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# Update on the Conservation Plan for the Eastern Pacific Stock of Northern Fur Seal (Laaqudaâ)

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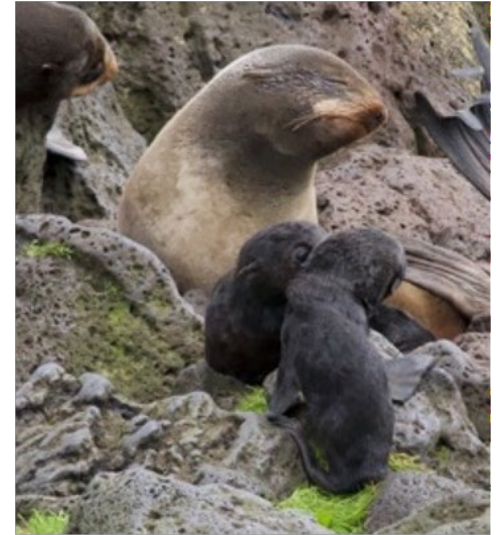
Aleut Community of St. Paul Island

**NMFS Management Report**  
**December 5, 2024**



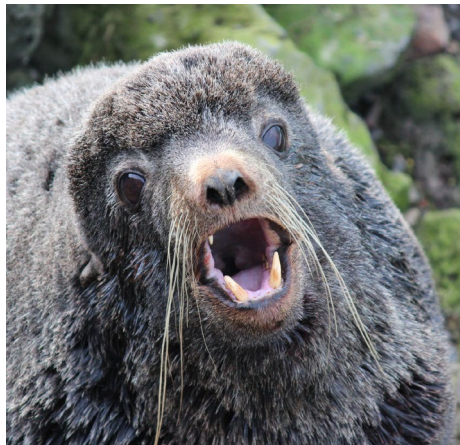
# Outline

- Conservation Plan Update
  - Final Plan
  - Select Relevant Plan Revisions
- Threats Prioritization Workshop
- Summary



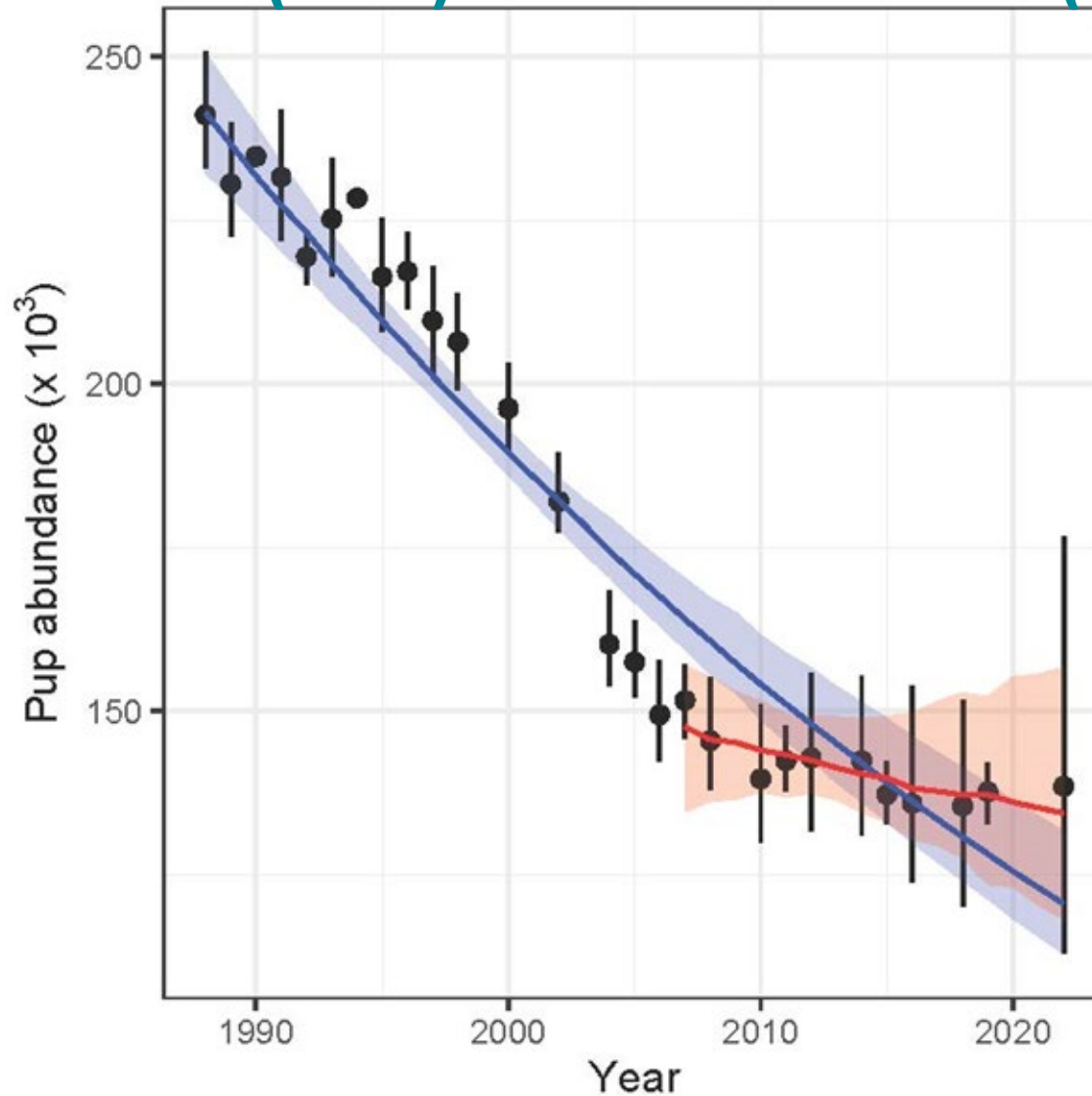
# Final Conservation Plan

- Published in the *Federal Register* Nov 8, 2024
- Finalized NOAA Tech Memo late Nov 2024
- Evaluate stock status & need for Plan revision every 5 years
- Continue to use co-management process to implement high priority conservation actions identified in the Plan



# Northern Fur Seal Stock Trend

## 1988-2022 (blue) versus 2007-2022 (red)



# Select Relevant Plan Revisions

In response to public comments regarding indirect effects of commercial fisheries, we summarized 34 years of data (1988-2022) by foraging complexes:

- Performance measures: pup production, pup mortality, pup weight, female foraging trip duration
- Data divided into entire period (1988-2022) and recent period (2007-2022) to explore whether recent trends differed from those of the entire period

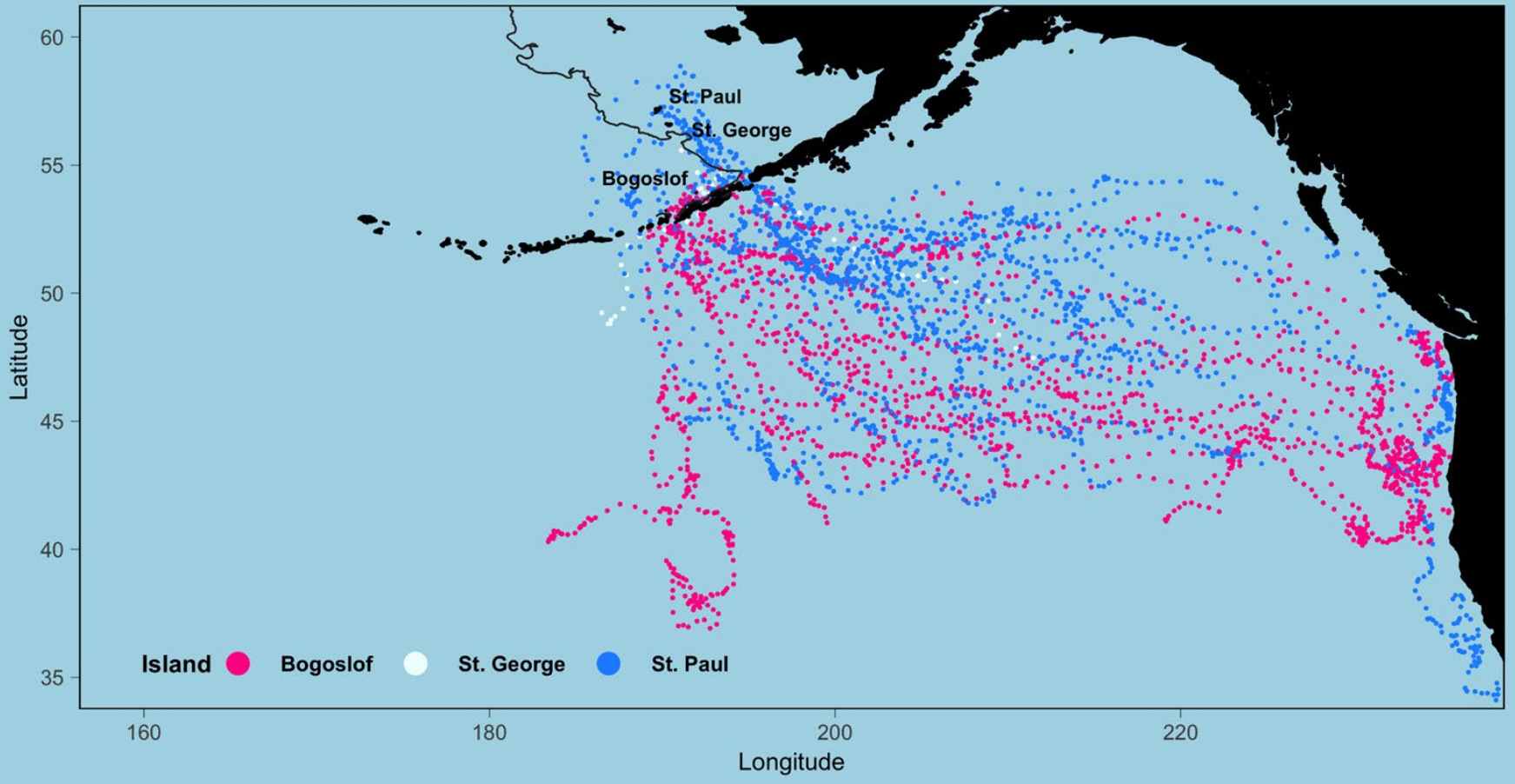


# Select Relevant Plan Revisions

- Does evidence suggest a North Pacific issue or a Bering Sea issue?
- Winter habitat use data shows inter-mixing of entire stock across the Pacific (no segregation)
- Summer habitat use data shows segregation across foraging complexes

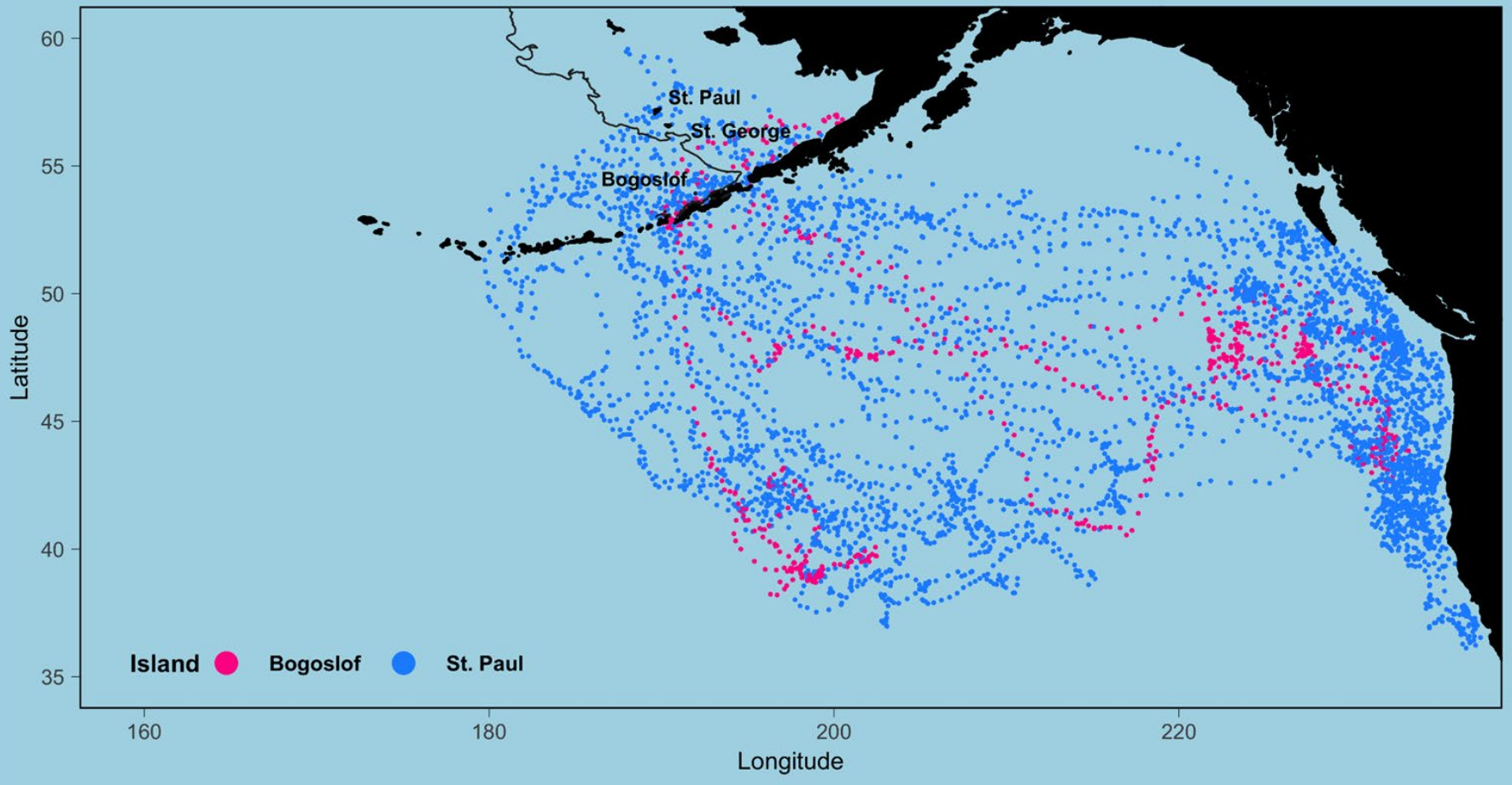
# Select Plan Revisions: winter migration of adult females

2005 and 2006 migratory pathways of female adults



# Select Plan Revisions: winter migration juvenile females

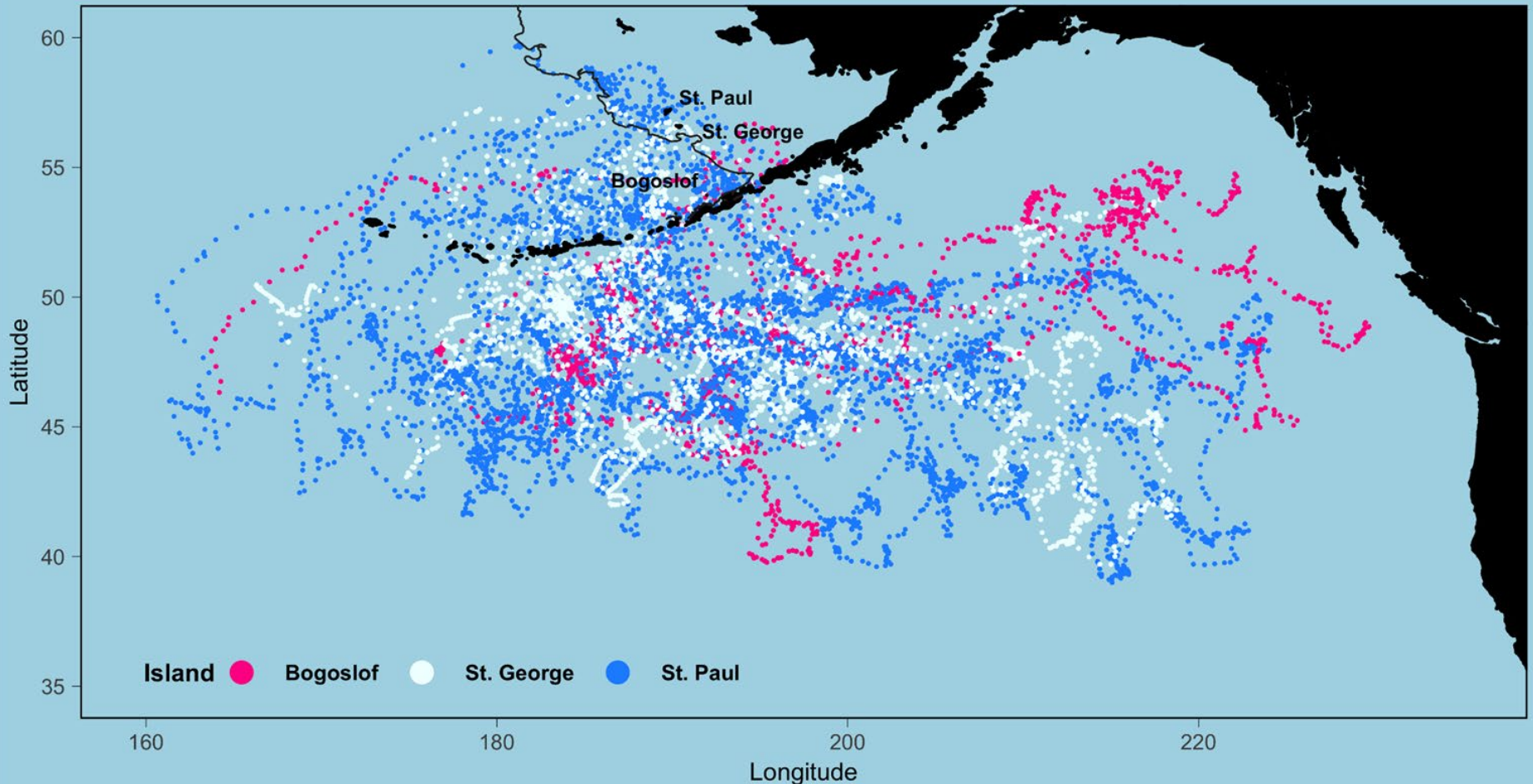
2006 and 2007 migratory pathways of female juveniles



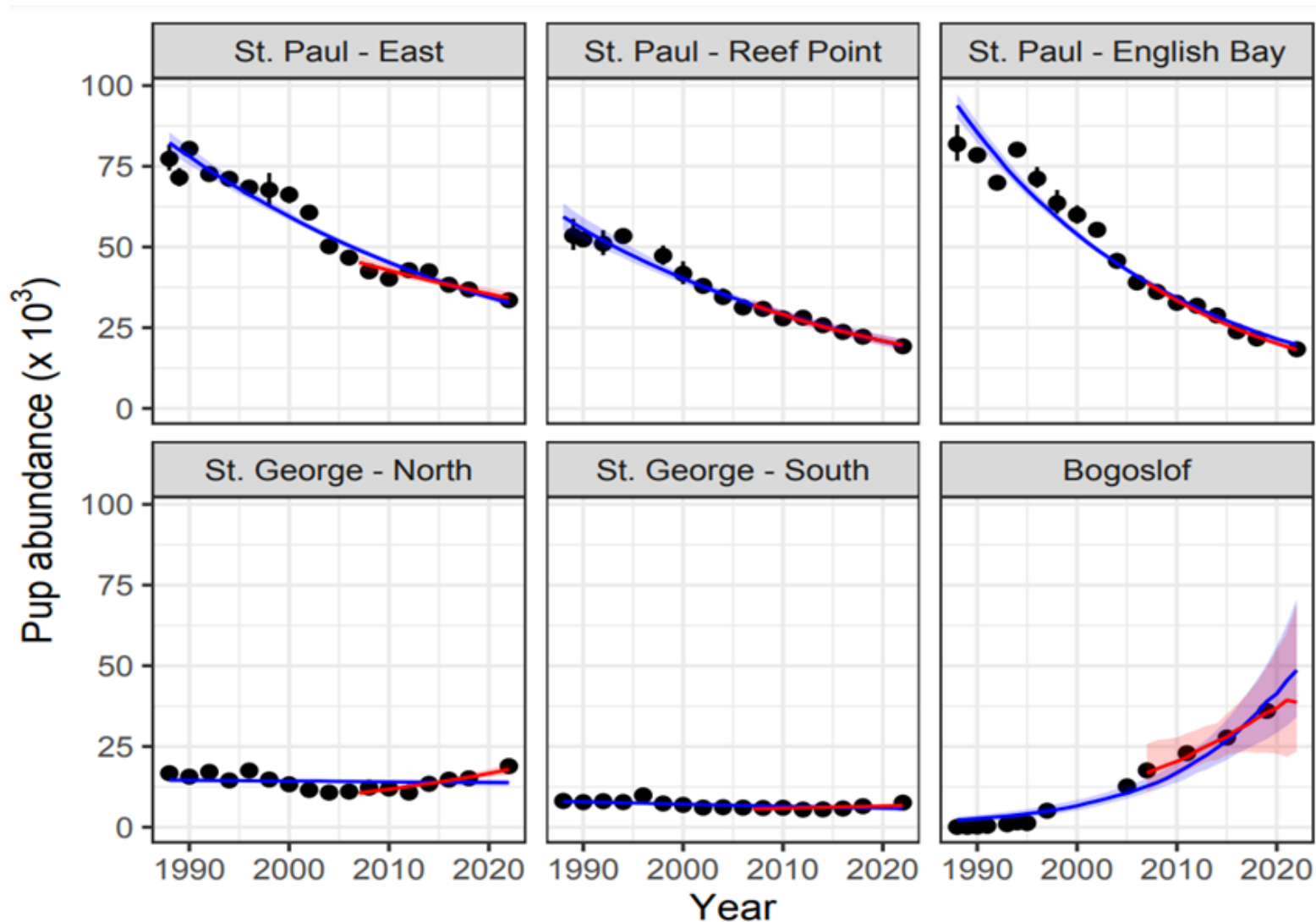


# Select Plan Revisions: winter migration of female pups

2005 and 2006 migratory pathways of female pups

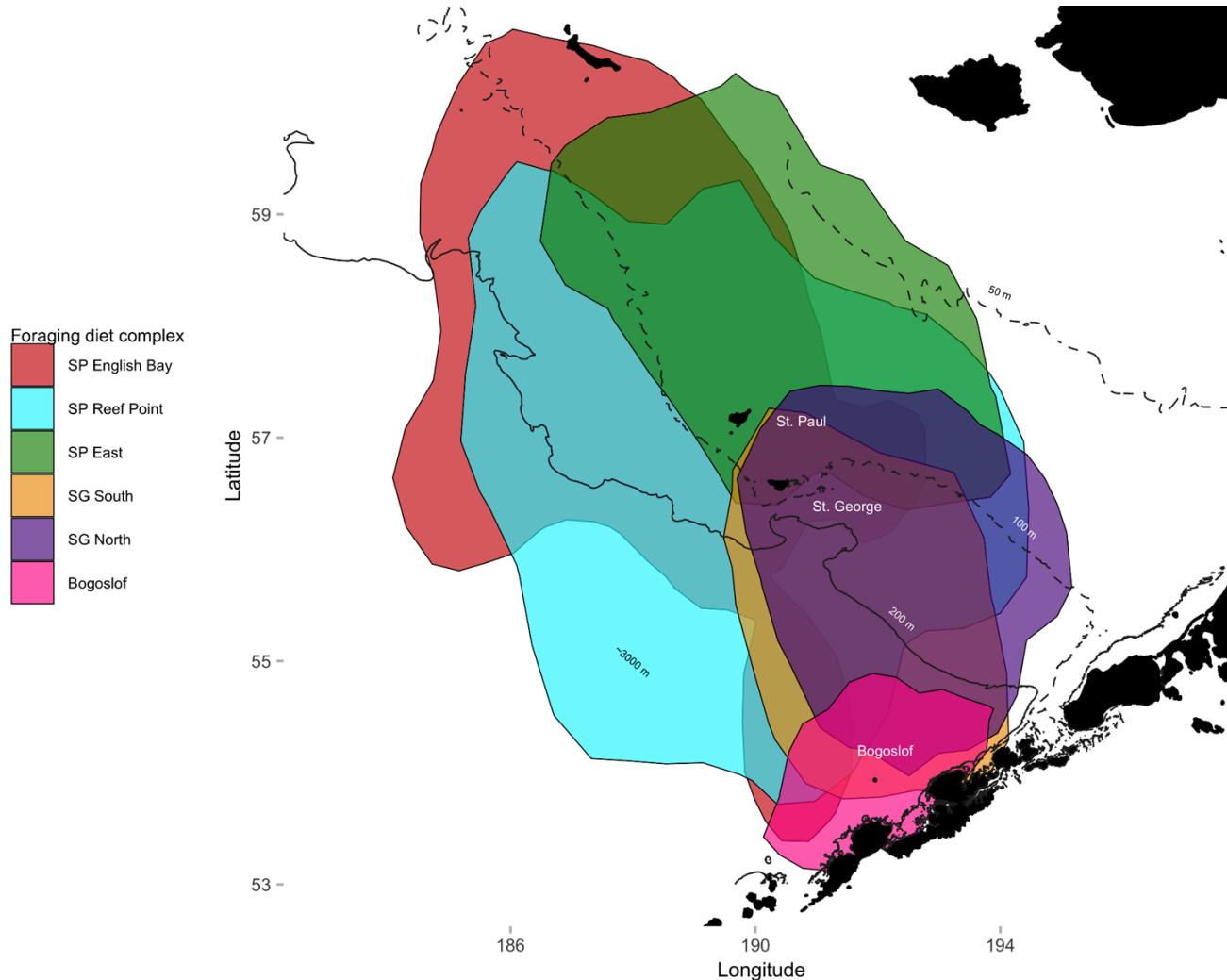


# Northern fur seal complex trends (1988-2022)



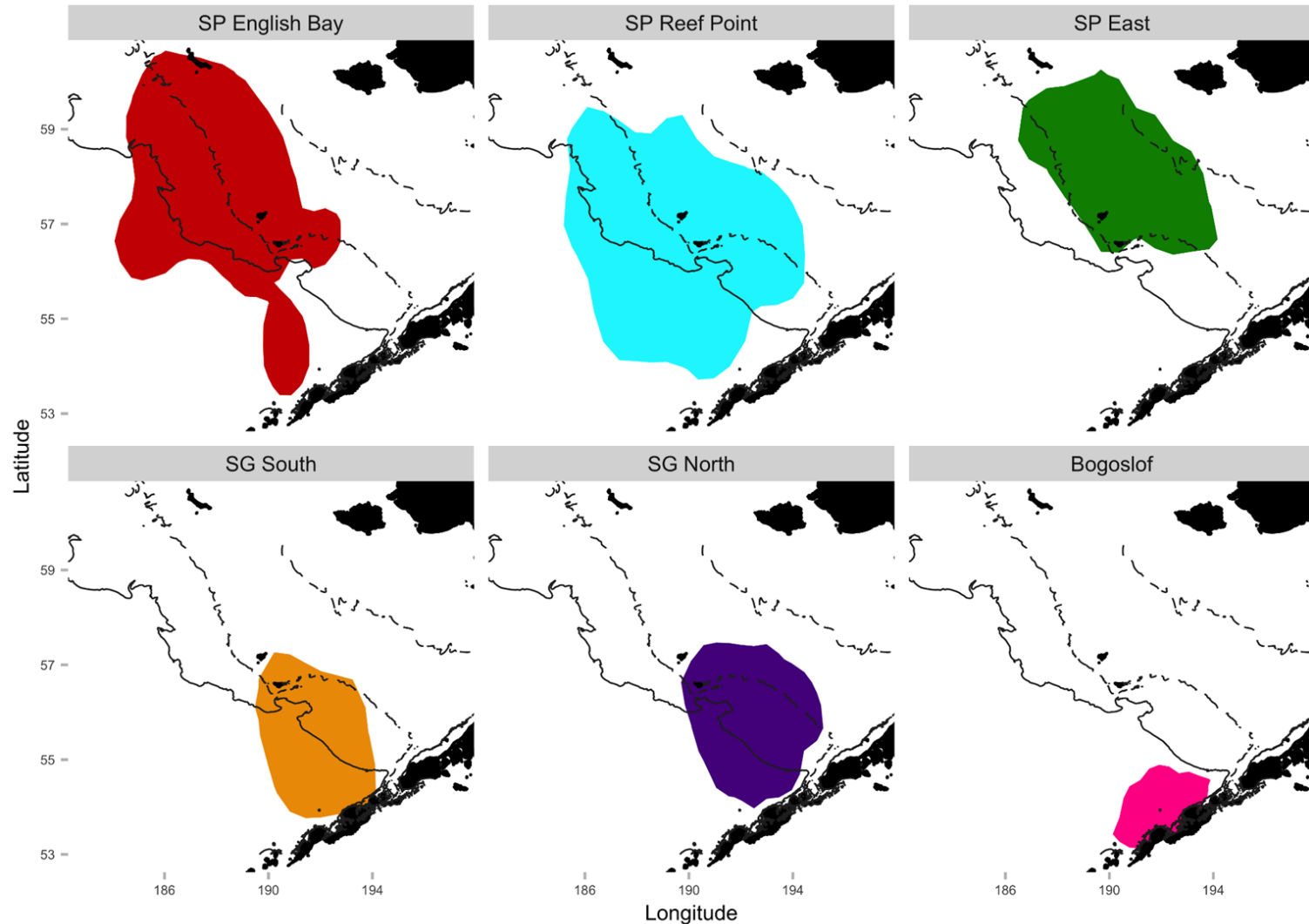
# Select Plan Revisions

## Summer Foraging habitat use in the Bering Sea



# Select Plan Revisions

## Summer Foraging habitat use in the Bering Sea



**A**

## Eastern Pacific Stock northern fur seal population performance measures

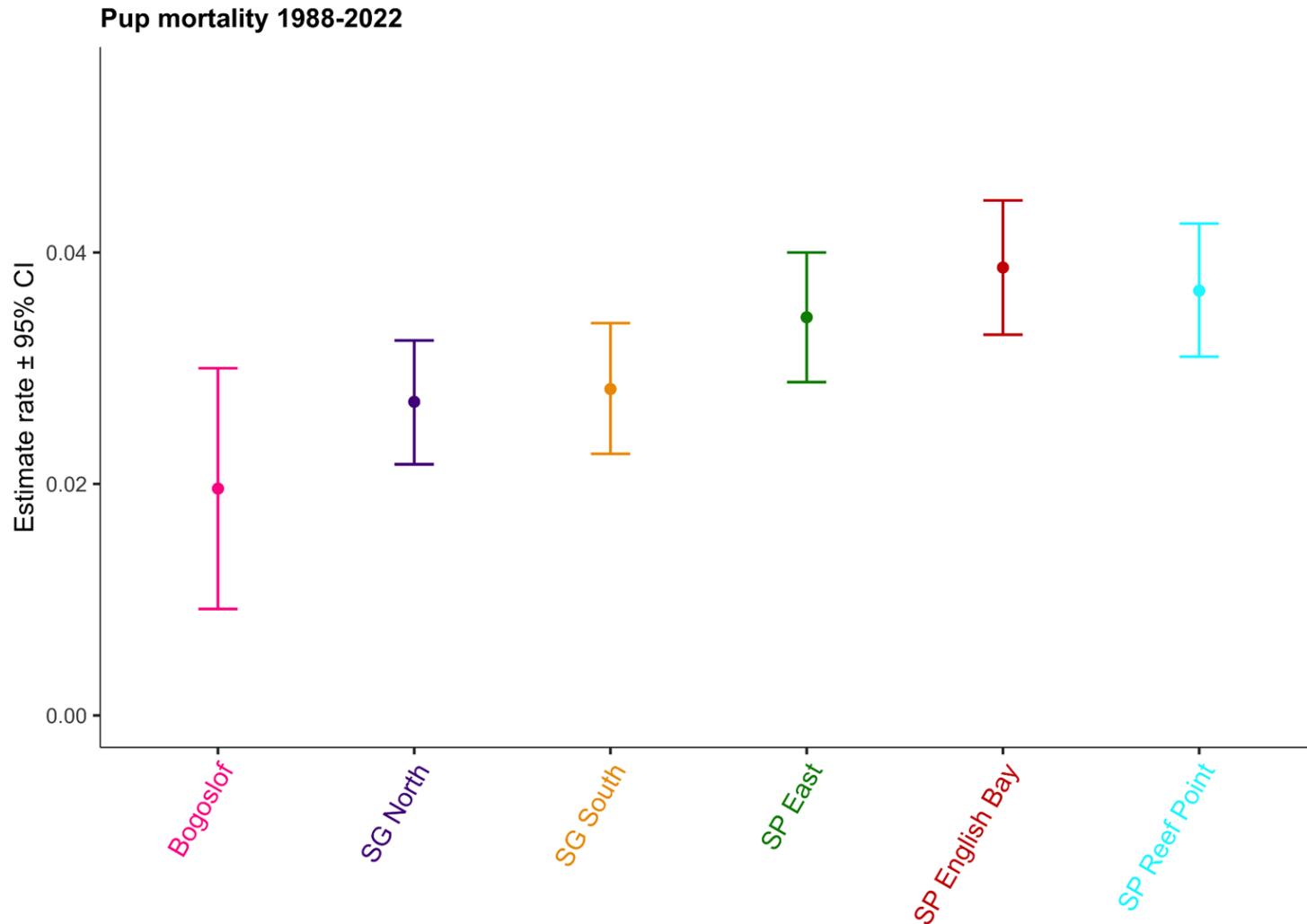
By Pribilof Island rookery complexes and islands for the years 1988-2022 and 2007-2022

	Eastern Pacific Stock islands			Pribilof Island rookery complex					Performance Plot
	St. Paul (±SE)	St. George (±SE)	Bogoslof (±SE)	SP English Bay (±SE)	SP Reef Point (±SE)	SP East (±SE)	SG South (±SE)	SG North (±SE)	
<b>Pup production (annual % change)</b>									
1988-2022	-3.43	-0.45	9.58	-4.47	-3.21	-2.68	-0.96	-0.21	
2007-2022	-3.17	2.67	5.77	-4.92	-3.22	-1.85	1.12	3.49	
<b>Aug female pup weight (kg)</b>									
1988-2022	7.85 (0.05)	8.26 (0.06)		7.84 (0.06)	7.84 (0.06)	7.88 (0.05)	8.25 (0.07)	8.26 (0.06)	
2007-2022	7.80 (0.06)	8.03 (0.08)		7.79 (0.08)	7.77 (0.08)	7.83 (0.07)	8.04 (0.09)	8.03 (0.08)	
<b>Aug on-land pup mortality (%)</b>									
1988-2022	3.65 (0.30)	2.76 (0.30)	1.96 (0.50)	3.87 (0.30)	3.67 (0.30)	3.44 (0.30)	2.82 (0.30)	2.71 (0.30)	
2007-2022	4.05 (0.20)	2.80 (0.20)	2.58 (0.20)	4.59 (0.30)	3.97 (0.30)	3.64 (0.30)	2.63 (0.20)	2.98 (0.20)	
<b>Jul/Aug foraging trip durations (d)</b>									
1988-2022	5.49 (0.21)	4.56 (0.23)	1.55 (0.13)	5.51 (0.28)	5.67 (0.29)	5.29 (0.26)	4.54 (0.26)	4.58 (0.27)	
2007-2022	5.33 (0.09)	4.30 (0.09)		5.38 (0.11)		5.28 (0.10)	4.30 (0.10)	4.29 (0.11)	
<b>Walleye pollock in the diet (Zeppelin &amp; Ream 2006)</b>									
%MNI	79.00	22.60		76.40	67.00	74.80	10.40	32.20	
%FO	70.52	59.19	8.70 <sup>1</sup>	74.80	67.00	68.60	45.60	65.70	

<sup>1</sup> Luxa, K. pers. comm. (Summary of Bogoslof collections from 1997, 2001, 2002, 2005, 2007, 2011)

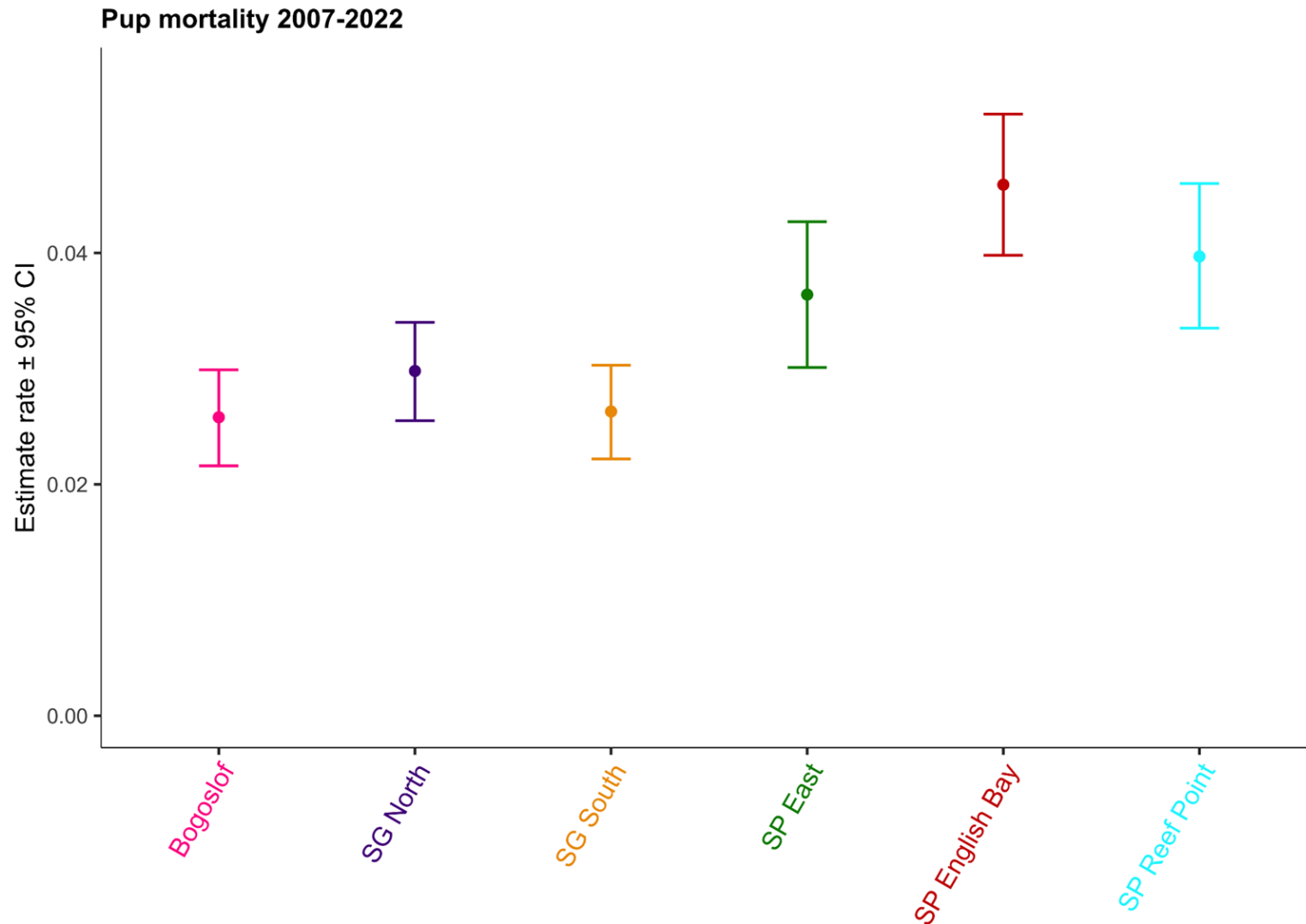
# Select Plan Revisions

## Performance Measures: pup mortality



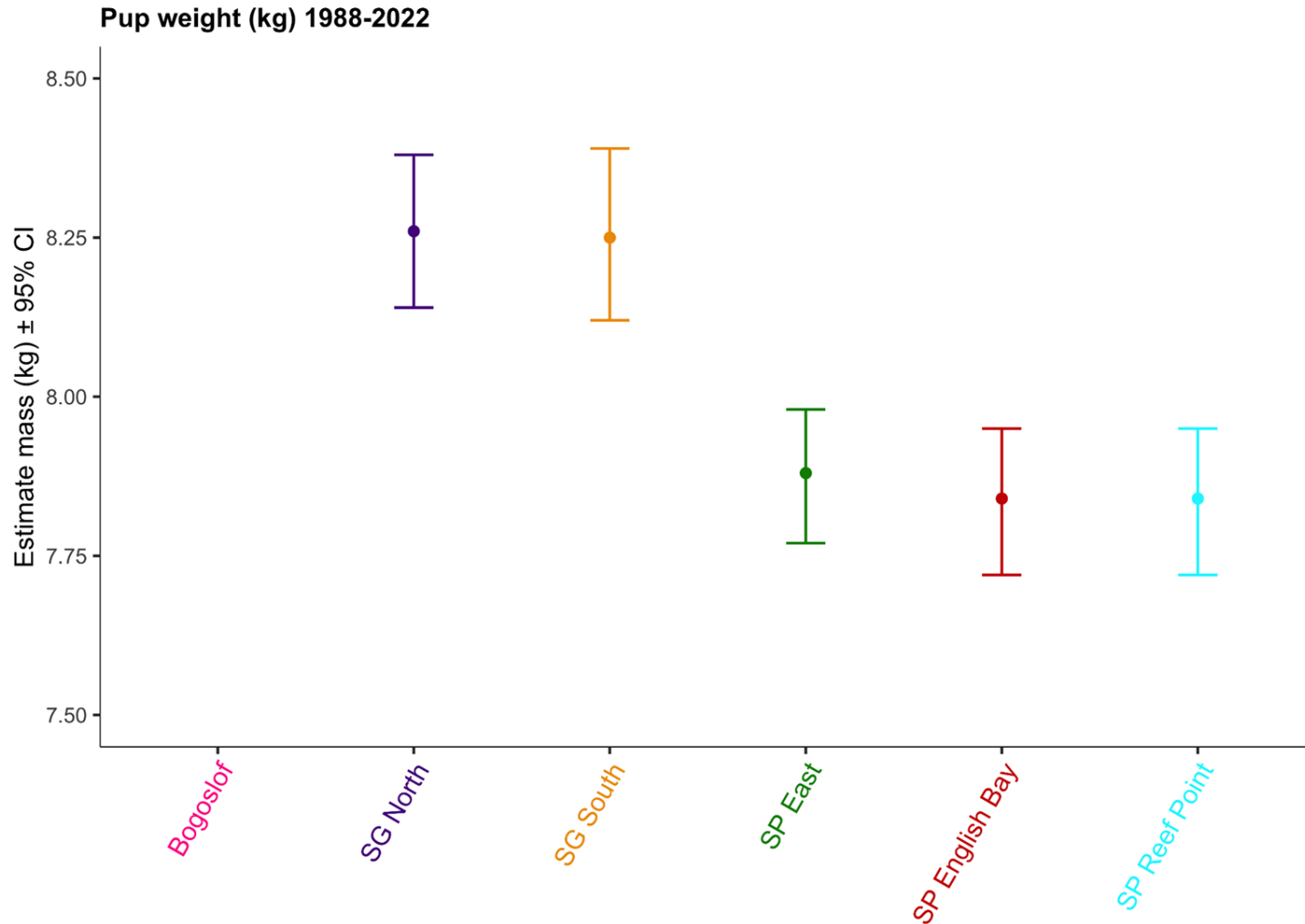
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## Performance Measures: pup mortality



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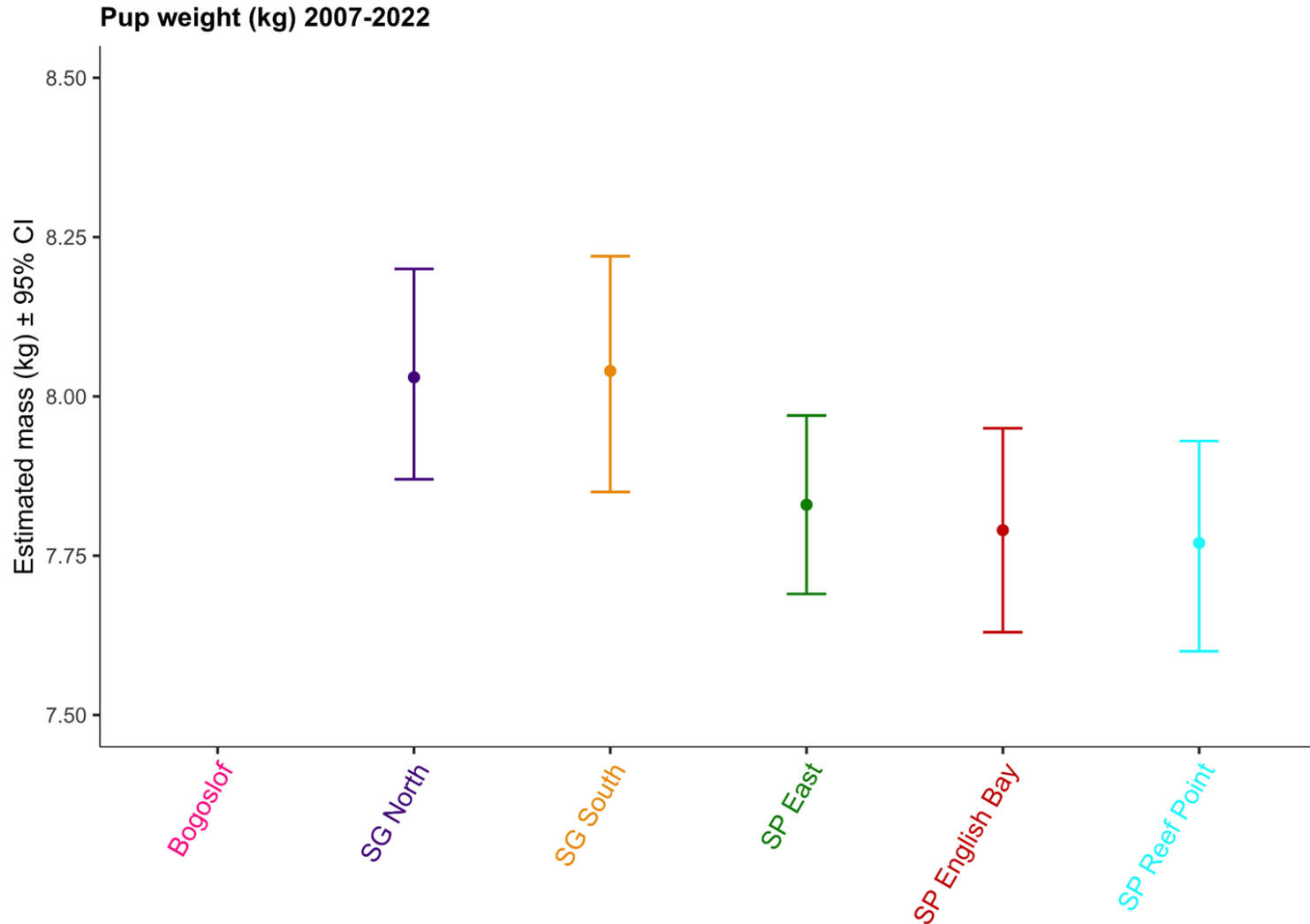
## Performance Measures: pup weight





# Specific Relevant Plan Revisions

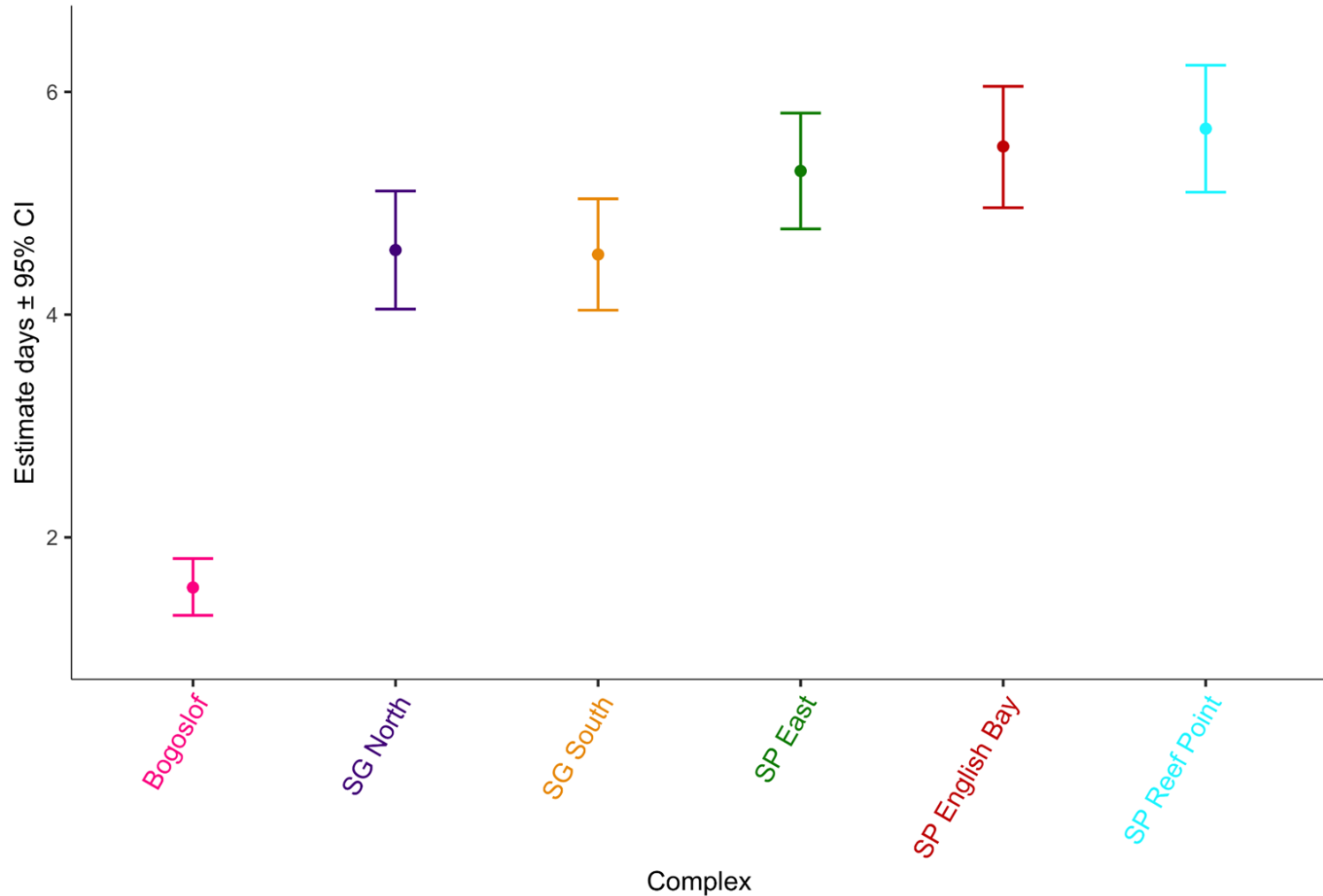
## Performance Measures: pup weight



# Specific Relevant Plan Revisions

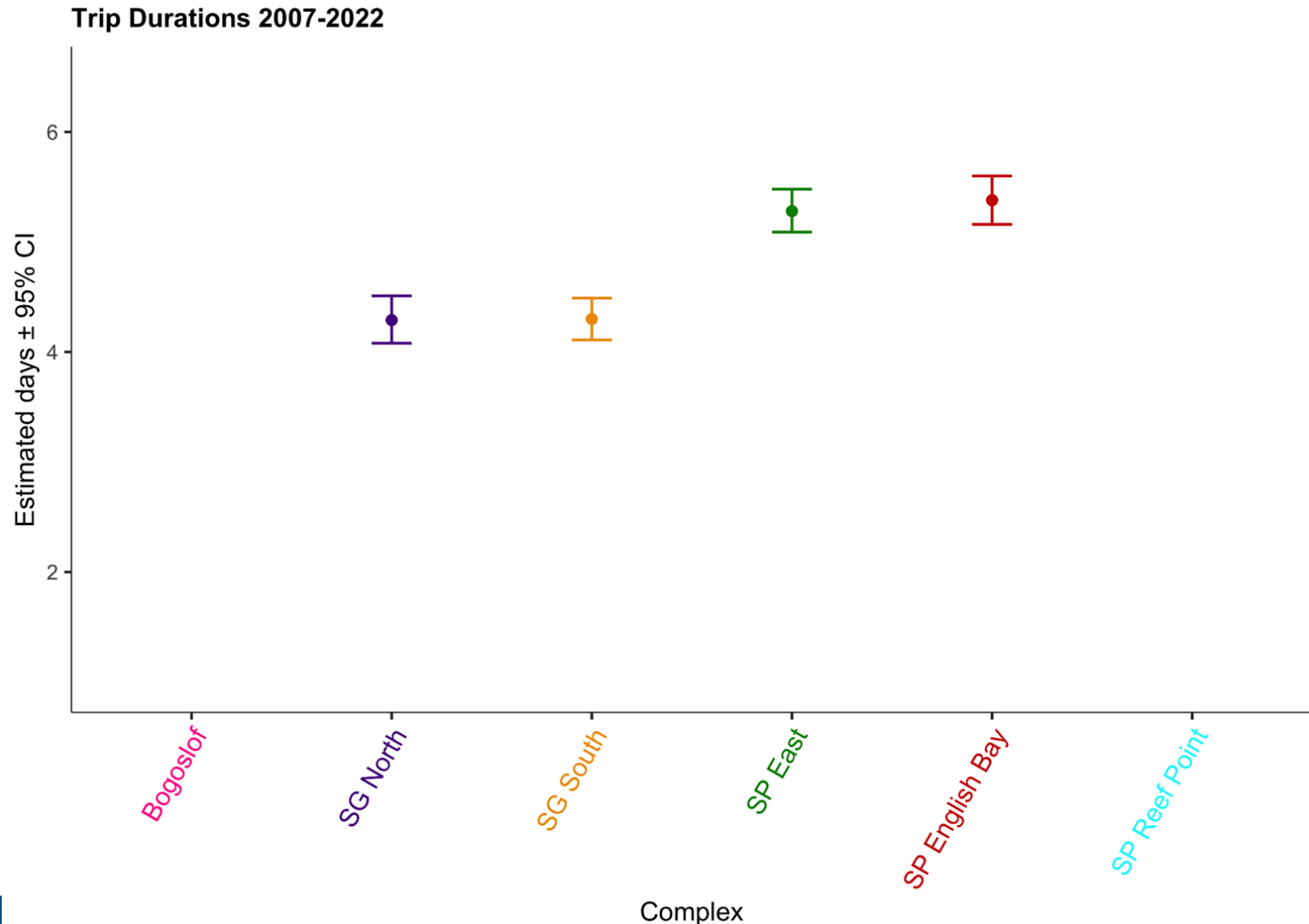
## Performance Measures: trip duration

Trip durations 1988-2022



# Specific Relevant Plan Revisions

## Performance Measures: trip duration



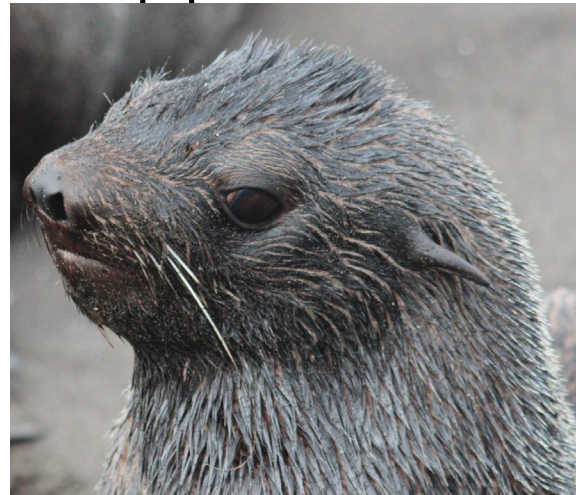
# Next Steps

- Stock decline obscures different foraging complex trends and relationships
- Data show no segregation overwinter
- Foraging complexes show variability; St. Paul complexes driving stock decline
- For Plan revision, we chose arbitrary time periods; Need advice on accurate fishing periods for analysis of complex-specific relationships in the Bering Sea



# Prioritization of Threats to Northern Fur Seals

- Identified as a co-management priority initiative
- Proposal to use Expert Elicitation not funded by NPRB
- Considering other options to prioritize threats to northern fur seals
- Seek continued NPFMC support of this activity



# Summary

- Conservation Plan finalized, now working to implement priority conservation actions
- Initial analysis of foraging complex performance measures indicates that conditions in the Bering Sea are driving differential trends in fur seal abundance (vs conditions in the North Pacific Ocean)
- Threats prioritization and further analysis of indirect fishery effects are important next steps



# Qaġaasakuq, Thank you!



## Questions

