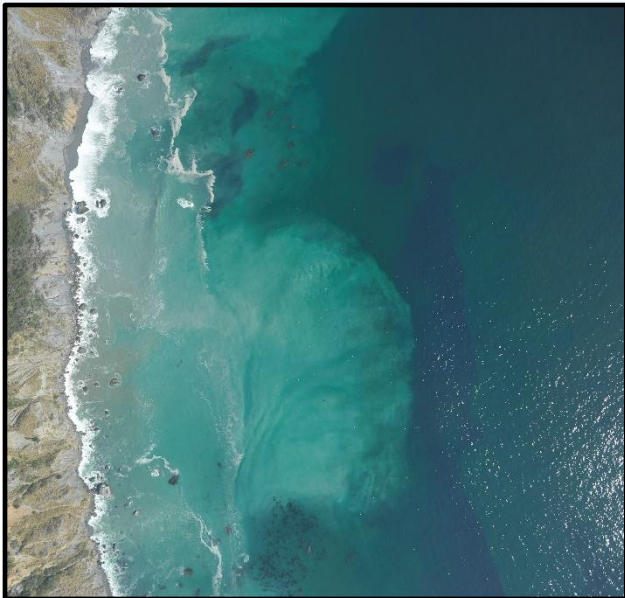




California Coastal Pelagic Species Survey – 2024



26 February 2025

SSC CPS SC Meeting

Kirk Lynn, Emmanis Dorval, Trung Nguyen



Background

California Coastal Pelagic Species Survey (CCPSS)

- 2012 – start in SCA
- 2017
 - PFMC Methodology Review
 - NCA added
- 2018
 - Nearshore Cooperative Survey (NCS) Research
 - 1) Replicate transects
 - 2) Point Sets – observer bias correction

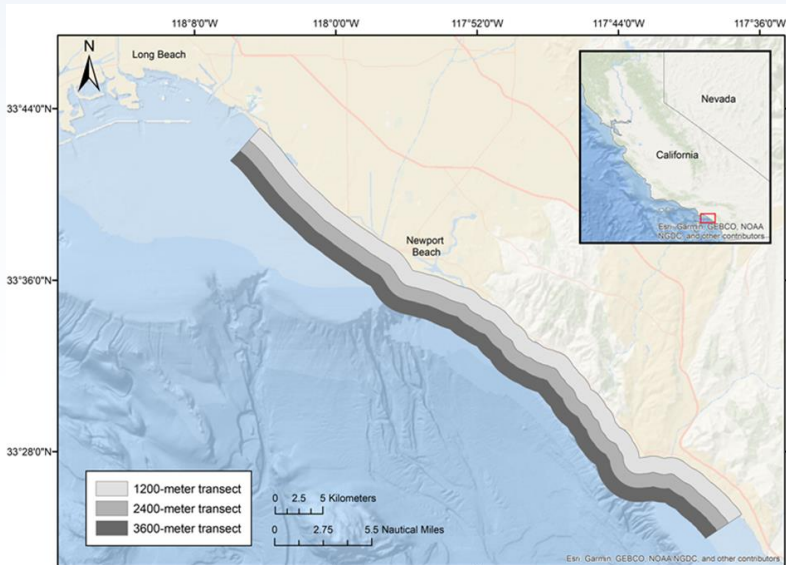




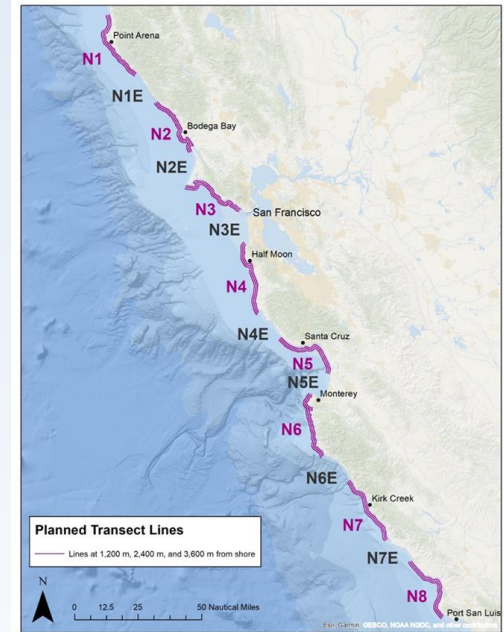
Background

CCPSS current design: Spatial Frame

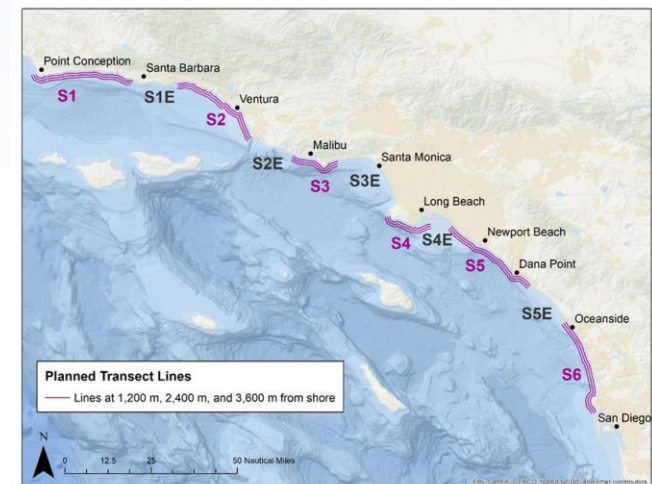
Generic Stratum



NCA



SCA





Background

CCPSS current design:



Temporal Frame

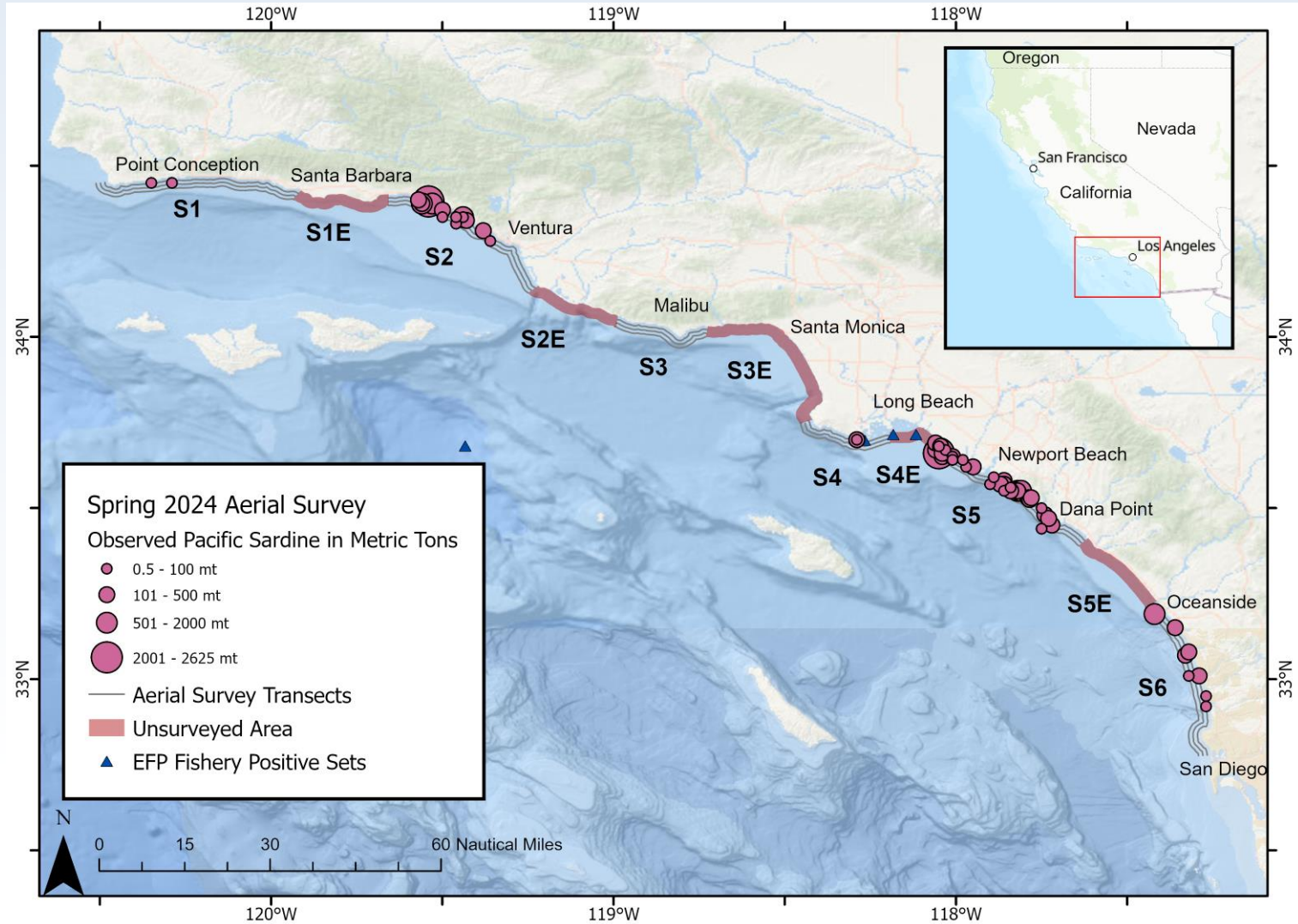
- Spring: 2021-2024 (SCA)
- Summer: 2020-2024 (SCA, NCA)

Synoptic surveys with Acoustic-trawl survey

- Spring: 2021 (SCA)
- Summer: 2021-2024 (SCA, NCA)

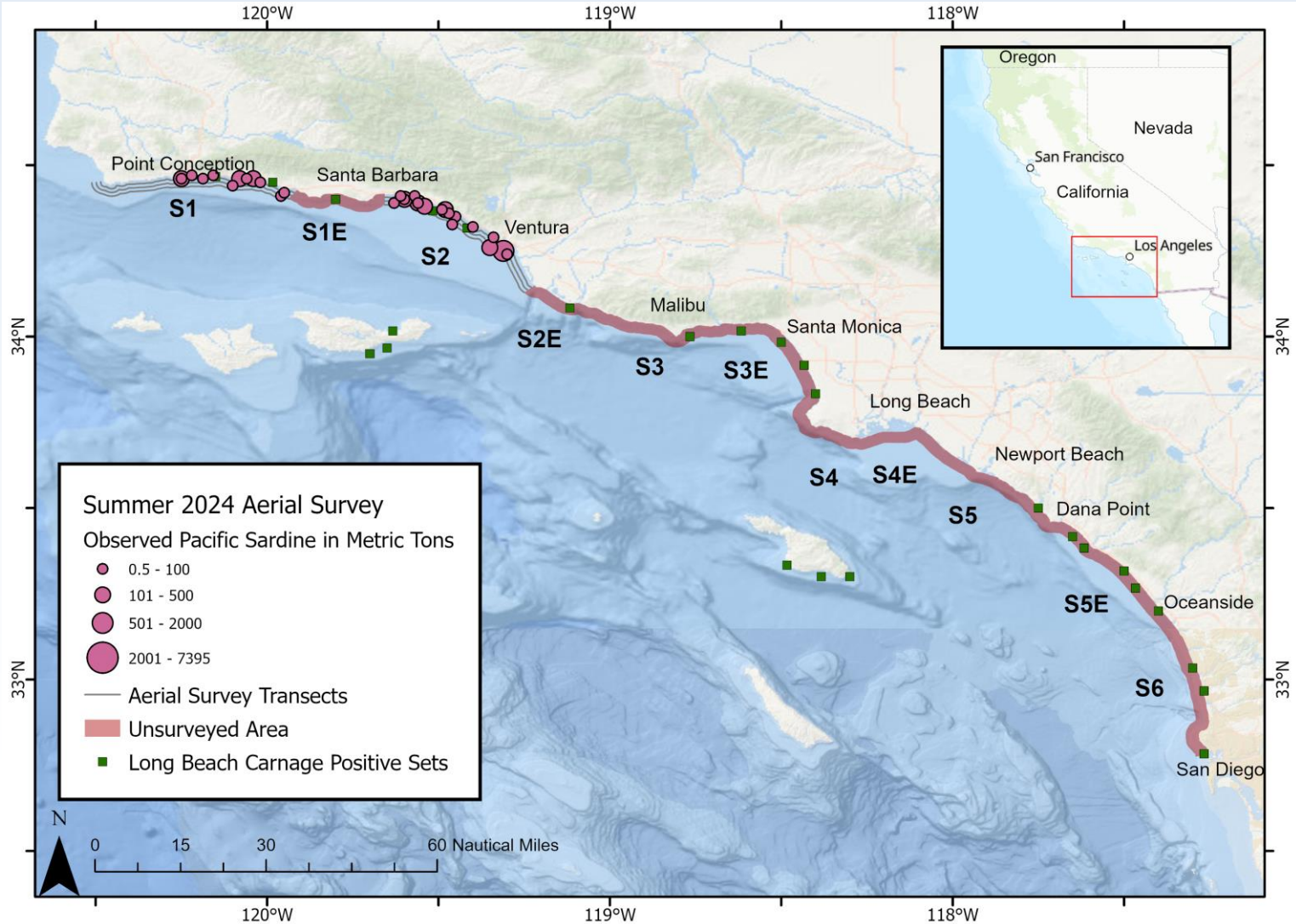


CCPSS Sardine – Spring 2024 (SCA)



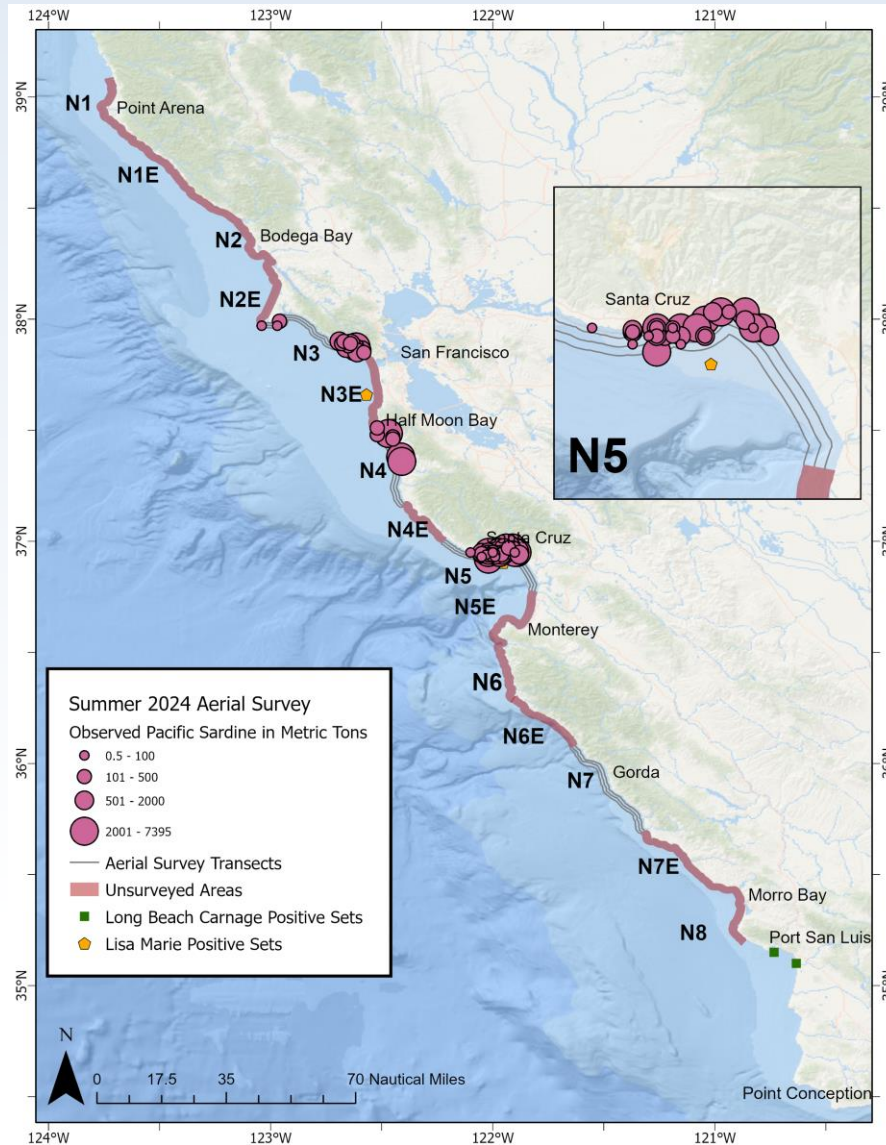


CCPSS Sardine – Summer 2024 (SCA)





CCPSS Sardine – Summer 2024 (NCA)





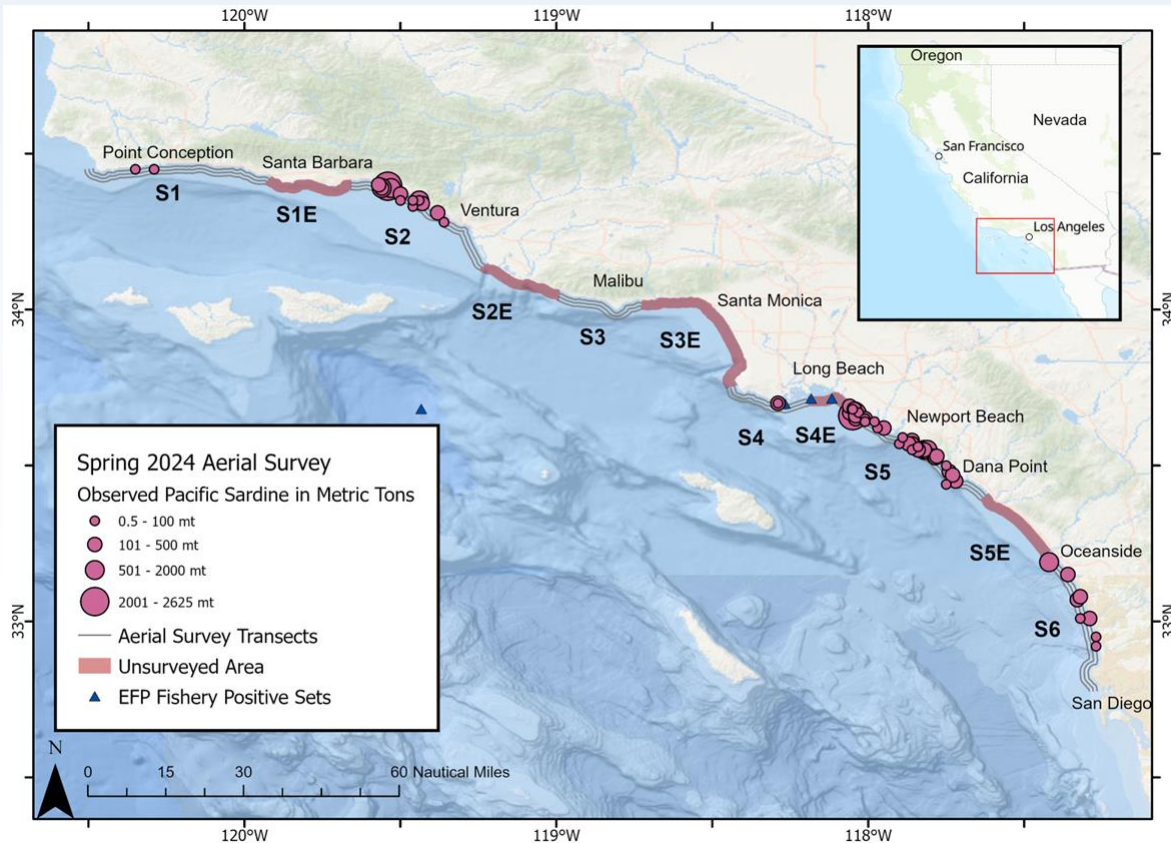
Spring 2024 – NSP Sardine

Date	Region	Season	Stratum	Biomass (mt)
3/25/24	SCA	Spring	S1	8
3/27/24	SCA	Spring	S2	3,743
3/27/24	SCA	Spring	S3	0
3/28/24	SCA	Spring	S5	5,762
3/28/24	SCA	Spring	S6	1,018
3/29/24	SCA	Spring	S4	110

- Sardine habitat model:

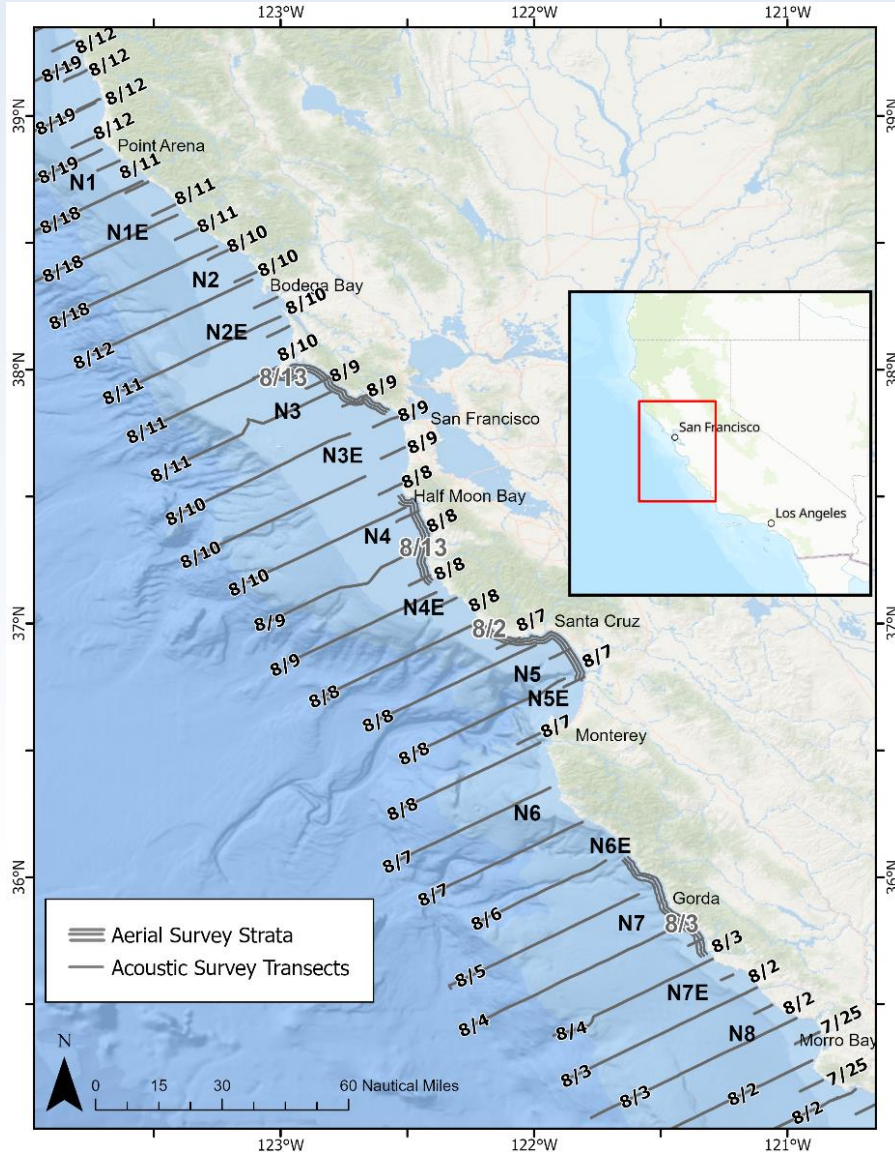
Sardine between San Pedro and US southern border, (Jan-Apr) = NSP

- Strata S5, S6 = 6,780 mt





Summer 2024 NCA Survey Transects



Aerial		Acoustic			Separation (days)		
Stratum	Flights	Offshore	Nearshore		Offshore	Nearshore	
		RL	LM	LBC	A-RL	A-LM	A-LBC
N5	8/2	8/8	8/7	-	6	5	-
N7	8/3	8/4, 8/5	-	8/3	1-2	-	0
N4	8/13	8/9, 8/10	8/8	-	-3-4	-5	-
N3	8/13	8/10, 8/11	8/9	-	-2-3	-4	-

N5 (Monterey Bay) and N7 (South of Big Sur)

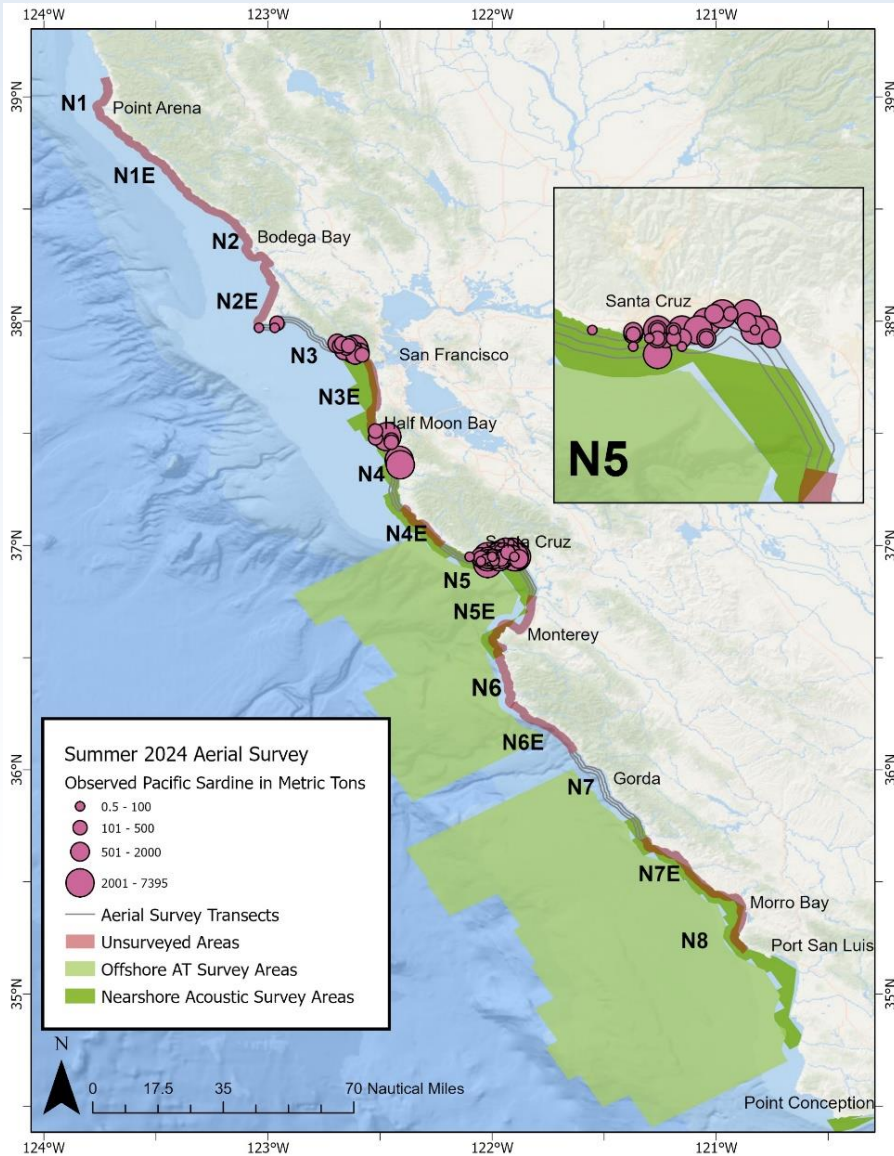
1-6 days ahead of offshore AT survey

N4 (San Francisco) and N3 (Marin County)

2-4 days behind offshore AT survey



Summer 2024 NCA - Observed Survey Biomass



Date	Region	Season	Stratum	Biomass (mt)
8/2/24	NCA	Summer	N5	23,824
8/3/24	NCA	Summer	N7	0
8/13/24	NCA	Summer	N4	8,051
8/13/24	NCA	Summer	N3	8,446

Region	Season	Area (km ²)	Biomass (mt)	CV
NCA	Summer	786	53,897	0.09

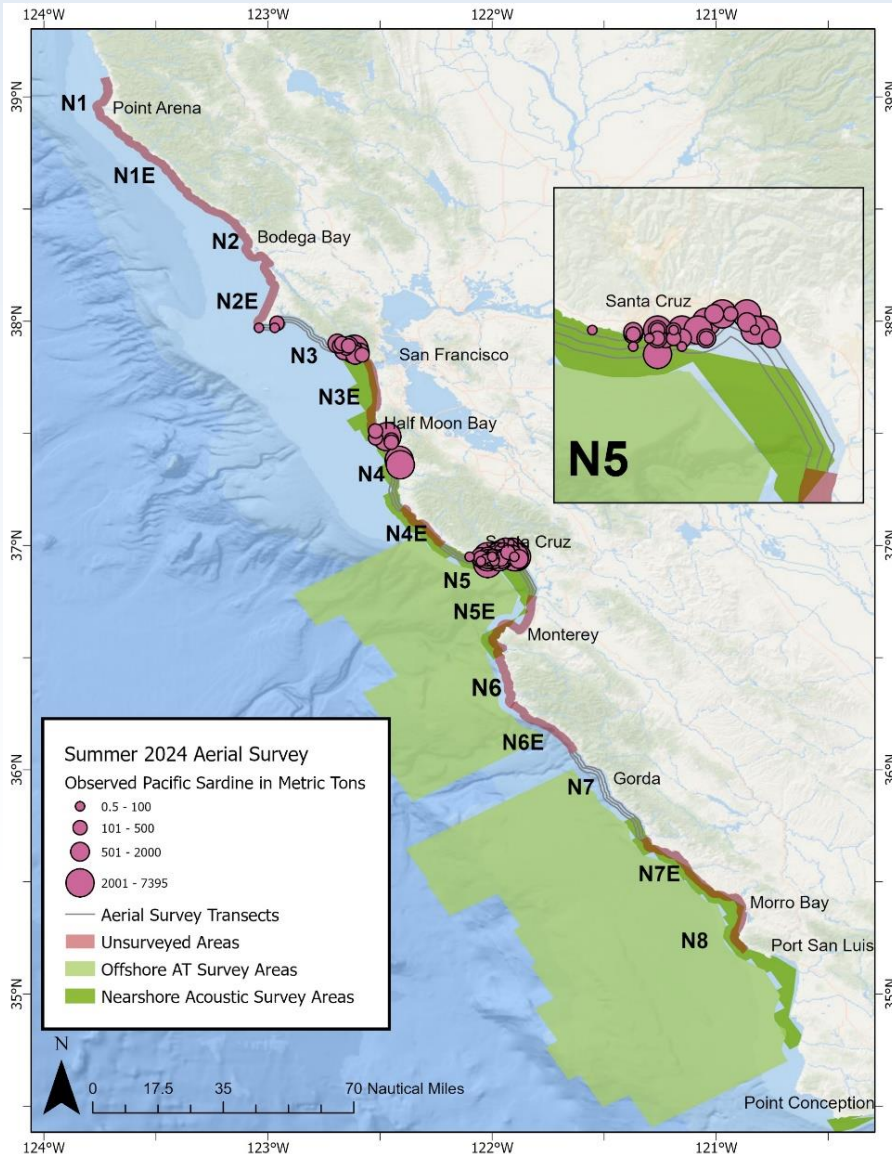


Sardine Biomass 2017-2024

Year	Season	Area (km ²)	Sardine Biomass	
			SCA	NCA
2017	Spring	328	0	
	Summer	1,353		20,217
2018	Spring	1,054	2,697	
	Spring	1,055	2,283	
	Summer	996	553	
	Summer	239		15,034
2019	Spring	927	28,976	
	Summer	1,388		11,736
	Summer	1,044	25,475	
2020	Summer	2,259		8,699
	Summer	1,515	17,244	
2021	Spring	1,515	18,434	
	Summer	1,373		14,963
	Summer	1,515	13,159	
2022	Spring	1,515	1,326	
	Summer	381		1,728
	Summer	1,515	24,401	
2023	Spring	1,515	10,205	
	Summer	1,515	812	
	Summer	376		10,085
2024	Spring	1,515	14,002	
	Summer	312	1,697	
	Summer	786		53,897



Conclusions



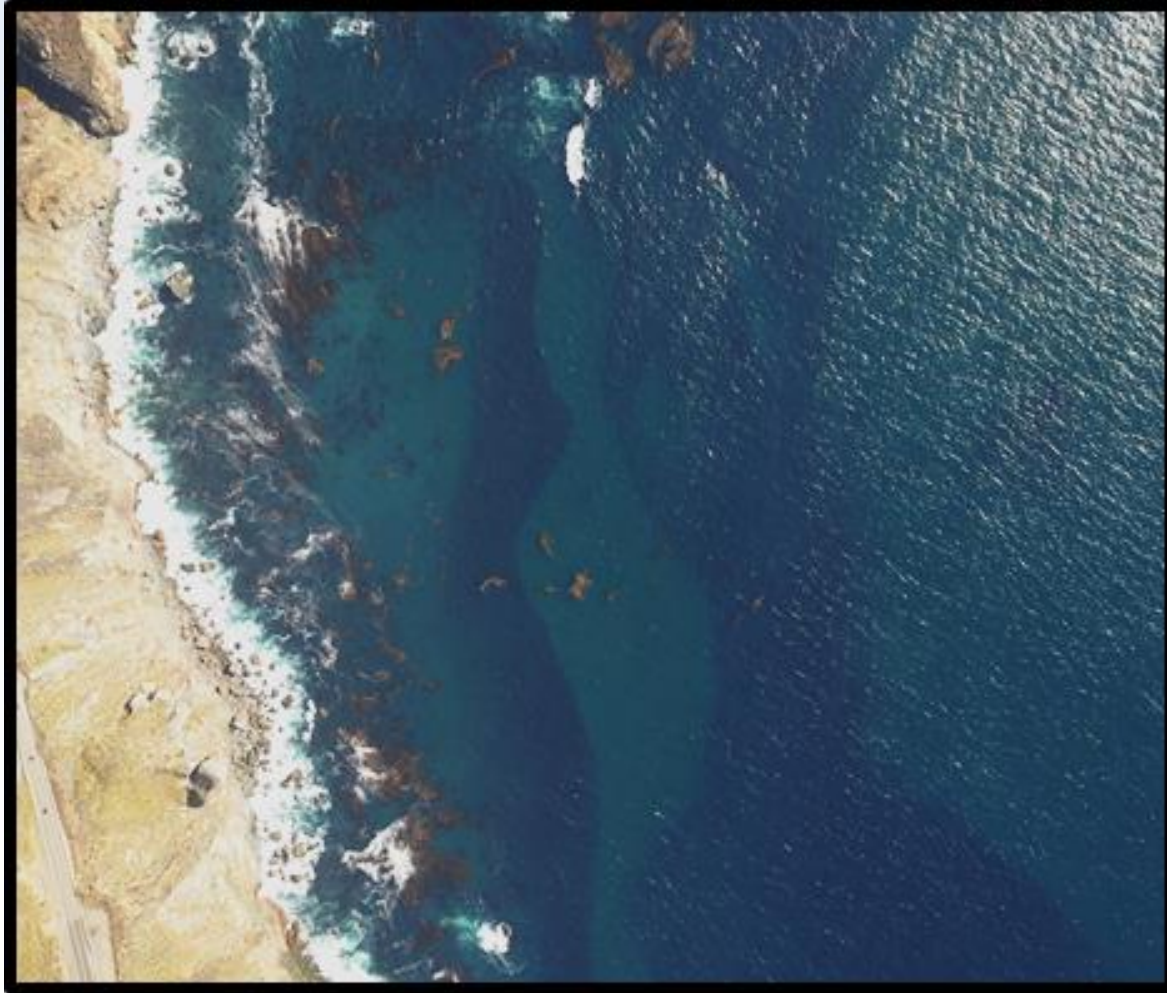
- NSP biomass – 53,897 mt
- Nearshore survey biomass
 - Significant part of total NSP
- Spatial overlap of observed NSP schools
 - Unclear in some areas
 - Clear separation in other areas
- Further examination of survey data sets needed
 - Acoustic surveys do not extend to shoreline



Acknowledgments

- CWPA –Diane Pleschner-Steele, Devin Reed, Mark Fina
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Thank You



Kirk Lynn

Environmental
Scientist

Pelagic Fisheries and
Ecosystem Program

(858) 243 - 3778

Kirk.Lynn@wildlife.ca.gov