

Large-Mesh Bottom Trawl Survey of Crab and Groundfish:

Kodiak, Chignik, South Peninsula,
and Eastern Aleutian Management
Districts



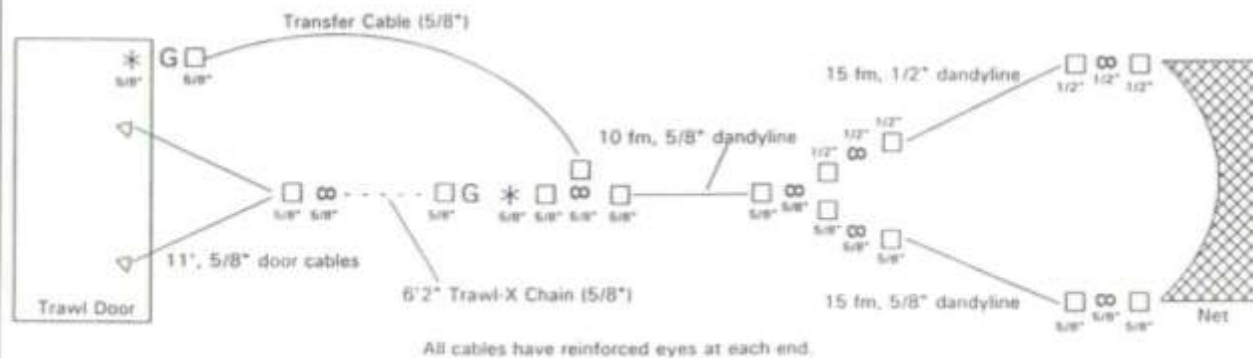
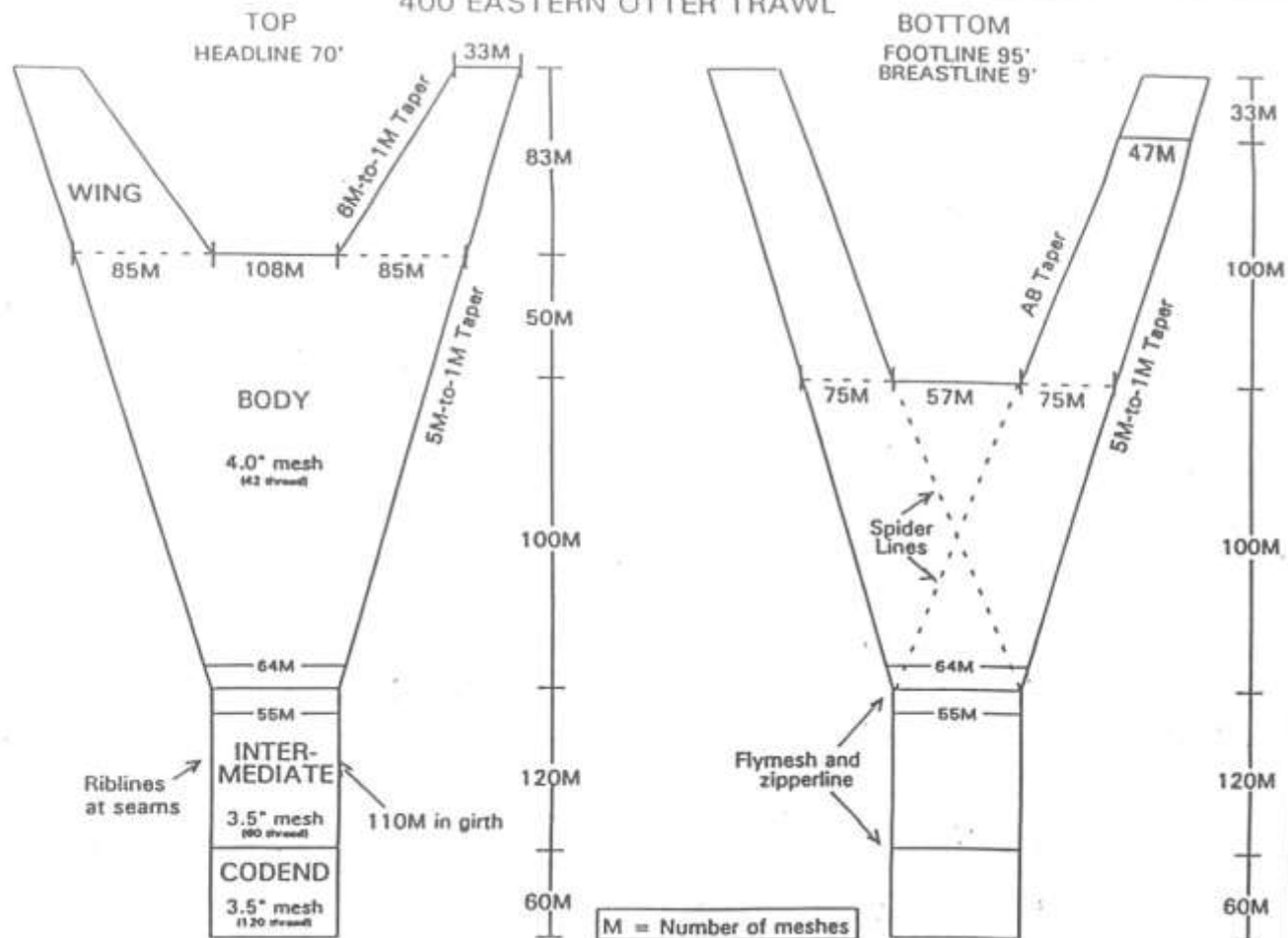
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27.4 m R/V *Resolution*

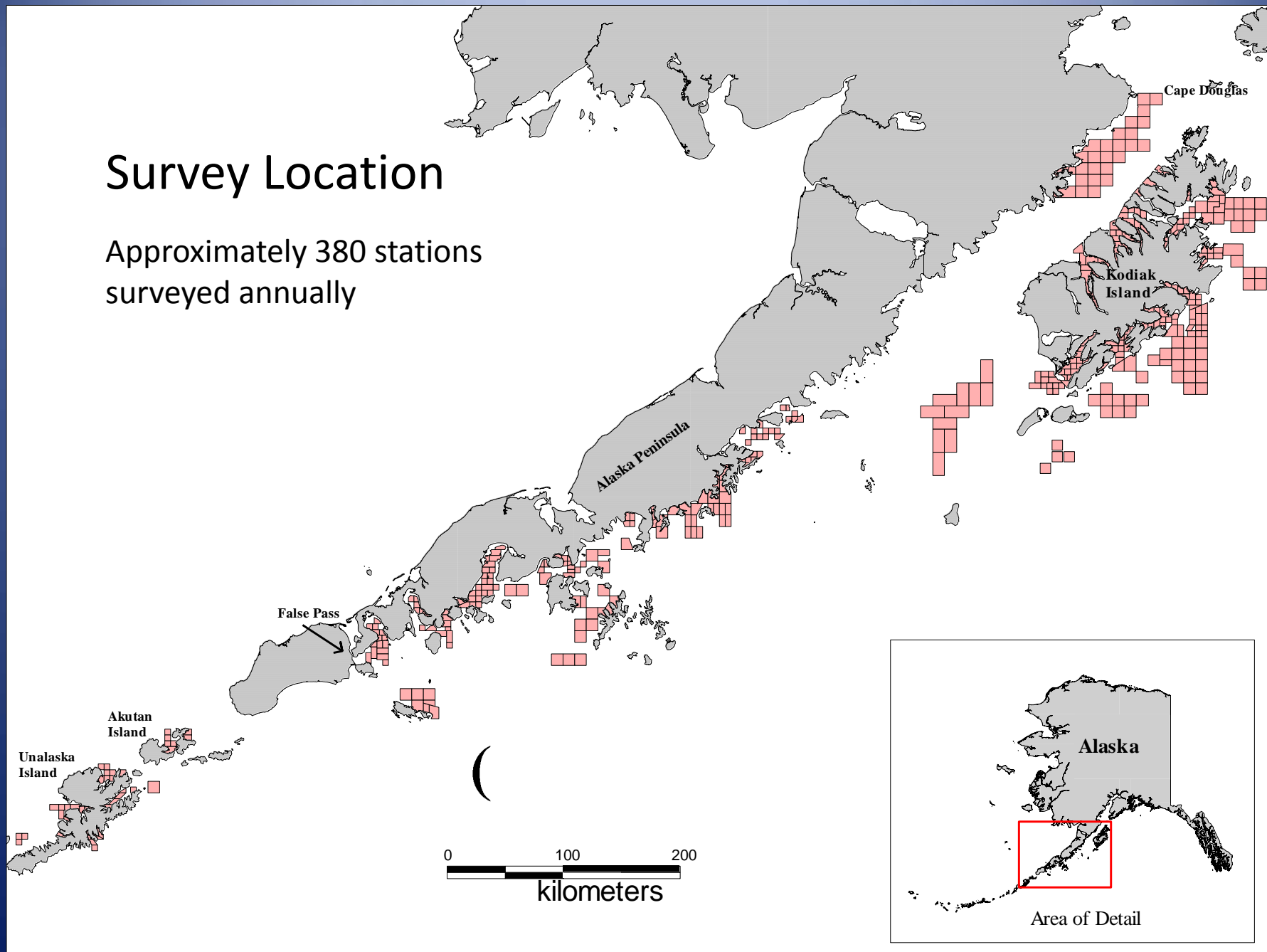


400 EASTERN OTTER TRAWL



Survey Location

Approximately 380 stations
surveyed annually



Primary Survey Objectives

- Estimate the relative abundance and condition of Tanner and red king crab populations
- Determine species composition and length frequency distributions of commercially-important groundfish species

1.85 km tows

Catch is carried
down into codend
and weighed

Catch is
dumped from
codend into
bins

Subsample is
brought to
sorting table

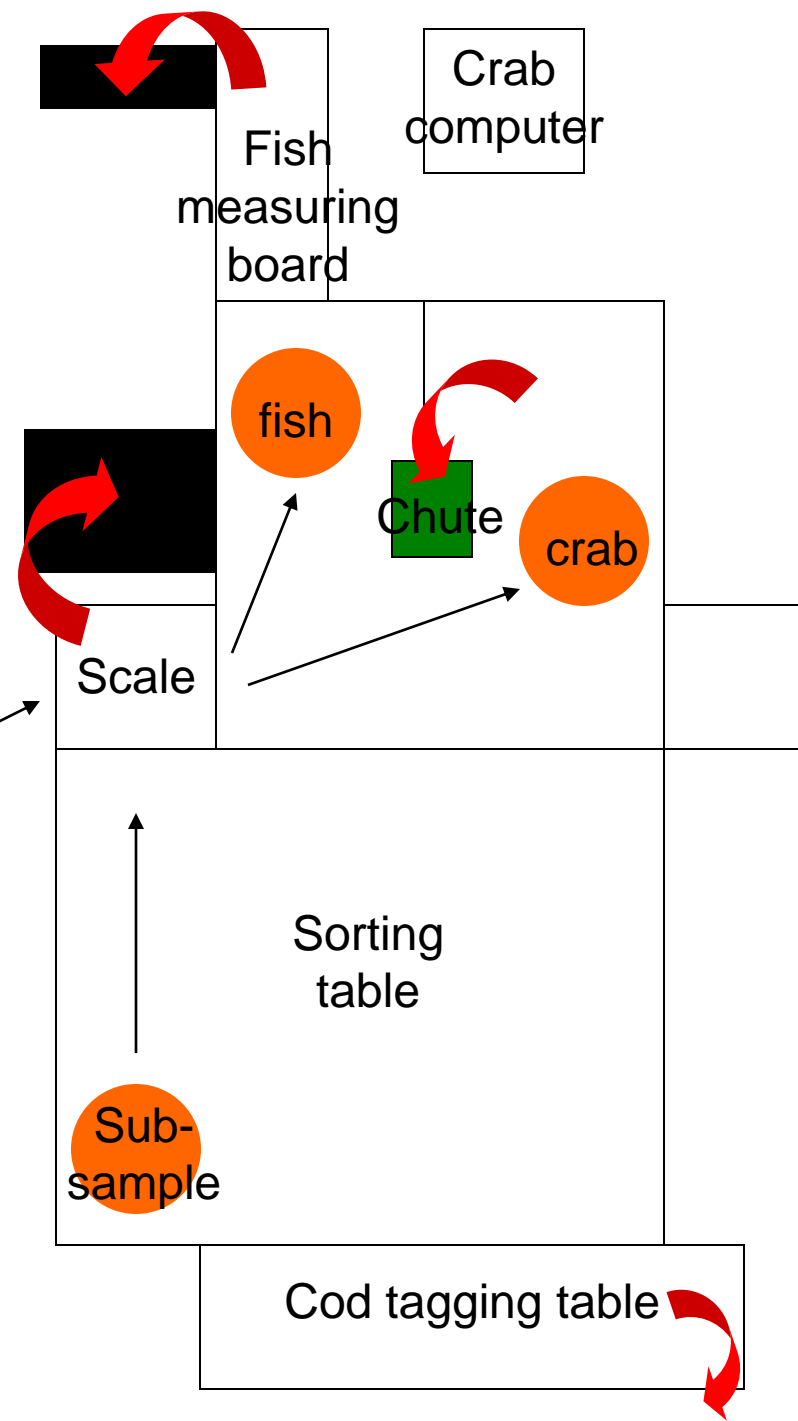




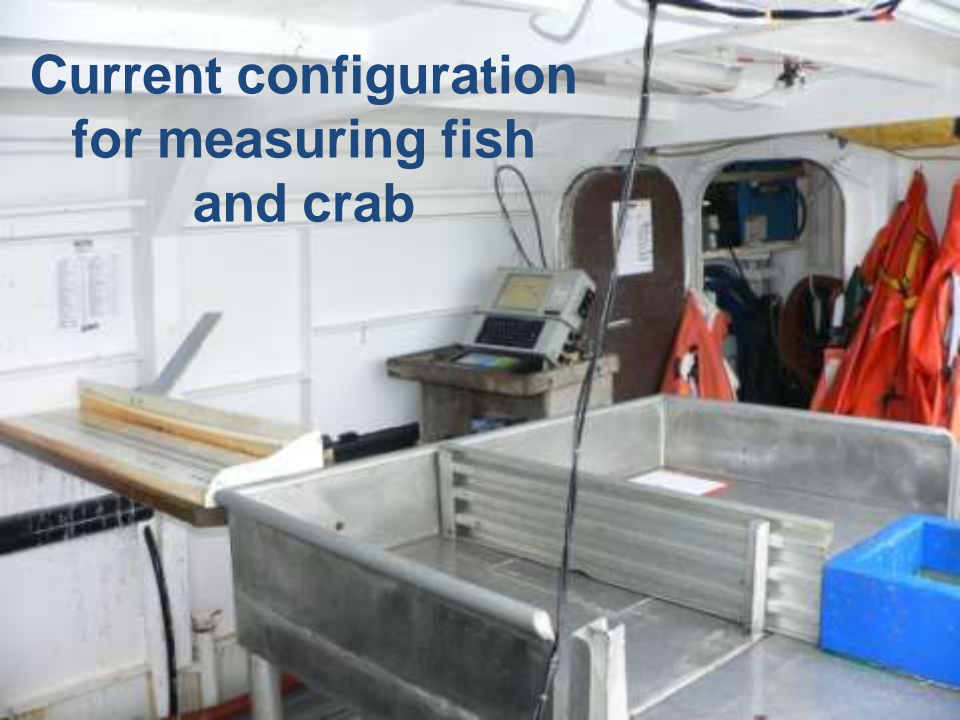
The only lifting of baskets takes place when moving them from the checker to the scale.

Whole haul

Checker Bin



**Current configuration
for measuring fish
and crab**



**Crab measurements are entered
directly into a database using a
waterproof computer and
custom crab keyboard.**

**Measurements can be entered as
quickly as 2-3 crab per second.**





Fish are measured electronically using a bar coded measuring strip and polycorder.

Catch weights are entered and species composition and length frequencies are generated.



2010 Kodiak Area species composition

Rank	Common name	Species name	% of catch by weight
1	Arrowtooth flounder	<i>Atheresthes stomias</i>	23.7
2	Walleye pollock	<i>Theragra chalcogramma</i>	19.9
3	Flathead sole	<i>Hippoglossoides elassodon</i>	18.3
4	Tanner crab	<i>Chionoecetes bairdi</i>	10.0
5	Sunflower sea star	<i>Pycnopodia helianthoides</i>	2.9
6	Pacific cod	<i>Gadus macrocephalus</i>	2.5
7	Pacific halibut	<i>Hippoglossus stenolepis</i>	2.5
8	Rex sole	<i>Glyptocephalus zachirus</i>	1.9
9	Longnose skate	<i>Raja rhina</i>	1.7
10	Yellowfin sole	<i>Pleuronectes aspera</i>	1.6
11	Big skate	<i>Raja binoculata</i>	1.3
12	Bering skate	<i>Bathyraja interrupta</i>	1.0
13	Butter sole	<i>Isopsetta bilineata</i>	1.0
14	Aleutian skate	<i>Bathyraja aleutica</i>	1.0
15	Dover sole	<i>Microstomus pacificus</i>	0.9
16	Weathervane scallop	<i>Patinoplectin caurinus</i>	0.9
17	Great sculpin	<i>Myoxocephalus polyacanthocephalus</i>	0.7
18	Northern rock sole	<i>Lepidopsetta polyxystra</i>	0.6
19	Spiny dogfish	<i>Squalus acanthias</i>	0.6
20	Sea anemone	Order: Actinaria	0.6
	All others	(118 species)	6.6
			100.0

Tanner Crab

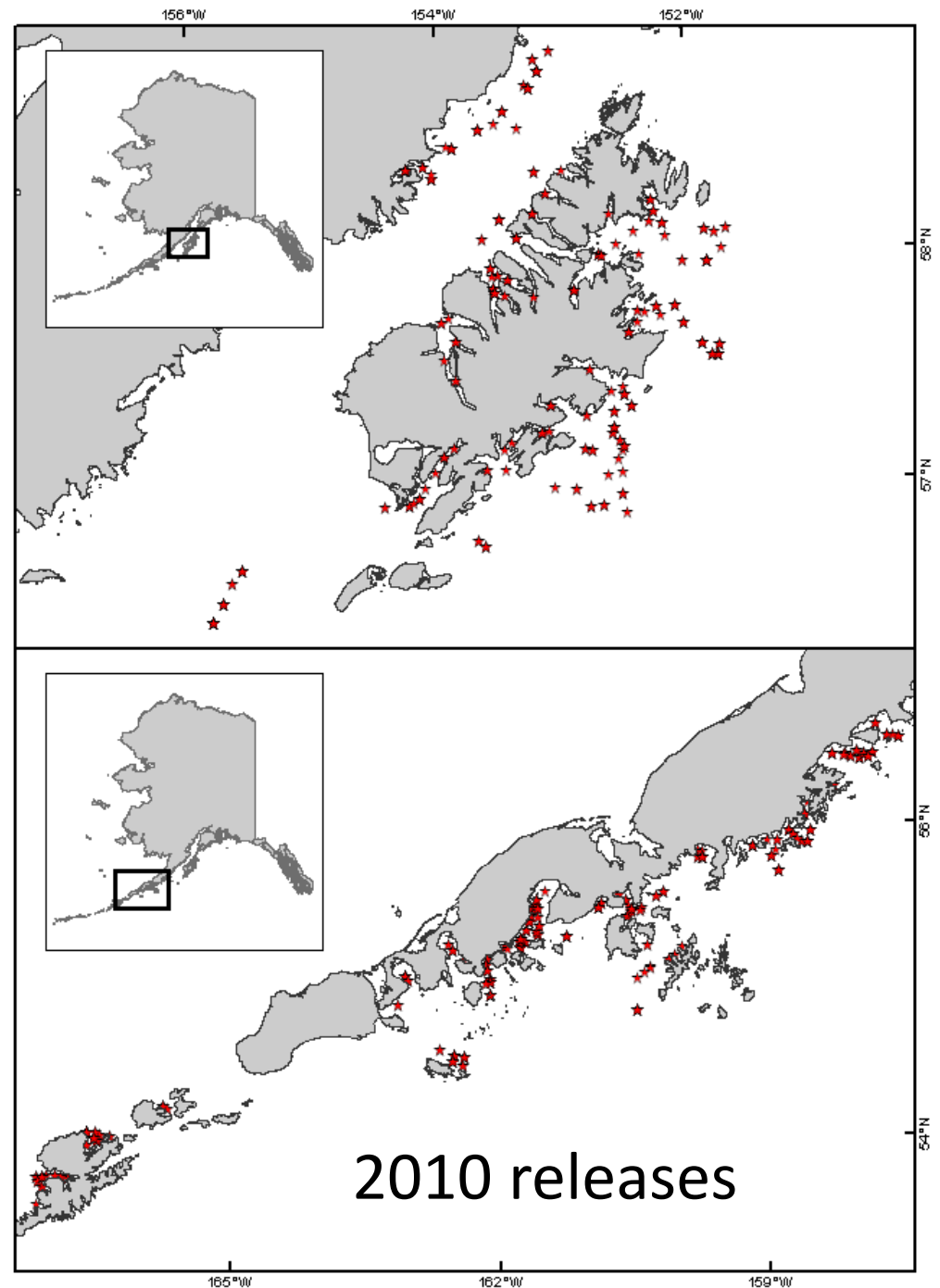


**2004 adults: First seen in 2001
as pre-recruit 4, resulted in
highest legal male population
to that date in 2005**

**2006 pre-recruit 4: Resulted
in new highest legal male
population to date in 2010**



Cod Tagging



Otolith Collection

Pollock otoliths collected throughout the course of the survey for AFSC.

Length and population data for pollock, Pacific cod, and rock sole provided to AFSC



Other groundfish collections:

- Marmot Bay stomach collections for NMFS
 - Flathead Sole
 - Arrowtooth Flounder
 - Walleye pollock
 - Pacific Halibut
 - Pacific cod
 - Northern Rock Sole
- Collections for Alaska Department of Environmental Conservation
 - Walleye pollock
 - Pacific cod
 - Sablefish
 - Pacific Ocean Perch

Field guide preparation



Skate data collection

In 2006 and 2007 personnel from Moss Landing Marine Labs on board for data collection purposes.



