

BSFRF Crab Research Update

Crab Plan Team – September 16, 2026

Seattle – NOAA Sand Point



Scott Goodman
Executive Director

*Photo Credits:
BSFRF Science Team*

Update to CPT Focuses on Three Projects:

- OPS surveys – opilio sampling w/ pots, trawls (Opilio, OPS1 and beyond)
- Simulated pot loss research – UFM exploration of pot function/status
- Opilio MSE – Industry, NOAA, and ADF&G exploring new options
- CPS seasonal distribution surveys (BBRKC, CPS3 and beyond)
- Tagging and movement research - continuing w/ partners
- Ongoing synthesis of information – tags, survey, fishery, habitat, temps →
- Sharing of current research with industry partners → PTR options
- Tanner Crab PhD and related research – focus on shortcut MSE
- Substantial Disaster Relief and Other Research



Opilio Pot Sampling 1 (OPS1)

[minimal overlap w/ effort for NMFS survey gear testing]

Project currently at sea finishing this week

Update on status/challenges

What's next



Opilio Pot Sampling 1 (OPS1)

Research Questions

1. How can focused snow crab sampling support improved understanding of stock recovery dynamics?
2. How do opilio catch rates and size compositions differ across gear types and in particular areas within the survey grounds?
3. How can crab industry vessels and stakeholder input be built into disaster relief crab research?

Opilio Pot Sampling 1 (OPS1)

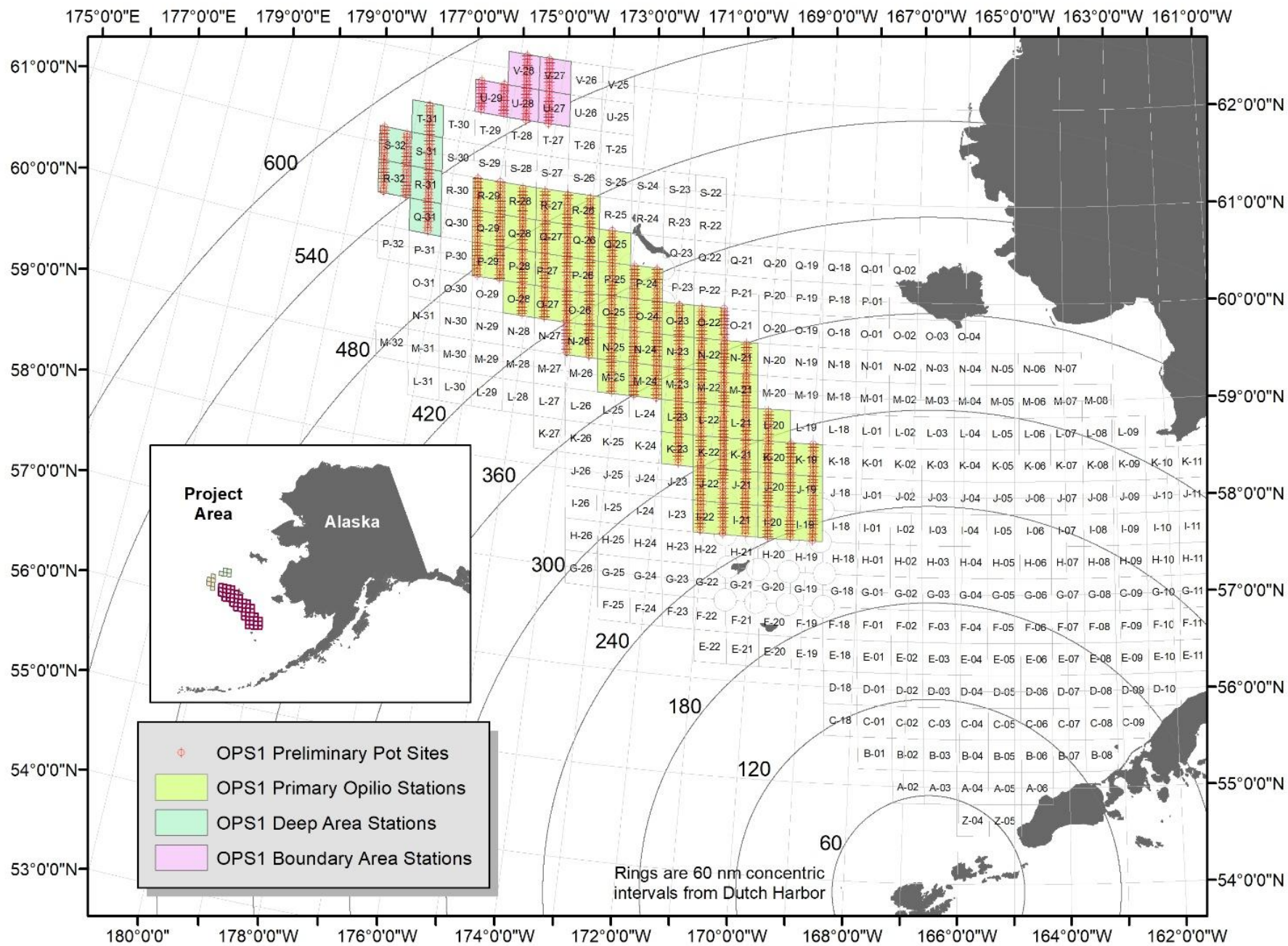
Primary Objectives

- Validate/calibrate Opilio CPUE from trawl/pot sampling
- Increased sampling density to examine variance
- Targeted sampling at fine scale in areas (in/out of survey area)
- Index area stations in deep water, EBS/NBS boundary
- Collection of chela measurements, higher spatial resolution
- Collect bottom temperature information over OPS area
- Secondary – cameras in pots, bait tests, tagging

Opilio Pot Sampling 1 (OPS1)

2026 Status

- Adjustments to start time and charter term
- Adjustments to sampling grid
- Adjustments to weather and challenges
- Monitoring sampling coverage and crab catches
- Getting as much done as time/weather allows
- Added 5 days to charter, total is 30 days per boat

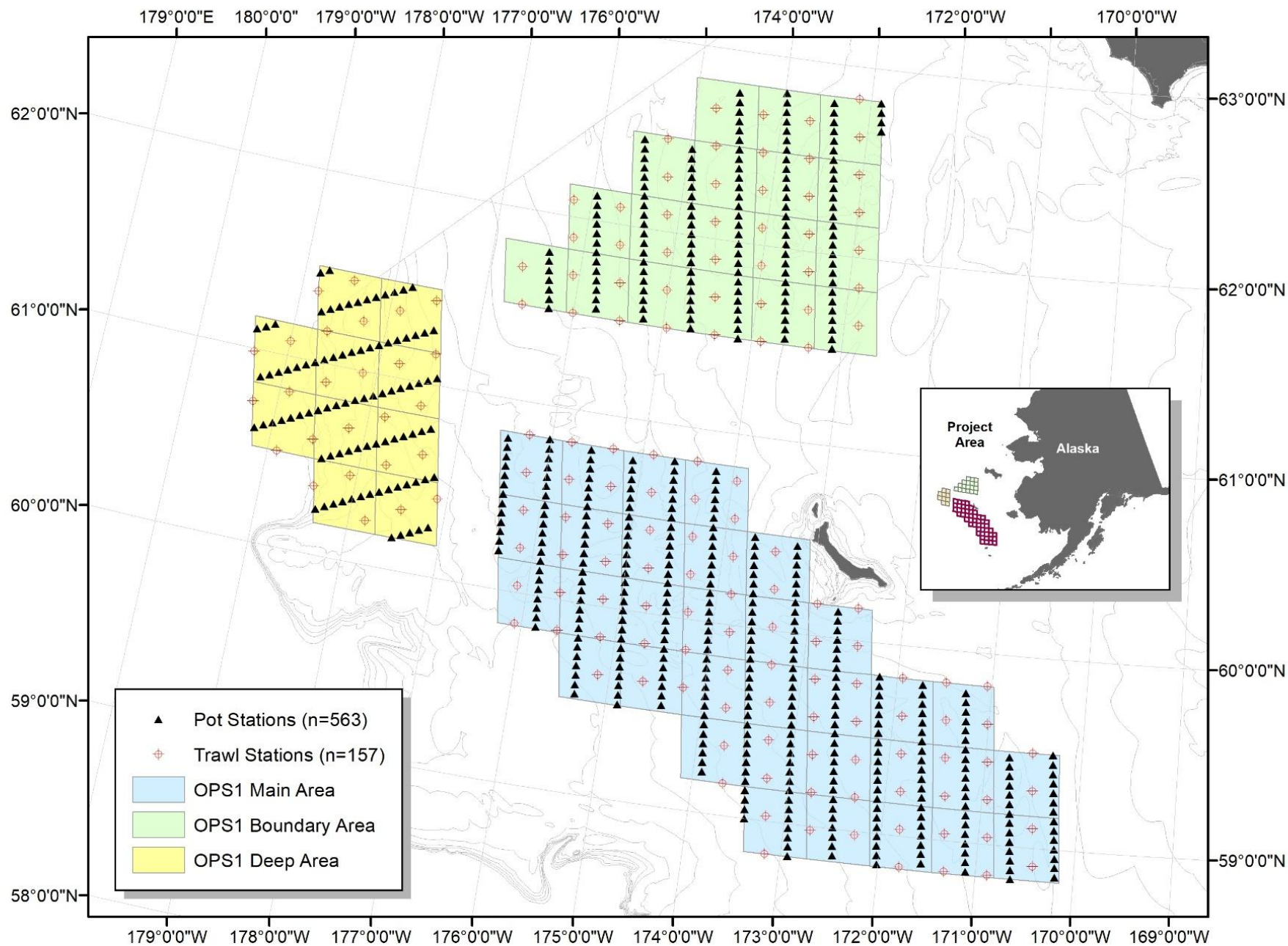


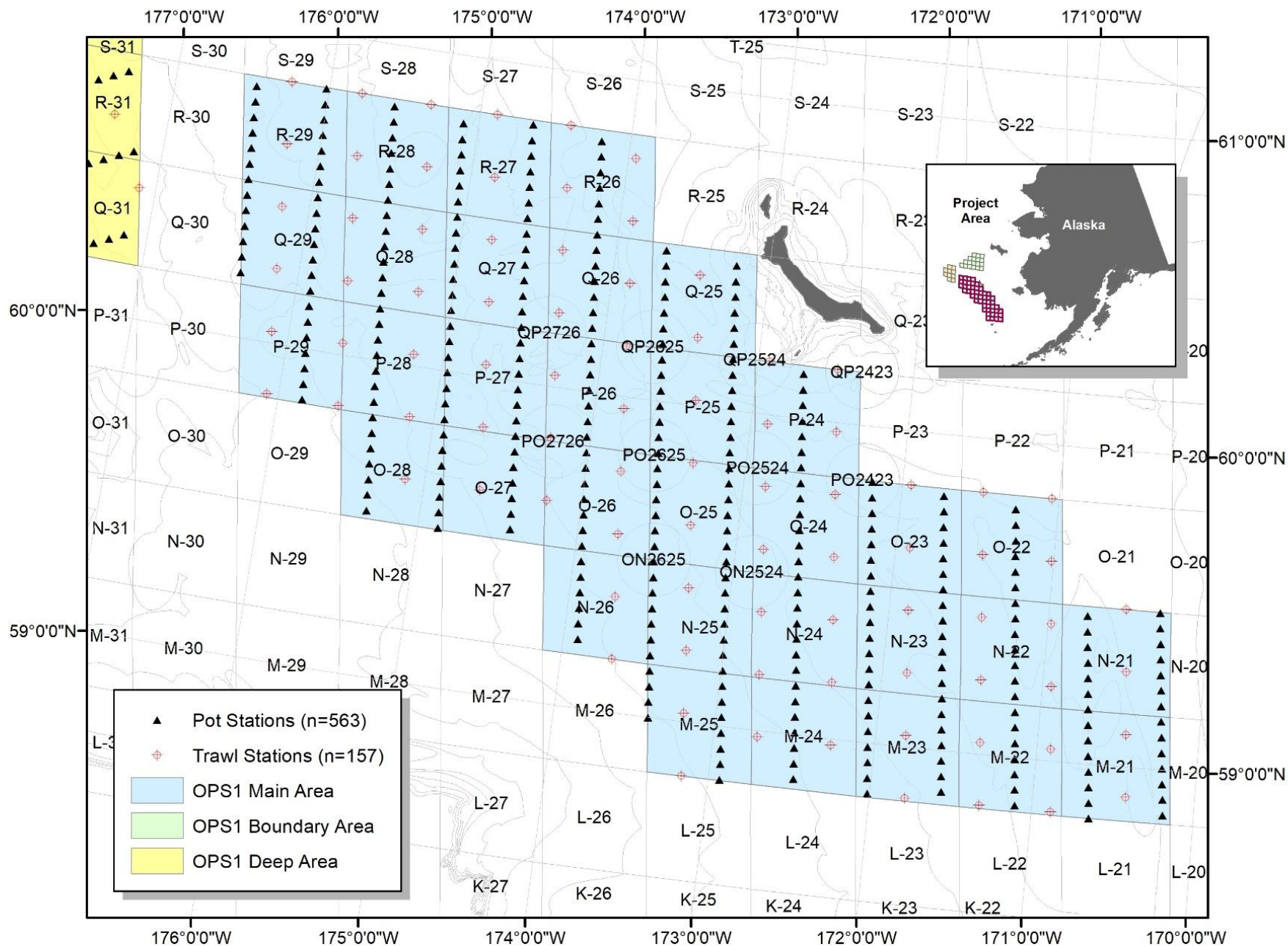
Original Plans

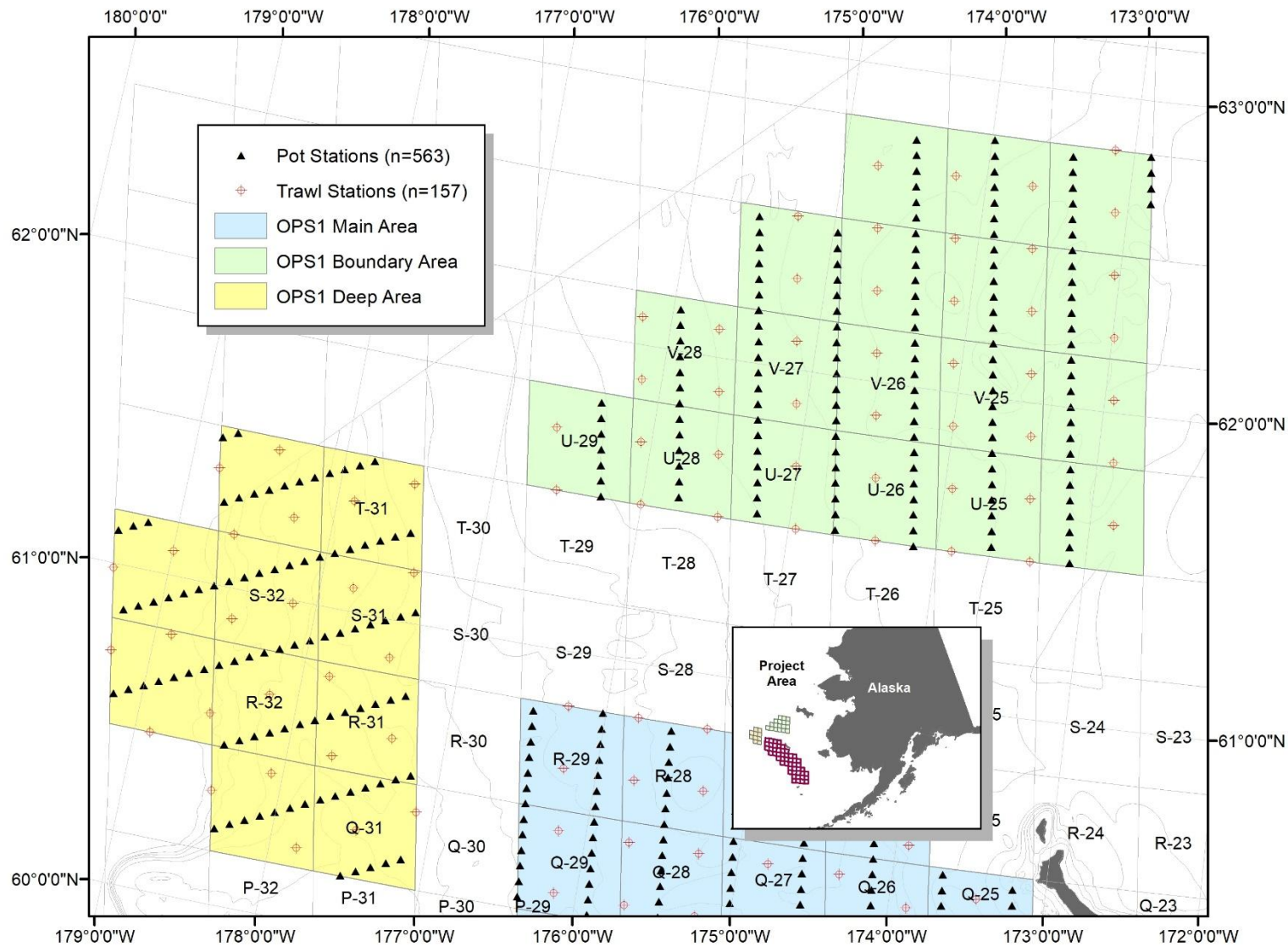
AREA	# NMFS Stations	# Pots	# Trawls
Main	50	727	100
Boundary	5	62	50
Deep	5	61	30
TOTAL	60	850	180

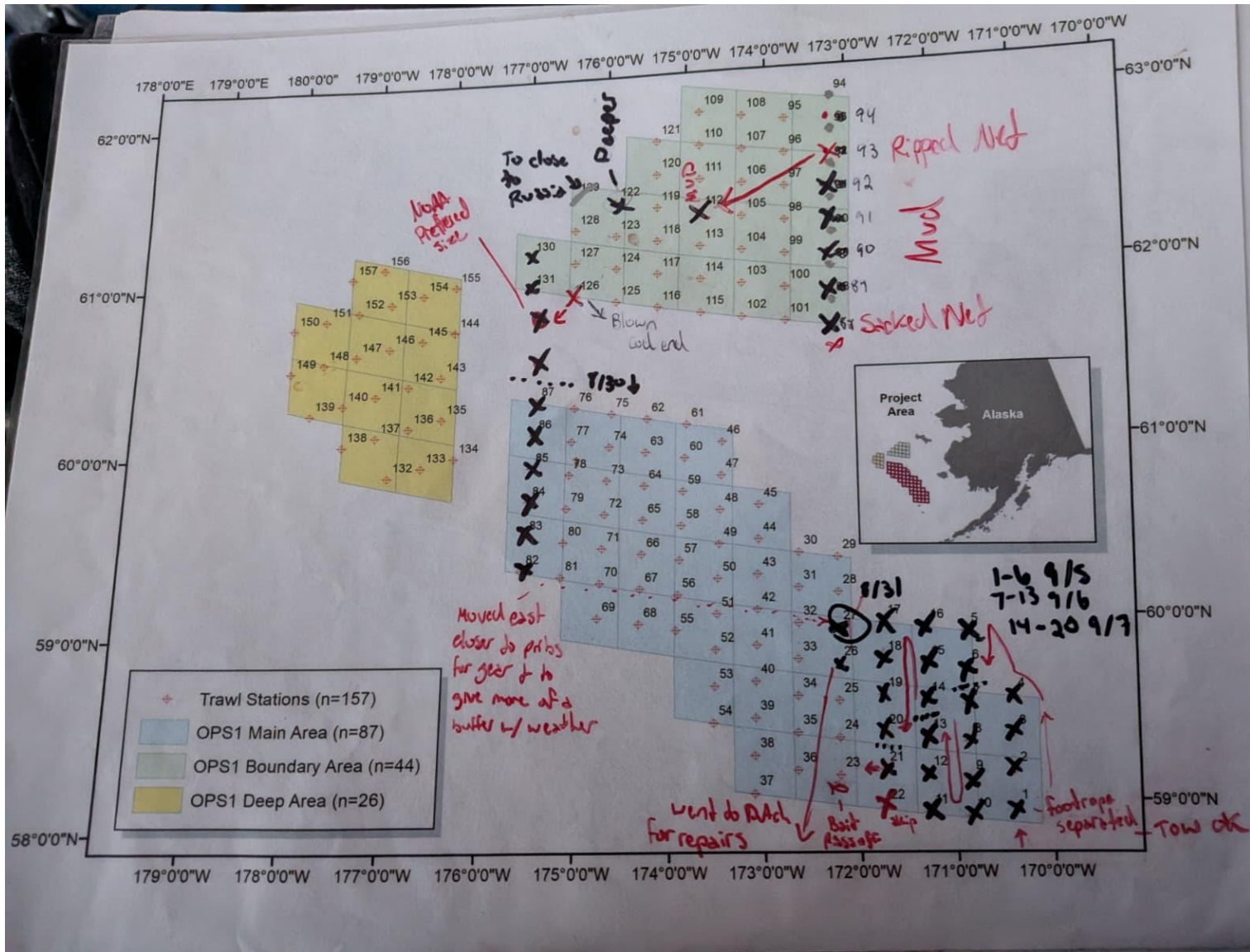
REVISED MAPS FOR POT AND TRAWL SITES AT OPS1 AREAS

AREA	# NMFS Stations	# Pots	# Trawls
Main	33	329	87
Boundary	18	145	44
Deep	10	89	26
TOTAL	61	563	157









Nephrops Trawl Sampling



Survey Trawl Reference Info:

	NMFS Std	BSFRF NT
Survey Target Spp	Fish/Crab	Crab
Headrope-Footrope ft	83-112	66-89
Tow Speed kts	3	2
Tow Duration min	30	5
Avg Spread m	16.5	12.5
Avg Area Swept nm2	0.0135	0.0017

Nephrops Trawl Sampling



Nephrops Trawl Sampling



Nephrops Trawl Sampling



Nephrops Trawl Sampling



Nephrops Trawl Sampling



Opilio Pot Sampling



30 hr soak
Frozen herring
Hanging cod
7x7 opilio pots
3 nm between pots
13.5 nm between strings

Pot were standardized
as much as possible,
both pot boats had
same owner

FV Pacific Mariner
FV Confidence

Opilio Pot Sampling



Opilio Pot Sampling



Opilio Pot Sampling



LOST POT RESEARCH



“Understanding lost crab pot degradation and impacts on the Bristol Bay red king crab stock”

➤ A fixed gear UFM project focused on simulated loss of crab pots in Bristol Bay

- 50-60 BBRKC pots deployed as baited, fishing pots “left out”
- Approximately November 1, 2026, timed with early part of fishery
- Pots will test rot cord decay times with pop-up satellite tags
- Cameras will record time-lapse activity in several pots
- Smart buoys will mark pot locations
- Pots will be deployed and recovered with crab charters
- All pots intended to be retrieved by the end of 1 year (season)
- Several details are in final planning/testing development
- PI’s Goodman, Lescher, Antonelis, several collaborators
- Reporting more on this soon after pilot testing

UFM LOST POT RESEARCH

“Understanding lost crab pot degradation and impacts on the Bristol Bay red king crab stock”

➤ A fixed gear UFM project focused on simulated loss of crab pots in Bristol Bay



- Updates following pilot testing in Kodiak in August
- Highlighting progress so far, remaining planning questions
- A few technical details, challenges to figure out before NOV

UFM LOST POT RESEARCH

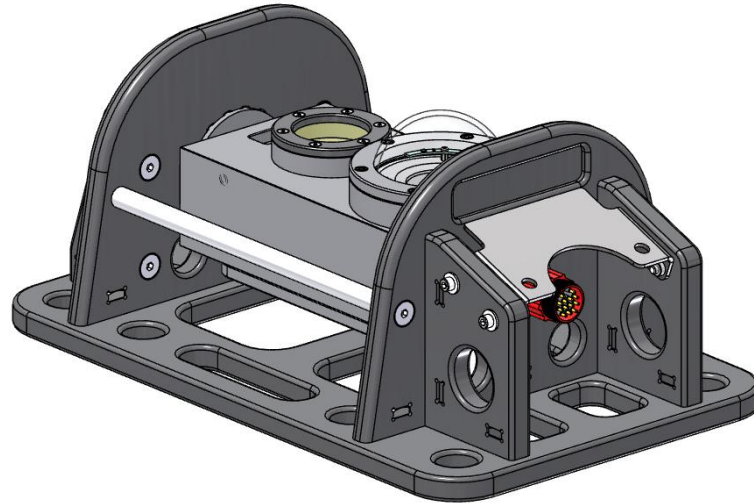


Sexton Rugged Trawl



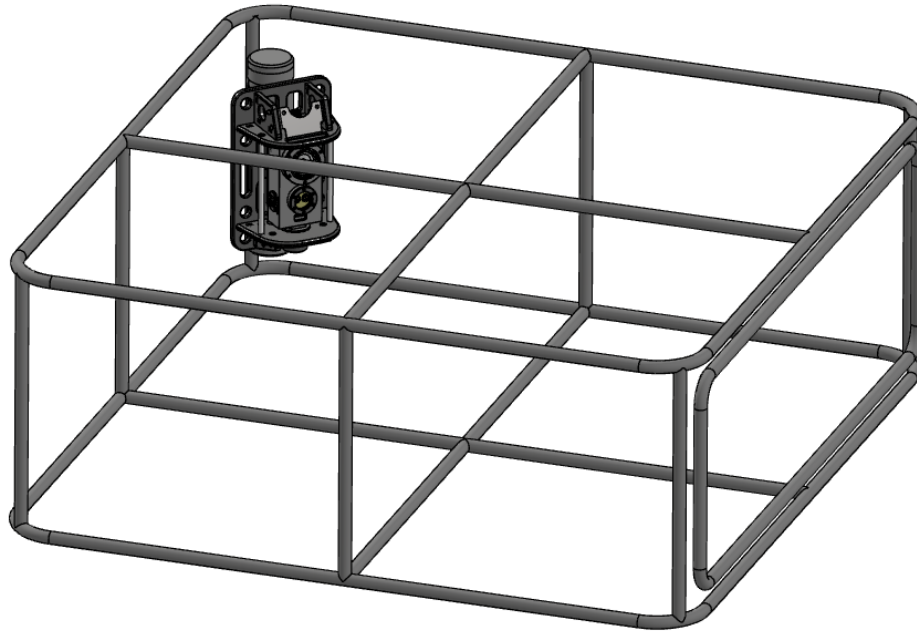
Sexton SeaHorse

UFM LOST POT RESEARCH



Sexton Custom 'Monarch'

UFM LOST POT RESEARCH



Sexton Custom 'Monarch'

UFM LOST POT RESEARCH



UFM LOST POT RESEARCH



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UFM LOST POT RESEARCH

Remaining Technical Details:

Single line v long line pots

Tag placement on escape cord

Final camera testing and placement

Best smart buoy utilization

Deployment, check on, and retrieval strategy

Open to questions, advice, thoughts...

Reporting back more soon

Snow Crab MSE

Several SC and involved people are here...

Brief mention of status, main objectives,
timing, next steps

Disaster Relief Research Planning → Opilio and BBRKC [through NPRB]

No.	Title	PI	Contact	Org
5056	CLRUP North- Chionoecetes Left-to-Right and Under Pressure in a changing NBS	Andrew Seitz	acseitz@alaska.edu	UAF
5063	Top-to-Bottom assessment of early life snow crab ecology in a melting northern Bering Sea	Jared Weems	jared.weems@alaska.gov	ADFG
5065	Understanding the link between Bristol Bay red king crab larval supply and recruitment strength	Ben Daly	ben.daly@alaska.gov	ADFG
5067	Understanding lost crab pot degradation and impacts on the Bristol Bay red king crab stock	Scott Goodman	sgoodman@nrccorp.com	BSFRF
5077	Metabolic costs of migration for Bering Sea snow crab in response to rapid regional warming	Trond Kristiansen	trondkr@faralloninstitute.org	Farallon Institute
5079	Population genomics of Bristol Bay red king crab for fishery management and enhancement	Kristen Gruenthal	kristen.gruenthal@alaska.gov	State of Alaska

Coordination and progress with partners and our team:



*Science
Team*

Ms. Madison Heller-Shipley
Mr. Cory Lescher
Dr. Gordon Kruse
Dr. Tim Loher
Dr. Gary Stauffer
Mr. Scott Goodman





Top 12 Research Priorities, 2024-2028 – **CRAB IN RED**

(bullets are not in order, shortened summary text from [ACTUAL](#))

- Reduce **western Alaska salmon bycatch** in Bering Sea groundfish fisheries
- Quantify **fishing gear impacts on crab** and their habitat – toward gear innovation
- Evaluate **marine mammal-fishery interactions** and potential mitigation measures
- Examine economic, social, and cultural **effects of fisheries and policy on communities** over time
- Actionable **ecosystem indicators** relevant to assessments that **address climate change impacts** to managed stocks
- Acquire **basic life history information** - emphasize improved estimates of **size/age at maturity** & related dynamics
- Spatial distribution, habitat requirements, and **movement of crabs relative to life history events & fishing**
- Predictive tools & **models that evaluate projected climate scenarios** on managed resources to inform options
- **Retrospective and meta- analysis** on ‘efficacy and rationale’ of fishery management plans perform over time
- **Norton Sound Red King Crab** case study as a pilot study for the **incorporation of Local Knowledge**
- Improve **surveys in untrawlable habitat**, particularly for rockfish, Atka mackerel, sculpins, and **snow crab**
- Improve **discard mortality rate estimates** for scallops, crab, and groundfish stocks by gear types

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