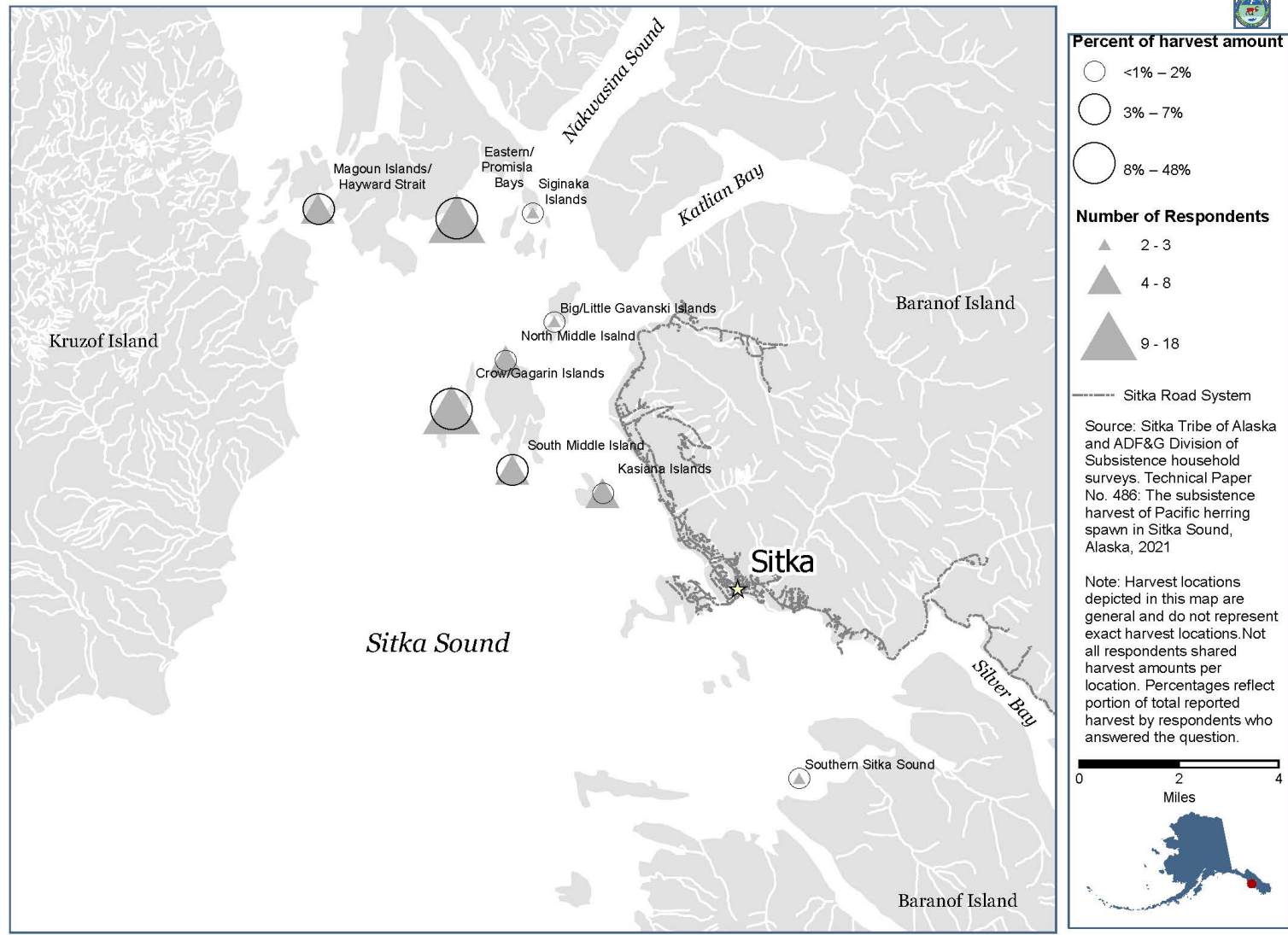
Total pounds useable weight and number of subsistence harvesters in Sitka Sound, 2002–2021.





# Harvest Locations 2021

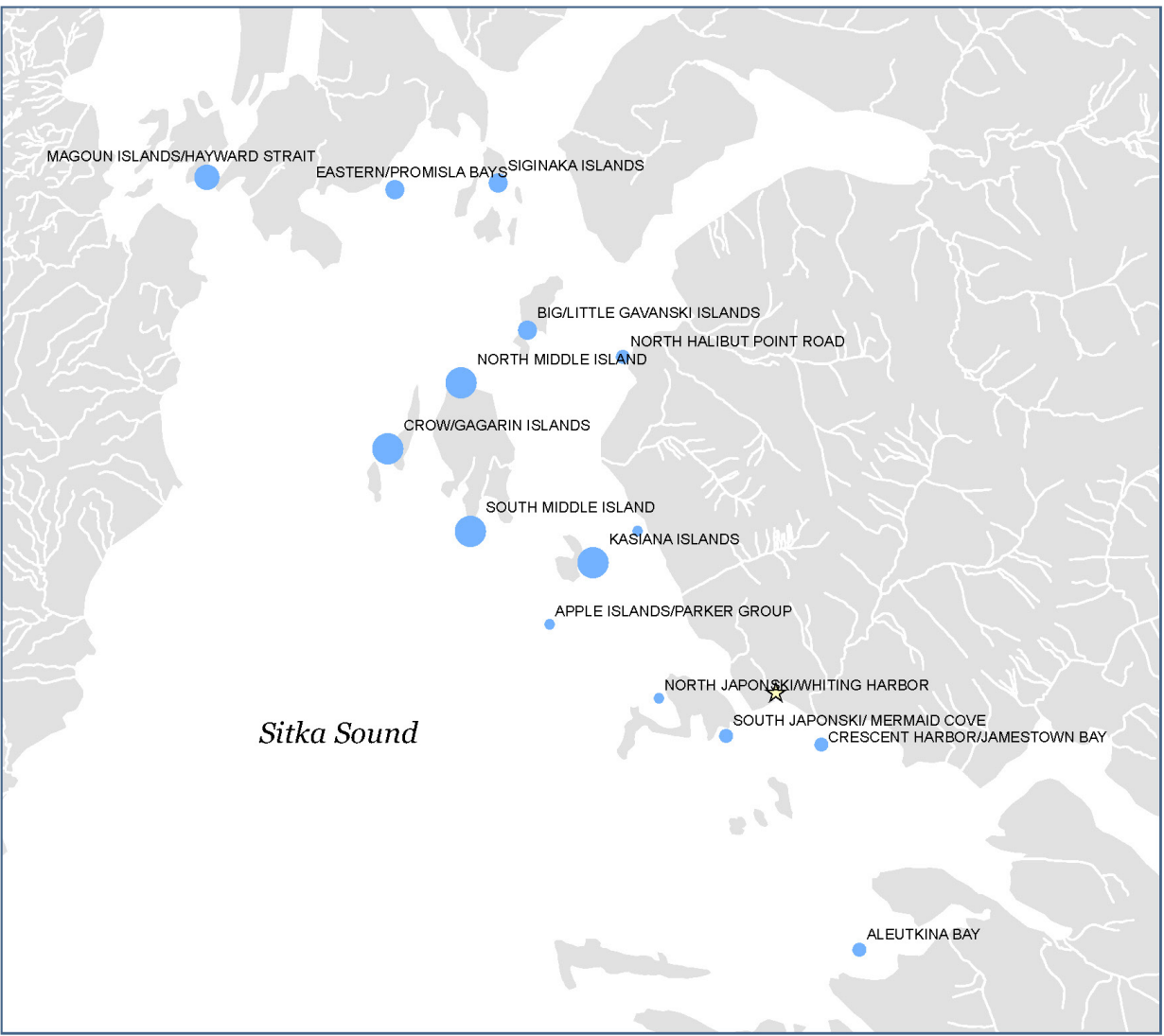
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# Harvest Locations, 2011-2020

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**Number of respondents**

- 1 - 4
- 5 - 11
- 12 - 18
- 19 - 28
- 64 - 85

Source: Sitka Tribe of Alaska and ADF&G Division of Subsistence household surveys.

Note: Harvest locations depicted in this map are general and do not represent exact harvest locations. Not all respondents shared harvest location.

0 1 2 Miles

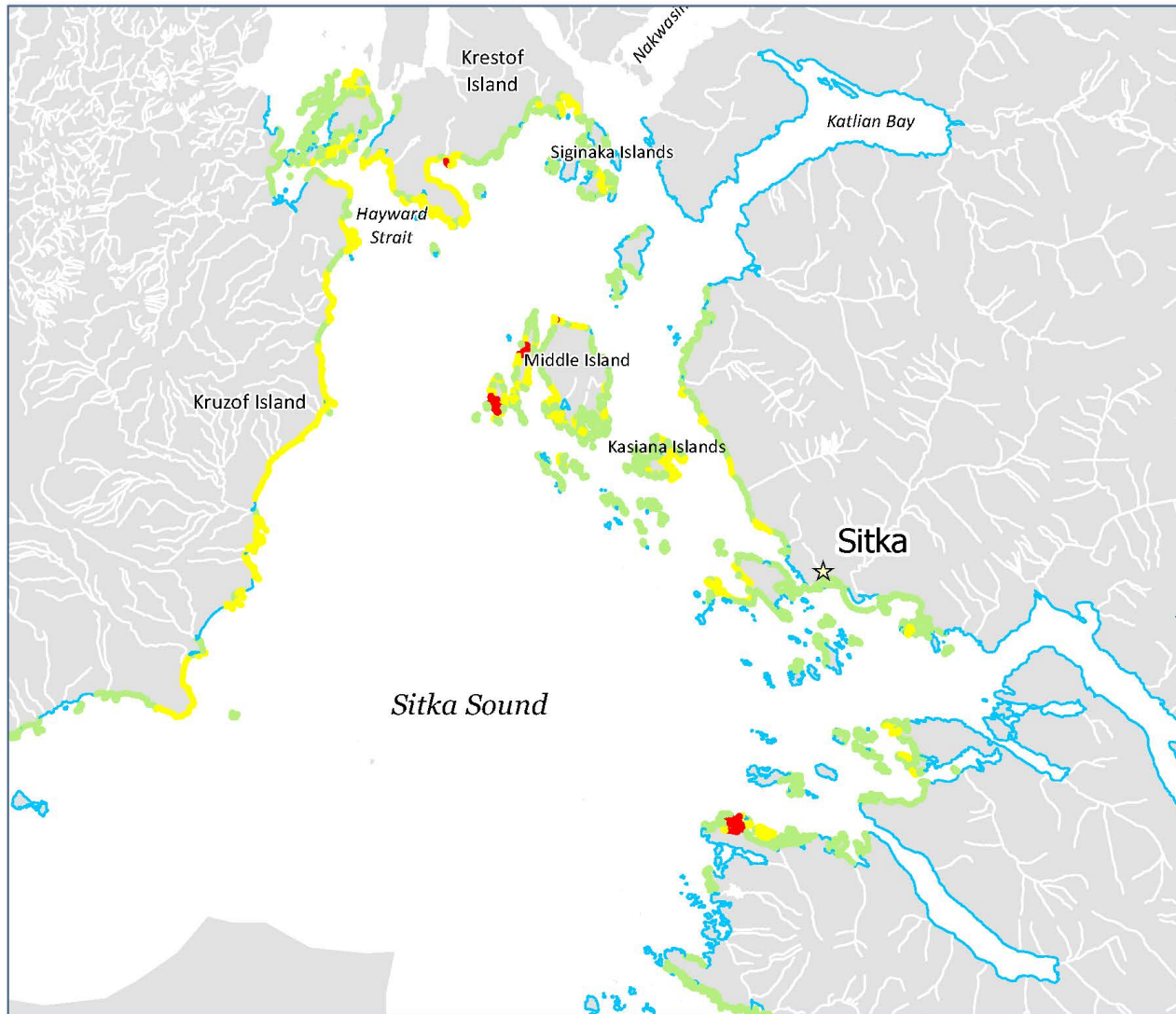




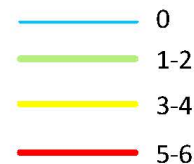
# Spawning Days, 2021

11

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Number of days  
of ADF&G-  
documented spawn  
2021



0 1 2  
Miles

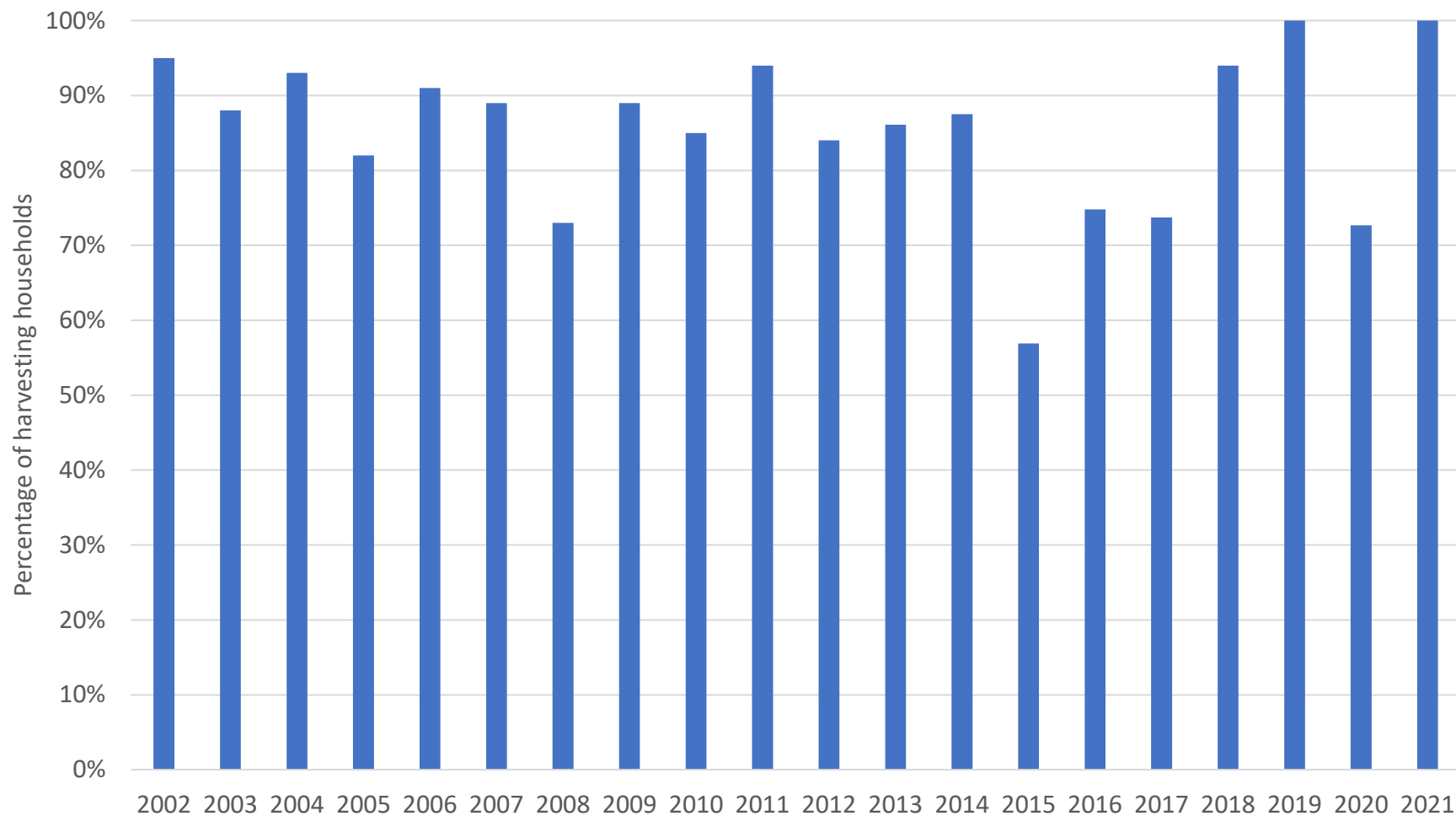
Map created by ADF&G  
Division of Subsistence  
with data provided by  
the Division of  
Commercial Fisheries.







# Sharing Herring Eggs



Percent of harvesting households giving away herring eggs, 2002-2021



# Sharing Herring Eggs

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| Region                | # of households |
|-----------------------|-----------------|
| Southeast             | 128             |
| Yukon-Kuskokwim Delta | 16              |
| Mat-Su                | 13              |
| Bristol Bay           | 3               |
| Prince William Sound  | 2               |
| Aleutians             | 3               |
| Interior              | 9               |
| Kenai Peninsula       | 7               |
| Arctic                | 18              |
| Outside Alaska        | 13              |





# Herring Spawn Harvest by Substrate

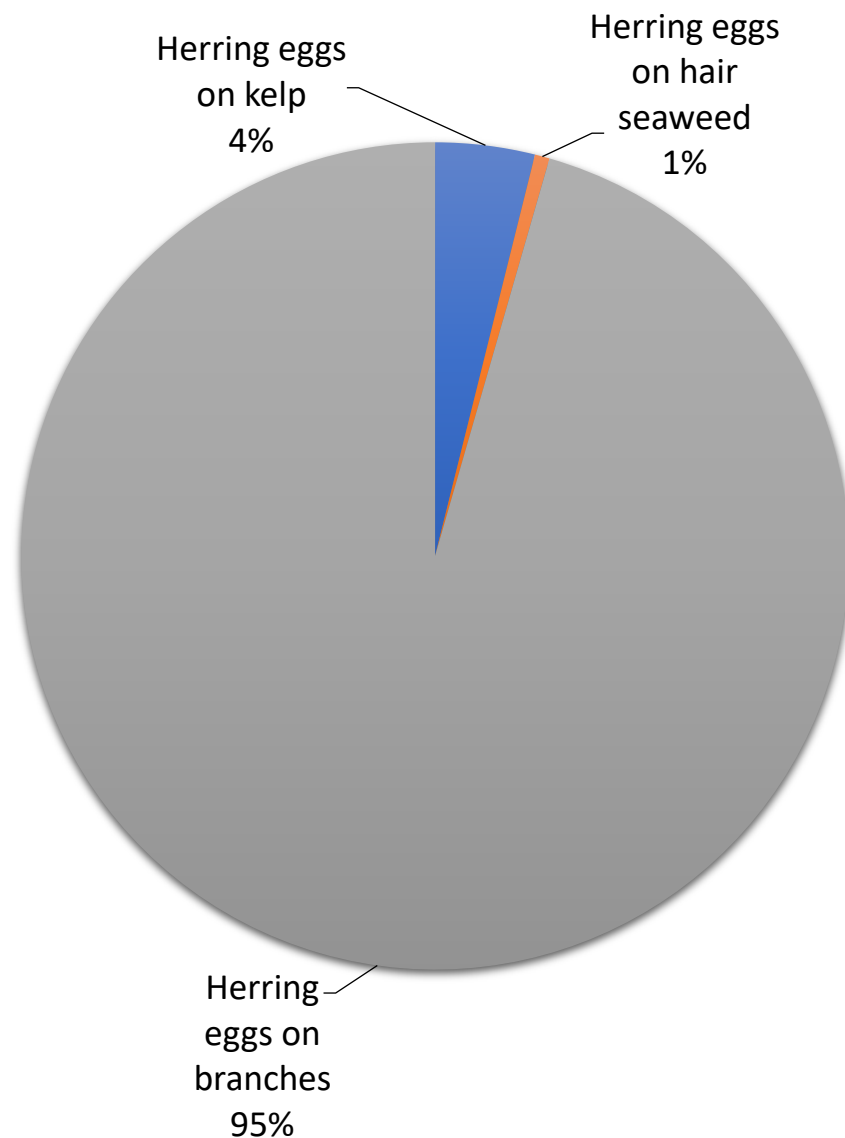
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|                                  | Total pounds  |
|----------------------------------|---------------|
| <b>Herring spawn - all types</b> | <b>46,950</b> |

Herring spawn on hemlock branches 44,854

|                       |       |
|-----------------------|-------|
| Herring spawn on kelp | 1,823 |
|-----------------------|-------|

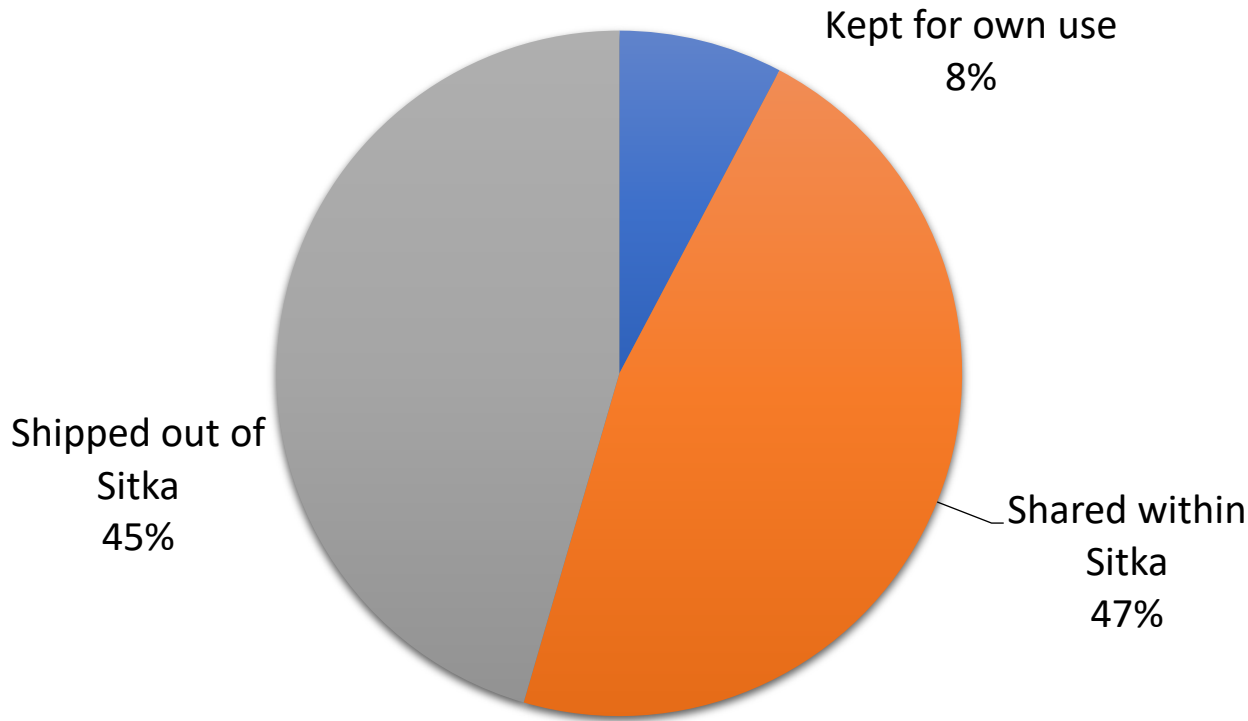
Herring spawn, hair seaweed 272







# Distribution of Harvest



|                                   | Kept for own use | Shared within Sitka | Shipped out of Sitka |
|-----------------------------------|------------------|---------------------|----------------------|
| Herring spawn - all types         | 8%               | 47%                 | 45%                  |
| Herring spawn on hemlock branches | 7%               | 46%                 | 47%                  |
| Herring spawn on kelp             | 20%              | 59%                 | 21%                  |
| Herring spawn, hair seaweed       | 30%              | 61%                 | 9%                   |





## What size vessel did households use to harvest herring spawn in 2021?

| Number of households responding | less than 20 feet | 20 - 24 feet | Over 24 feet | Commercial vessel | Other | No boat used - harvested from shore |
|---------------------------------|-------------------|--------------|--------------|-------------------|-------|-------------------------------------|
|                                 |                   |              |              |                   |       |                                     |
| 38                              | 45%               | 40%          | 8%           | 11%               | 3%    | 0%                                  |

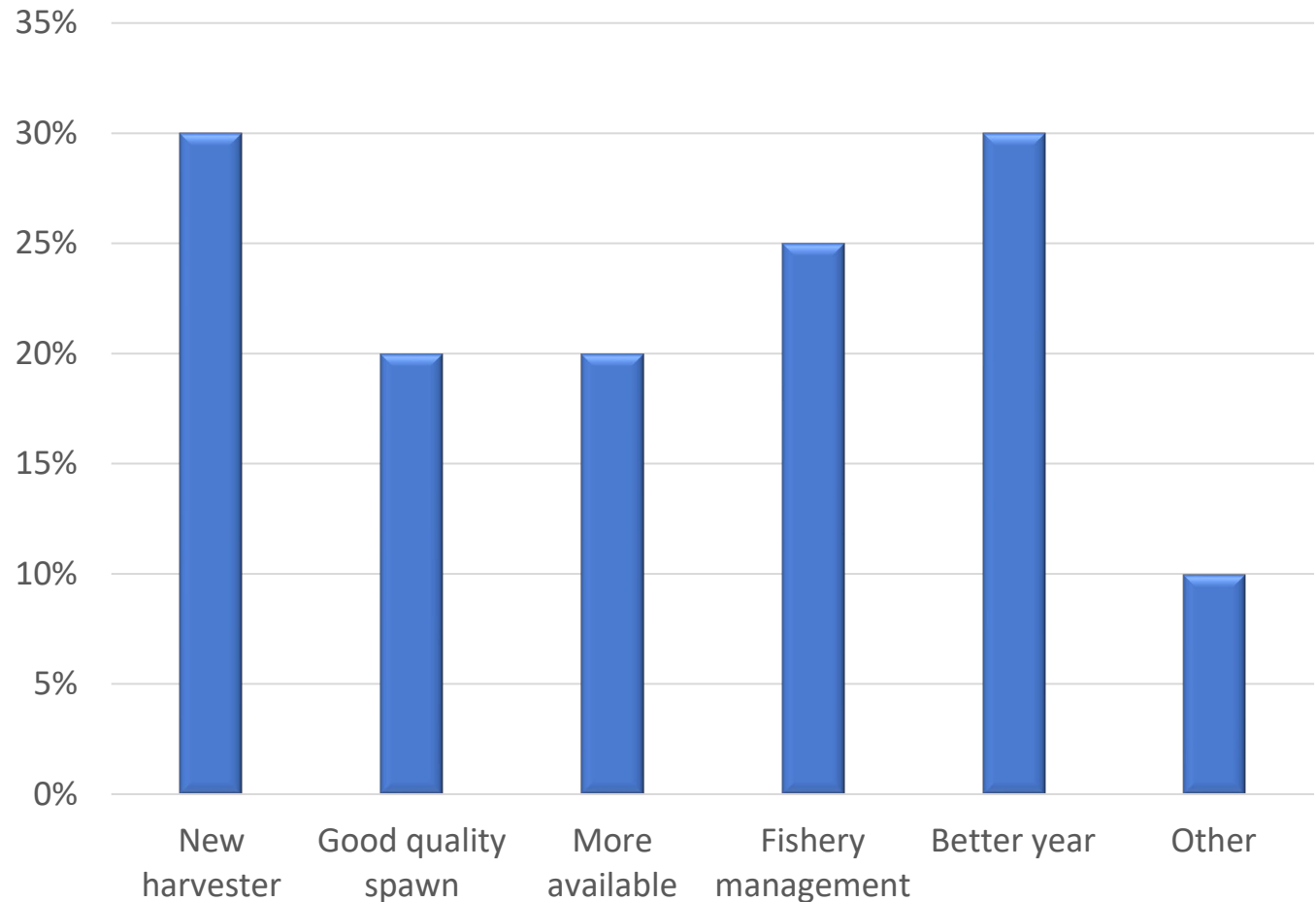
## Number of households that harvesting households usually harvest for, 2021

| Number of households responding | One | Two to five | Six to ten | Eleven to fifty | Fifty-one to one hundred | Over one hundred |
|---------------------------------|-----|-------------|------------|-----------------|--------------------------|------------------|
|                                 |     |             |            |                 |                          |                  |
| 32                              | 9%  | 22%         | 28%        | 13%             | 10%                      | 19%              |



# Assessments

**Q: Why do you feel your harvest was better in 2021 than in recent years? (n=20)**



# Project timeline

- 2022 project
- April through June: Harvester surveys
- June through September: Data analysis
- October through November: Report writing
- December 2022: Report publication

