

PUBLIC TESTIMONY SIGN-UP SHEET

Agenda Item: C-1 Halibut ARM

Check the boxes below if you will have a PowerPoint or Handout

NAME (Please Print)	TESTIFYING ON BEHALF OF:	Handout	PPT
X GERRY MERRIGAN	FLC		X
X John GAUVIN	AKSC <i>get his PPT</i>		
X Molly Zaleski	Oceana		
X Bob Alvarson	FUVA - Seattle		
2:50 X Ben Martin	Homer Charter Association		
X Malcolm Milne	North Pacific Fisheries Assoc		
X GREG SUTTER	CAPT. GREG'S CHARTERS		
X Eric Lehm	Maverick Charters		
X Forrest Braden	Southeast Alaska Guide Dog		
X Jeff Kauffman	fisherman		
X ARNE FUGLVOG	NSFC		
X CHRIS WOODLEY	GROUND FISH FORUM		X
X Simon ^{Phyllis} Swetzel JR.	Fisherman		
X Joe Kashevarot	Fisherman		
X RICARDO MERCULIEF ^{Brooke Bedingfield Winger}	FISHERMAN, crew member/partner		
X Mateo PR-SOLDAN	City of St. Paul		
X Peggy Parker	Halibut Assn. of North America		
X Rachel Donkersloot	AMEC		
X Linda Behnken	ALFA		
X Jim Martin	ACA		
X Heather McCarty	CBSFA		
X Melissa Heflin	Bering Sea Elders Group		
23			
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NOTE to persons providing oral or written testimony to the Council: Section 307(1)(I) of the Magnuson-Stevens Fishery Conservation and Management Act prohibits any person "to knowingly and willfully submit to a Council, the Secretary, or the Governor of a State false information (including, but not limited to, false information regarding the capacity and extent to which a United State fish processor, on an annual basis, will process a portion of the optimum yield of a fishery that will be harvested by fishing vessels of the United States) regarding any matter that the Council, Secretary, or Governor is considering in the course of carrying out this Act.



C-1: Halibut ABM DEIS

NPFMC October 2019

Homer

BSAI CP H&L: aka the “non-trawl” sector.

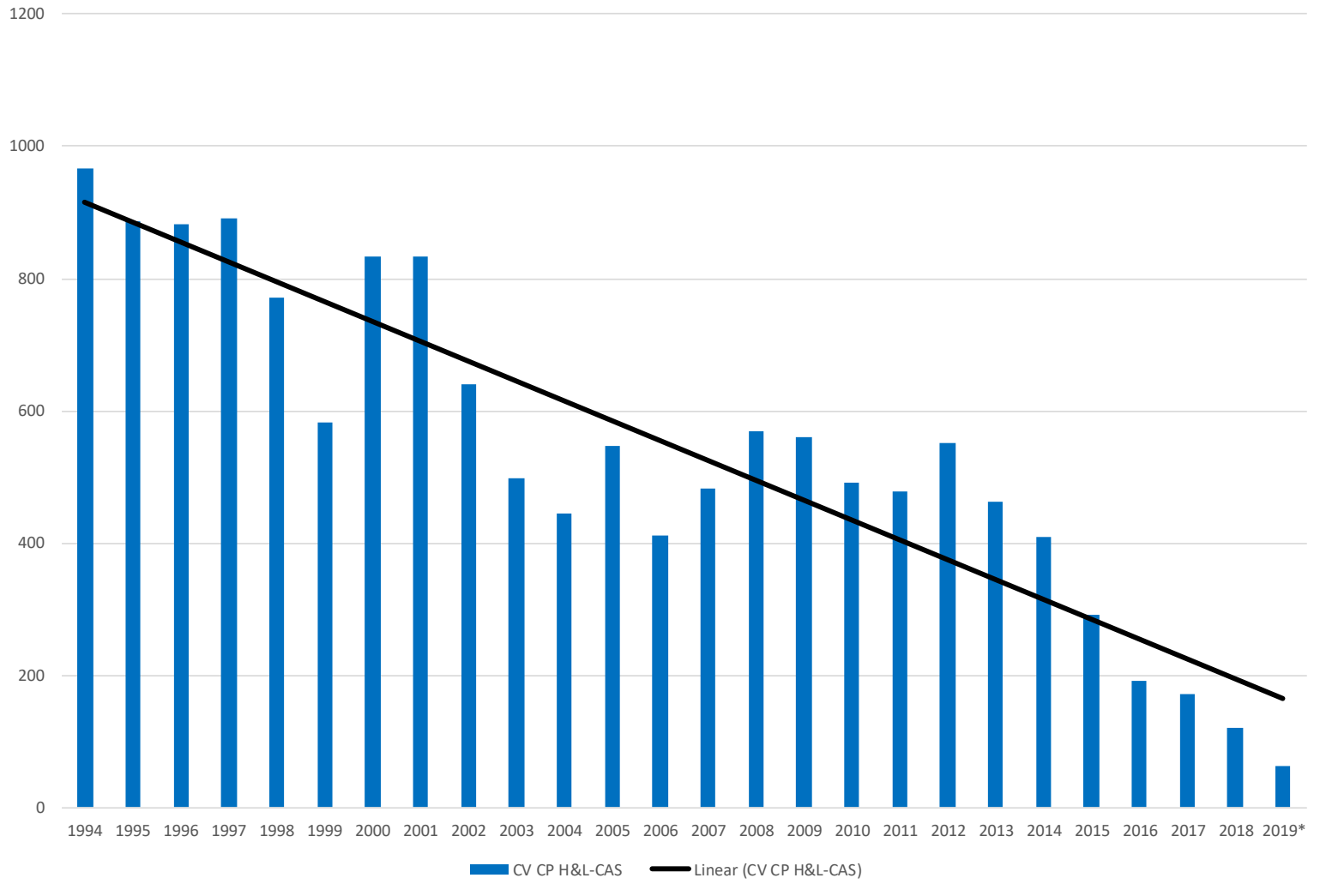
Halibut PSC use update:

- **2019** (as of 9/21) = **62 mt** PSC mortality
- **2018** PSC use = **120 mt**
- **2017** PSC use = **172 mt**

- **2017**: Total BSAI all gear PSC use = 1958 mt (of which CP H&L = **8.8%**)
- **2018**: Total BSAI all gear PSC use = 2075 mt (of which CP H&L = **5.8%**)
- **2019** (as of 9/21) all gear PSC use = 1998 mt (of which CP H&L = **3%**)

Decreased PSC use over time attributed to change in halibut abundance; improved DMRs (over time); and shift of fishing effort further north (lower encounter rates).

BSAI groundfish H&L (CV and CP) halibut PSC mortality, mt (1994-2019)



FLC ABM Proposal (Alt 3.2a): Depending on how you read it the AP motion could remove our proposal – or not.

- **11 X 11 “Look-up table” with the two (EBS BTS and IPHC Area 4 survey) weighted equally. Standardized to the mean (1998-2018)**
- Rationale: The size composition of halibut in the CP H&L sector falls between both surveys.
- Premise of using the mean is what is “average halibut biomass” = 1.0 for each individual index. AND what should the PSC limit be at average halibut biomass (starting point at the middle of the table). Survey index values below 1.0 result in lower PSC limits and survey index values above 1.0 result in higher limits.
- 2018 does not represent average biomass or average use or the normal footprint of the fishery
- Retain FLC proposal as is in the DEIS (but maybe with an improved easier to read formatting).

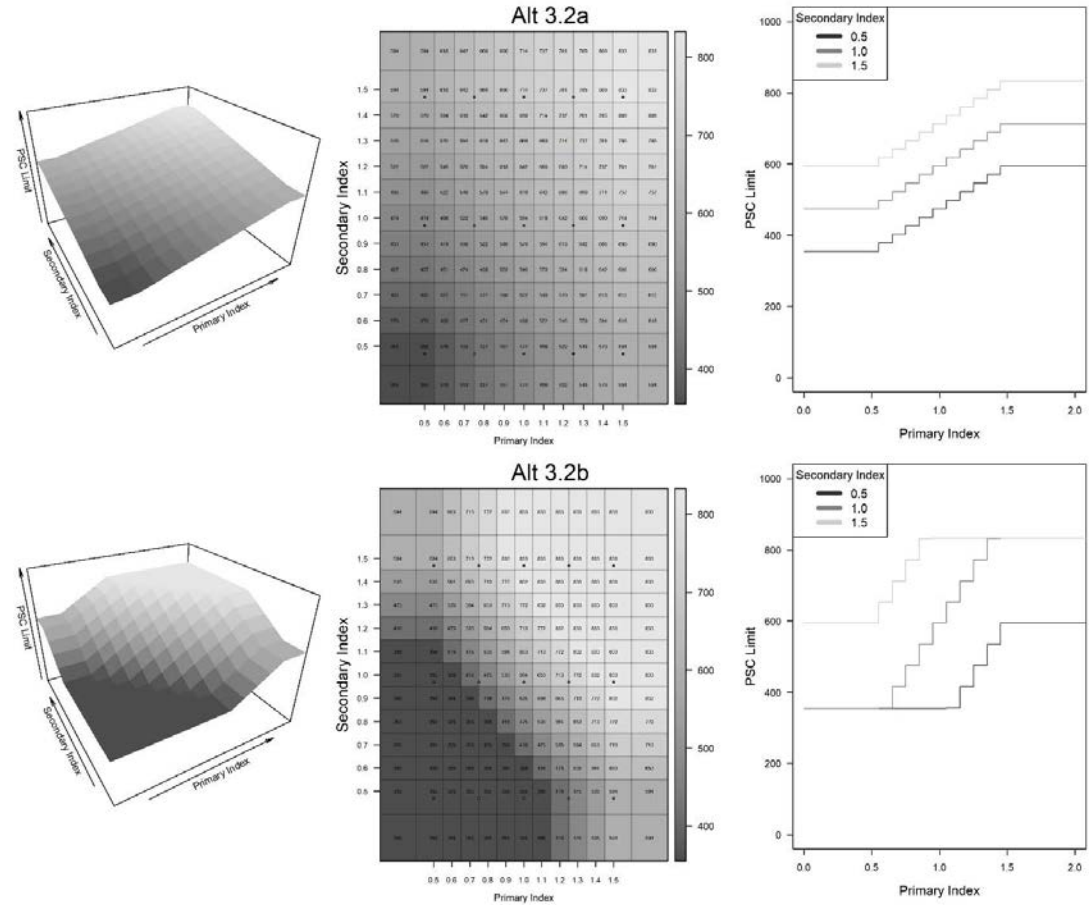
U26/O26 Size composition (in N, numbers of fish, 2008-2016 avg), from Oct 2017 discussion paper, Table 6, p. 37.

<u>Survey/Sector</u>	<u>%U26</u>	<u>% O26</u>	<u>%O32</u>
EBS shelf trawl	80%	20%	6%
IPHC survey	10%	90%	55%
NPT groundfish	87%	13%	3%
PT groundfish	85%	15%	3%
H&L groundfish	57%	43%	10%

FLC “look-up” table proposal use both indices (EBS BTS and IPHC Area 4) weighted equally. 1.0 is the mean of 1998-2018 halibut abundance in each index. 1.0 is the center of the table, and the middle of each axis.

1.5	594	618	642	666	690	713	737	761	785	809	833
1.4	570	594	618	642	666	690	713	737	761	785	809
1.3	546	570	594	618	642	666	690	713	737	761	785
1.2	522	546	570	594	618	642	666	690	713	737	761
1.1	498	522	546	570	594	618	642	666	690	713	737
1	474	498	522	546	570	594	618	642	666	690	713
0.9	451	474	498	522	546	570	594	618	642	666	690
0.8	433	451	474	498	522	546	570	594	618	642	666
0.7	403	433	451	474	498	522	546	570	594	618	642
0.6	379	403	433	451	474	498	522	546	570	594	618
0.5	355	379	403	433	451	474	498	522	546	570	594
	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5

FLC proposal – now Alternative 3.2a.

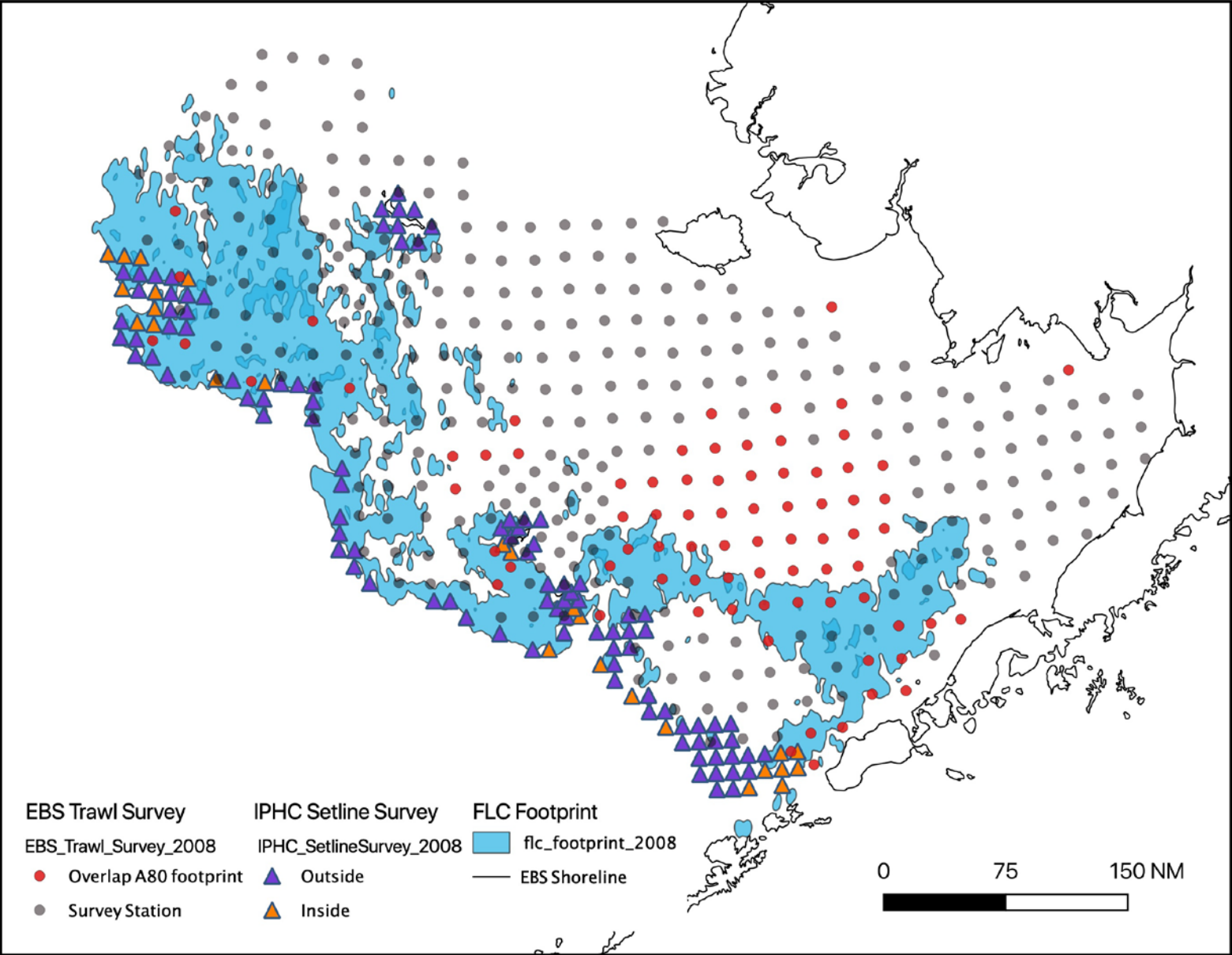


BSAI CP H&L p-cod fishery “footprint”, 2008-2018

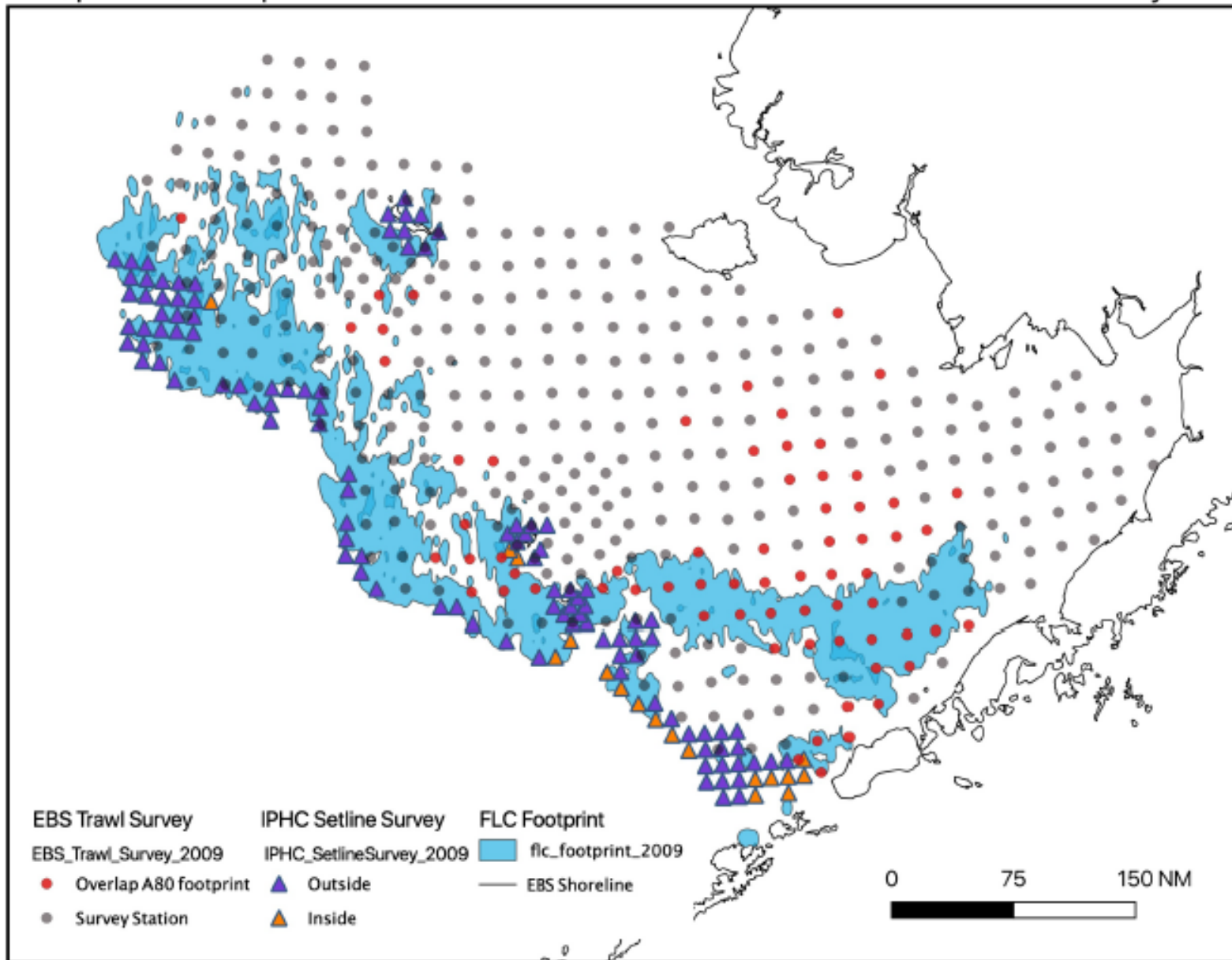
(from SeaState: Steve Martell)

- Show degree of spatial overlap between CP H&L fishery footprint and EBS and IPHC surveys.
- Footprint is not covered completely by any one survey but is partially covered by both surveys (but varies year to year).
- “Circles” = EBS BTS trawl survey (does not change annually)
- “Triangles” = IPHC survey (standard stations and additional stations change annually).
- “Blue” = fishery footprint
- So starting with 2008

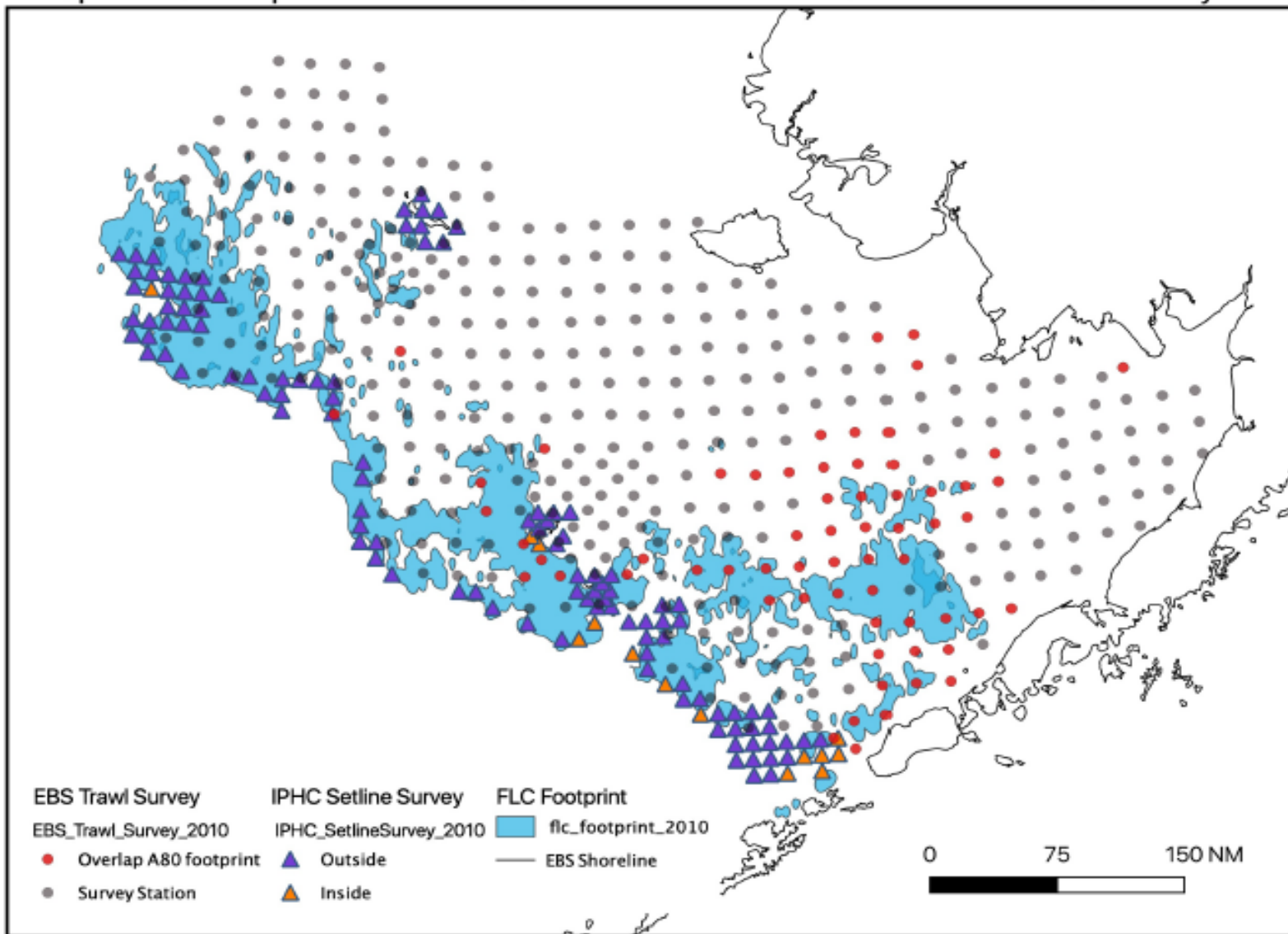
Spatial Overlap between FLC Vessels and the EBS trawl and IPHC surveys.



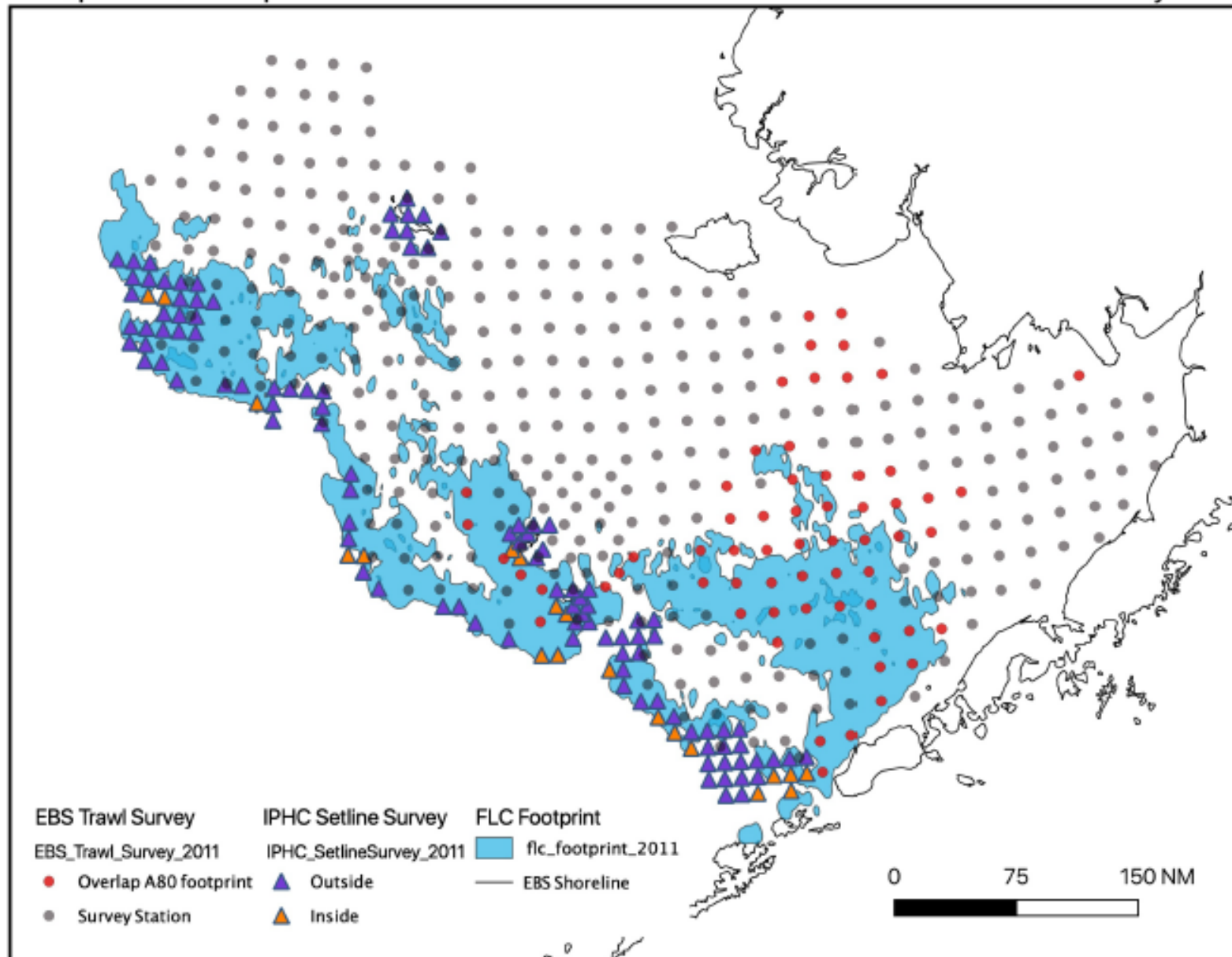
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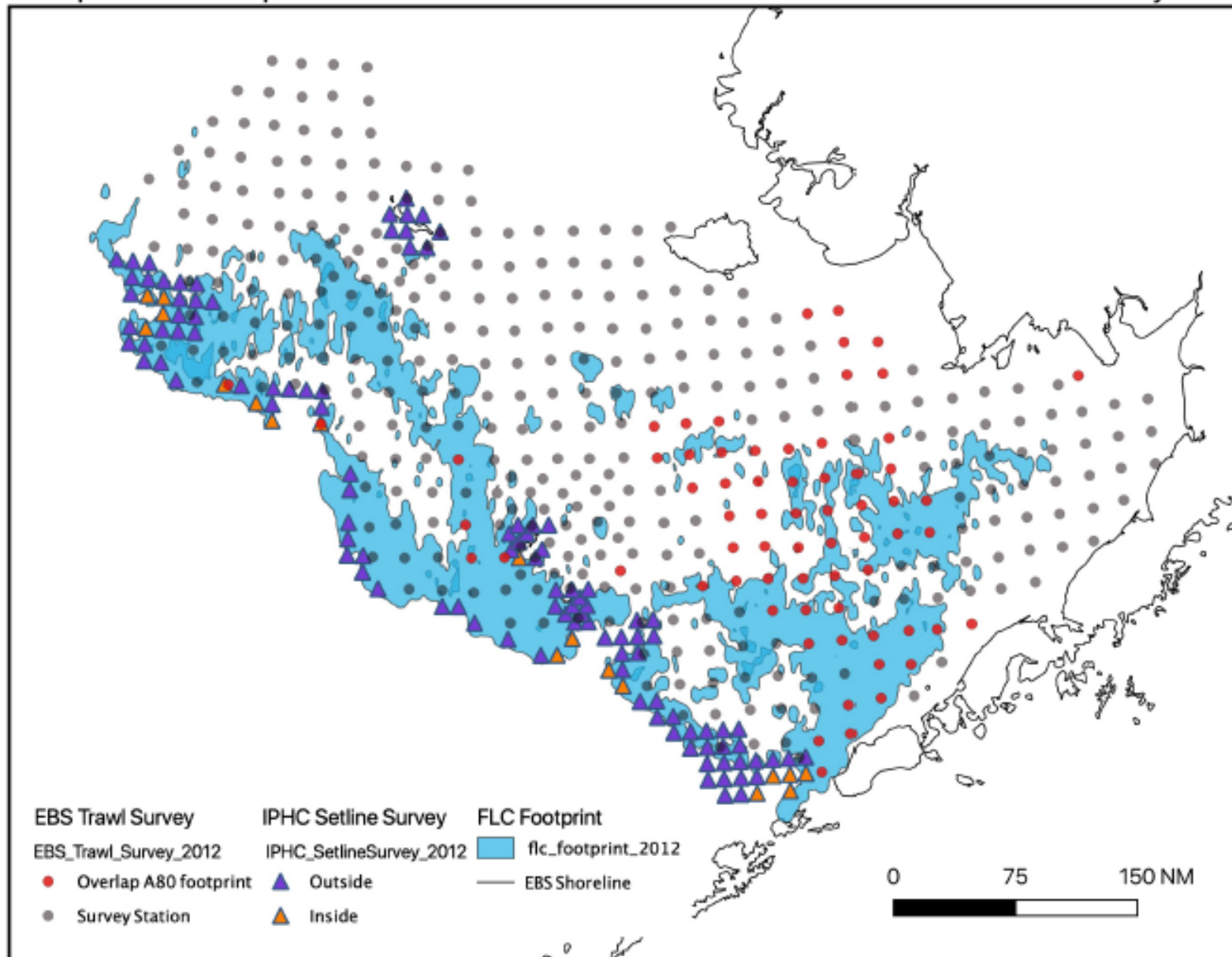
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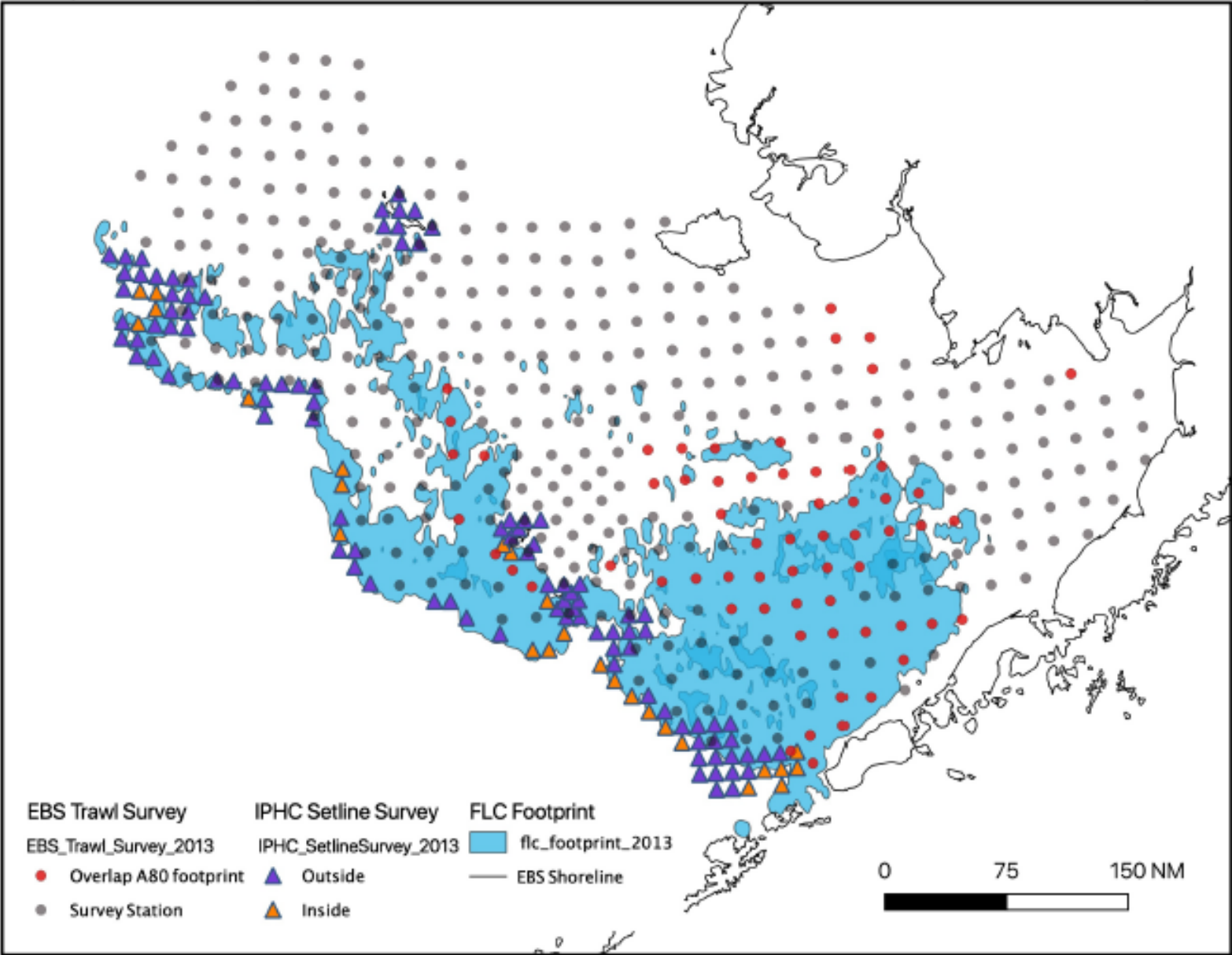
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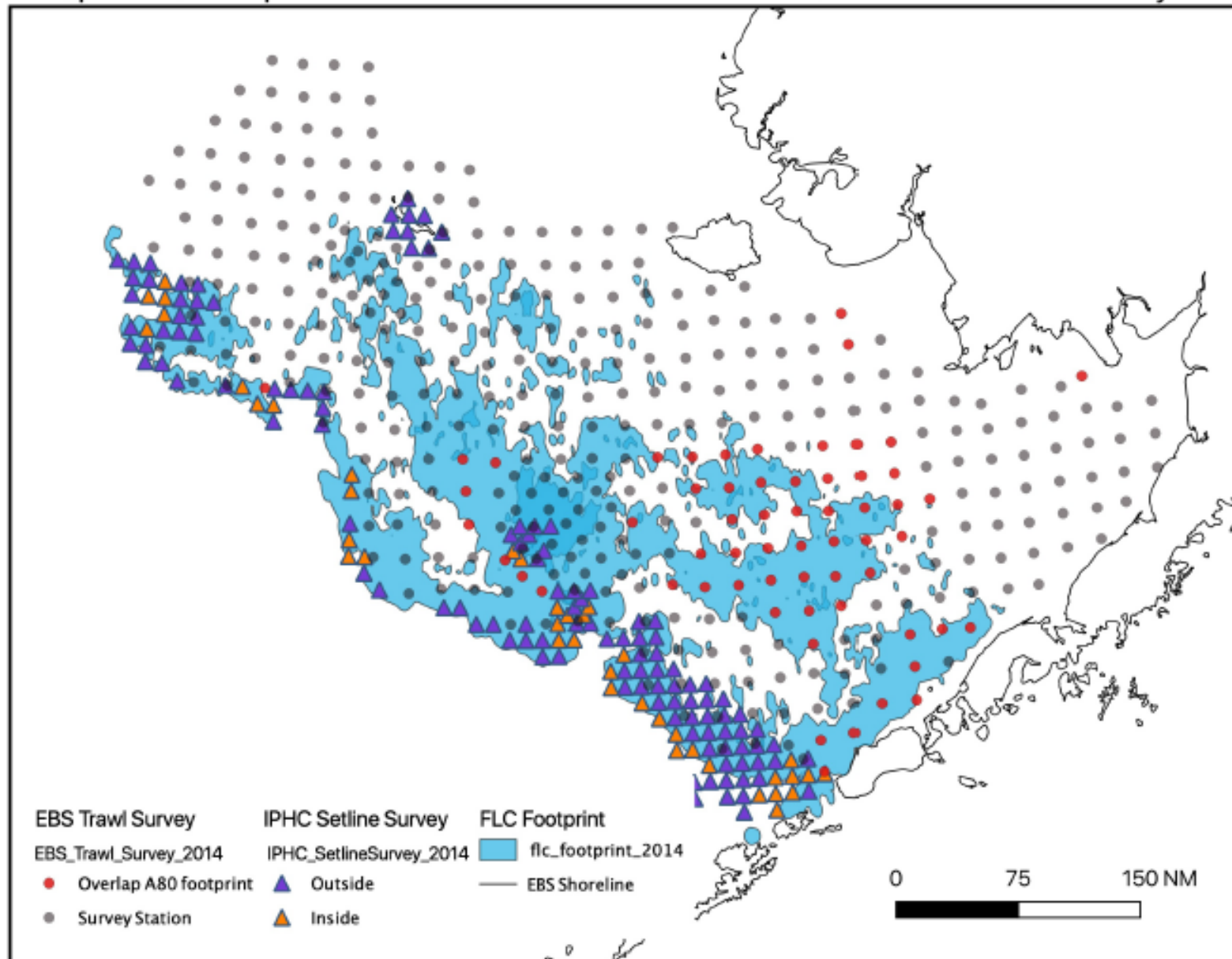
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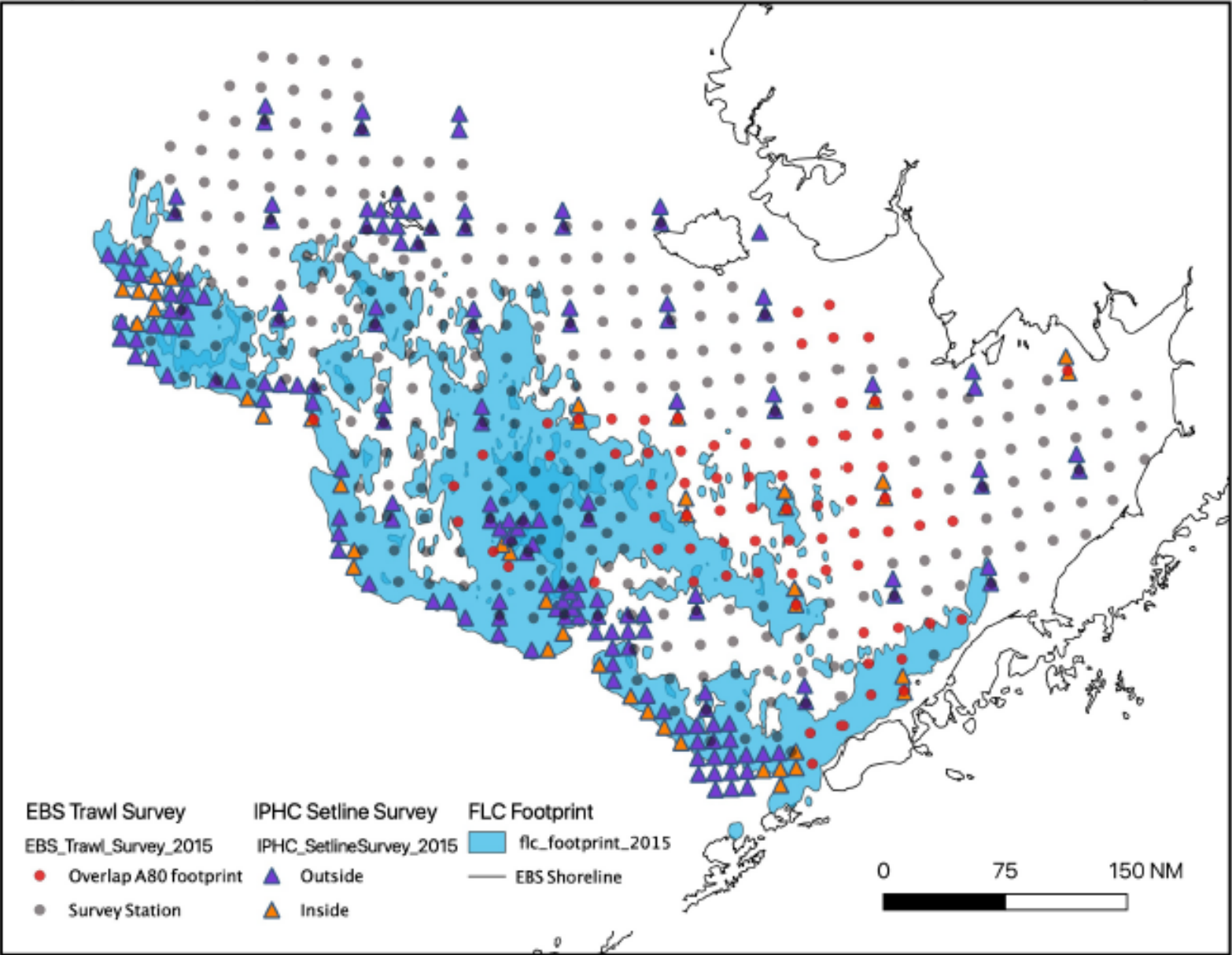
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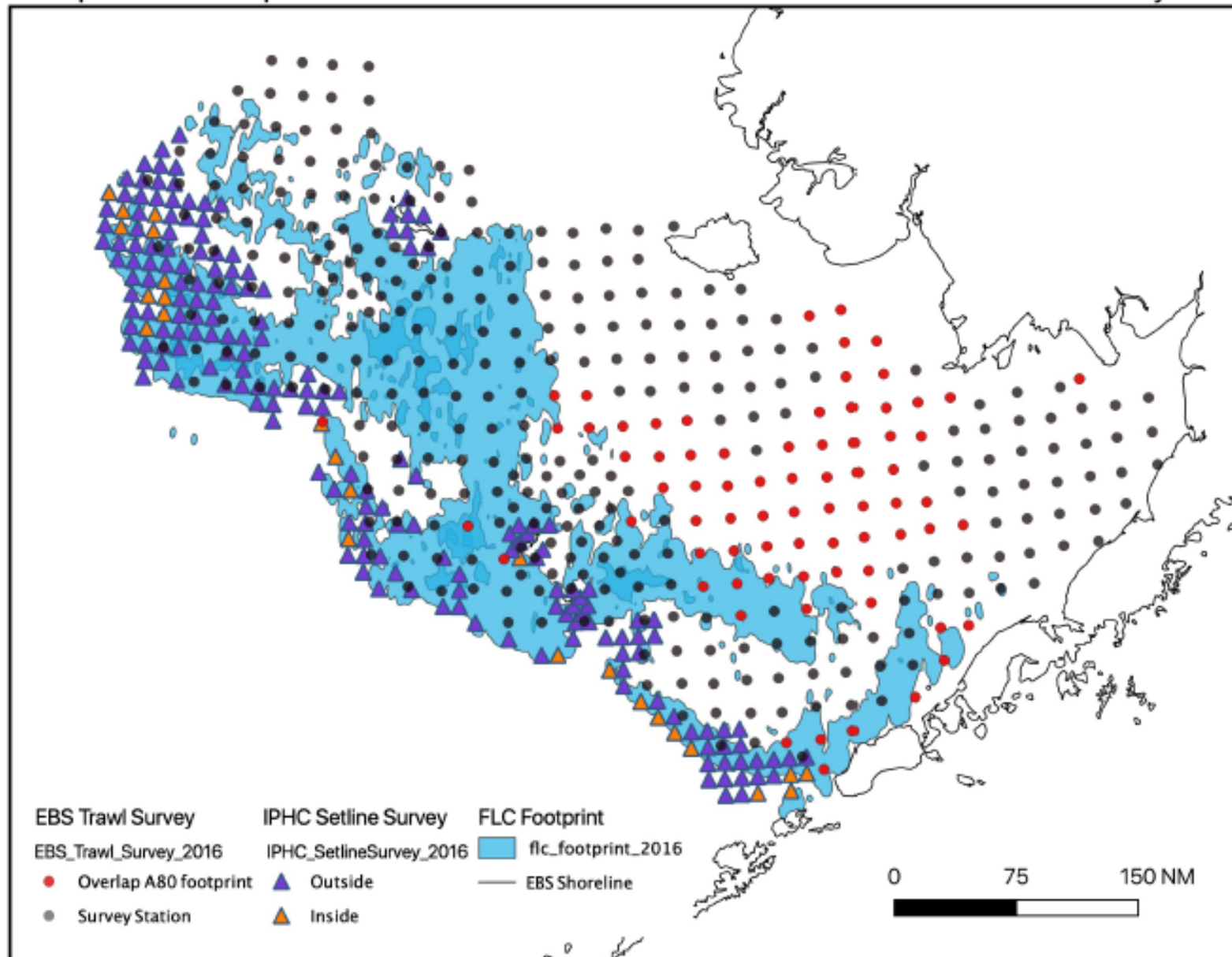
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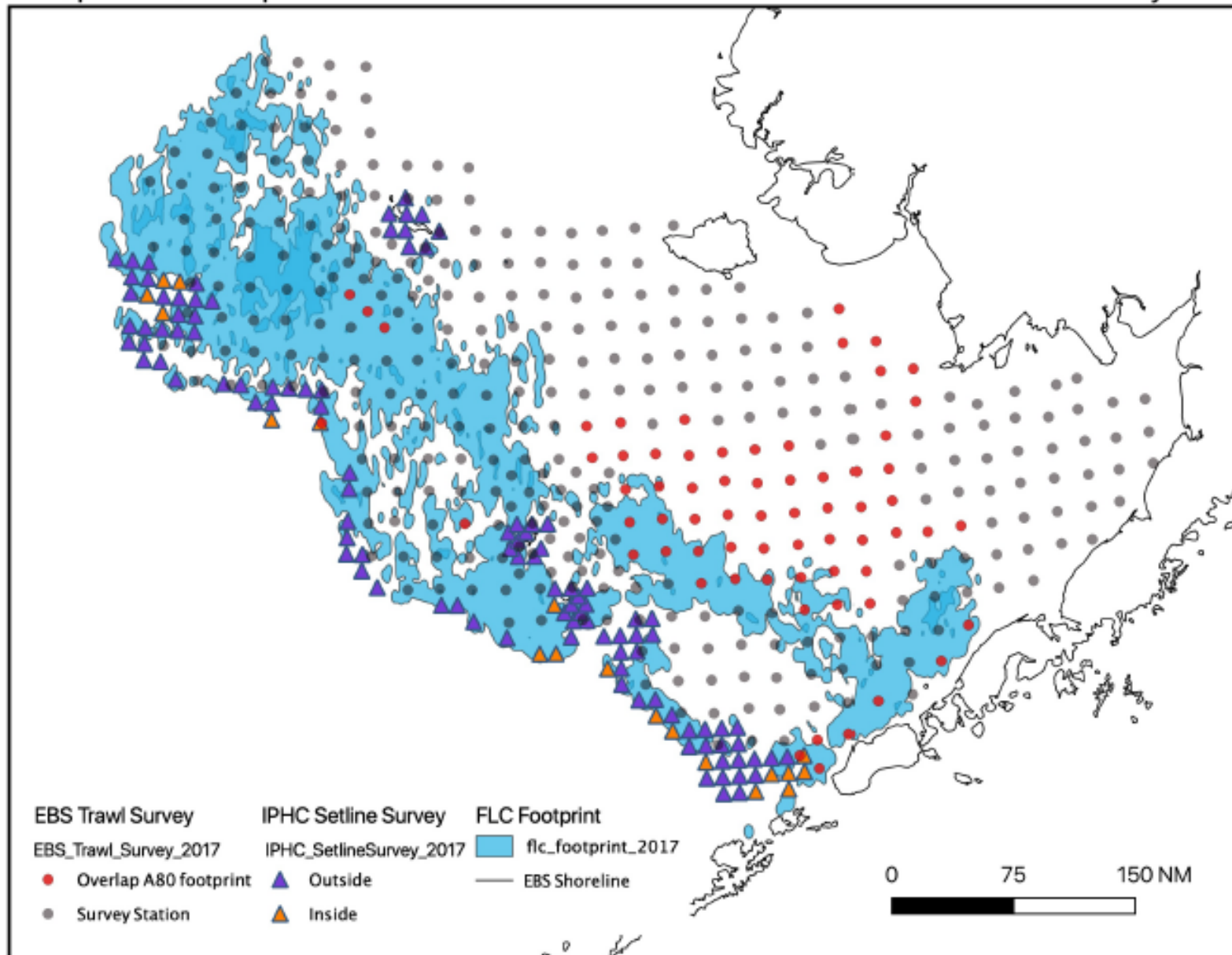
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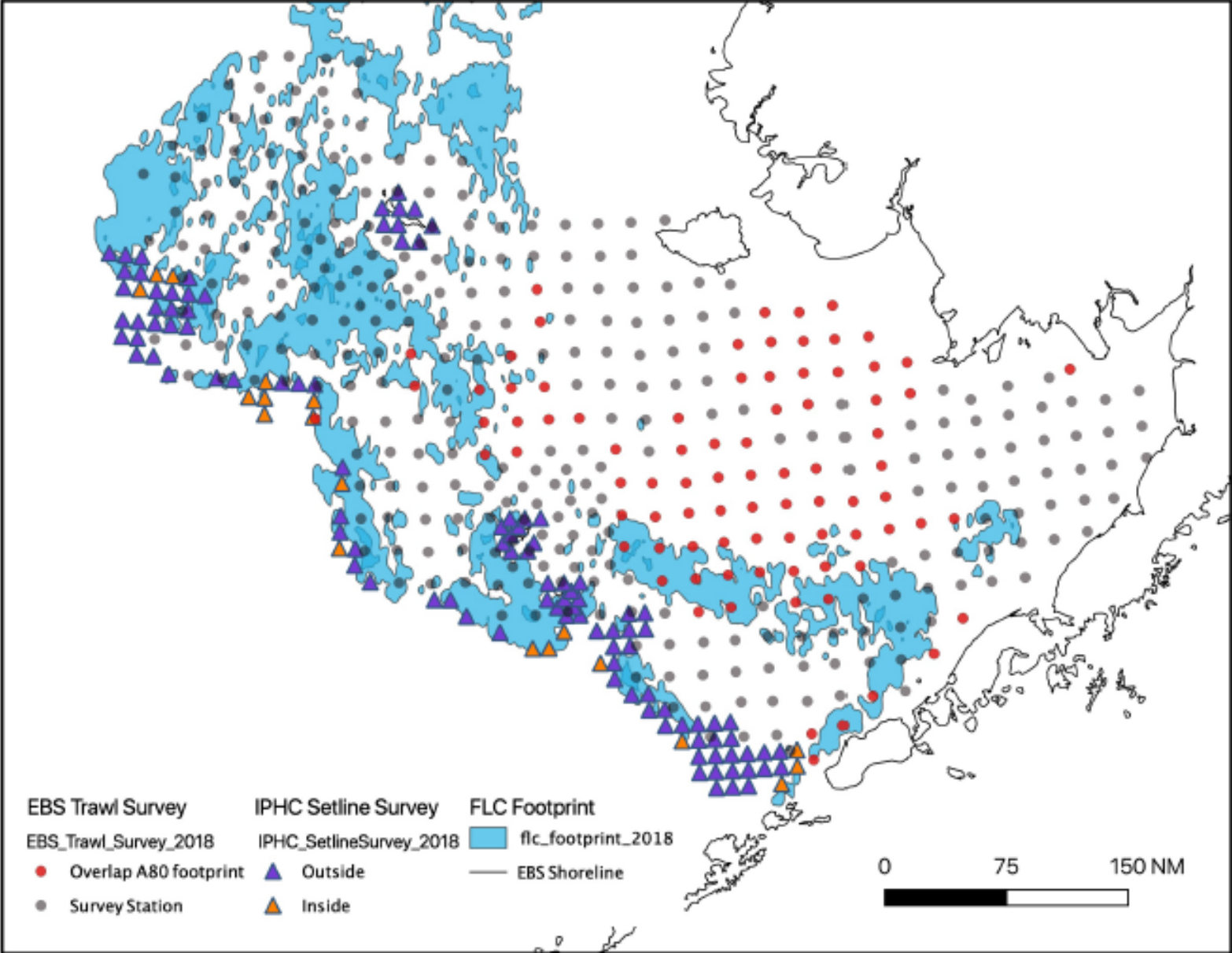
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Spatial Overlap between FLC Vessels and the EBS trawl and IPHC surveys.



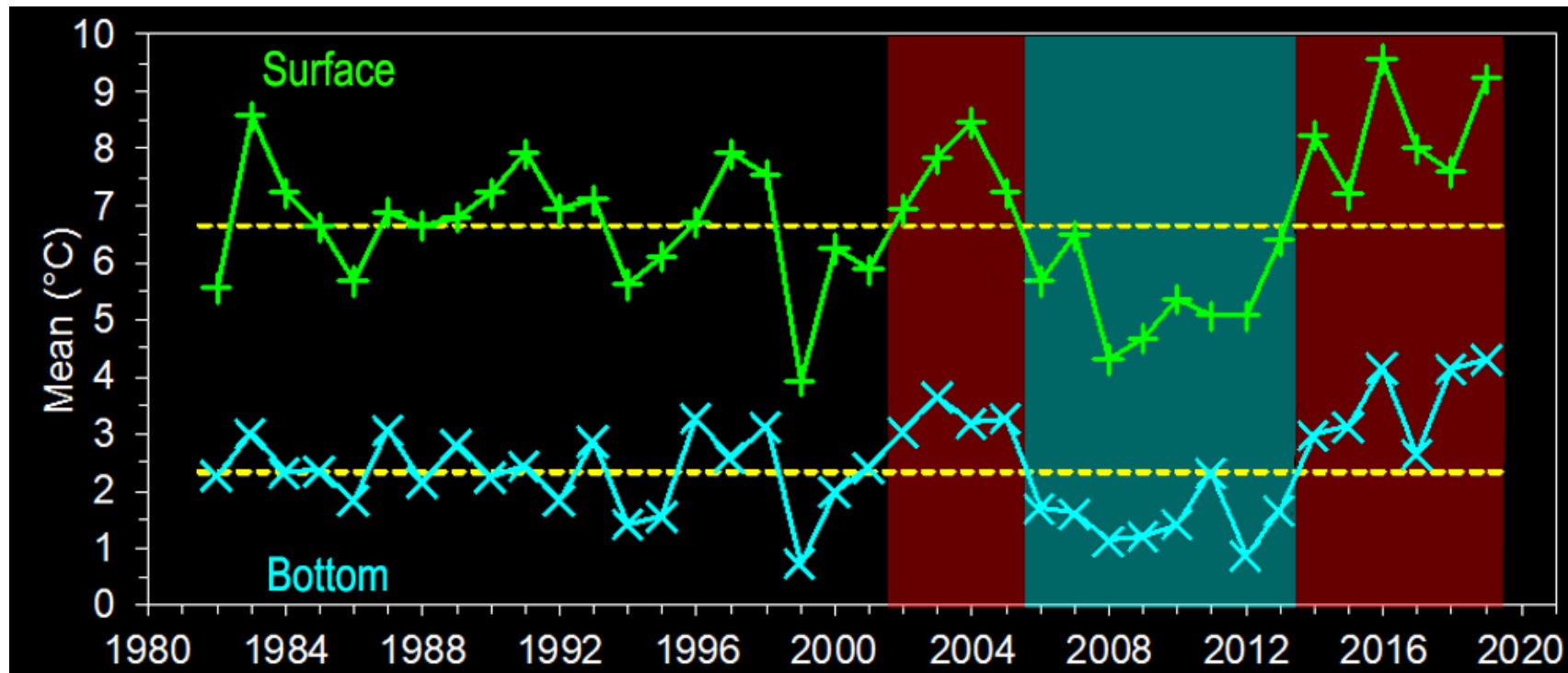
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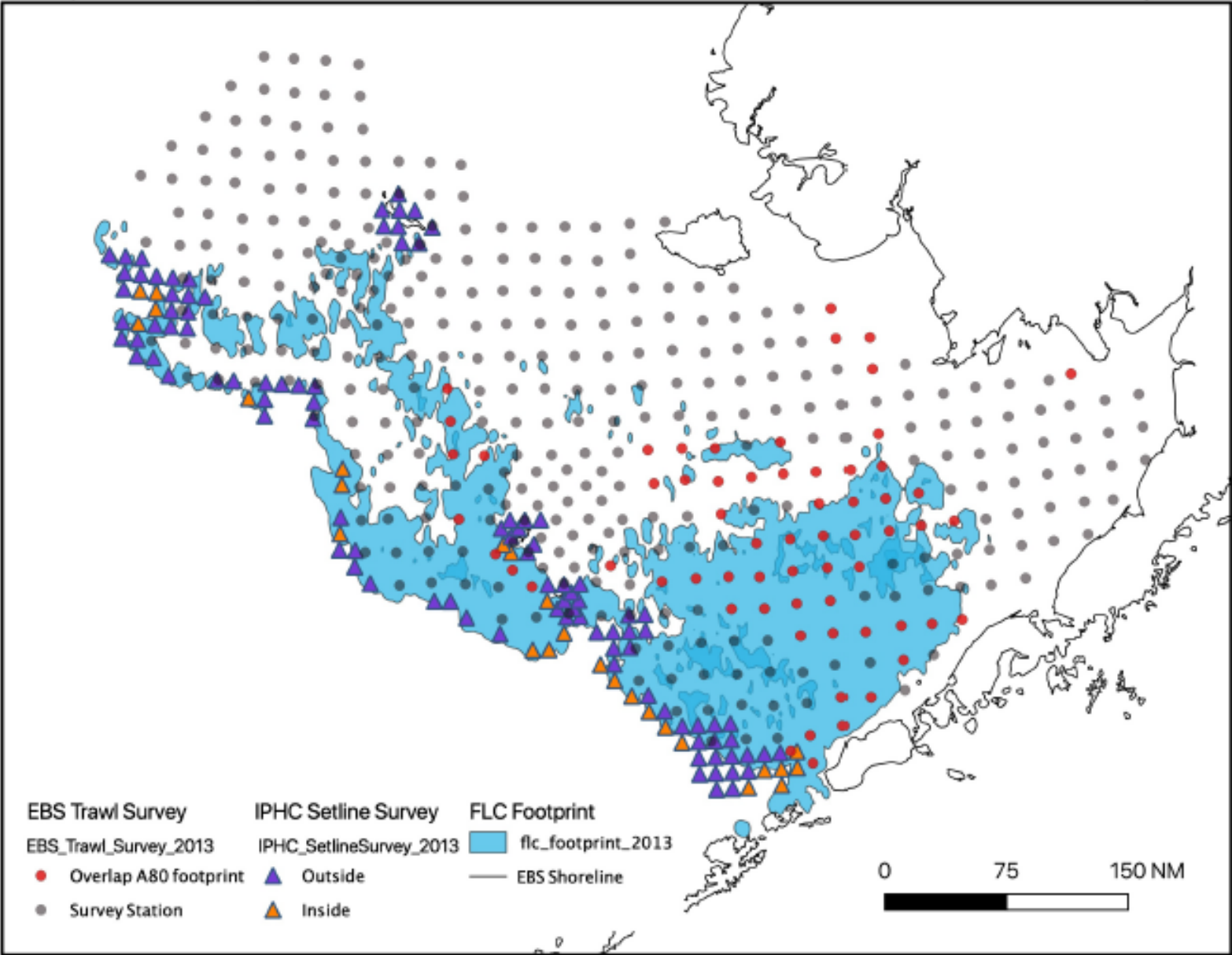
Contrast of more southern footprint (2013) versus more northern footprint (2017):

- Halibut encounter rates are generally lower higher in the northern Bering Sea than in the southern Bering Sea.
- With the fishery footprint shifting northward during the warmer water regime, encounter rates and PSC use are lower.
- However, if the water temperature regime is cyclic, then the expectation is that as water temperatures cool, the fishery footprint would again shift southward (i.e. higher encounter rates).
- ABM proposals that based on recent PSC use in the parameters would not be reflective of PSC over a broader range of conditions for our sector.

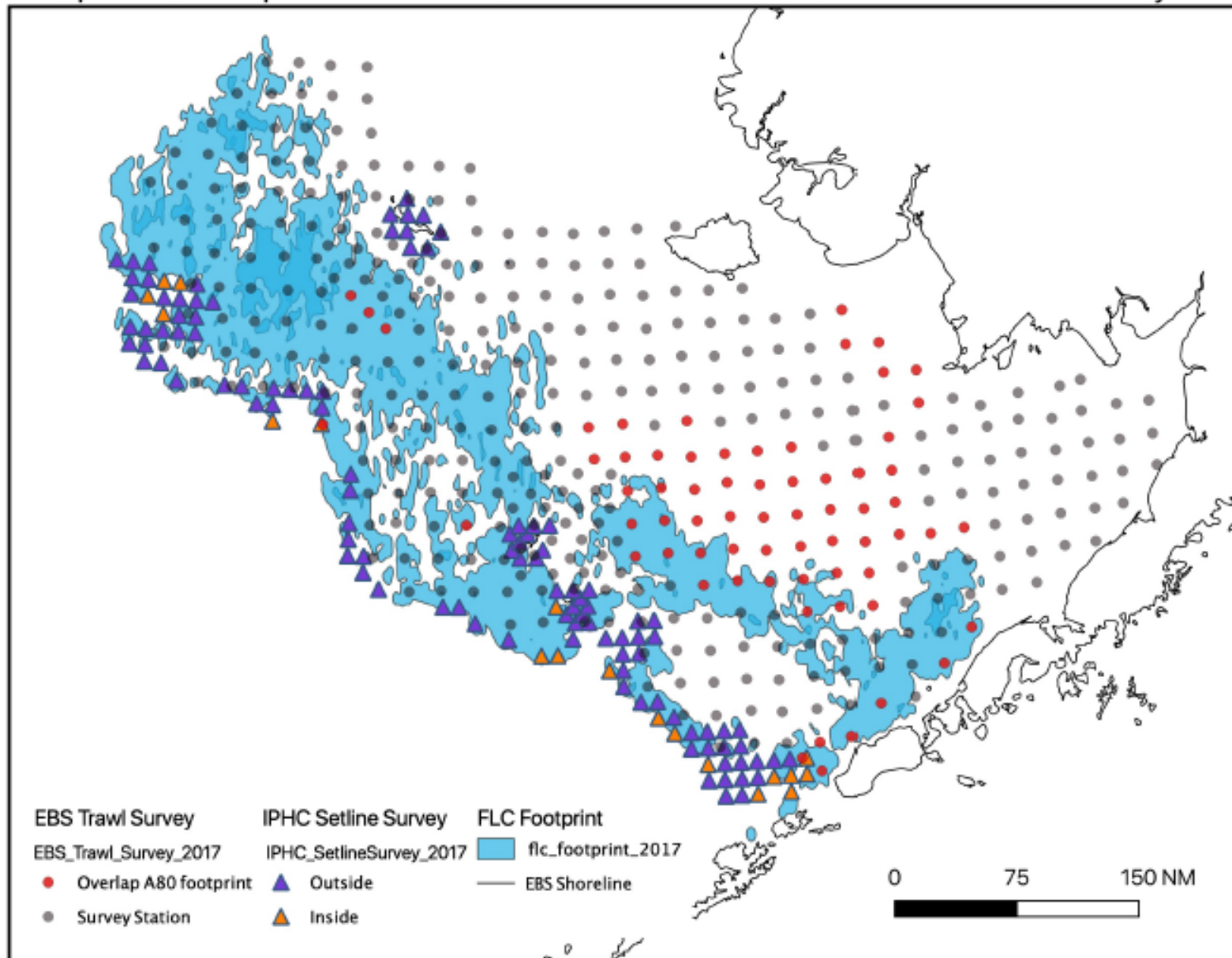
2019 EBS BTS survey report: Surface (SST, top) and Bottom temperature, 1982-2019.



Spatial Overlap between FLC Vessels and the EBS trawl and IPHC surveys.



Spatial Overlap between FLC Vessels and the EBS trawl and IPHC surveys.



CDQ Vessel Ownership in the BSAI CP H&L sector: Almost half the fleet has CDQ ownership (33%-100%)

- | | | |
|---|--------|------|
| • Bering Prowler | APICDA | 33% |
| • Gulf Prowler | APICDA | 33% |
| • Ocean Prowler | APICDA | 33% |
| • Arctic Prowler | APICDA | 33% |
| • Alaskan Leader | BBEDC | 50% |
| • Northern Leader | BBEDC | 50% |
| • Bristol Leader | BBEDC | 50% |
| • Bering Leader | BBEDC | 50% |
| • Flicka | CVRF | 100% |
| • Lilli Ann | CVRF | 100% |
| • Baranof | YRDFA | 41% |
| • Courageous | YRDFA | 50% |
| • And three additional BSAI CP H&L licenses | | |

Exploring the relationship between A80 halibut bycatch rates and the NMFS trawl survey index and resulting concerns for ABM

John Gauvin

Alaska Seafood Cooperative

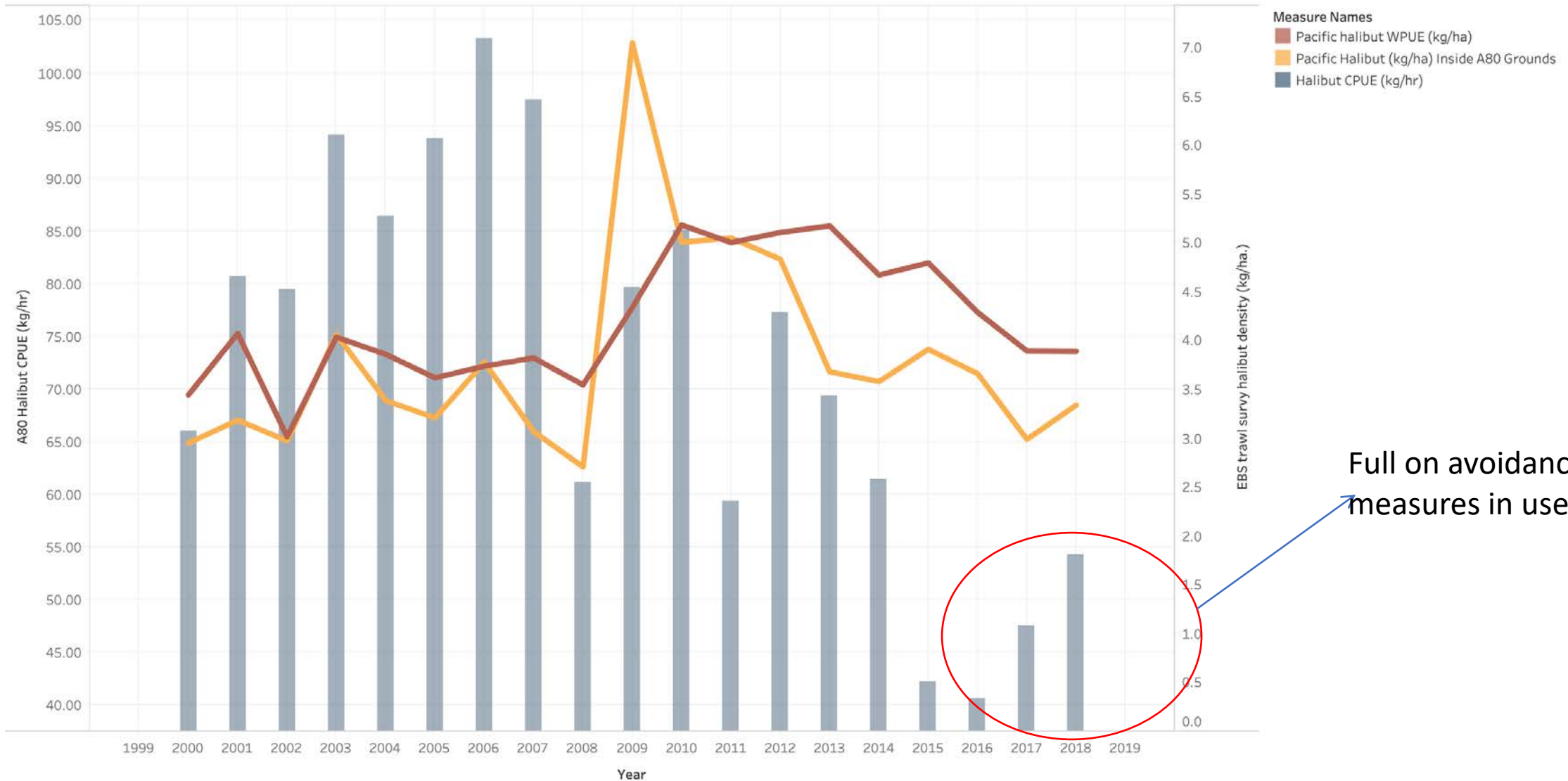
With technical assistance from Steve Martell
(Steve's GIS "Home Range" and correlation analysis)

Originally we thought the trawl survey index was a suitable index to meet the objective of providing “flexibility” to avoid constraining groundfish fisheries when abundance was high. Because size of halibut matched and we assumed our encounter rates were reasonably likely to follow the survey direction

AKSC has noted a “disconnect” between the halibut abundance trends from the trawl survey in recent years and what A 80 is seeing in terms of halibut catch rates

This motivated us to take a look at the degree to which our halibut catch rates have tracked halibut abundance from the trawl survey over a longer period of time. Help us Steve M....

A80 & EBS halibut indices off abundance

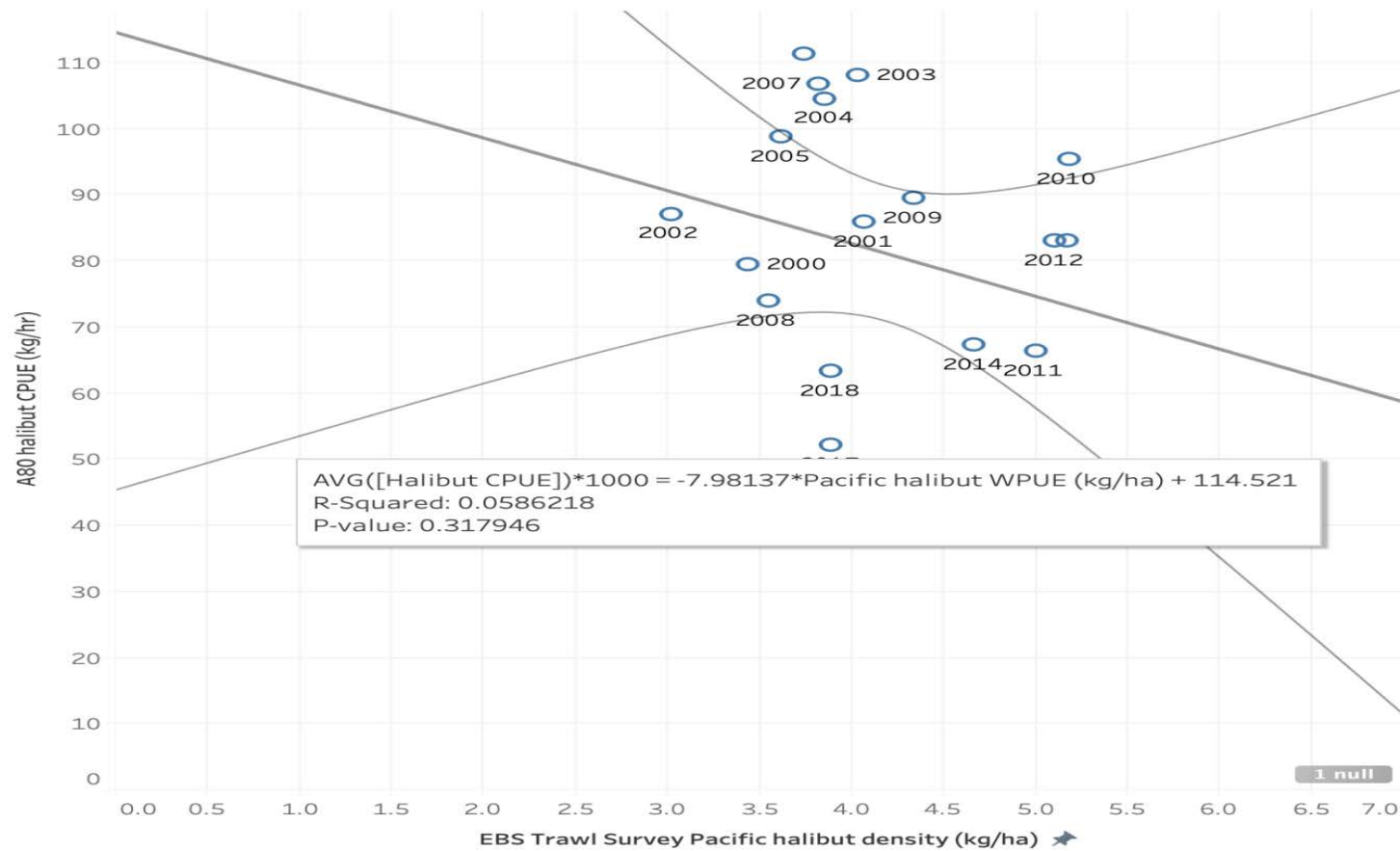


Origin
not
zero

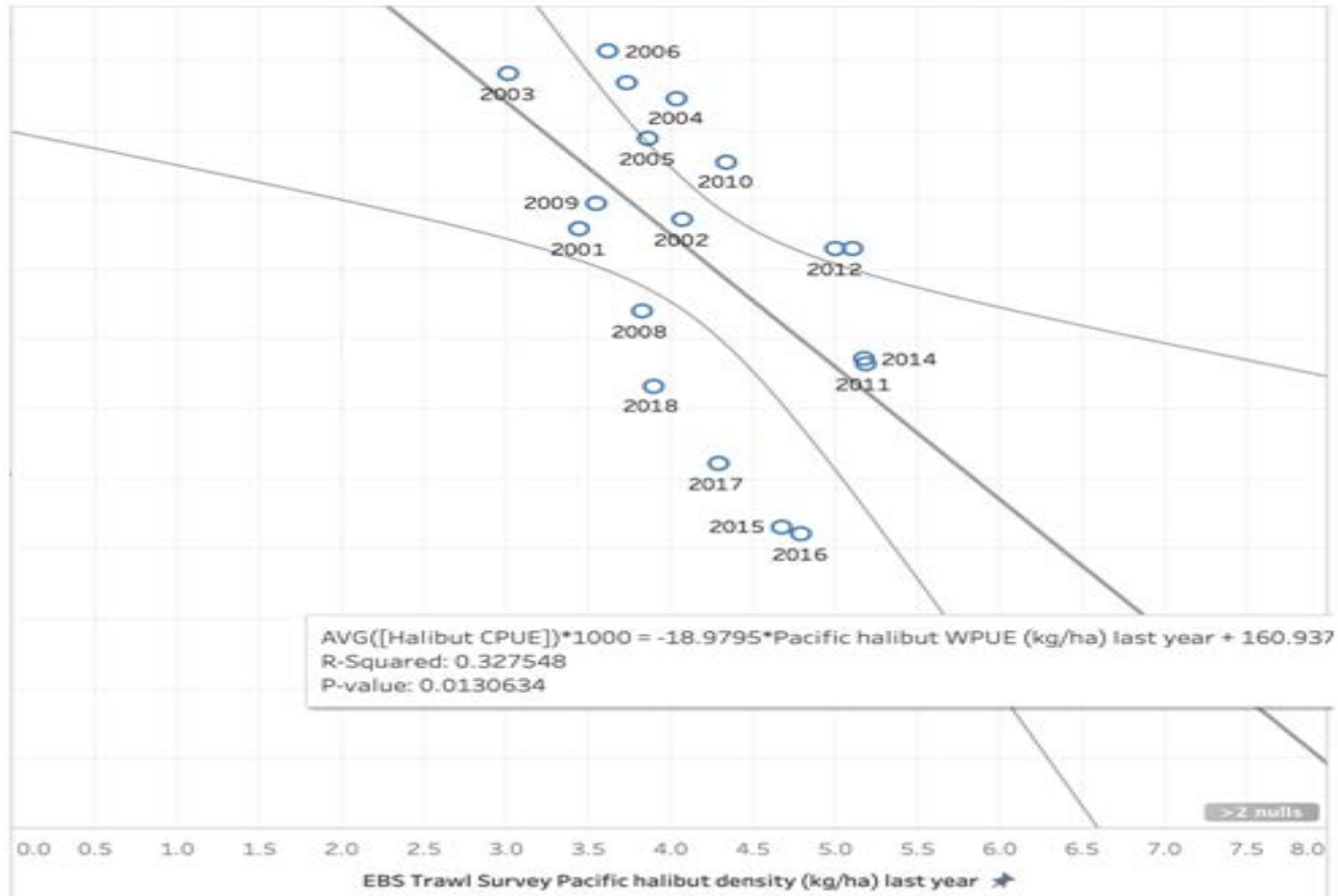
Full on avoidance
measures in use

The trends of Halibut CPUE (kg/hr), Halibut CPUE (kg/hr), Pacific halibut WPUE (kg/ha) and Pacific Halibut (kg/ha) Inside A80 Grounds for Year. Color shows details about Halibut CPUE (kg/hr), Pacific halibut WPUE (kg/ha) and Pacific Halibut (kg/ha) Inside A80 Grounds.

Degree of correlation between A 80 WPUE kg/hr and Trawl survey WPUE kg/ha is very low



Correlation between A 80 WPUE kg/hr and Trawl survey WPUE kg/ha using data from year before also low and negatively correlated



Why are encounter rates not well predicted by the trawl survey index?

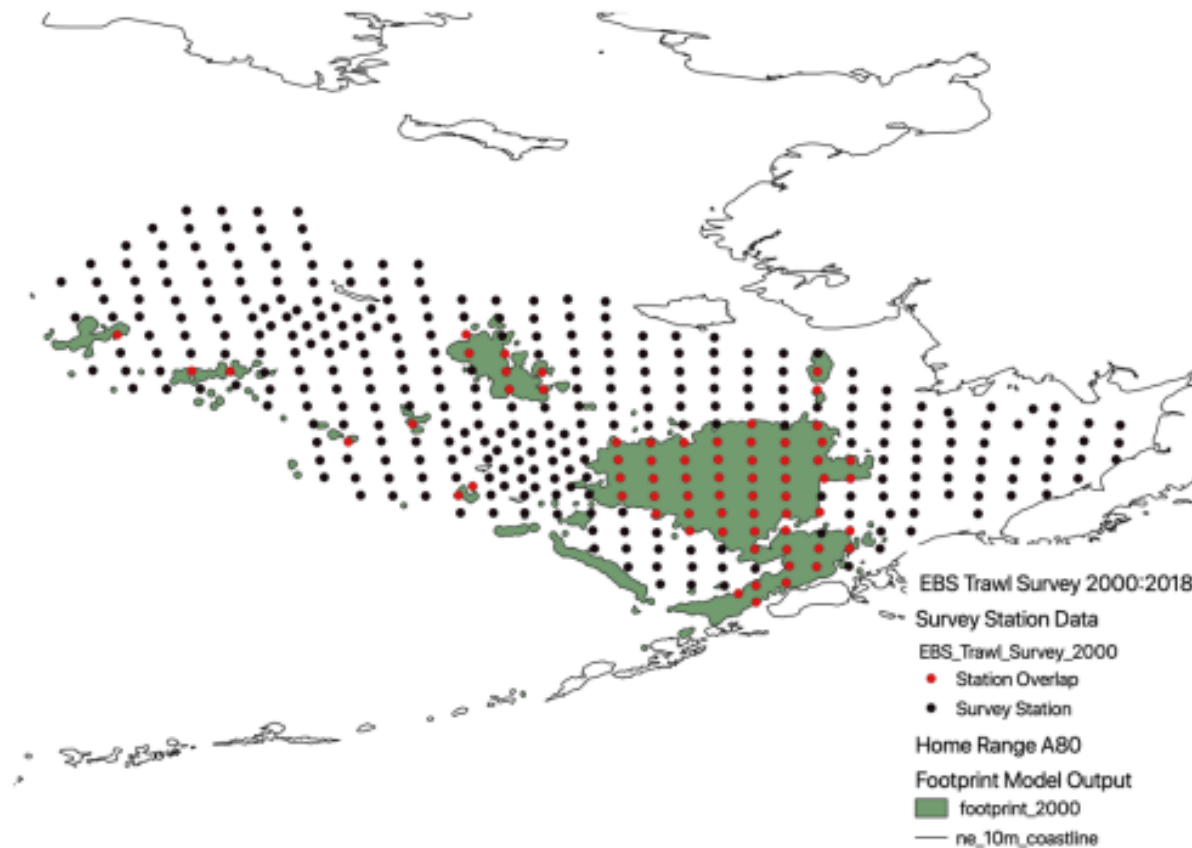
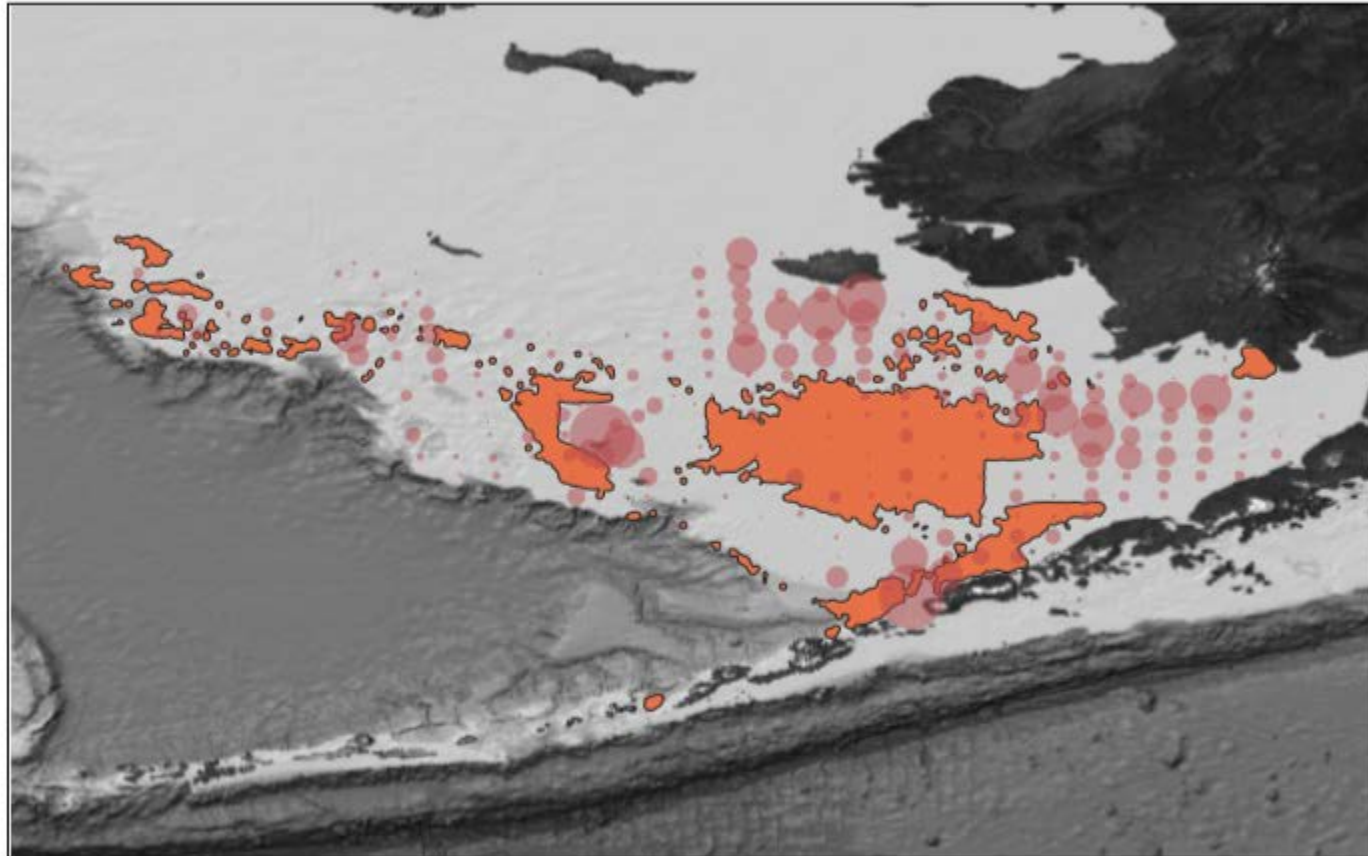


Figure 1. A80 groundfish trawl footprint in the year 2000 along with the EBS bottom trawl survey stations.

Survey stations in 2008 inside home range had low WPUE

A80 Footprint & EBS Trawl Survey

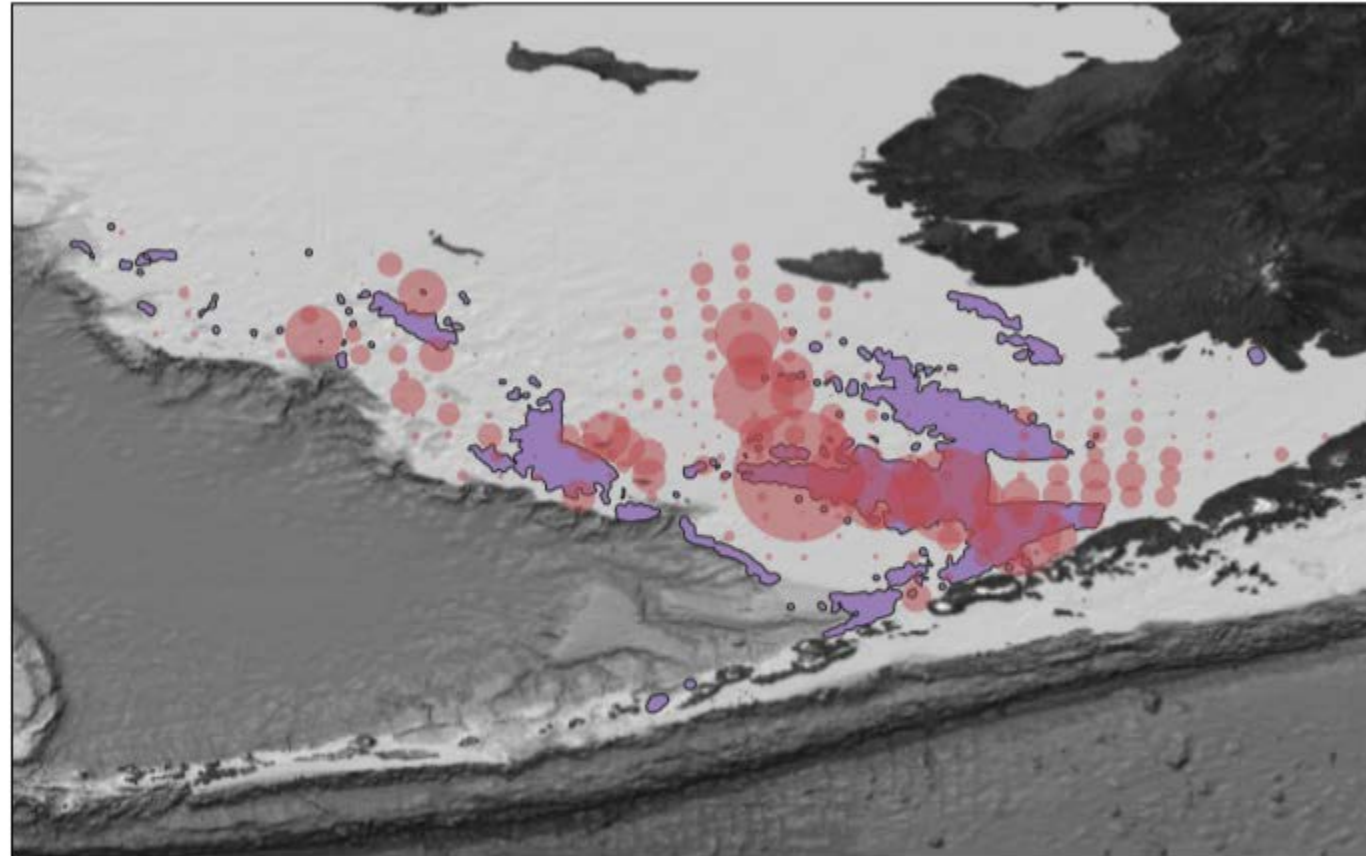


0 75 150 NM

EBS Trawl Survey A80 Footprints
• ebs2008_trawlsurvey ■ A80_fp_2008

Survey stations in 2009 in home range had higher WPUE

A80 Footprint & EBS Trawl Survey



0 75 150 NM



EBS Trawl Survey A80 Footprints
• ebs2009_trawlsurvey ■ A80_fp_2009

Implications:

From ABM purpose and need statement:

“There should be flexibility provided to avoid unnecessarily constraining the groundfish fishery particularly when halibut abundance is high”

Implications

- Practicability: How will this be ensured and how can the analysis take this into account
- It would be a lot easier to account for practicability with an index that reliably tracked bycatch encounters
- How will the range of potential impacts of this lack of correspondence be taken into account in the model and economic analysis?

Implications

- Randomness of relationship between index and encounter rate may be useful for looking at impacts (SSC)
- Recent past performance is still useful in “revenues at risk” for looking at impacts with proper caveats (why I think this is more useful now relative to 2015)

BSAI Halibut Abundance Based Management of PSC Limits

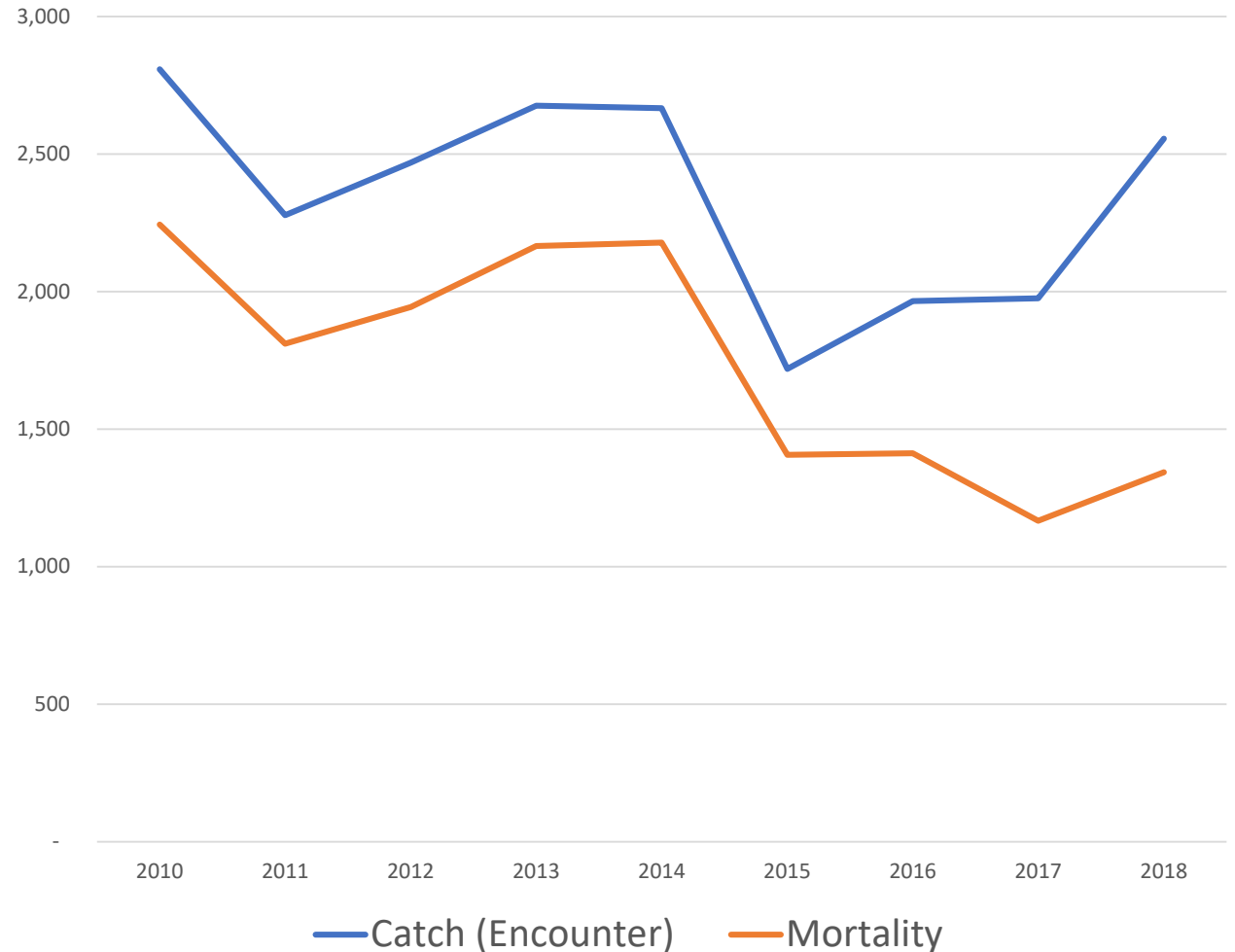
Groundfish Forum

Oct 2019

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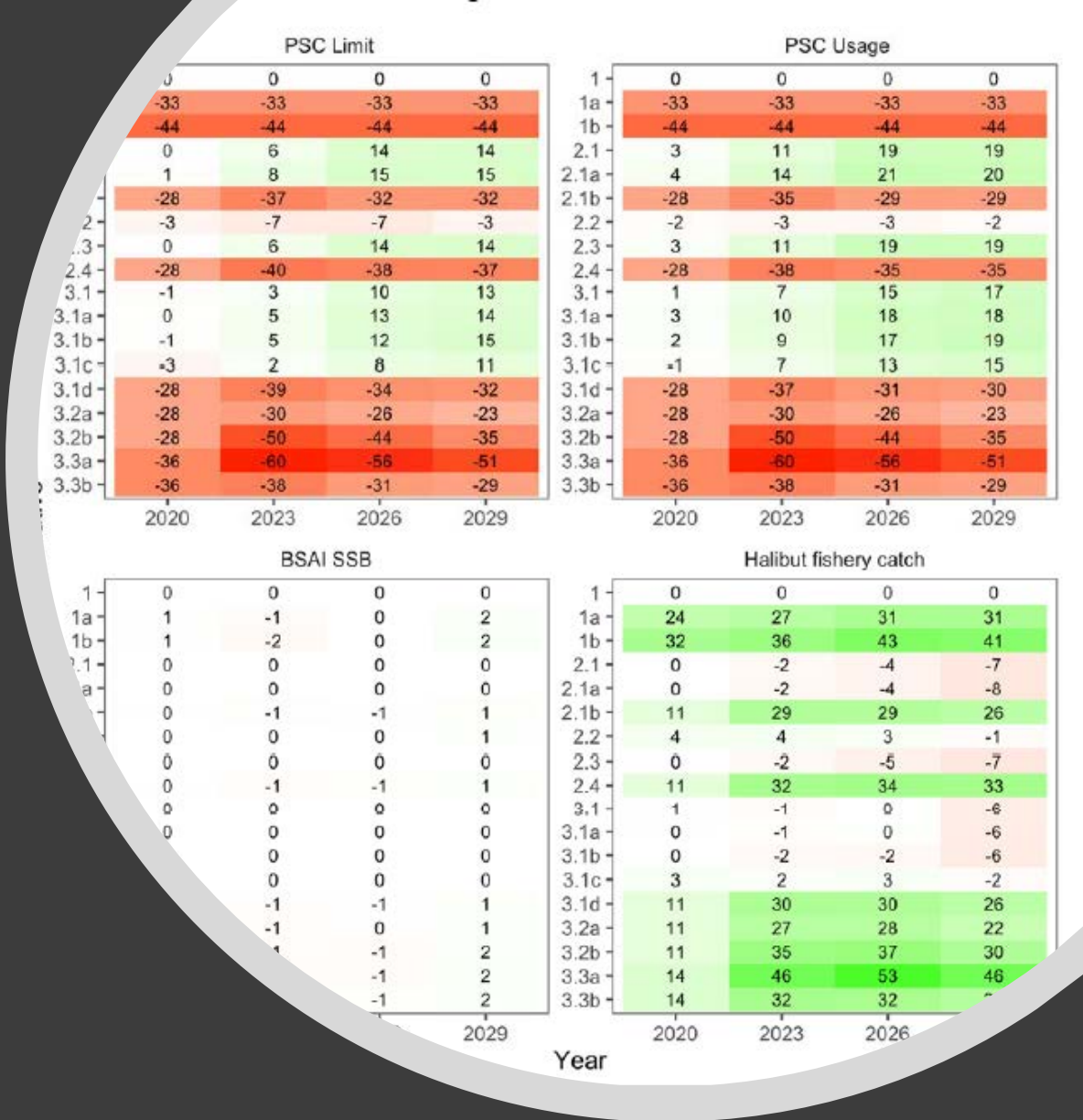
GFF PSC Encounter & Mortality (2010 – 2018)

- 40% decline in use since 2010
- 2018 use - 2nd lowest year
- Divergence since 2015 due to combination of deck sorting tool & halibut avoidance plan



Comments on Initial Review Draft

- Information necessary to make decisions is not available
- Ability to detail impact of alternatives is lacking
- Can't assess economic benefits / harm to directed or bycatch users.
- Community engagement and dependence needs amplifying info



A80 Asks for Next Iteration

- Inclusion of calculators / information to determine impact of starting point as compared to status quo
- Inclusion of tax revenues and product transfer report data to detail community dependence and engagement with catcher – processor sectors
- Request a calculator which demonstrates how a single ton of bycatch reduction benefits directed fishery user groups (IFQ and individual CDQ groups).
- Assessment / grading of Status Quo on page 19
- Performance metric that measures how well trawl survey as an abundance index correlates to bycatch conditions encountered by trawl sectors