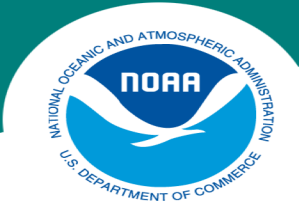


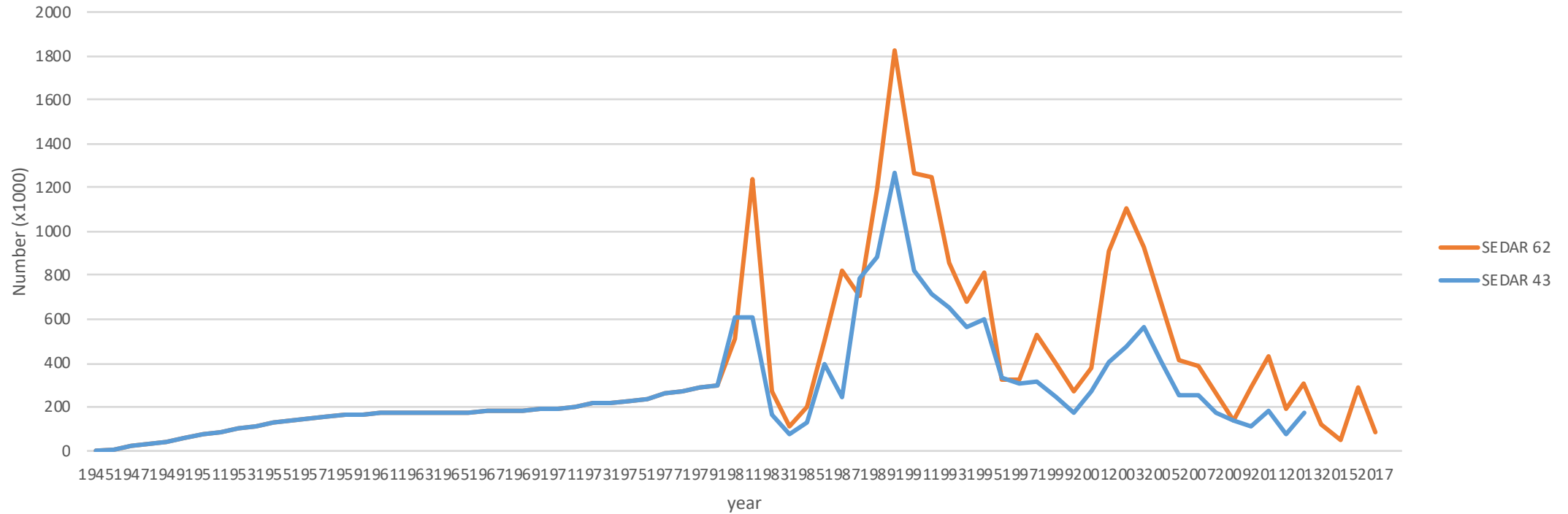
## **Data and Assessment Workshop 1 - Data**

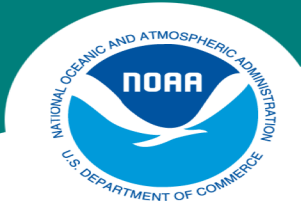
- Commercial landings
- Recreational landings
- Discards
- CPUE indices
- Length composition
- Age composition
- Age-Length key



# Recreational Landings - East

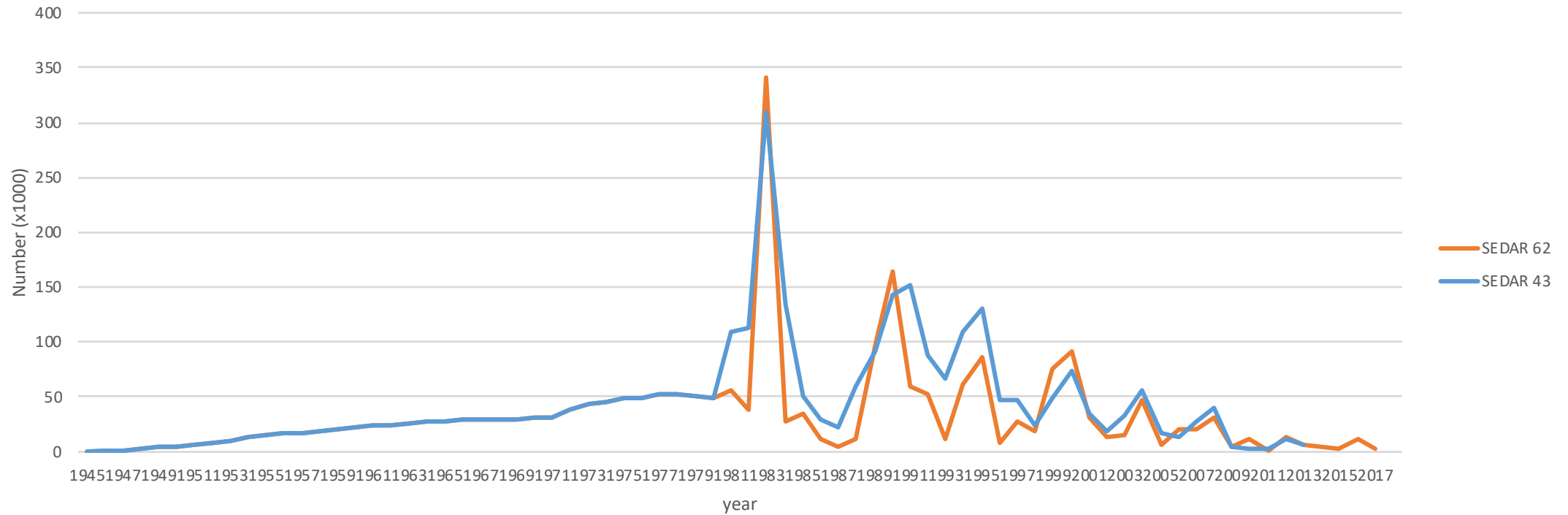
Rec East Landings

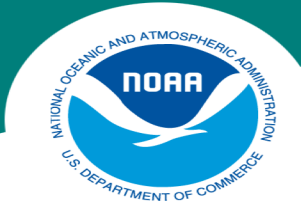




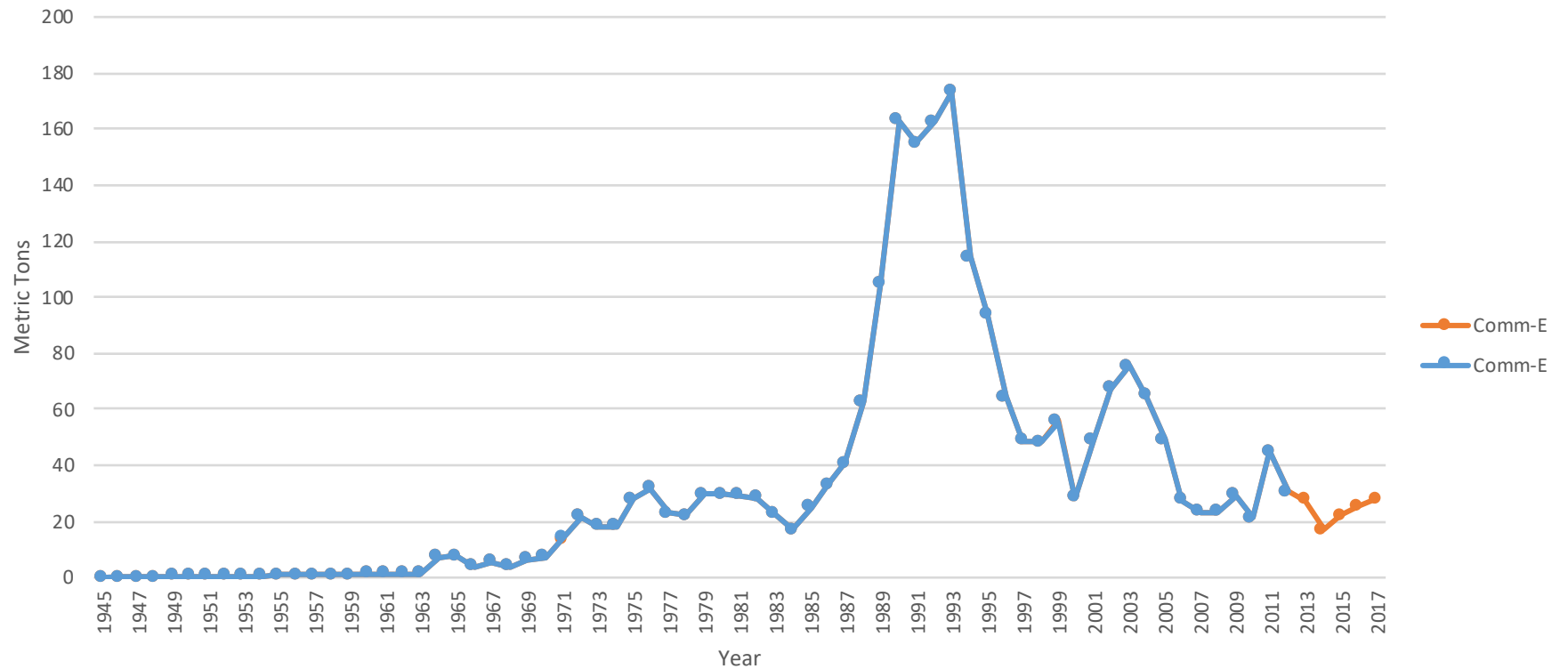
# Recreational Landings - West

Rec West Landings



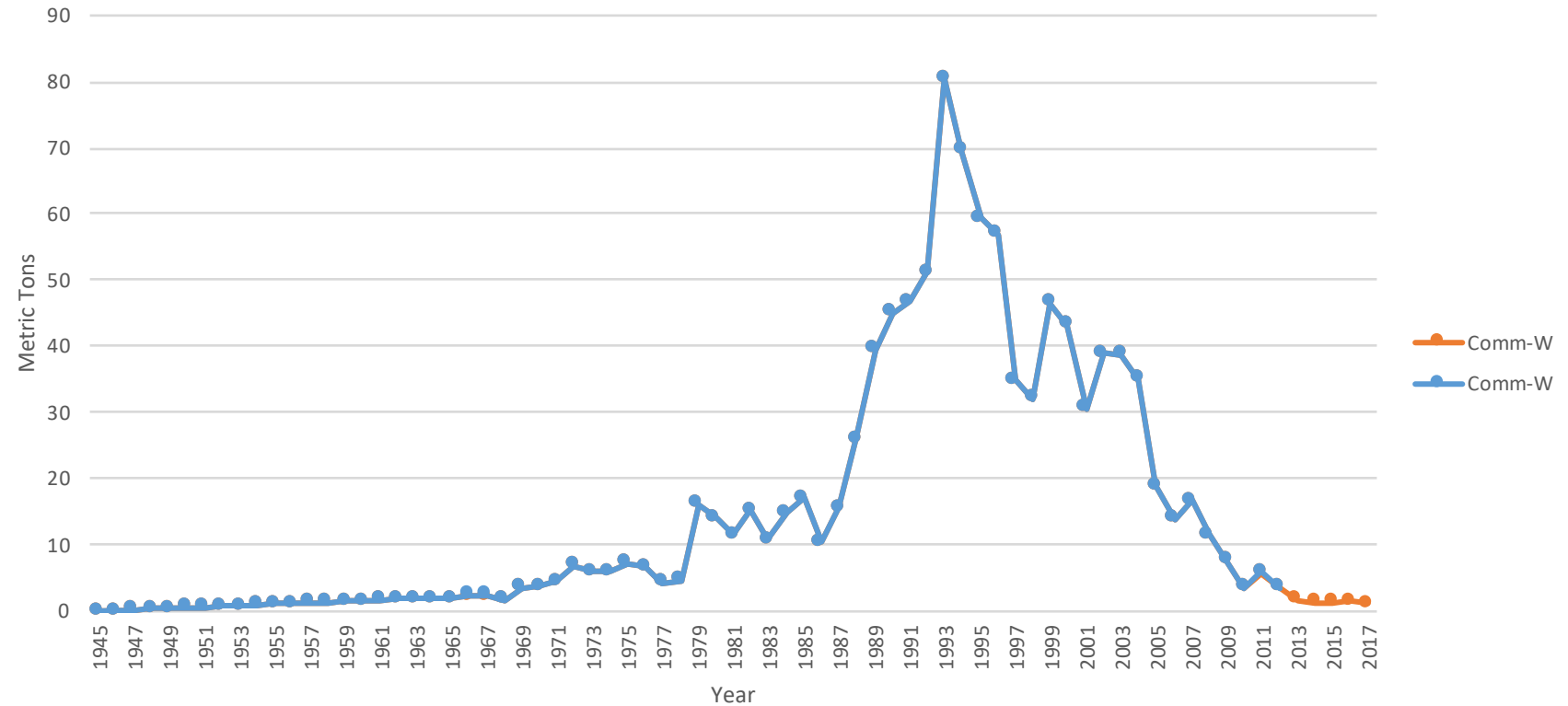


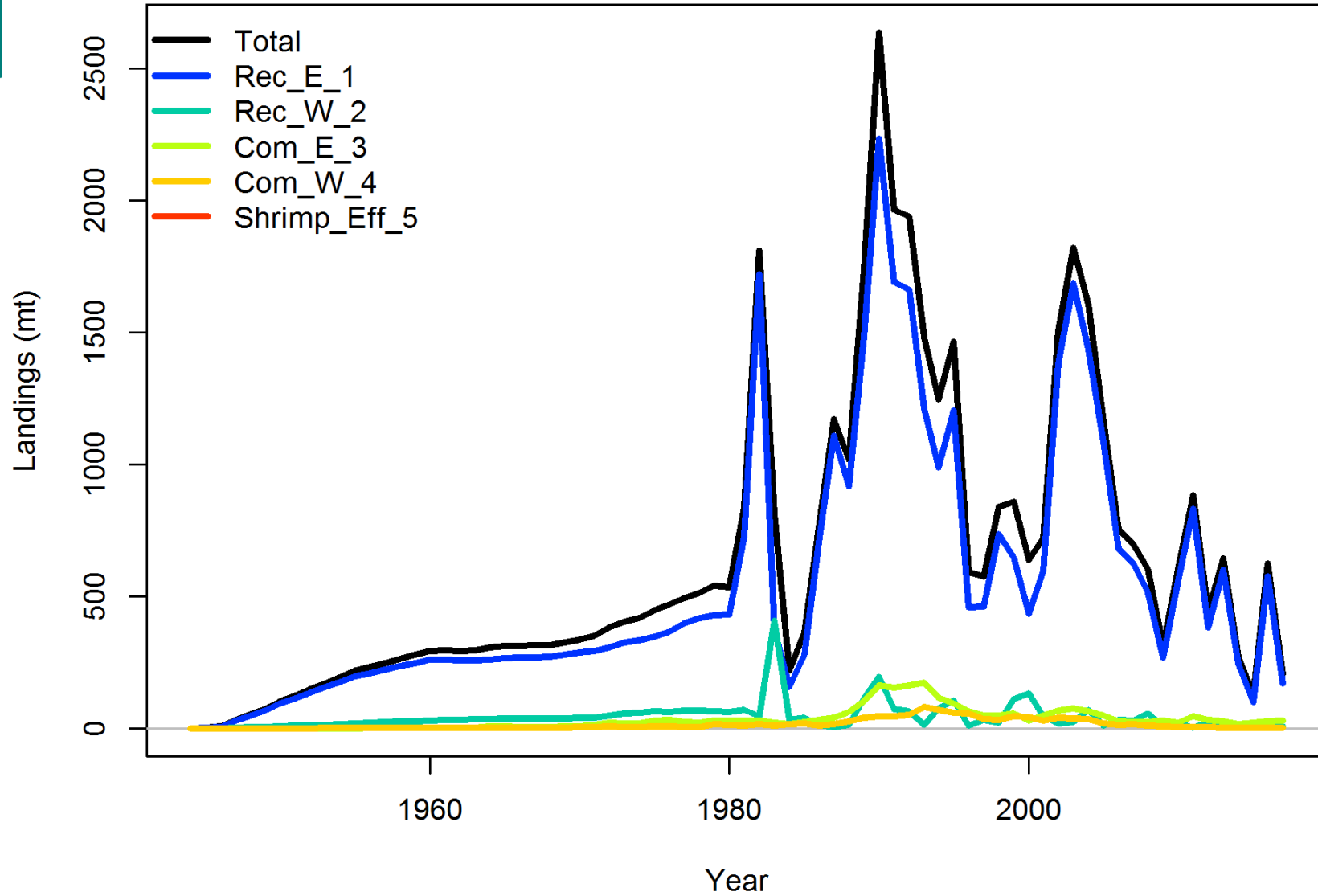
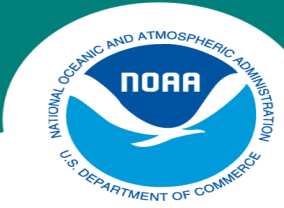
# Commercial Landings East SEDAR 43 vs. SEDAR 62

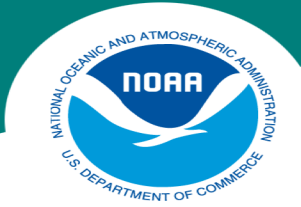




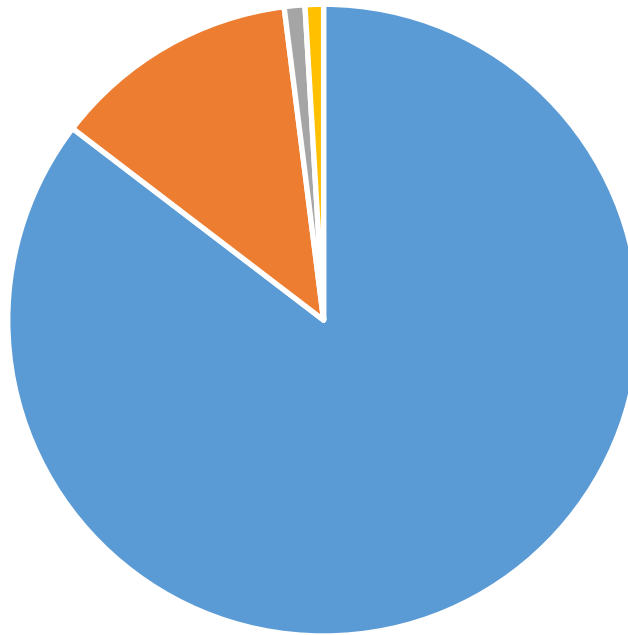
# Commercial Landings West SEDAR 43 vs. SEDAR 62



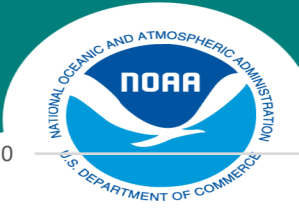




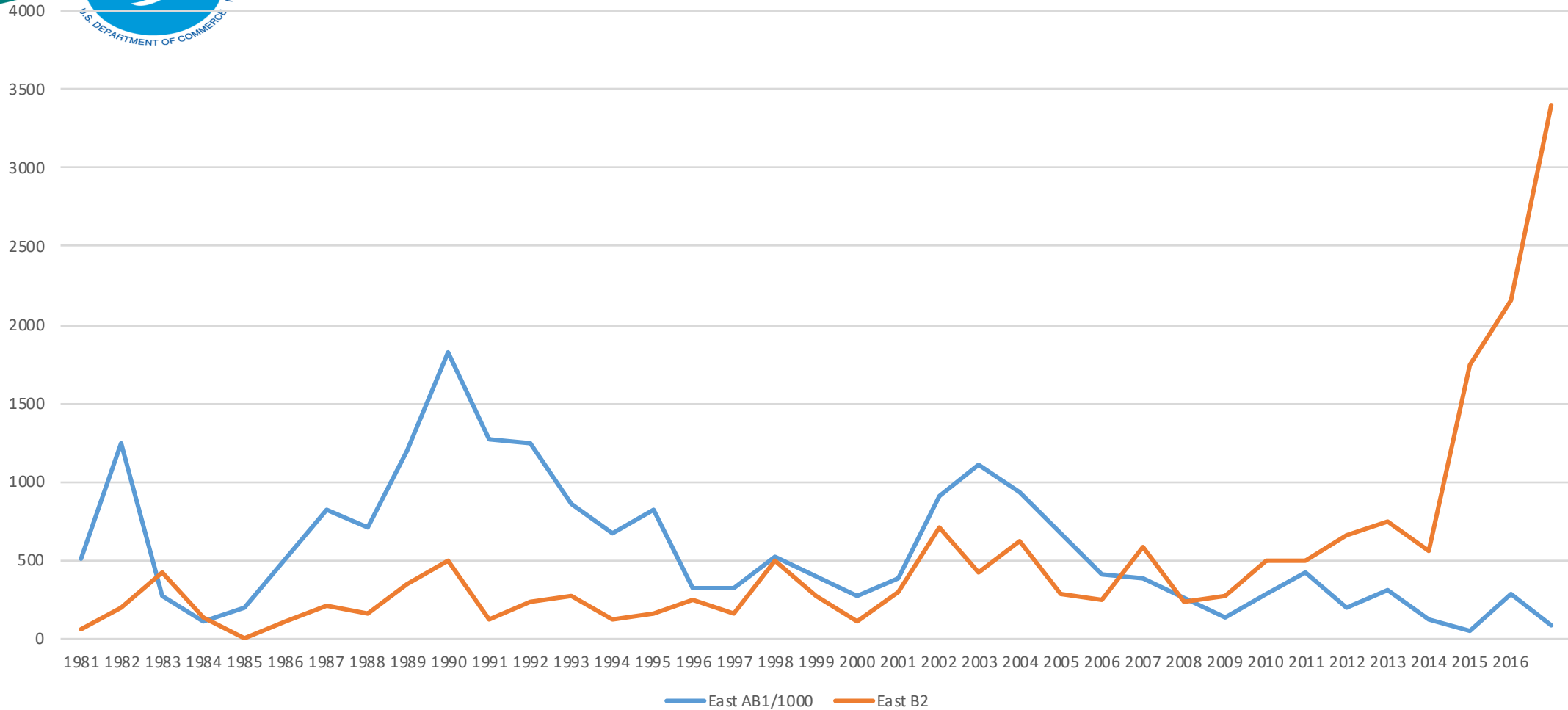
## Recreational and Commercial Landings by Gear



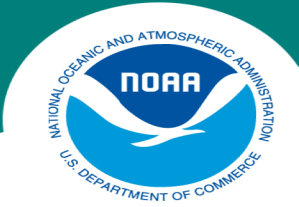
- Rec
- Com\_HL
- Com\_LL
- Com\_Trap



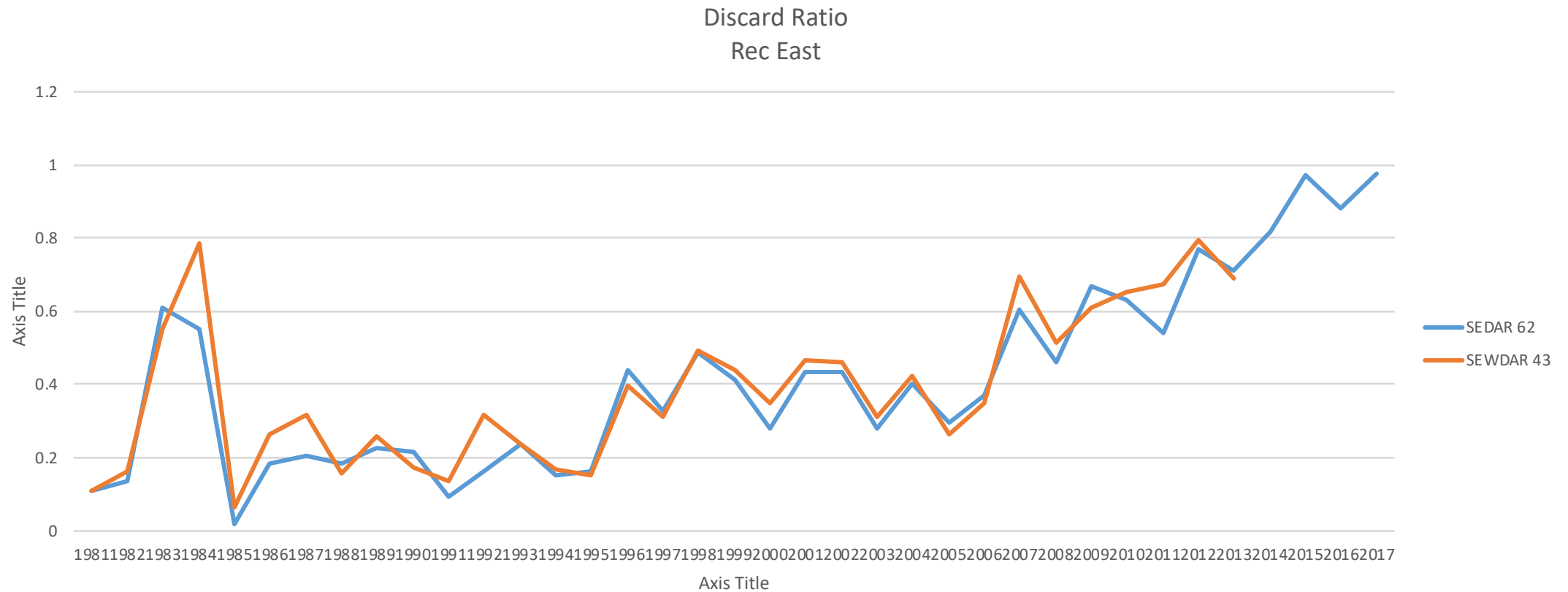
# Rec East – Discards Vs Landings

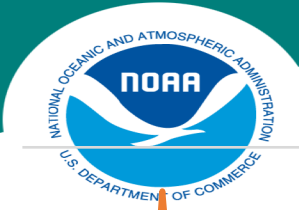




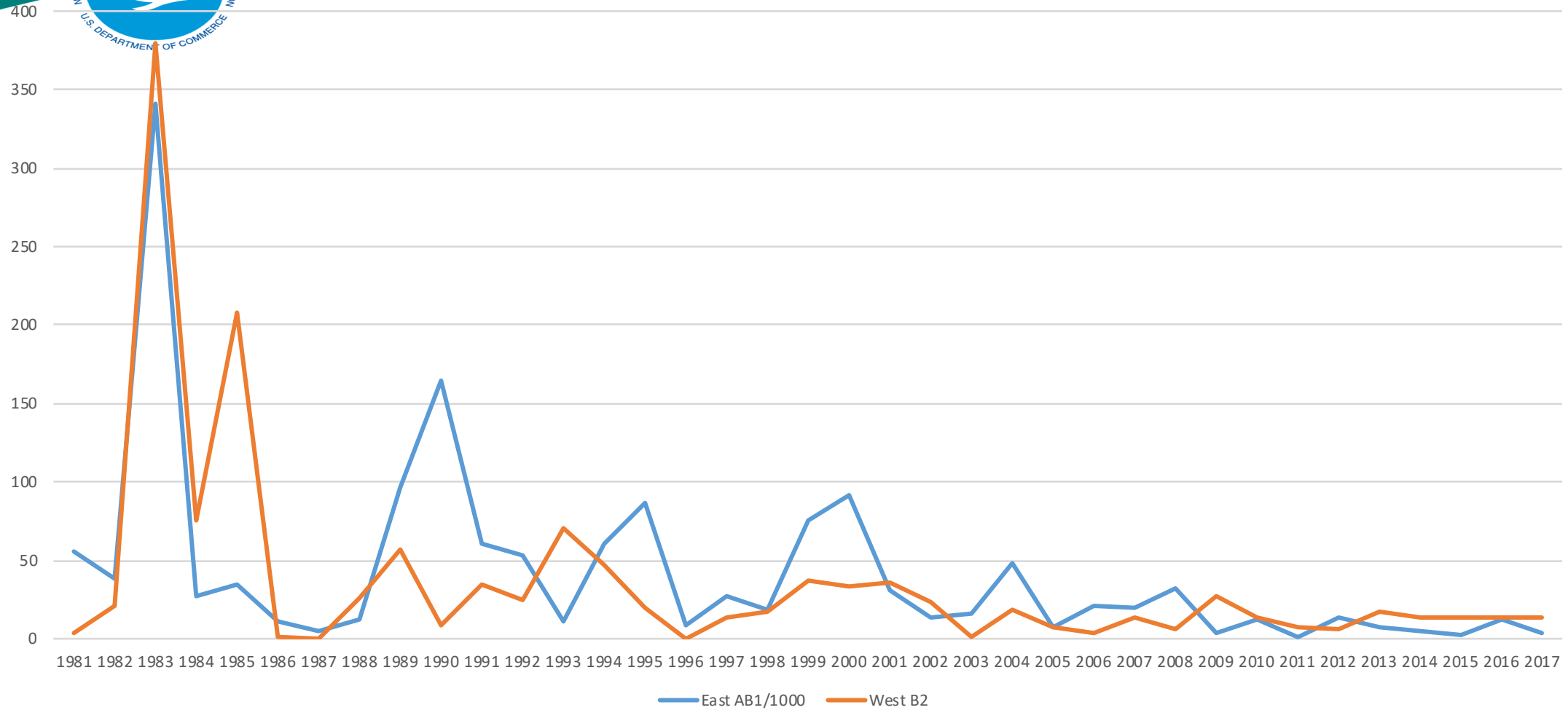


# Rec East Discards as Fraction of Total Catch





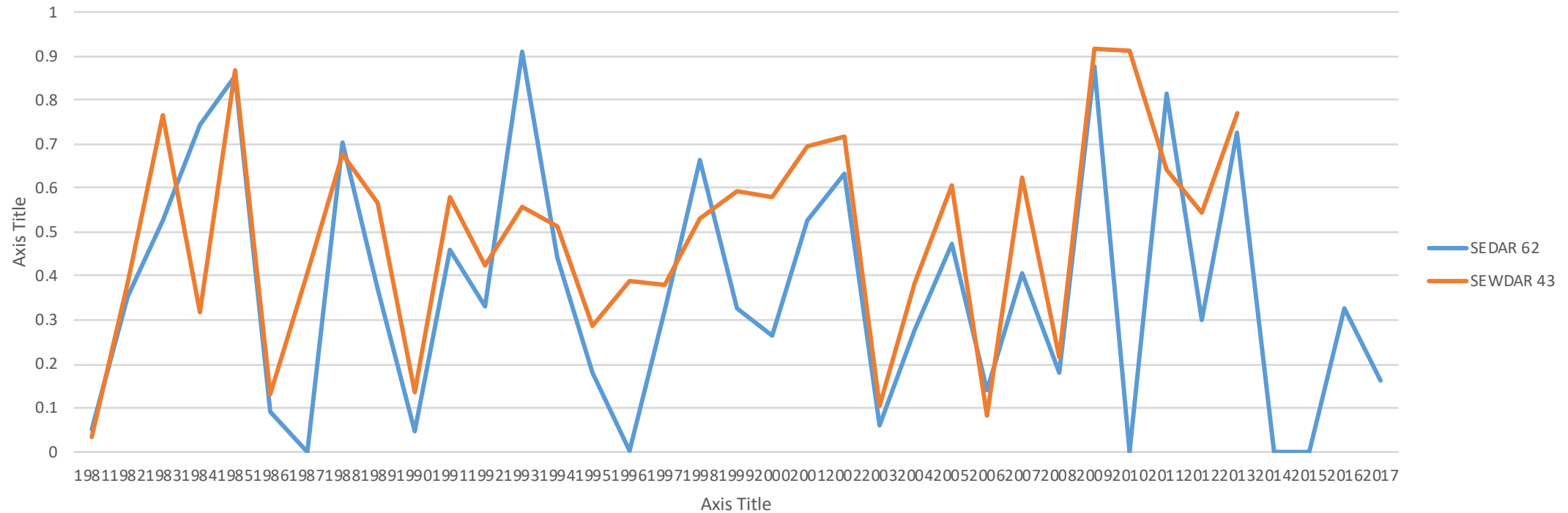
# Rec West – Discards vs. Landings

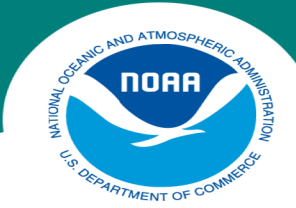




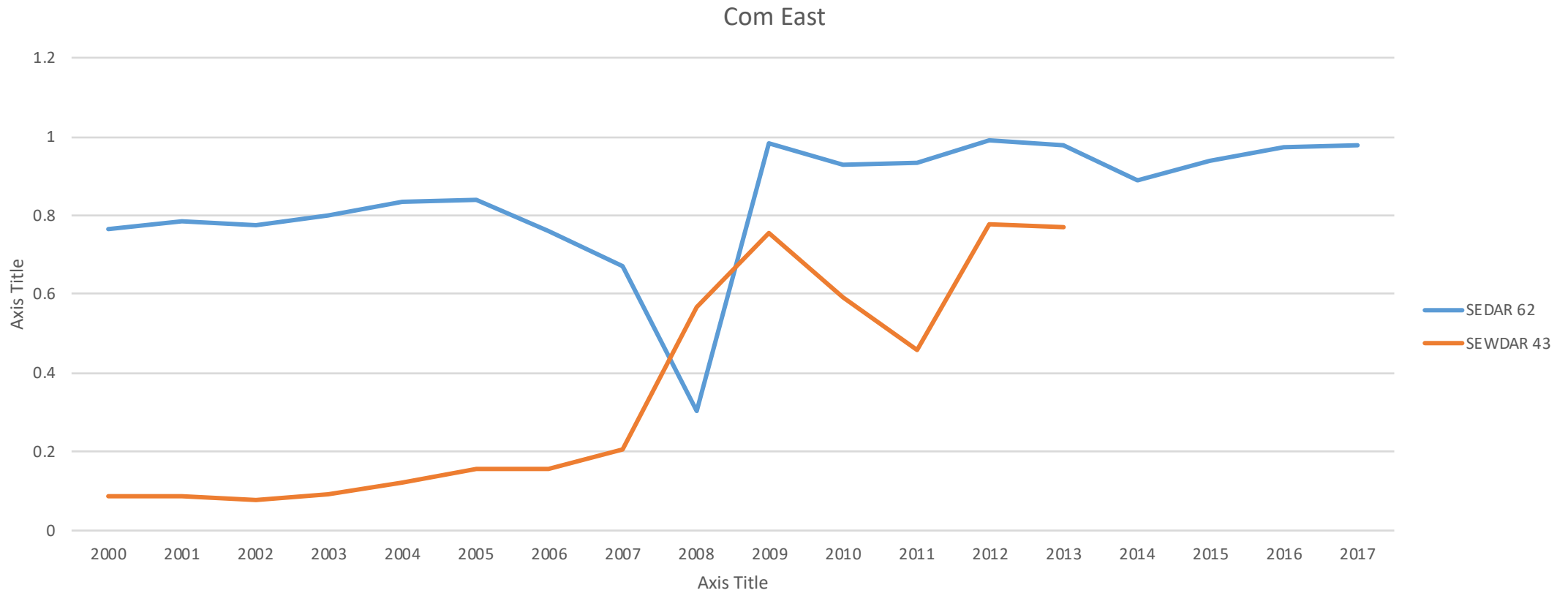
# Rec West Discards as Fraction of Total Catch

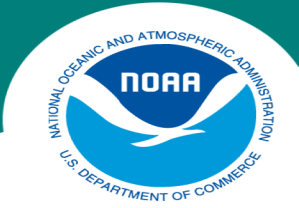
Discard Ratio  
Rec West



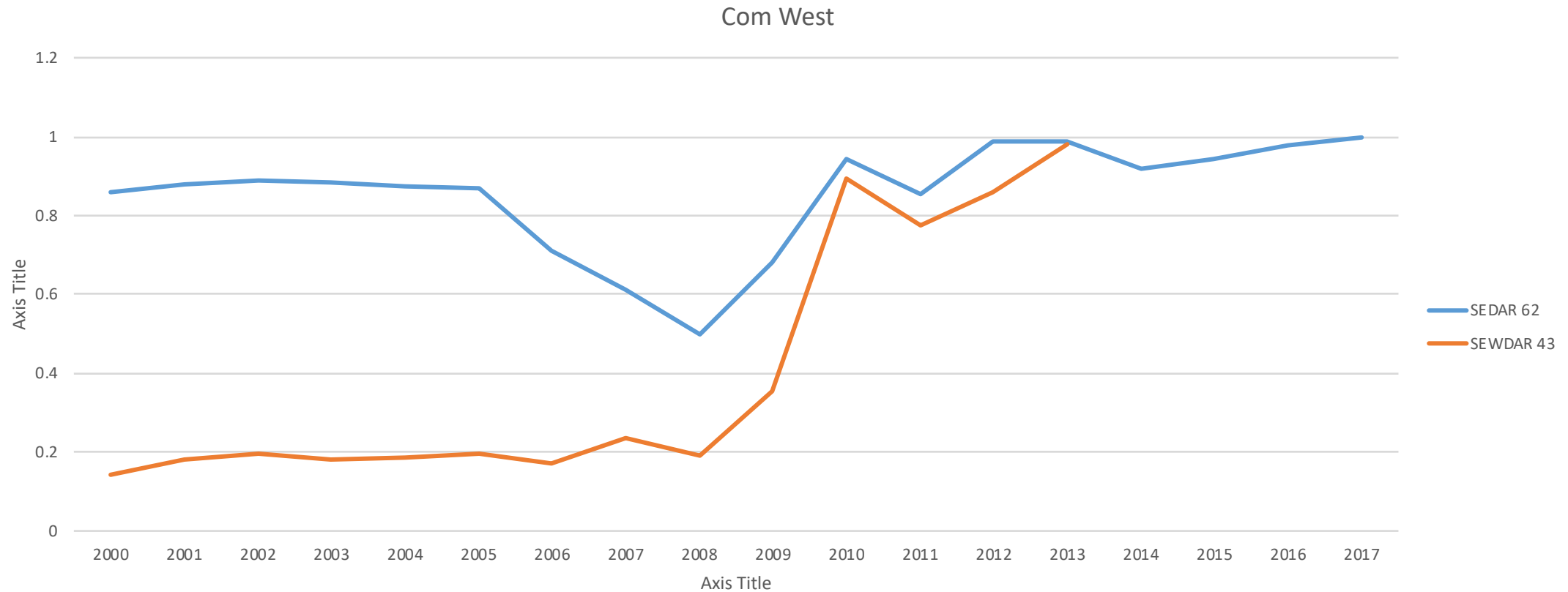


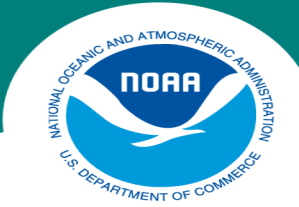
## Com East Discards as Fraction of Landings



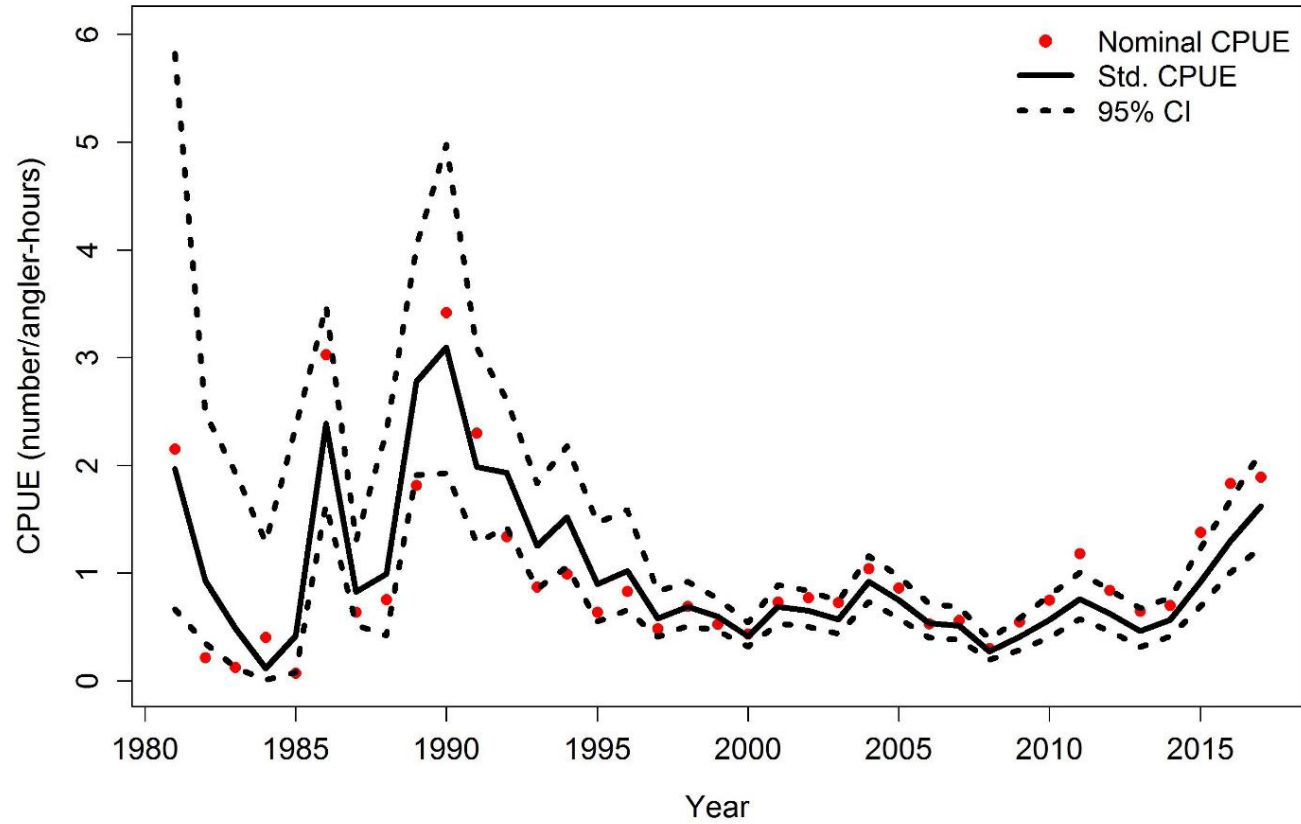


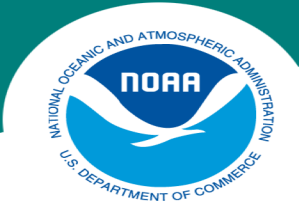
## Com West - Discards as Fraction of Landings



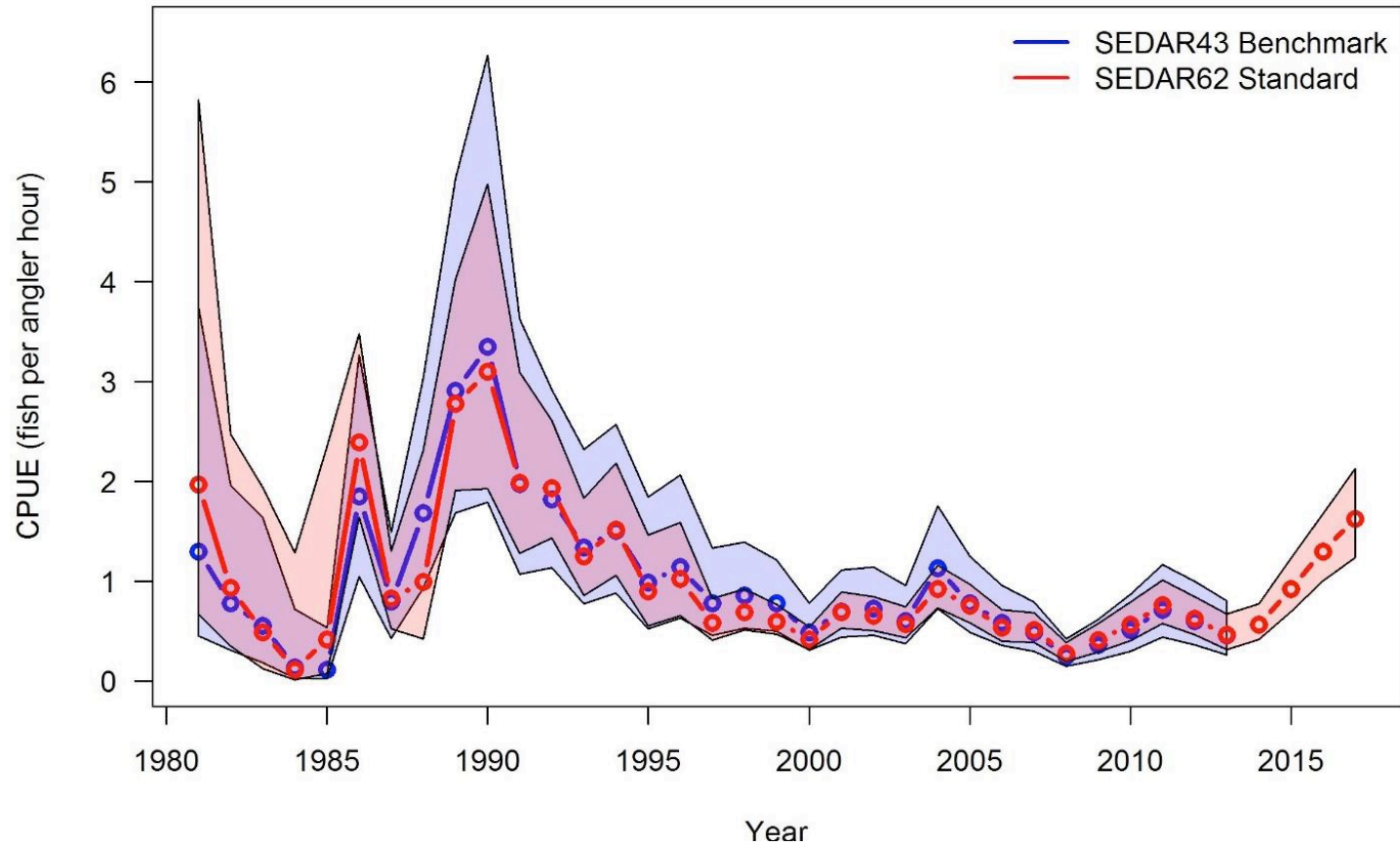


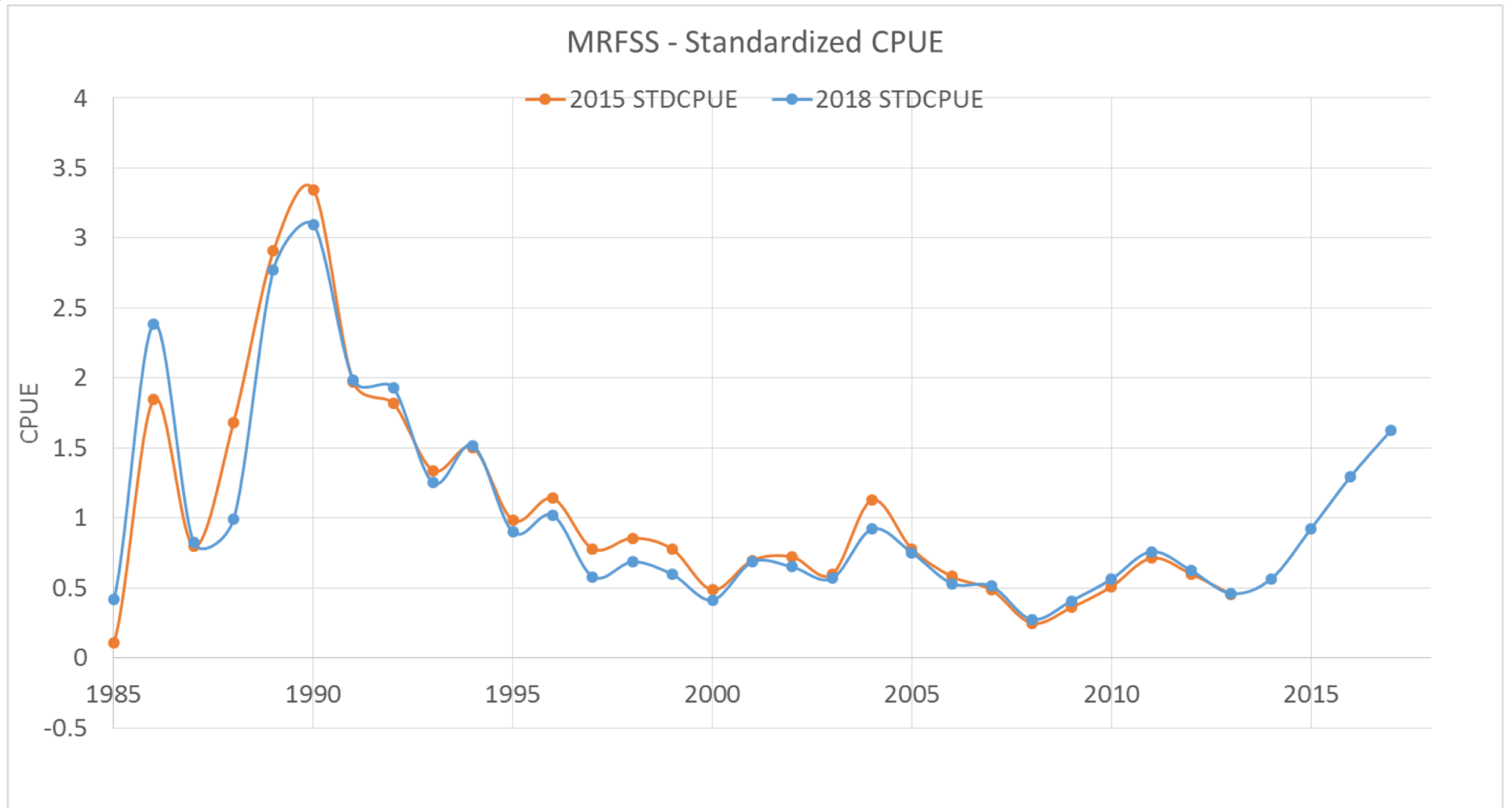
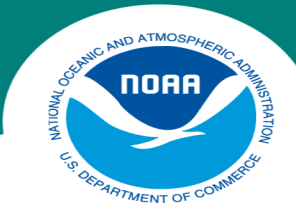
## MRFSS East CPUE Index



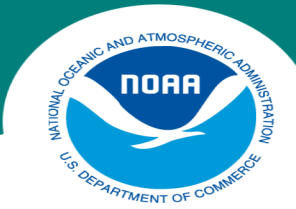


## MRFSS East CPUE Index

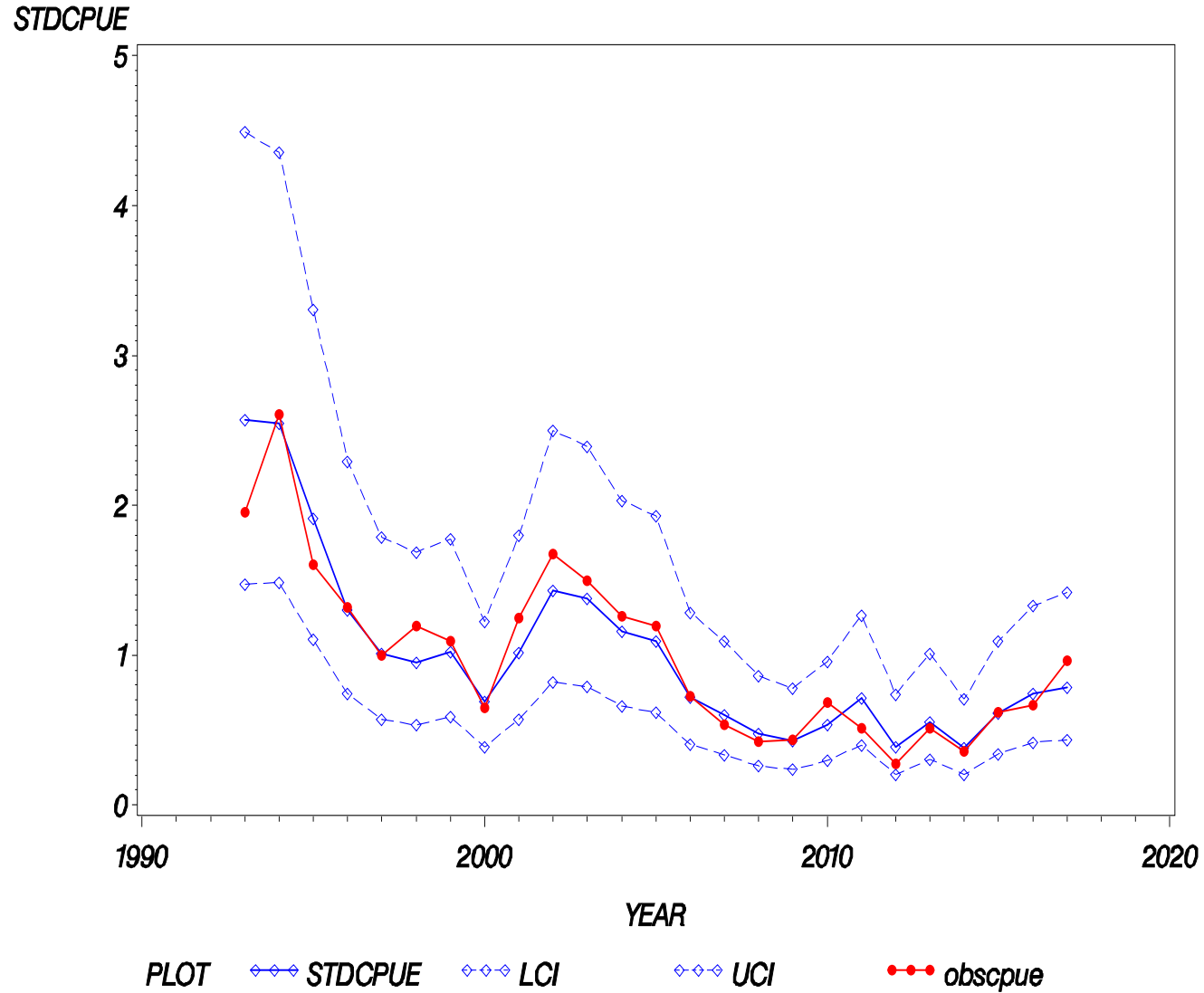


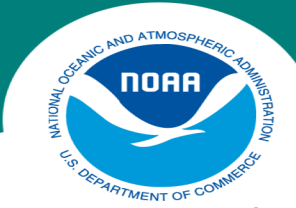




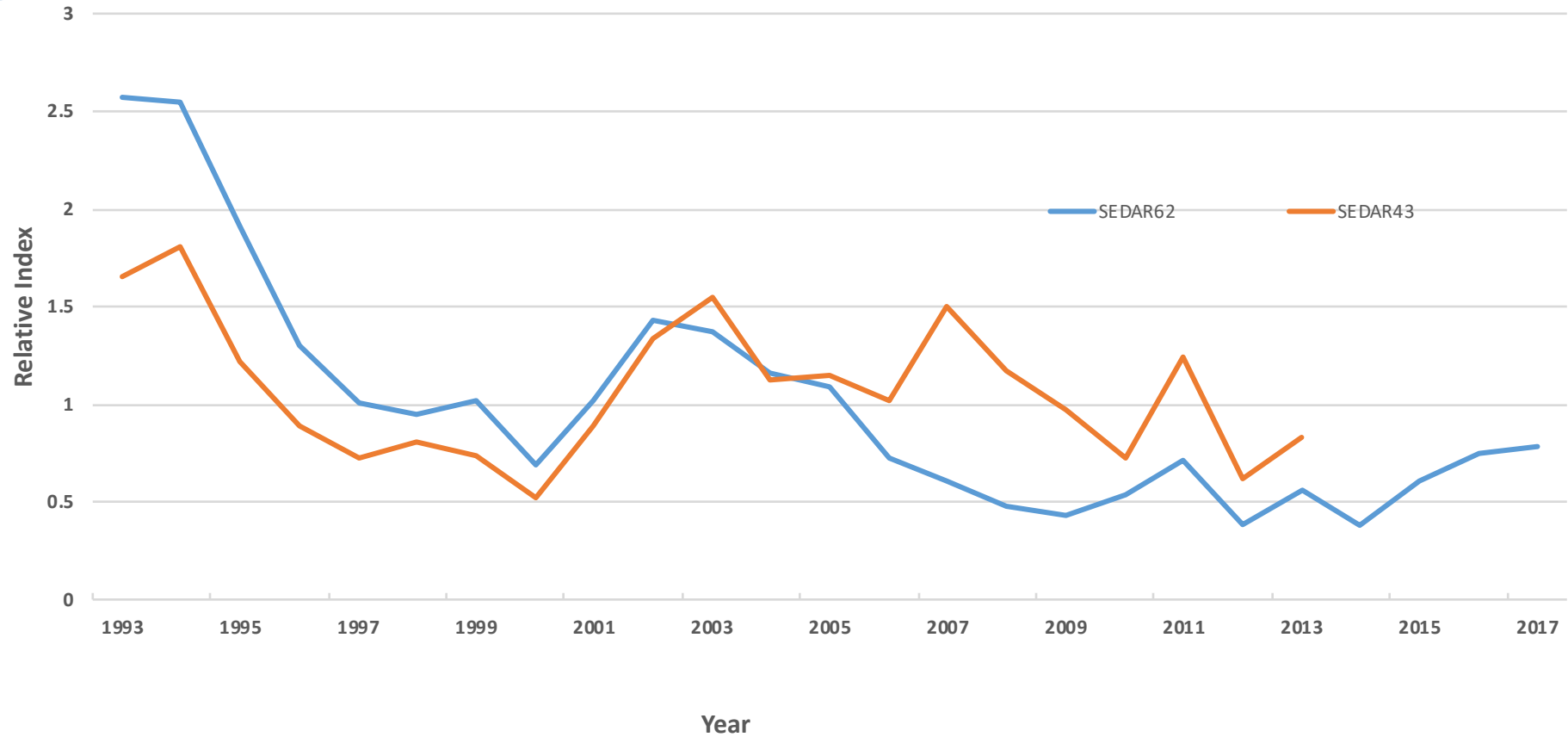


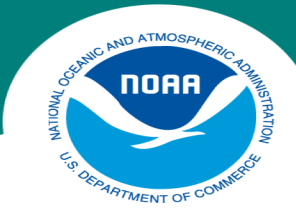
*TRIGGERFISH GOM HL DATA EAST 1993–2017*  
*Observed and Standardized CPUE (95% CI)*



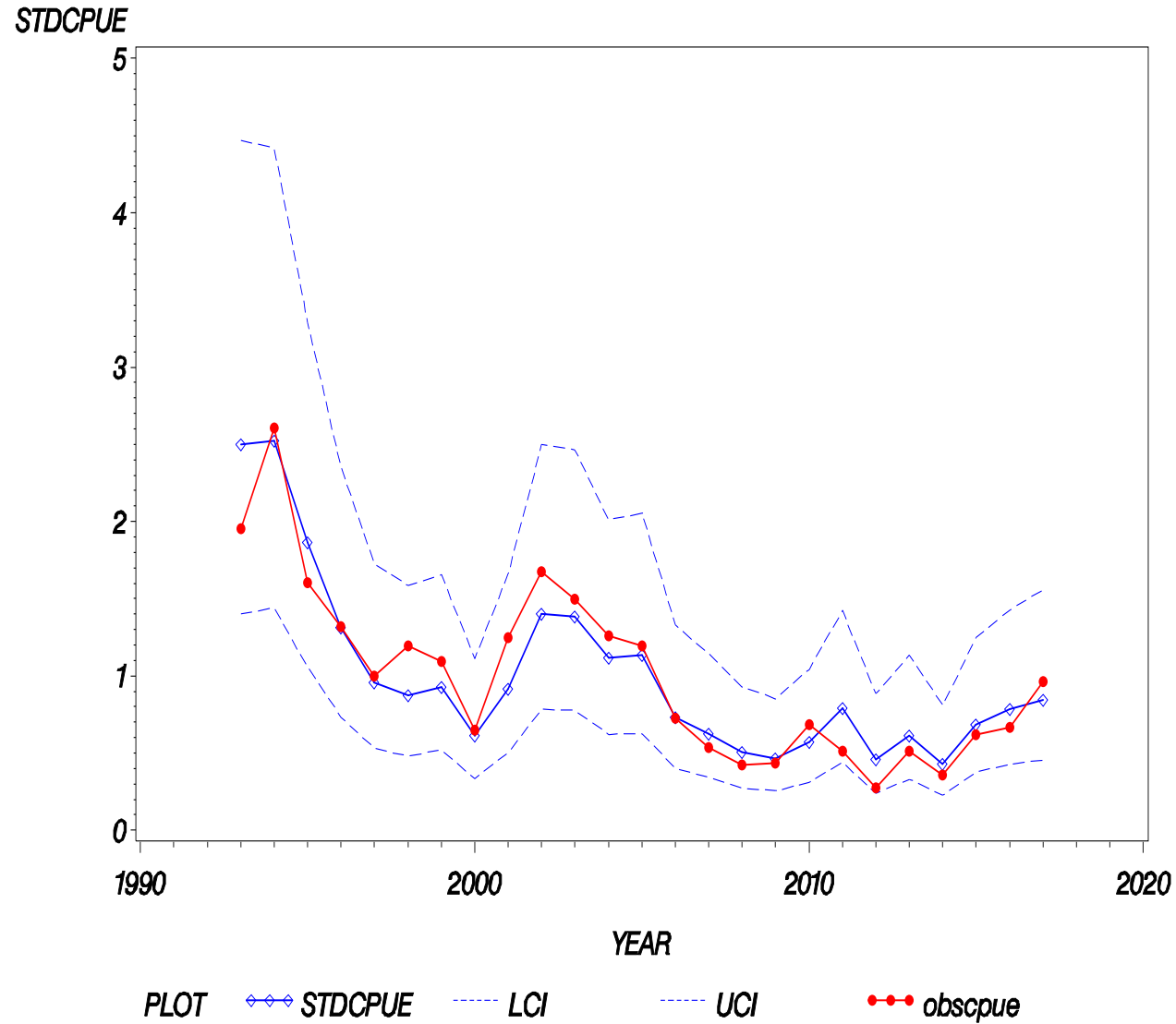


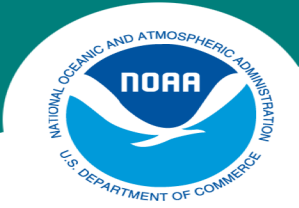
# Com HL East CPUE Index



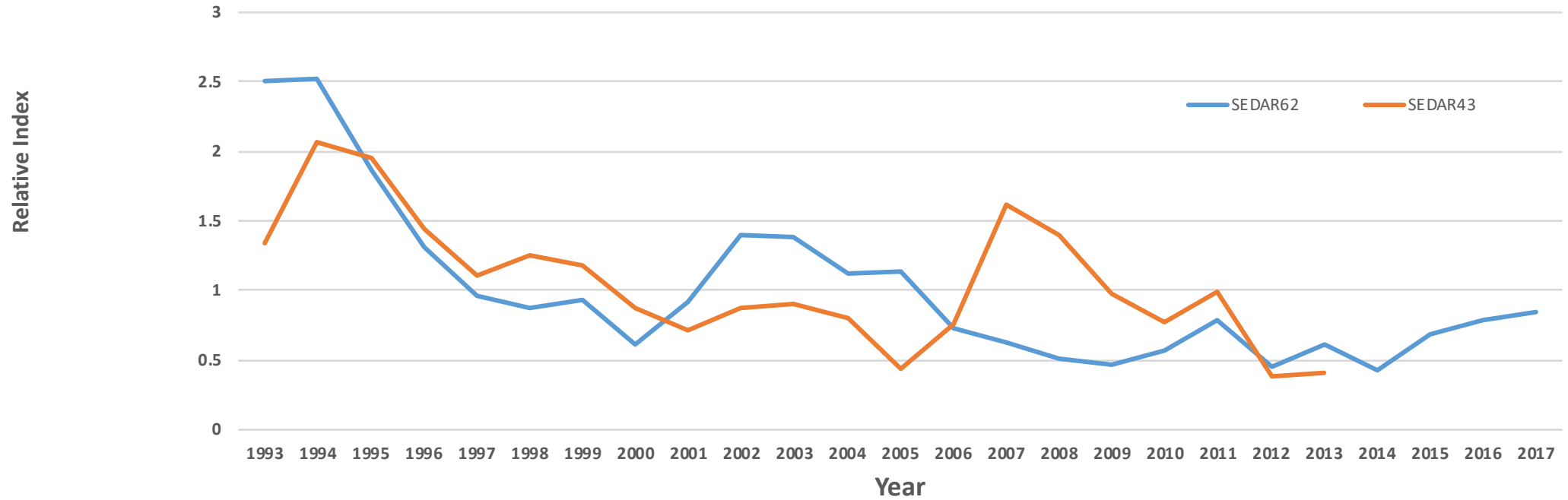


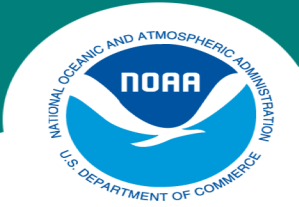
*TRIGGERFISH GOM HL DATA WEST 1993–2017*  
*Observed and Standardized CPUE (95% CI)*



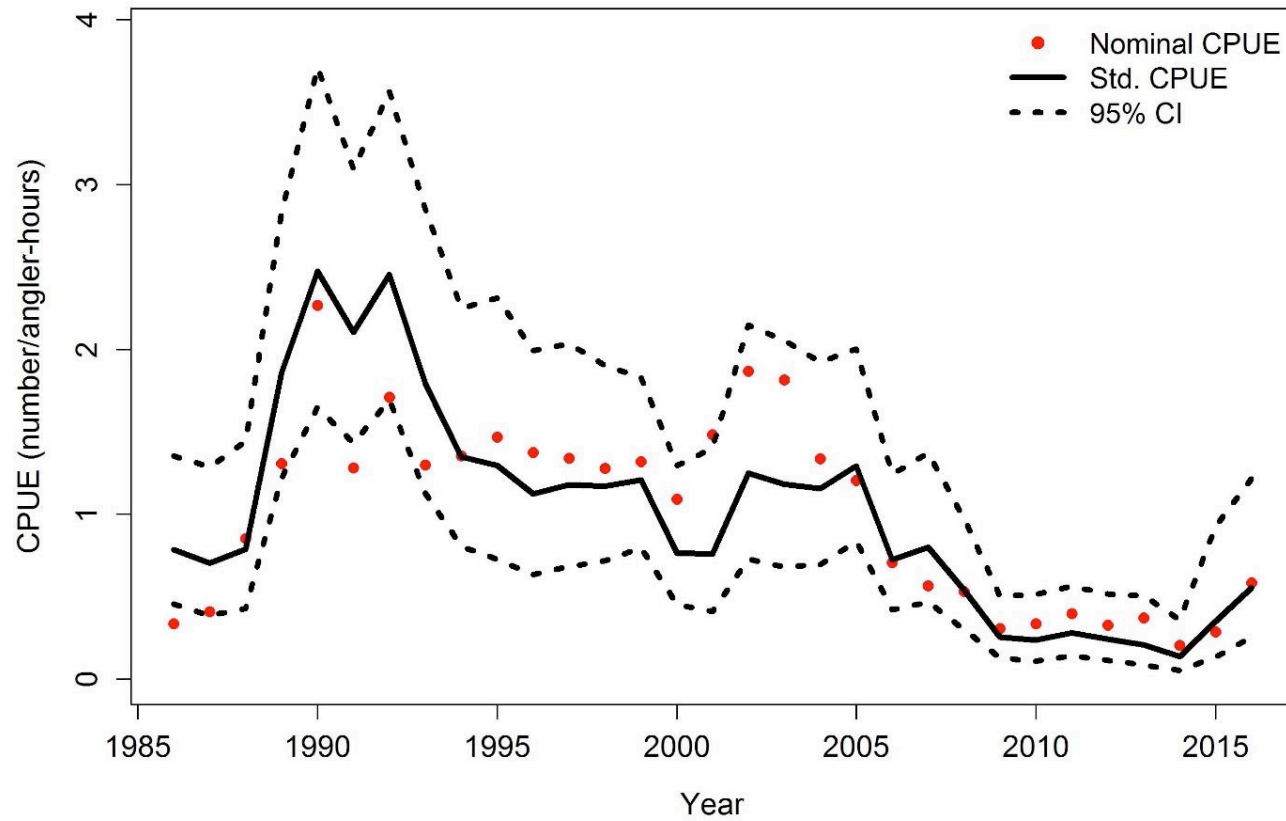


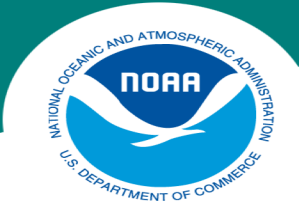
### Com HL West



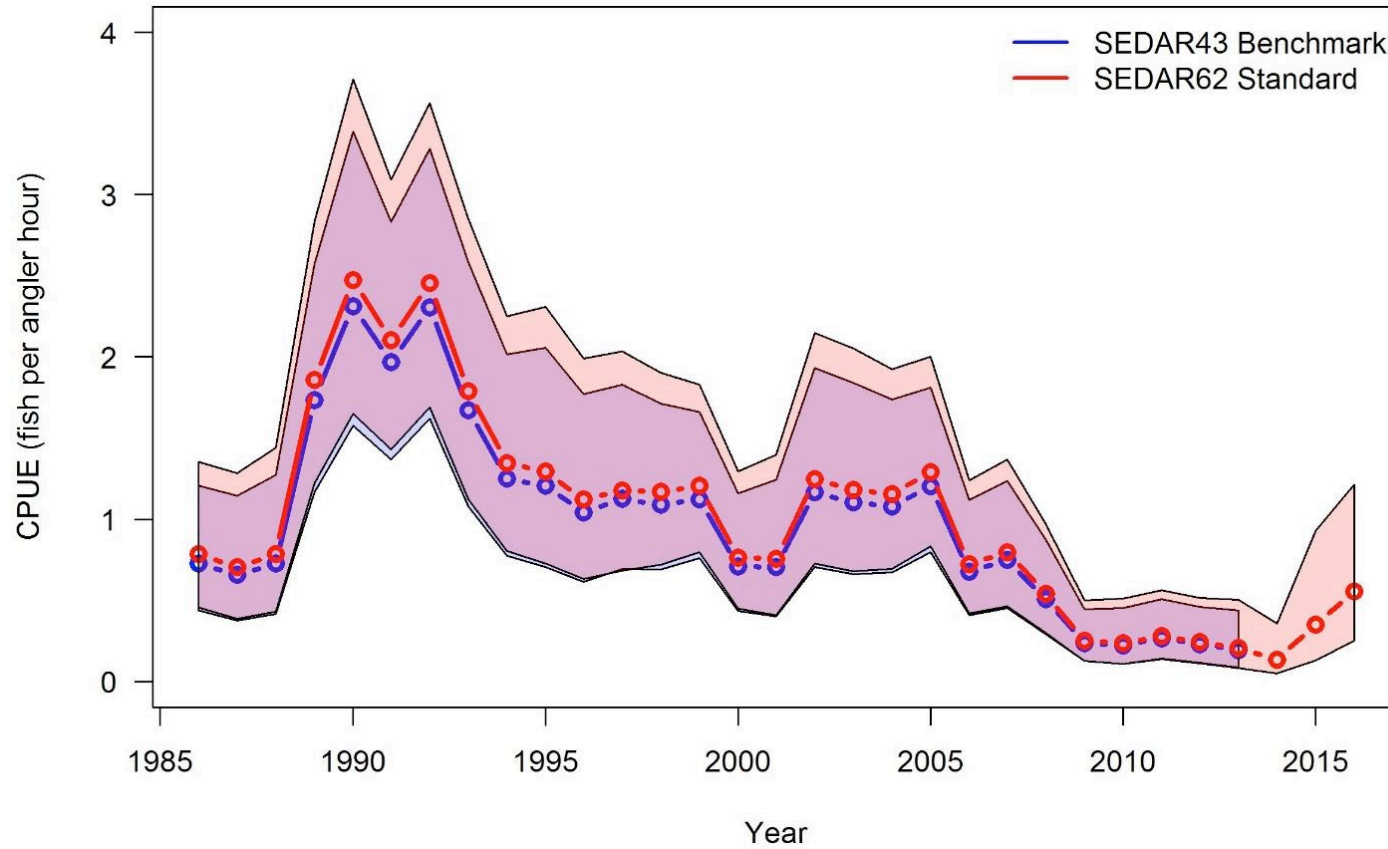


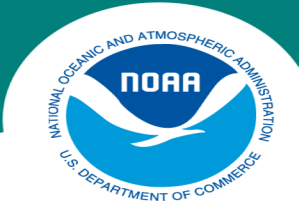
## Headboat East - Standardized CPUE



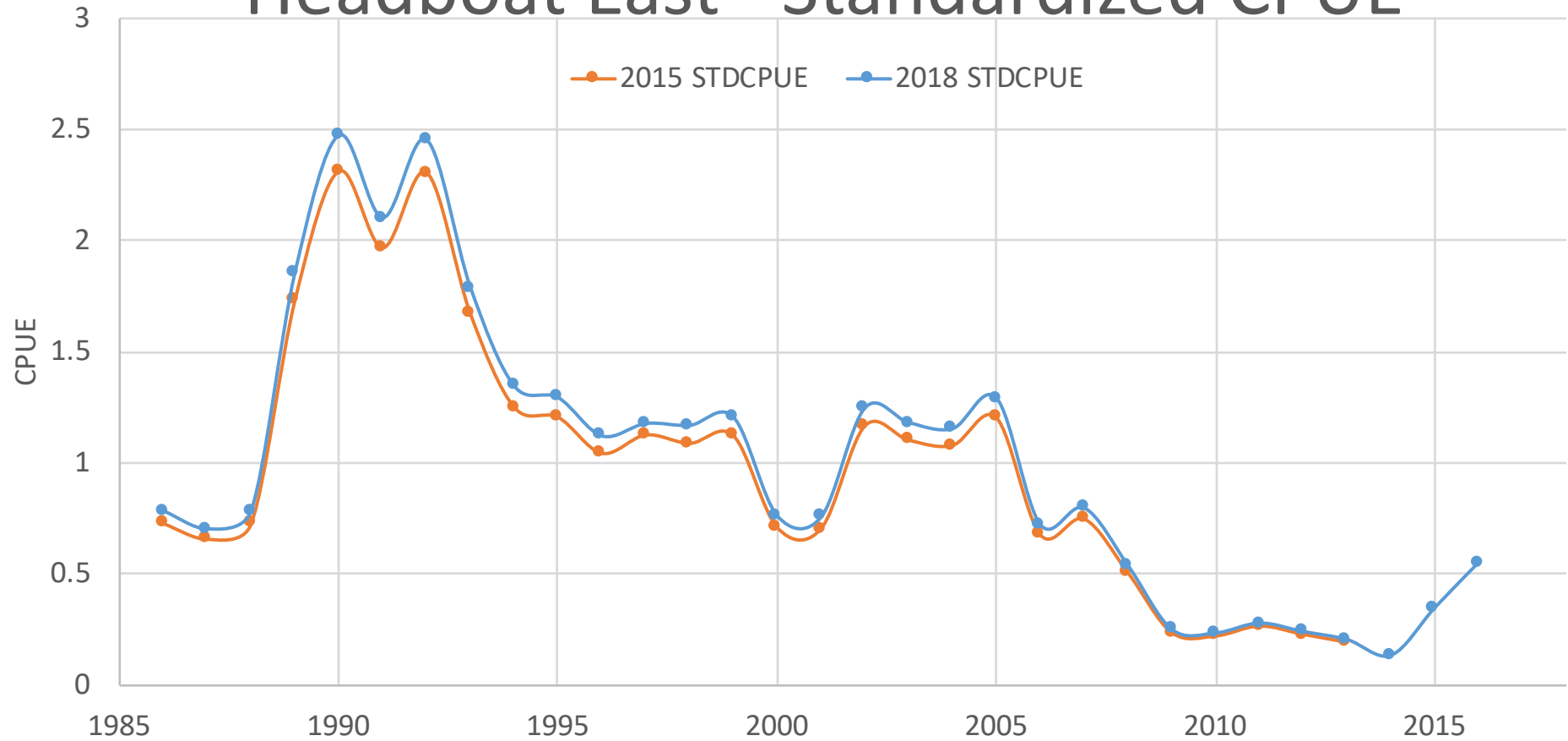


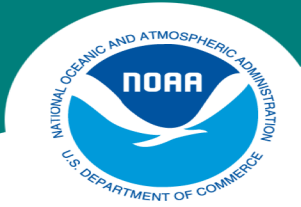
## Headboat East - Standardized CPUE



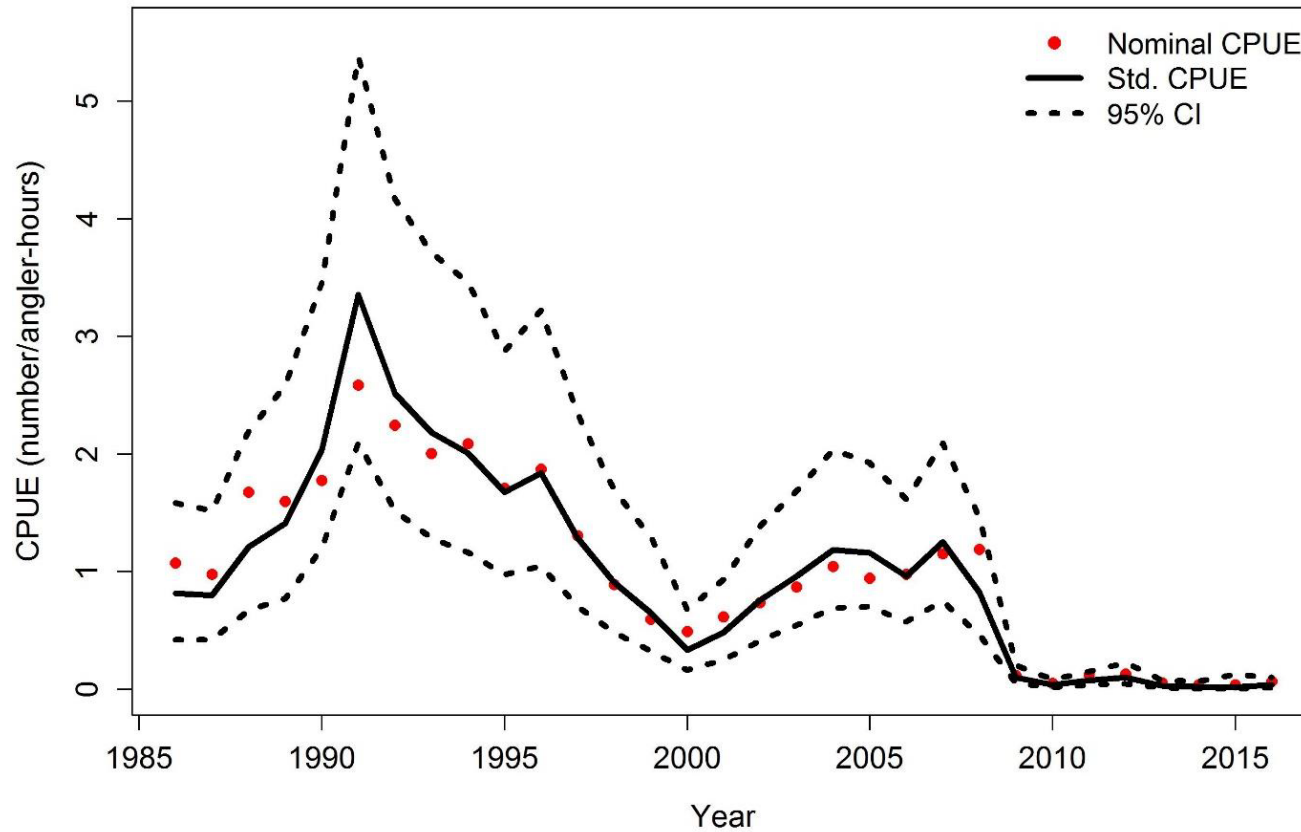


# Headboat East - Standardized CPUE

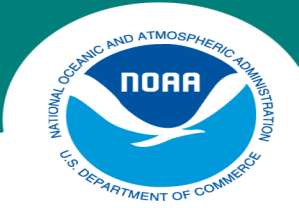




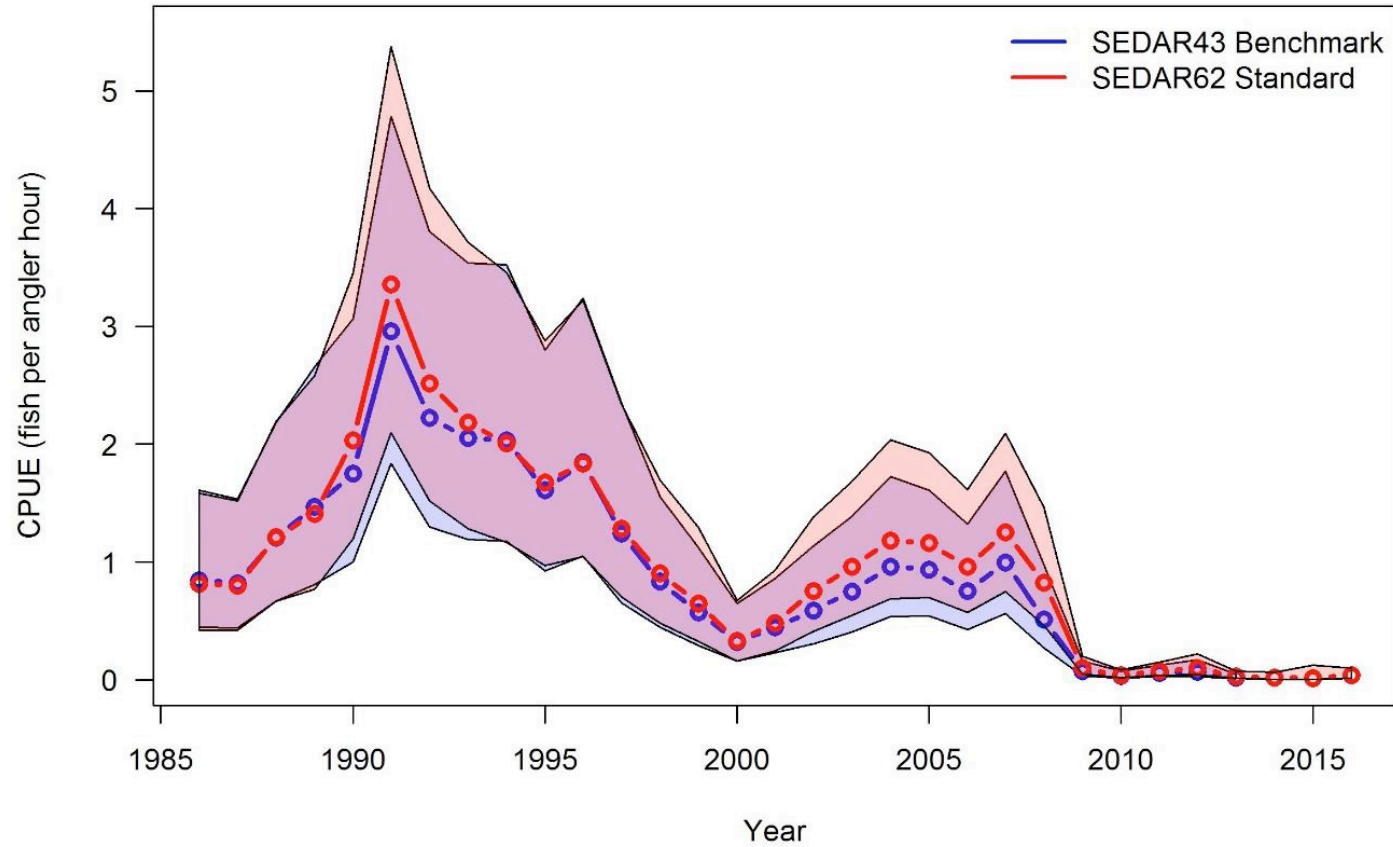
# Headboat West - Standardized CPUE

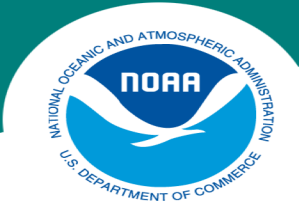




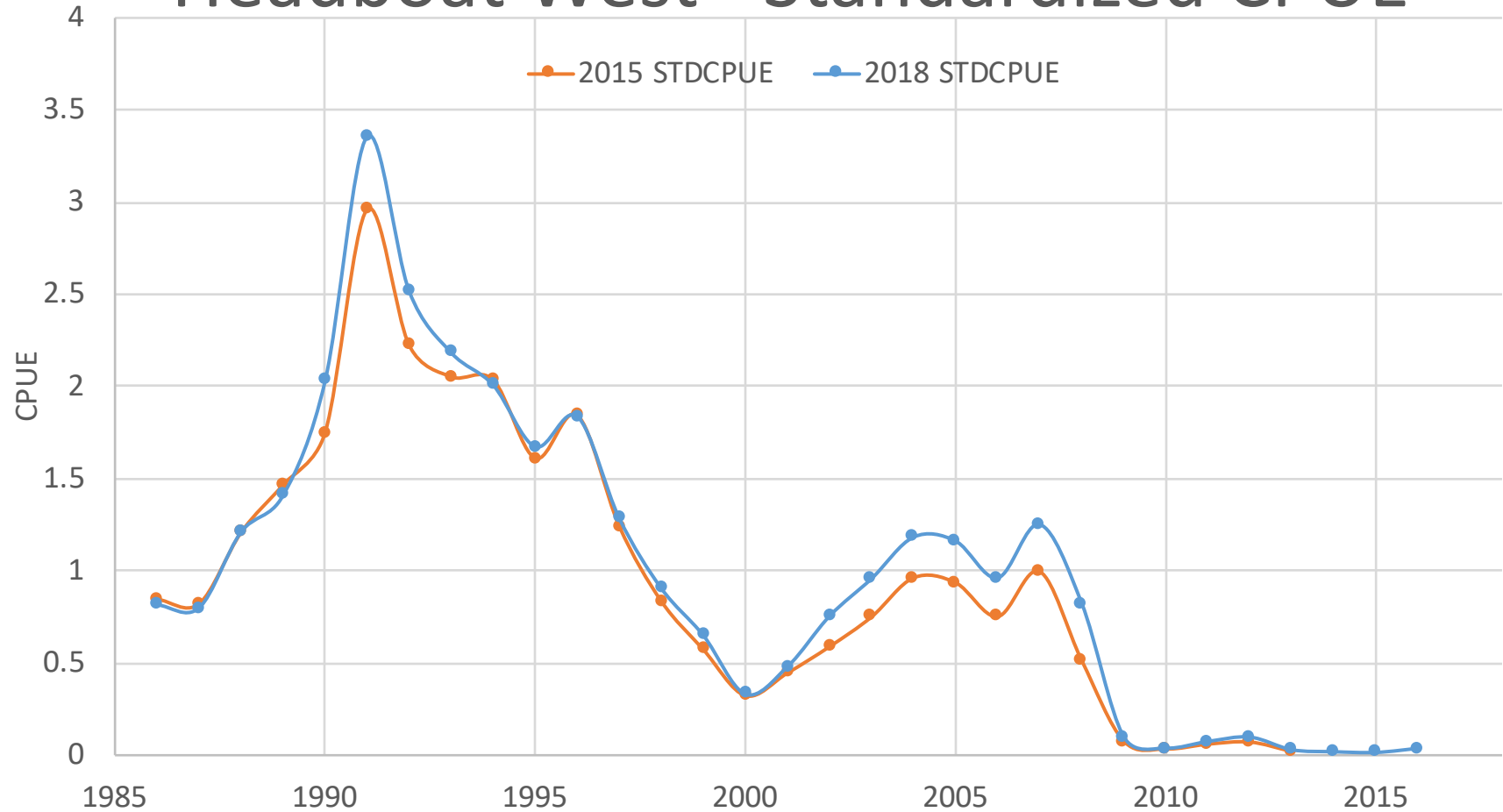


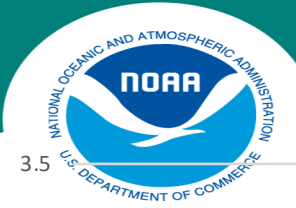
## Headboat West - Standardized CPUE



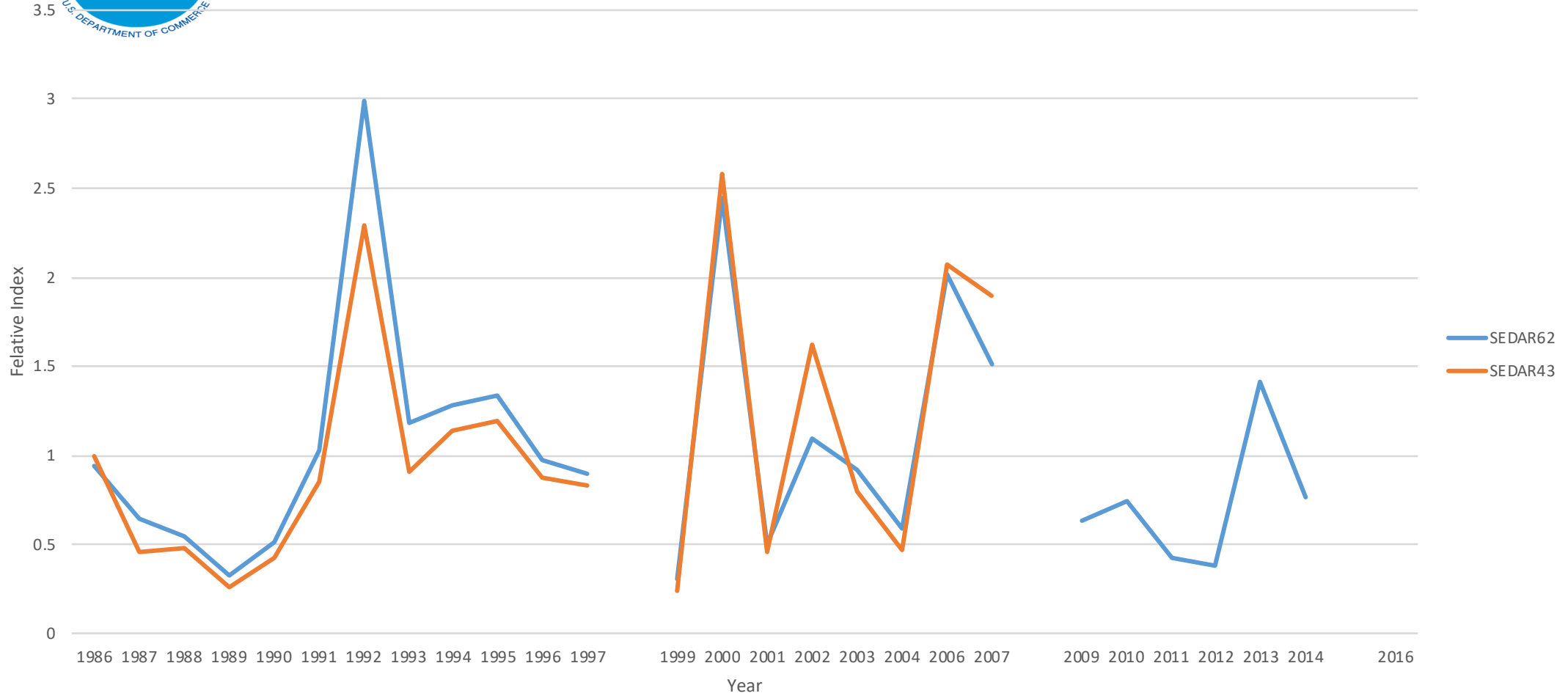


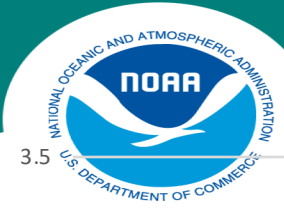
# Headboat West - Standardized CPUE



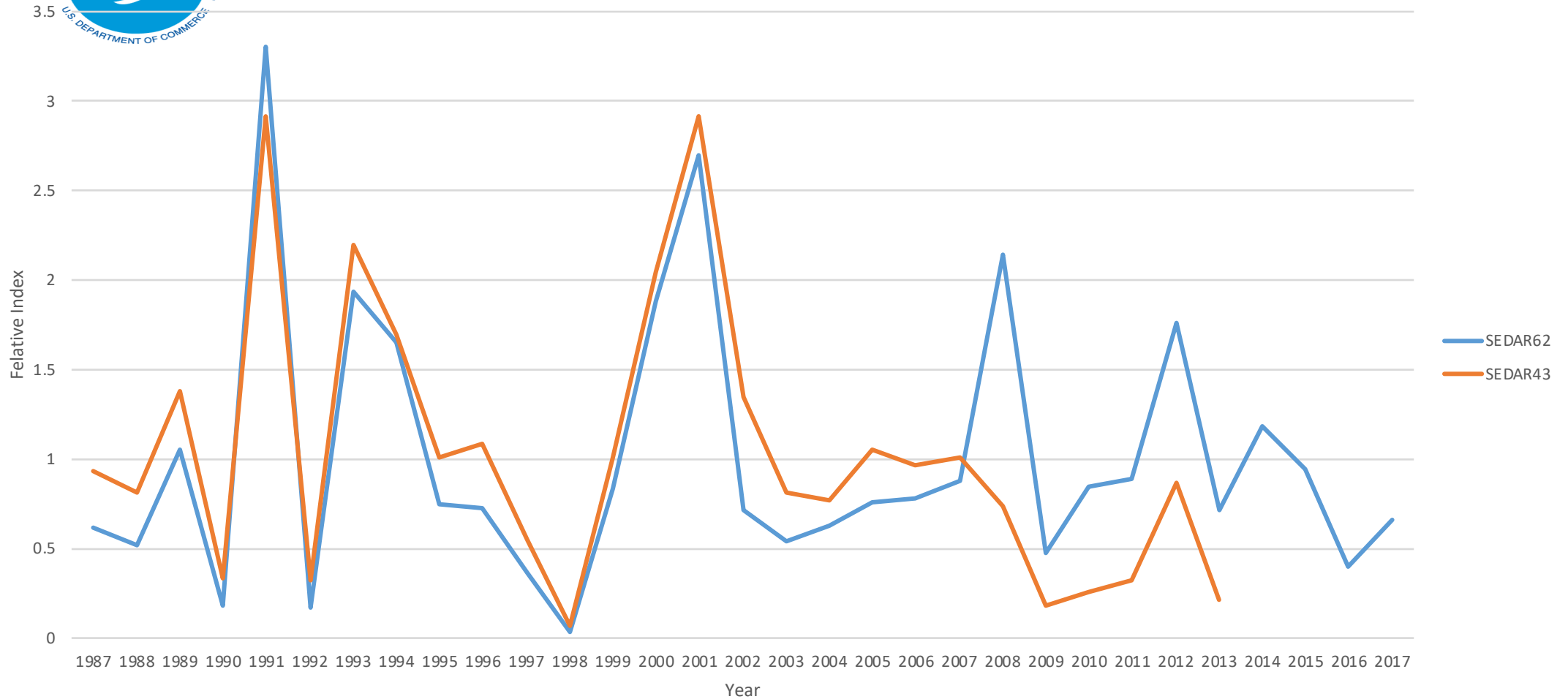


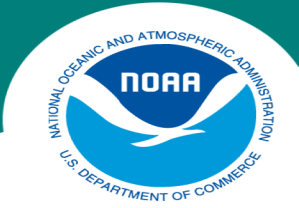
# SEAMAP Larval Standardized CPUE



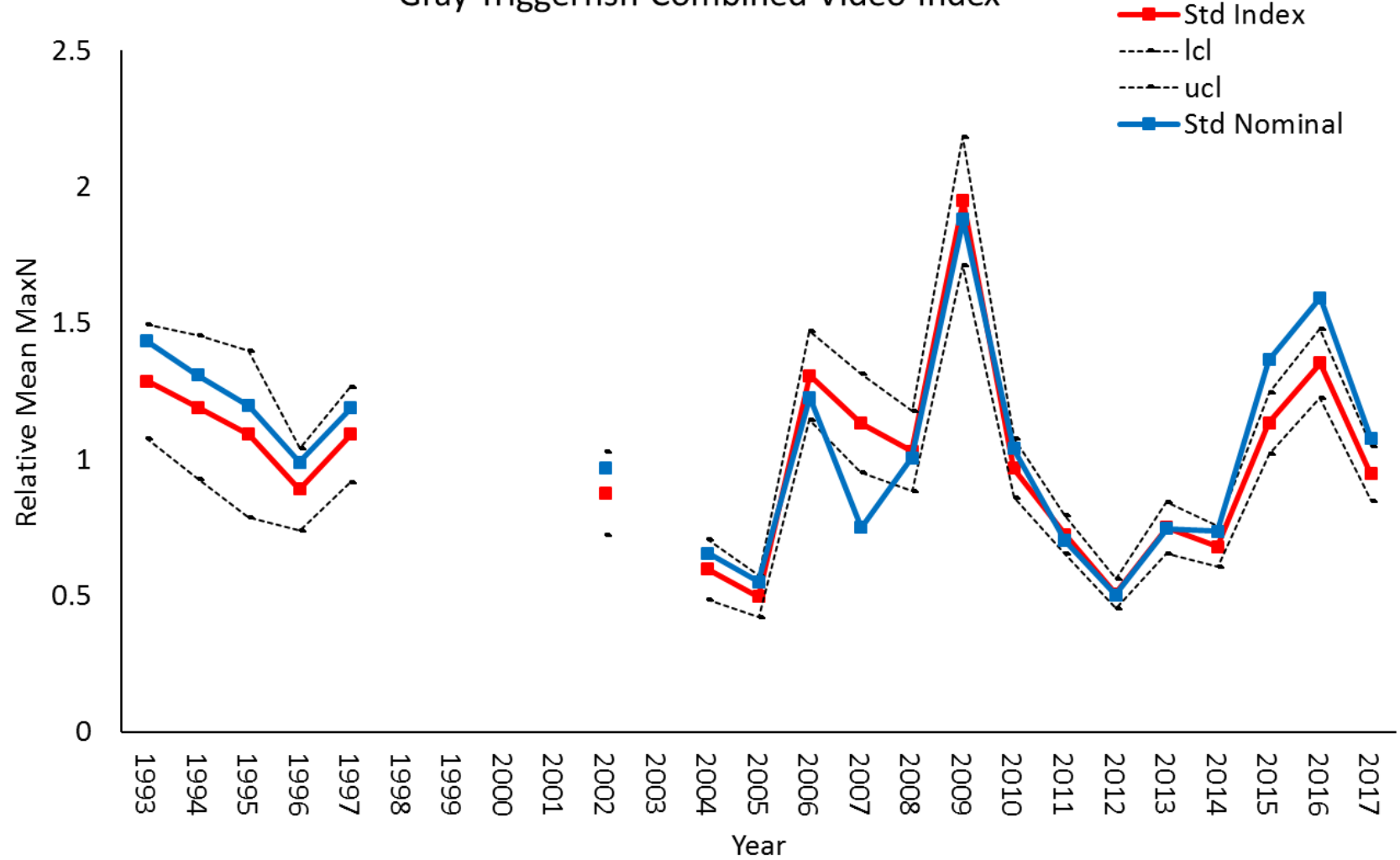


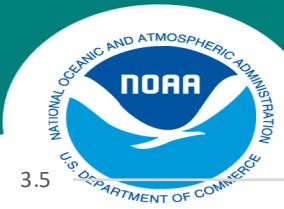
# SEAMAP Fall Standardized CPUE



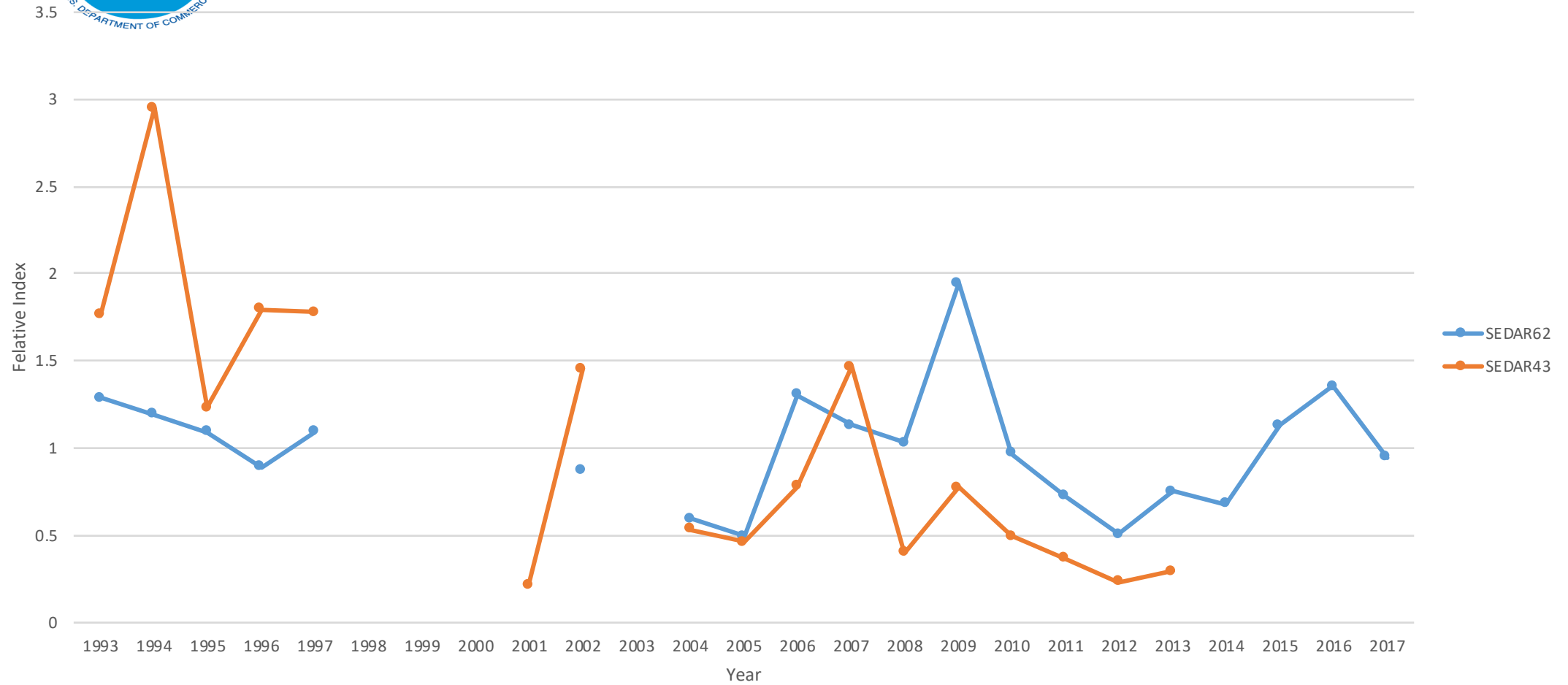


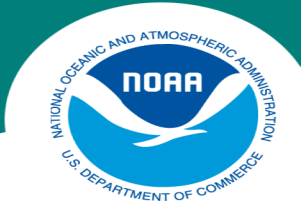
Gray Triggerfish Combined Video Index



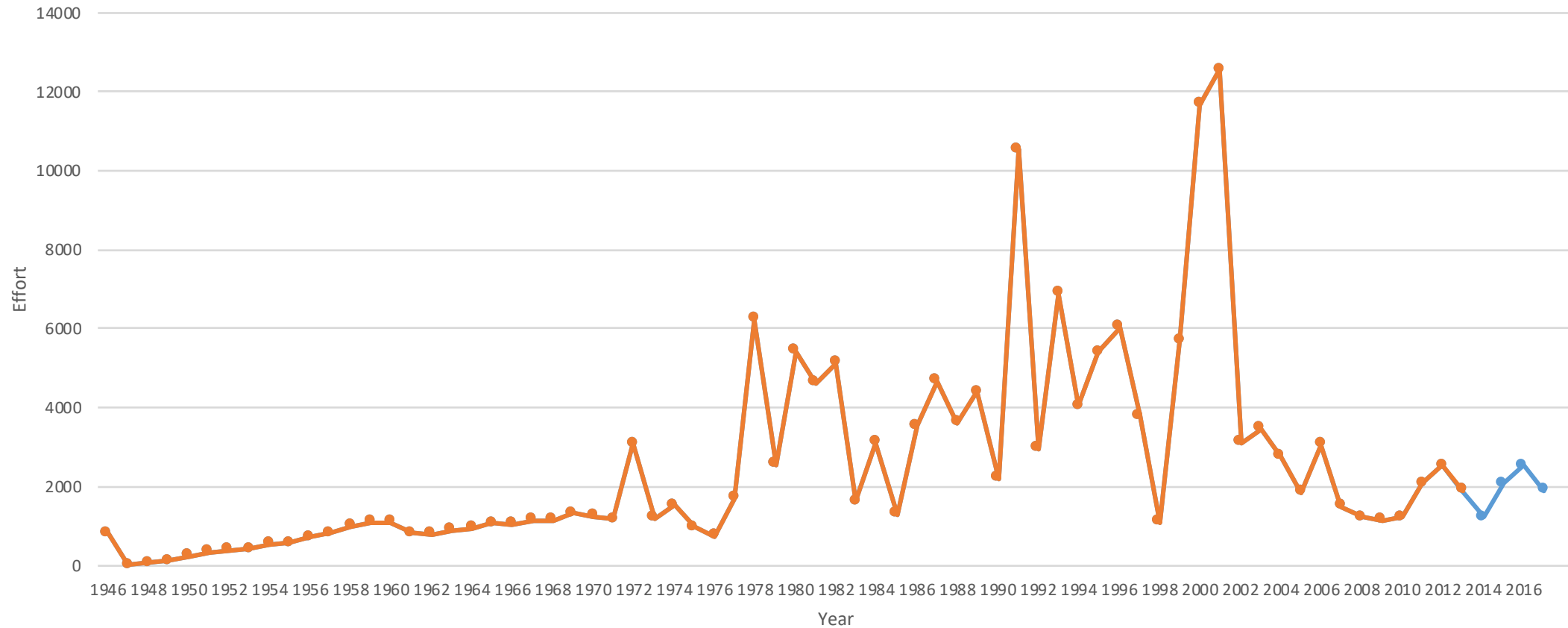


# Combined Video Standardized CPUE



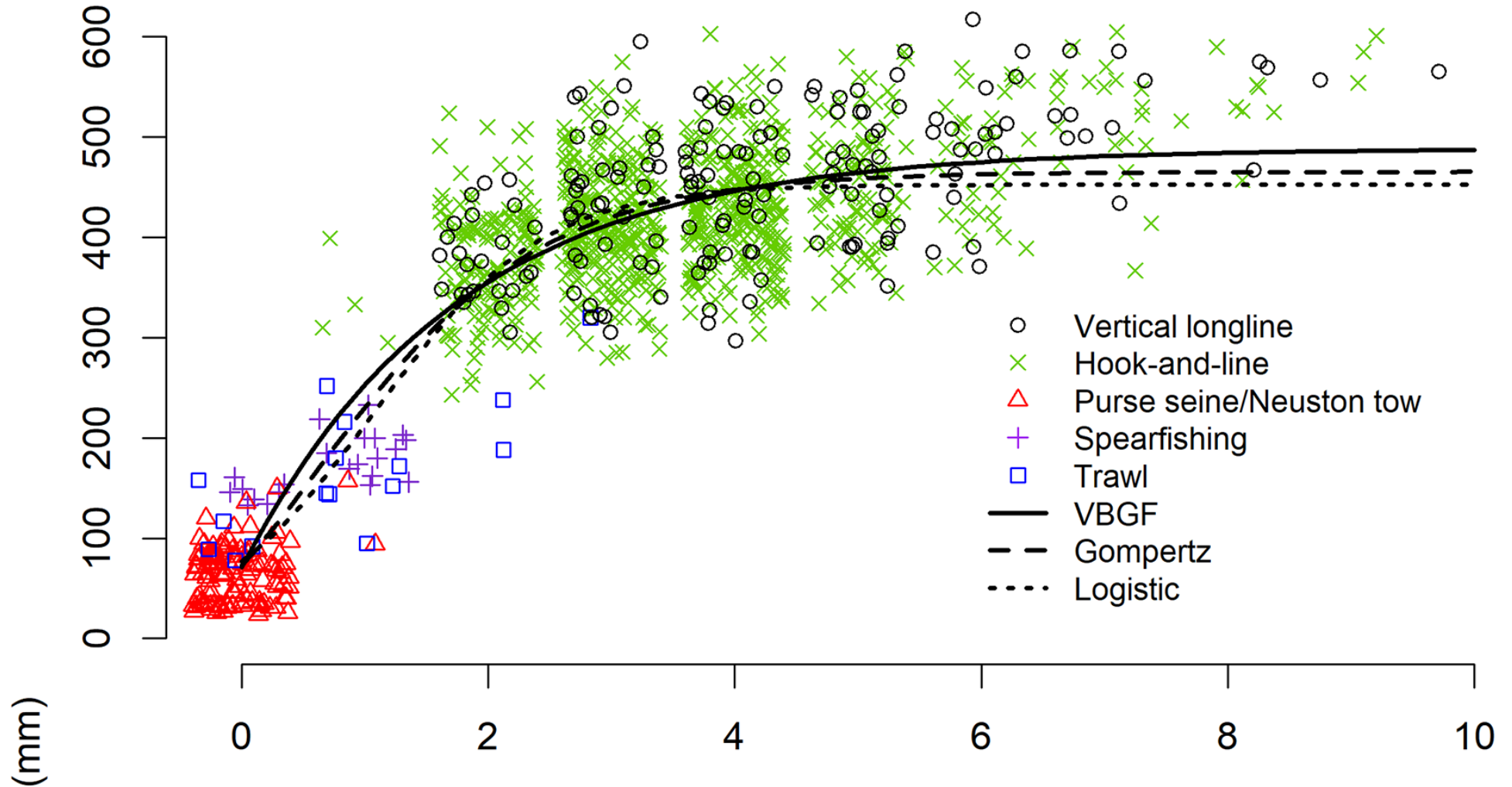


# Shrimp Bycatch (Effort) SEDAR 43 vs. SEDAR 62

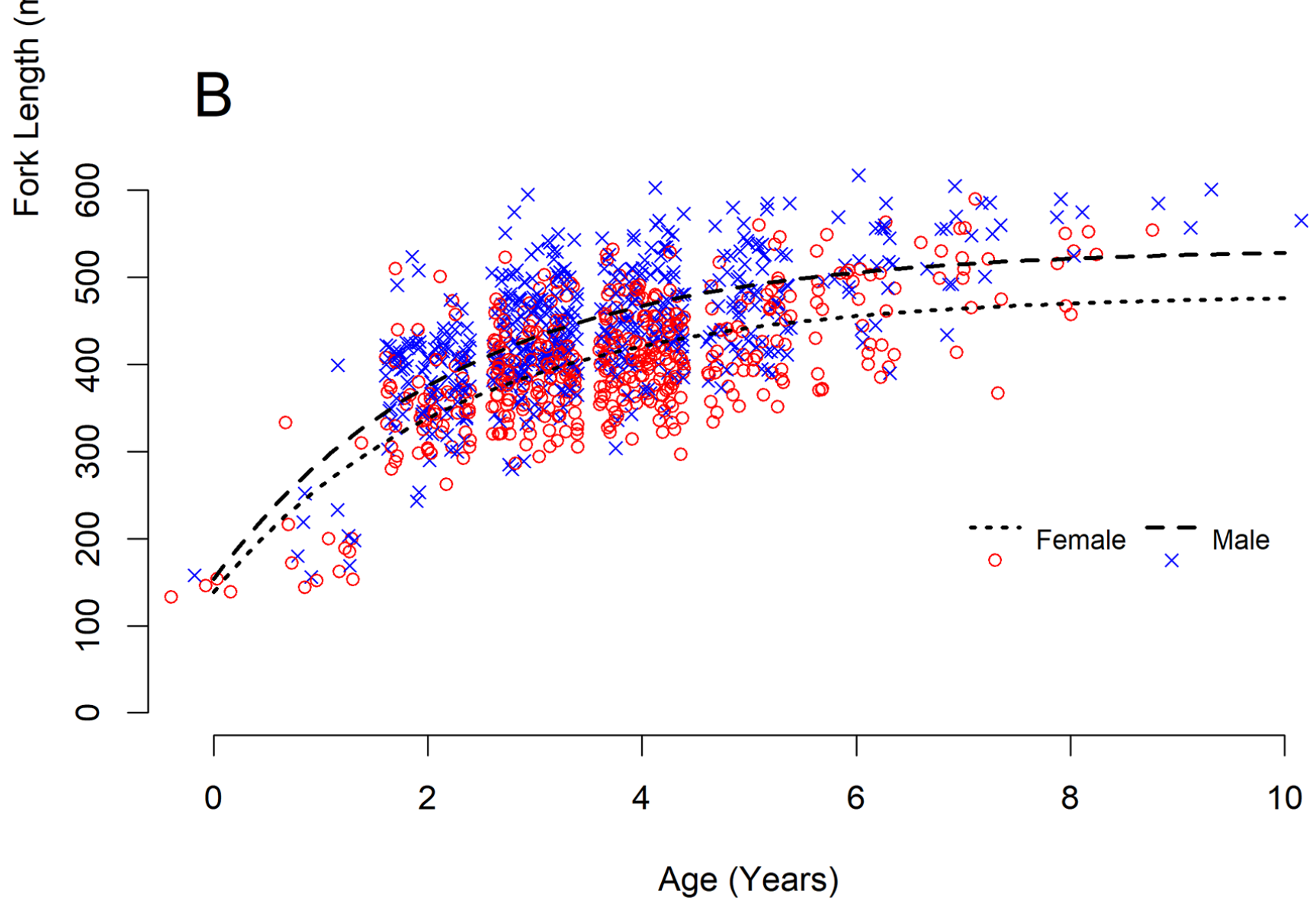
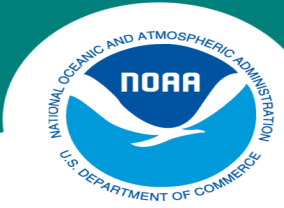


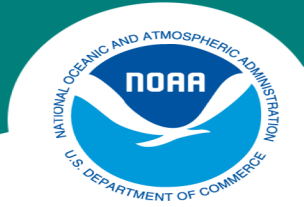


A





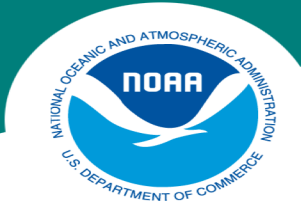




## **Circle Hook Effect**

SEDAR 43

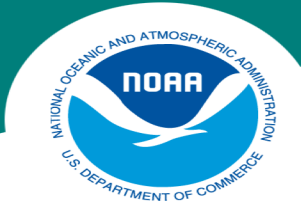
2.34:1 based on Shipp et al. unpublished data.



## **Experimental assessment of circle vs. J hook performance and selectivity in the northern Gulf of Mexico recreational reef fish fishery**

**Steven B. Garner, William F. Patterson III, and Clay E. Porch**

Generalized linear models indicated that hook type did not significantly affect catches of all fishes ( $p = 0.578$ ), red snapper ( $p = 0.947$ ), grey triggerfish ( $p = 0.375$ ), or other fishes ( $p = 0.593$ ).



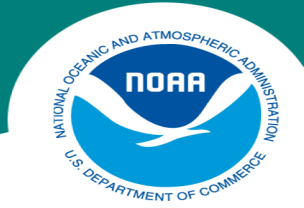
## **The Effects of Hook Type on Gray Triggerfish Catch-Per-Unit Effort**

**Rachel Germeroth and Beverly Sauls**

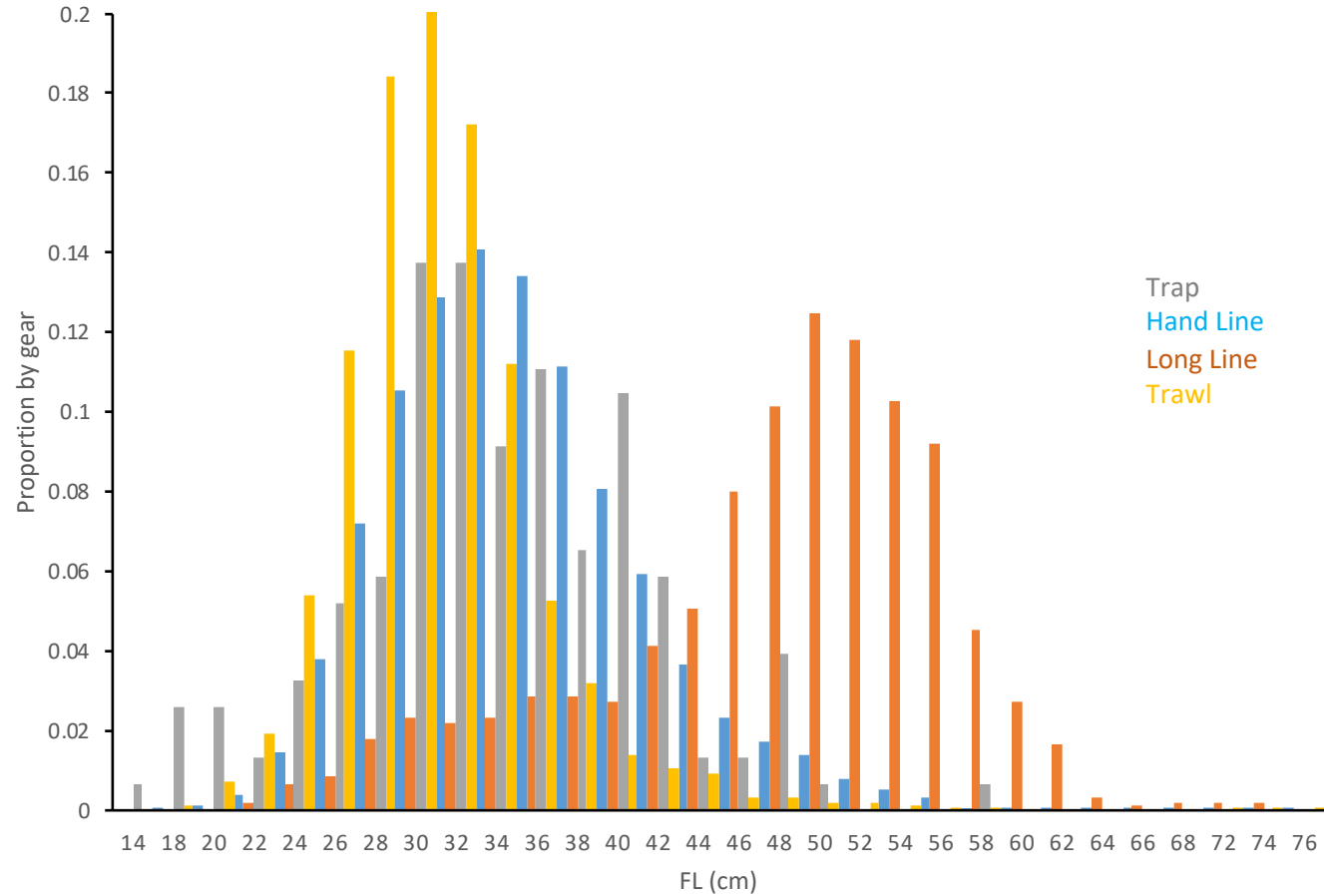
Table 6. Least square means.

Hook Type	Mean CPUE	Lower 95% CI	Upper 95% CI
C	1.345	1.301	1.391
J	1.444	1.381	1.510

(1.07:1)

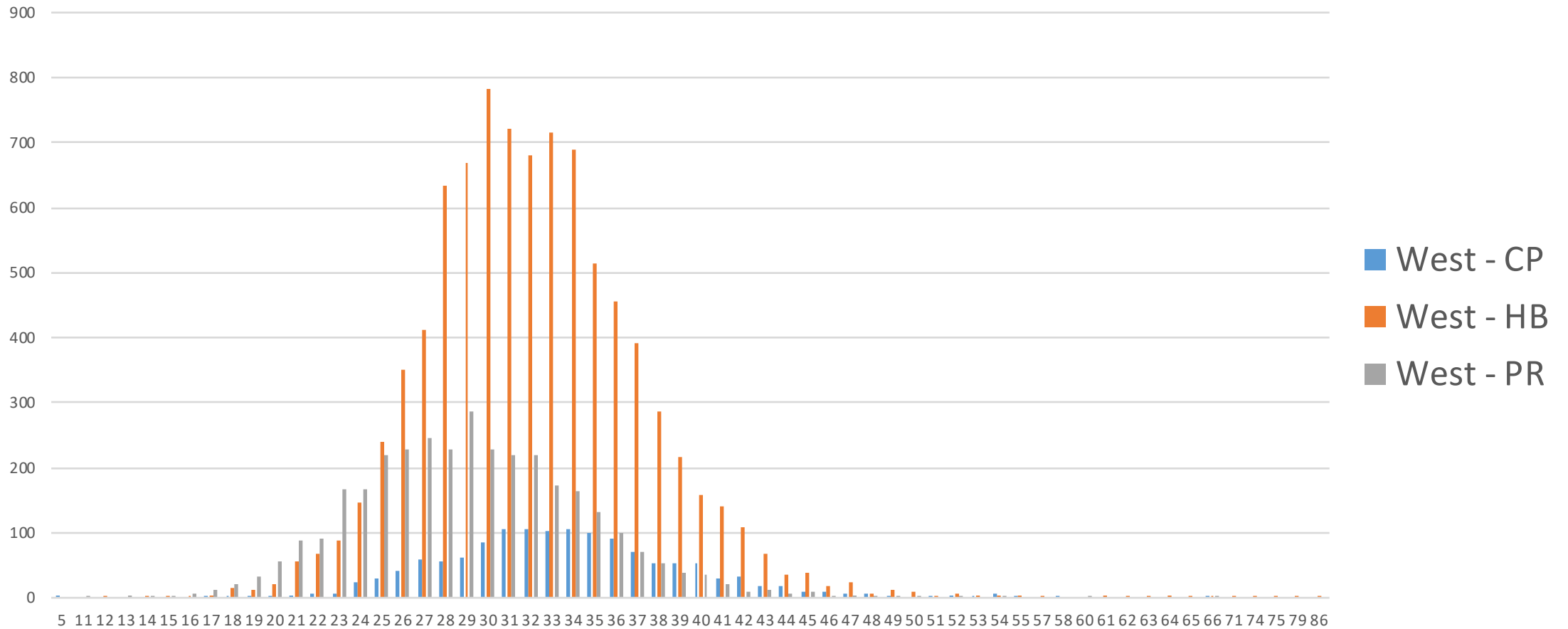


## Length frequency distributions for commercial length samples by gear

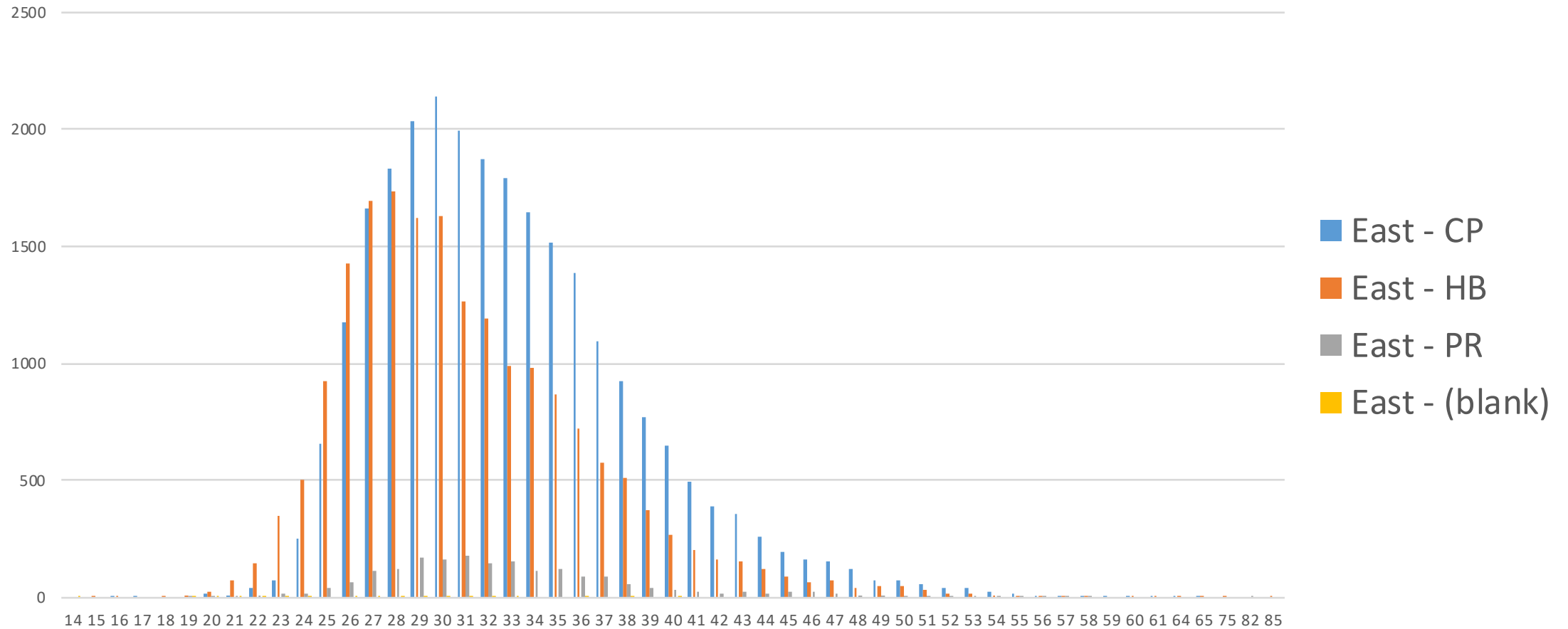


Count of Floor	Column Labels					
	Row Labels	HL	LL	SP	TR	VLL
0.00		44	1			9
120.00					3	2
140.00					6	5
160.00					4	5
180.00					4	9
200.00		4			4	22
220.00		18			1	40
240.00		47	1		1	73
260.00		114			3	134
280.00		164	4		9	195 2
300.00		280	5		7	202 3
320.00		411	13		5	98 8
340.00		801	10		7	94 11
360.00		983	17	10		54 12
380.00		895	17	7		33 19
400.00		843	24	8		16 11
420.00		690	38	9		11 13
440.00		526	65	7		5 19
460.00		377	81			3 17
480.00		288	106	2		1 14
500.00		213	123			16
520.00		112	77			13
540.00		69	54			11
560.00		35	32			7
580.00		15	13			5
600.00		4	4			1
620.00		1	5			
640.00			2			
660.00			1			
680.00			1			
<b>Grand Total</b>		<b>6934</b>	<b>694</b>	<b>97</b>	<b>1011</b>	<b>182</b>

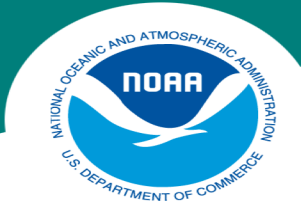
# Length frequency distributions for Recreational length samples by gear



# Length frequency distributions for Recreational length samples by gear







# Sensitivity Analyses

- Discard Mortality (0, 5%, 10%)
- Circle hook effect (1:1, 2.34:1)