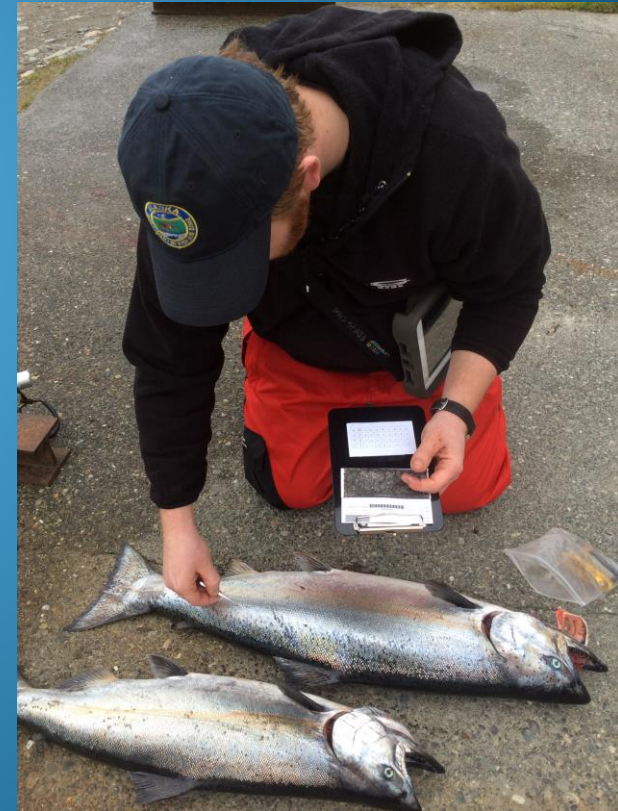


Southeast Alaska Sport Fishery Sampling

The Southeast Alaska Marine Harvest Studies (MHS) Creel, the statewide harvest survey (SWHS), and the charter logbook (e-logbook) programs



RPT meeting, April 6 2022

Topics

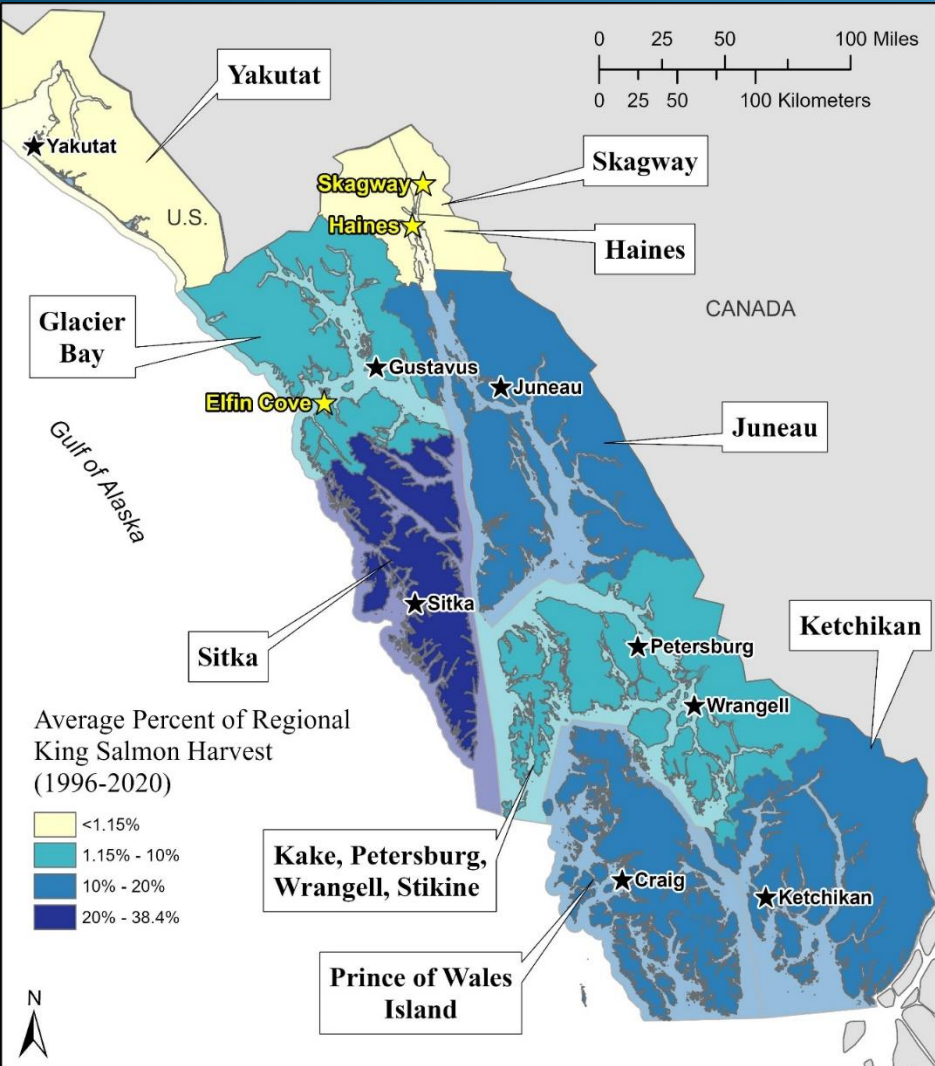
- General fishery dynamics in SEAK
 - How do the sport & commercial fisheries differ?
- Brief description of the 3 sampling programs
 - Who & what is sampled?
 - Are they redundant or collectively needed?
- MHS Creel overview
 - Historical – recent - 2022

General fishery dynamics in SEAK...

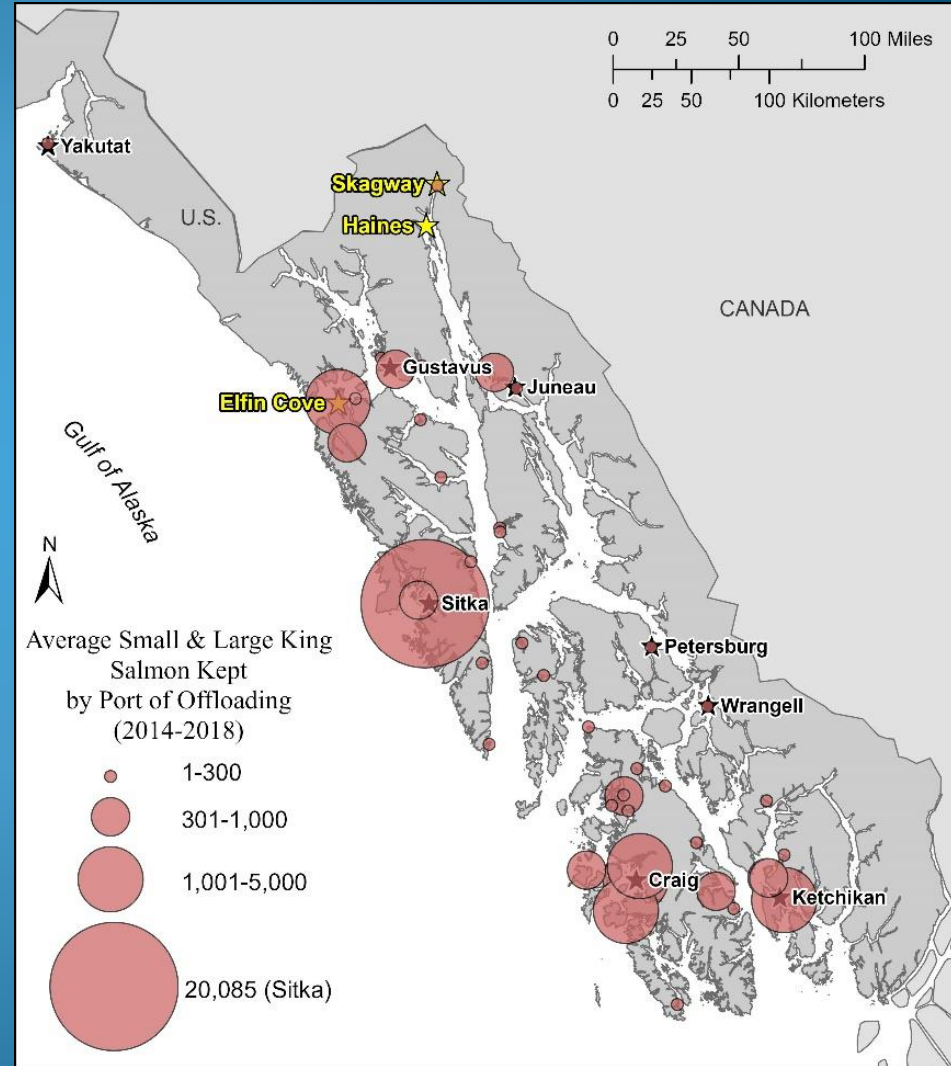
...inform sampling programs & objectives

More typical of sport fishery	More typical of commercial fisheries
Fishing open year round	Fishing defined by openings & closures
Fishing open region-wide	Fishing defined by fishery boundaries
Harvest occurs region-wide	Harvest occurs in defined boundaries
Harvest returns to un-centralized locations (many)	Harvest returns to centralized locations (few)
Individual harvest magnitude is small	Individual harvest magnitude is large

...snapshot of the sport fishery



All Anglers



Guided Anglers

SEAK Sport Fishery Sampling Programs

Regional Operational Plan SF.4A.2020.06

Alaska Statewide Sport Fish Harvest Survey, 2020

by
William J. Romberg
Ian Rafferty
Mike Martz

SWHS

November 2020
Alaska Department of Fish and Game
Divisions of Sport Fish and Commercial Fisheries



Regional Operational Plan SF.4A.2014.02

Alaska Department of Fish and Game Statewide Saltwater Guided Sport Fishing Logbook Reporting Program, 2015-2017

by
Bob Powers

Charter Logbook
e-Logbook

May 2015
Alaska Department of Fish and Game
Divisions of Sport Fish and Commercial Fisheries



Regional Operational Plan SF.1J.2019.05

Operational Plan: Southeast Alaska Marine Boat Sport Fishery Harvest Studies, 2019

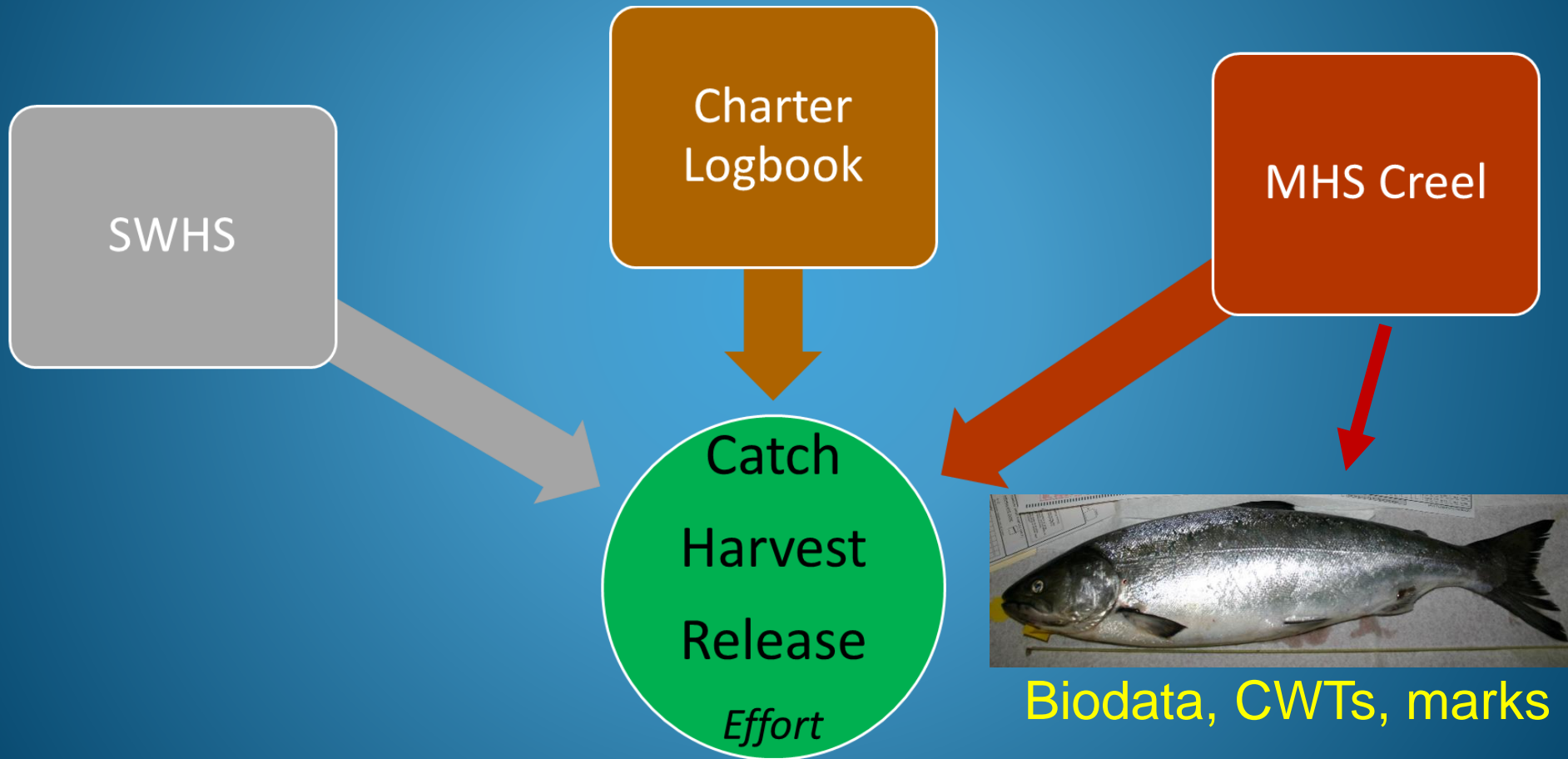
by
Mike Jaenicke
Diana Tersteeg
and
Jiaqi Huang

MHS Creel

May 2019
Alaska Department of Fish and Game
Divisions of Sport Fish and Commercial Fisheries

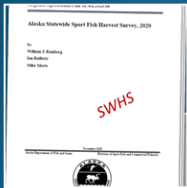


SEAK Sport Fishery Sampling Programs



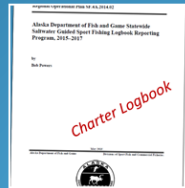
SEAK Sport Fishery Sampling Programs

SWHS



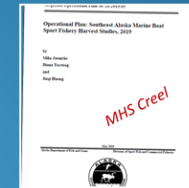
- Mail survey
- SW & FW
- Estimates
- Medium spatial resolution
- Coarse temporal resolution
- Legal & sublegal king salmon
- 1977 - 2020

Charter Logbook



- Electronic (e-)
- SW *only**
- Census
- Fine spatial & temporal resolution
- Legal & sublegal king
- 1998 - 2020

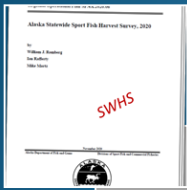
MHS Creel



- In-person survey (e-)
- SW only
- Estimates
- Fine spatial & temporal resolution
- Legal & sublegal & **Treaty** king
- 1970s - 2021

SEAK Sport Fishery Sampling Programs

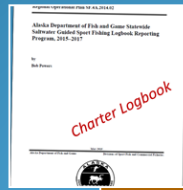
SWHS



- Postseason info
- Final=Sept, next year

- ✓ Regional total magnitude patterns
- ✓ Freshwaters

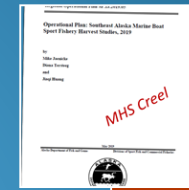
Charter Logbook



- Inseason info
- Prelim=Aug, same year
- Final available April, next year

- ✓ Census
- ✓ Bag/annual limit analyses

MHS Creel



- Inseason info
- Prelim=every 2 weeks, same year
- Final=Aug, same year

- ✓ Stock Composition
- ✓ Biomass
- ✓ Bag limit analyses

3 datasets can be better than one...
...but how do you get one estimate?

Data Integration

- MHS Creel relies on SWHS to establish parameter totals for SEAK
 - Accounts for missed anglers/catch
 - Accounts for unsampled ports, docks, FWs

Expansions

- Ratio between observed parameters of MHS Creel vs SWHS is estimated based on the observed:
 - 5-year moving average MHS Creel : SWHS

Data Integration & Expansions

- ✓ All 3 independent programs provide stand-alone sport fishery estimates
- ✓ Integration or merging of data from 2 or more programs addresses common, yet more complex management questions
- ✓ Expansions are employed to account for ALL components of the fishery (*population*)

Southeast MHS Creel Program

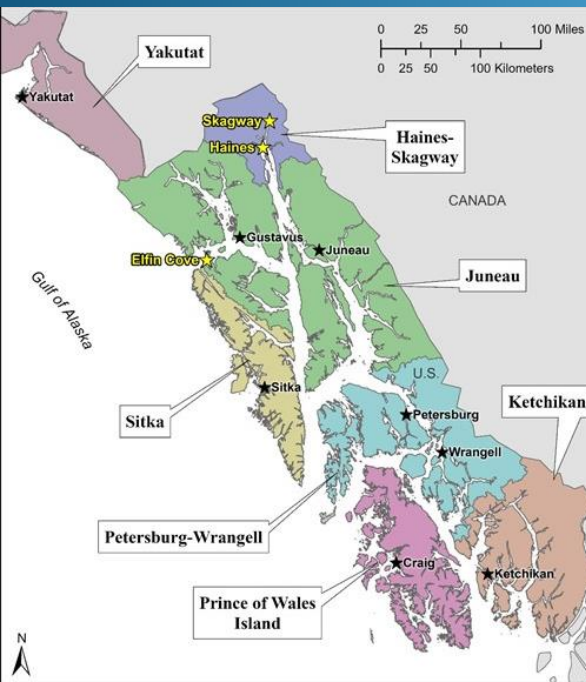
- **Sampled the SEAK sport fishery since mid-70's**
 - Early priorities: king salmon—SIT, JUN, KTN
 - Sampling expansion: species-area-biological
 - Since 2011, study design remains largely unchanged

3 Primary Components:

- ✓ Sample for effort
- ✓ Sample for catch, harvest, release
- ✓ Collect biological data representative of catch

2021 MHS Creel Sampling Snapshot

- # of interviews = ~ 14,000
 - Capturing a total of = ~ 44,000 anglers
- # of king salmon checked for CWT = ~6,300
- # of king salmon sampled for genetics = ~ 4,000
- # of coho salmon checked for CWT = ~36k
- # of groundfish sampled = ~ 15,000
- # of MHS Technicians = ~ 25
- # of technician-days sampled = ~ 1,700
- # of unique docks sampled = ~ 25



Sampling onsite – MHS Creel



Biological sampling occurs in conjunction with angler interviews

- Interviews provide data about the fishing trip
- Biological sampling provides data about the fish

King (and coho) fishing trip information includes:

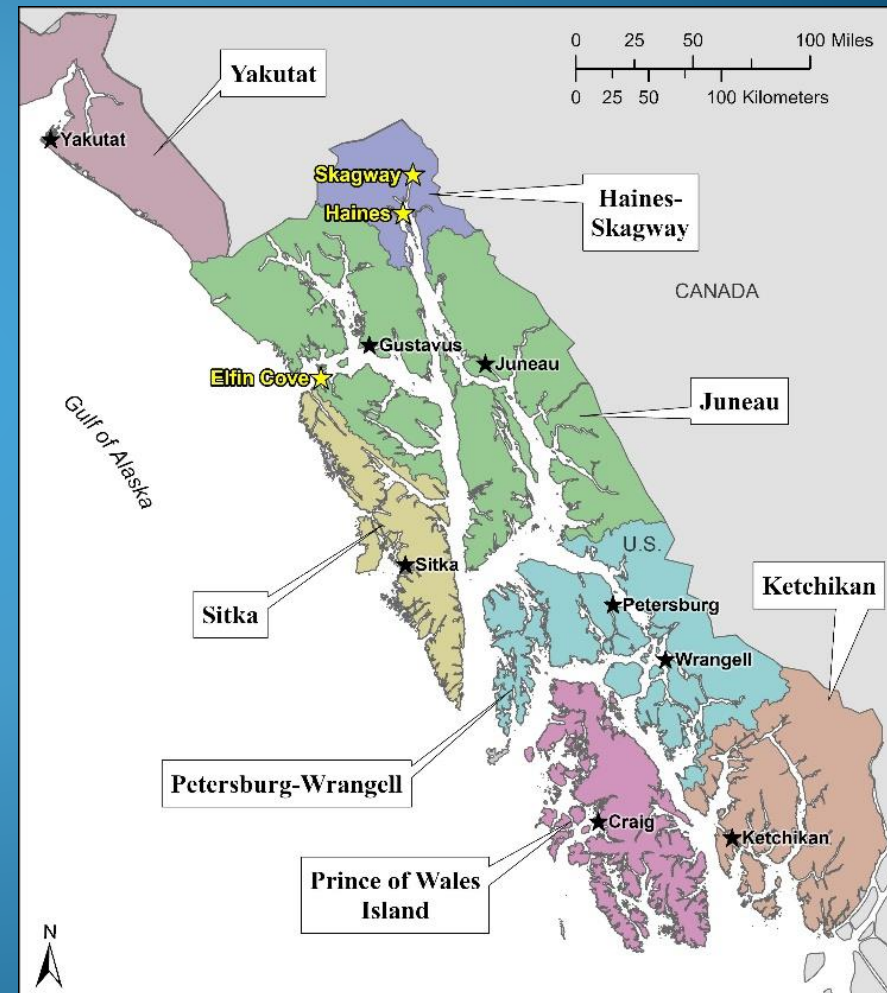
Interview	Bio Sample
Logbook/stat area	Length
Angler hours	CWTs
# caught (harvest, release)	Genetics, scales

Sampling Objectives – MHS Creel

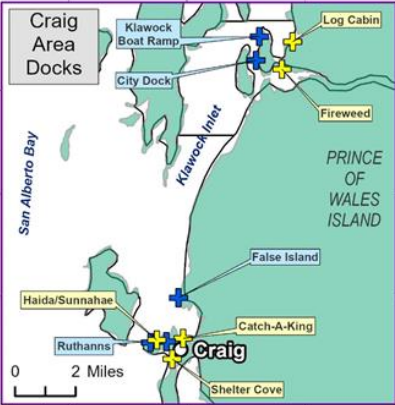
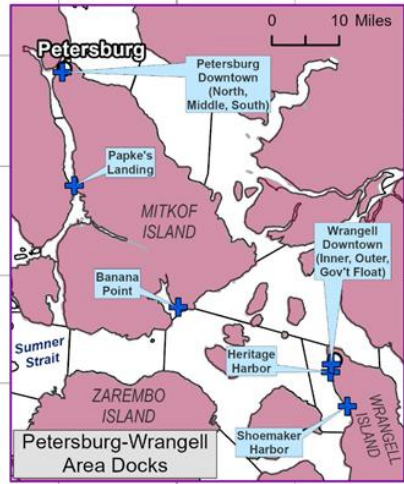
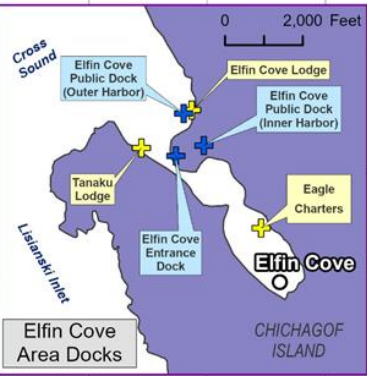
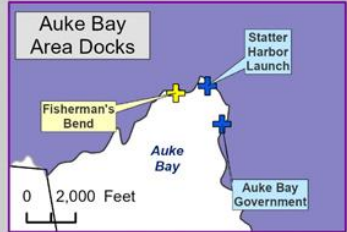
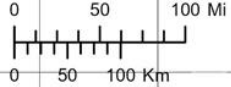
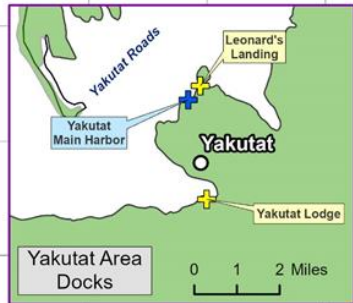
- ✓ Sample the sport harvest of king & coho salmon at the coastwide standard rate of 20% by area (port; TBR districts) and time (biweek)
- ✓ Collect king salmon A-L / DNA samples
- ✓ Groundfish/Bottomfish/Halibut sampling
 - ✓ ASL, maturity

MHS Creel Sampling – where & when 2022

- ~ April 23 – September 15
 - ~ 85% seasonal effort
- Strengthen recruitment efforts
 - housing/vehicle \$\$ support
- Reinstate Elfin Cove
- Increase staffing to historic levels
 - > 2020-2021
- Add 1 additional catch sampler
 - Ketchikan, Craig, Sitka
- Add 2 additional technicians
 - Juneau D111 (shoreside)



MHS Creel – 2022 docks/harbors sampled



Southeast Alaska Sport Fish Management Areas

- Haines-Skagway
- Juneau-Glacier Bay
- Ketchikan
- Petersburg-Wrangell
- Prince of Wales Island
- Sitka
- Yakutat

Logbook Area Boundaries

Dock Access Type

- + Private
- + Public



Thank you!



ADF&G, Division of Sport Fish
Southeast (Region I) Staff

Mike Jaenicke – MHS Project Leader
Diana Tersteeg – MHS Analyst
Adam Lake – MHS Regional Tech