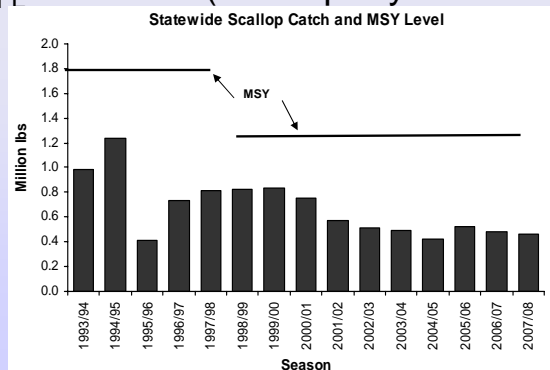


# Scallop ACL compliance Issues

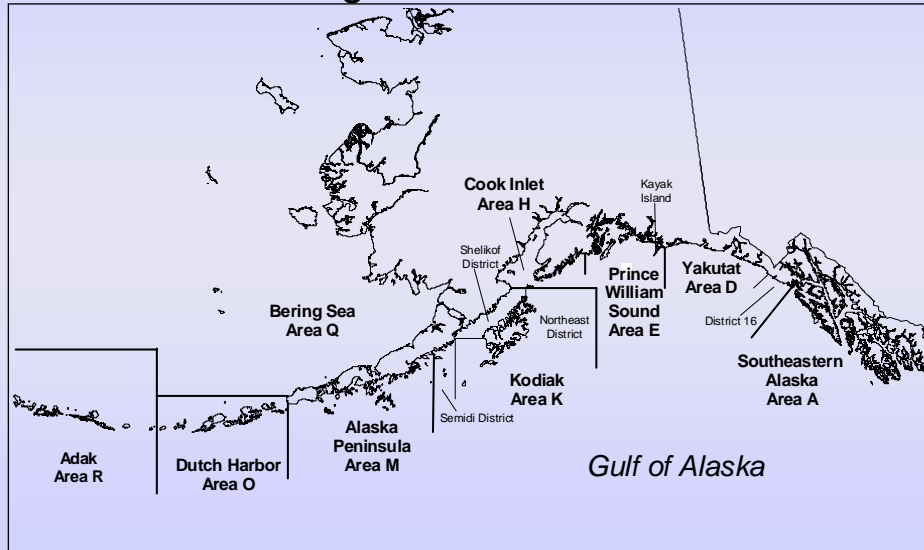
Diana Stram  
North Pacific Fishery Management Council

## Scallop current catch relative to OFL

- MSY = 1.24 mill lbs shucked meats
  - Average catch statewide 1990-1997 (drop 1995)
  - 39-66% MSY since 1996
  - $F_{OFL} = M=0.13$  (~12% per year statewide)

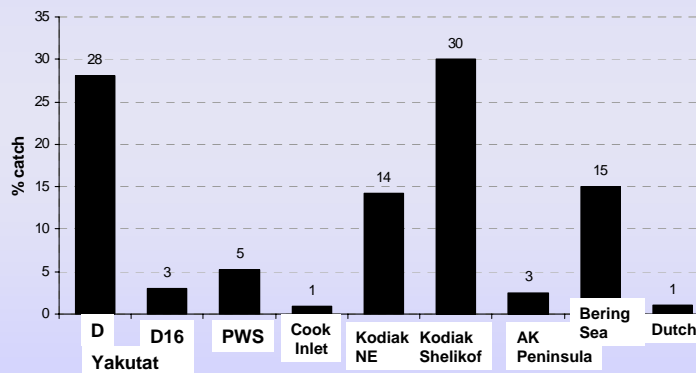


## GHL and catch managed by individual registration area



## Catch by registration area

1998/99 - 2007/08 Alaska Scallop Catch by Registration Area



## Biennial surveys (and biomass estimates) in two areas (only)

- Cook Inlet (Area H) Kamishak Bay: south and north beds
  - Std survey area for both beds
- PWS (Area E) Kayak Island: east and west beds
  - Variable biomass, std survey area since 2008

## ACL compliance issues for scallop

- Process of SSC recommendation: Need to add this review and recommendation process
- How to address non-weathervane scallop stocks
  - EC
  - Remove from FMP
- Estimation of MSY
  - Currently average catch, does not include closed areas that may re-open to fishing therefore may need re-estimation regardless
  - Statewide (as present) or look at regional OFLs despite lack of available information (regional average catch?)
- How to set ACL (ABC)?
  - Statewide or regional?
  - % buffer below MSY level: use defaults as suggested?
  - Statewide ACL as sum GHs by registration area
  - 100% observer coverage therefore management uncertainty very low

## Survey Data by region

- Kamishak Bay
- Kayak Island

## Kamishak

Survey Year	Number stations sampled	Mean catch kg/nm	Estimated abundance	Estimated 95% CI	CV	Scallop density (scal/m <sup>2</sup> )	Average weight (g/scal)	Estimated biomass q = 1.0 (kg meat)
<b><u>North Bed</u></b>								
1996	26	62.9	16,298,521 ±	6,190,250	18.4%	0.053	264	367,980
1999	41	68.7	12,382,976 ±	4,200,007	17.3%	0.040	380	308,168
2001	37	63.1	9,999,335 ±	3,446,756	17.6%	0.032	432	275,120
2003	31	26.2	4,117,007 ±	1,129,507	14.0%	0.013	435	121,603
2005	38	22.6	3,555,537 ±	1,089,195	14.8%	0.011	439	107,057
2007	43	26.1	5,059,604 ±	1,394,499	13.3%	0.016	353	142,144
<b><u>South Bed</u></b>								
2003	31	74.4	8,269,024 ±	3,078,303	17.9%	0.035	335	260,870
2005	29	16.2	3,935,269 ±	1,518,843	17.7%	0.017	476	57,922
2007	31	23.5	5,966,159 ±	2,428,242	18.7%	0.026	203	97,958

# Kayak Island

Year	Survey stations sampled	Mean catch kg/nm	Estimated abundance	95% CI	CV	Scallop density (scal/m <sup>2</sup> )	Average weight (g/scal)	Estimated biomass	Estimated biomass
								q = 1.0	q = 0.83
<b>East Bed</b>									
1996	38	29.3	7,665,330 ±	5,055,277	0.34	0.028	230	139,401	
1998	28	21.1	5,496,099 ±	1,807,737	0.16	0.020	230	96,411	
2000	33	37.6	9,513,606 ±	2,435,296	0.13	0.035	237	165,743	
2002	20	10.5	2,579,532 ±	1,163,924	0.22	0.010	245	45,304	
2004	31	77.3	17,905,822 ±	11,691,177	0.33	0.066	259	304,720	
2006	32	58.0	9,771,298 ±	5,395,445	0.28	0.036	277	194,880	228,009
2008	37	36.2	7,063,665 ±	2,860,387	0.21	0.026	308	132,311	154,804
<b>West Bed</b>									
1998	21	34.2	5,156,119 ±	2,309,193	0.21	0.031	245	96,403	
2000	20	94.0	17,777,746 ±	10,269,460	0.28	0.107	196	255,312	
2002	17	39.3	6,027,791 ±	3,104,626	0.24	0.036	241	104,133	
2004	25	84.9	14,278,296 ±	7,276,183	0.25	0.086	220	205,950	
2006	20	61.4	10,106,636 ±	6,068,318	0.29	0.061	225	163,803	191,650
2008	10	19.6	3,910,300 ±	3,129,662	0.35	0.023	185	44,071	51,563