



ADF&G ORAL STAFF PRESENTATION ALASKA BOARD OF FISHERIES

SOUTHEAST ALASKA AREA
SHELLFISH REGULATORY PROPOSALS
January 21–27, 2009 Petersburg, Alaska



1. Southeast Alaska Red and Blue King Crab Fishery

Gretchen Bishop, Shellfish Research Project Leader
Division of Commercial Fisheries, Southeast Region

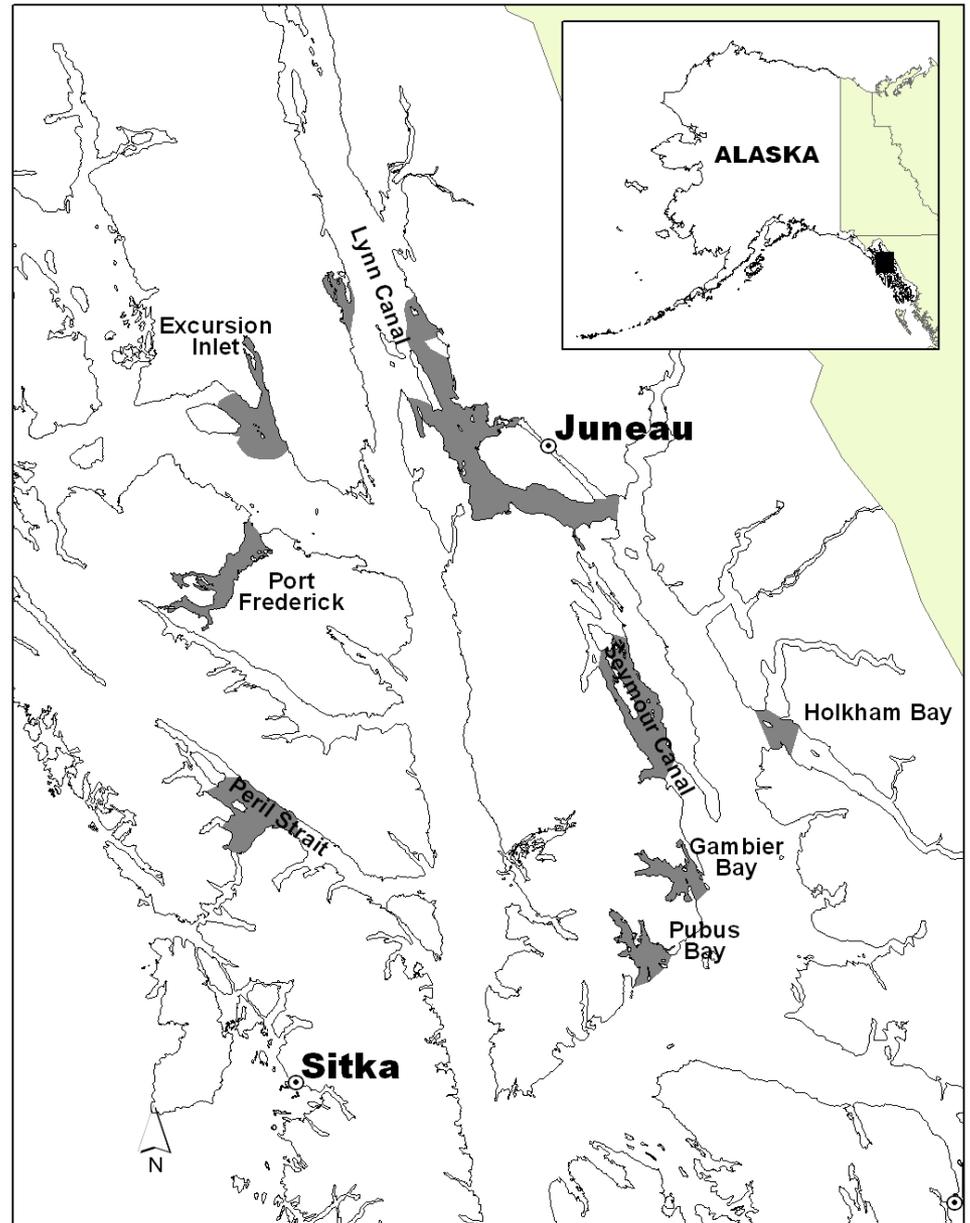


SE Red and Blue King Crab Fishery

- **Fishery description**
- **Harvest and effort history**
- **Stock assessment**
- **Regulations**
- **Red king crab management plan**
- **Section 11-A allocation plan**
- **Management concerns**
- **Proposals**



Major Red and Blue King Crab Commercial Fishing Grounds in Southeast Alaska

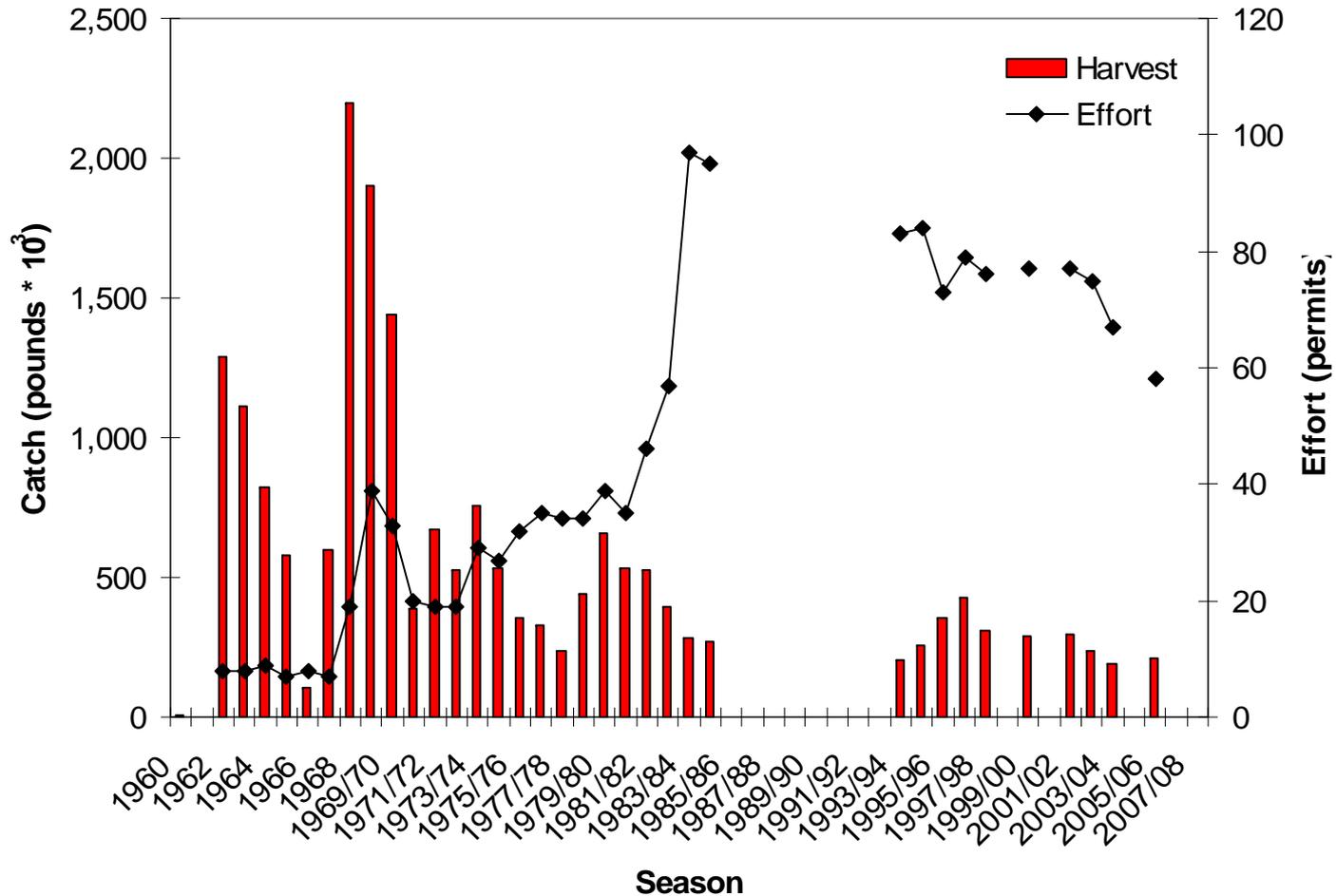




SEASON	Southeast Red King Crab Season Length																					
	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG										
75/76	September 1				January 31																	
76/77	September 1				January 31																	
77/78	September 1				January 31																	
78/79	September 1				January 8																	
79/80	September 1				December 18																	
80/81	September 1				December 24																	
81/82	October 1		November 30																			
82/83	October 1-20																					
83/84			November 15-25																			
84/85	October 10-17																					
85/86	Fishery Closed																					
86/87																						
87/88																						
88/89																						
89/90																						
90/91	Fishery Closed																					
91/92																						
92/93																						
93/94															November 1-9 & Nov. 27-Dec. 3							
94/95															November 1-18							
95/96			November 1-15 or 1-17																			
96/97			November 1-11 or 1-20																			
97/98			November 1-5, 1-9, and 1-15																			
98/99	Fishery Closed																					
99/00															November 1-5, 1-10, or 1-13							
00/01	Fishery Closed																					
01/02															November 1-6, 1-7, or 1-12							
02/03			November 1-4, 1-7, or 1-8																			
03/04			November 1-4 or 1-5																			
04/05	Fishery Closed																					
05/06															November 1-4 or 1-13							
06/07	Fishery Closed																					
07/08																						
08/09																						

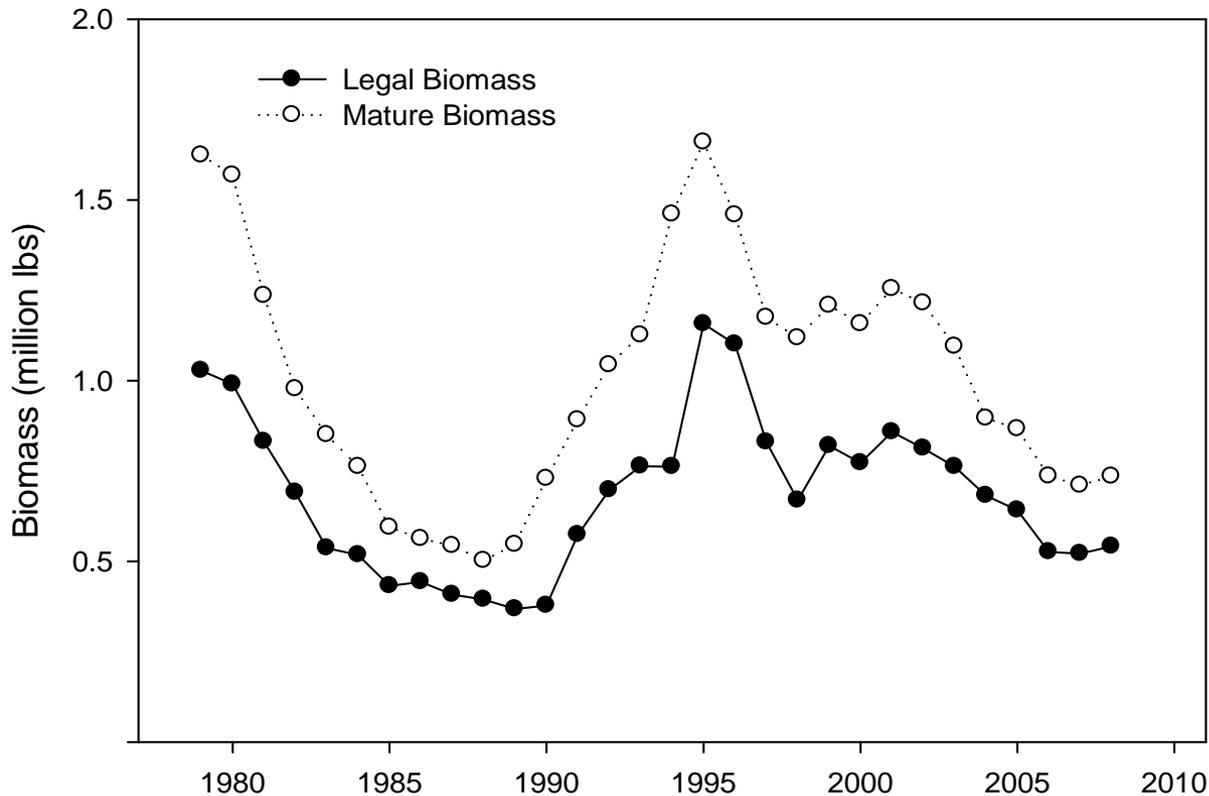


Red and Blue King Crab Catch and Effort





Red and Blue King Crab Stock Assessment



Total estimated biomass from surveyed areas only. Does not include Holkham Bay or "other" areas.



Red and Blue King Crab Stock Assessment

- **Under GHL threshold in 2006, 2007, and 2008 no fishery**



Dumping a pot during the 2007 red king crab survey on the R/V Medeia.



The crab cam in Excursion Inlet, 2007.



Red and Blue King Crab Regulations

- **Limited entry**
- **Size, sex, season**
 - males only, 7-inch minimum carapace width
 - season start November 1
- **Threshold of 200,000 pounds legal male crab**
- **Management plan**
- **Section 11-A allocation plan**
- **Gear**
 - 20–50 pot vessel limit depends on GHL
- **Mandatory logbooks**
- **Inseason reporting**



Fishing squares during the 2005 red king crab fishery.

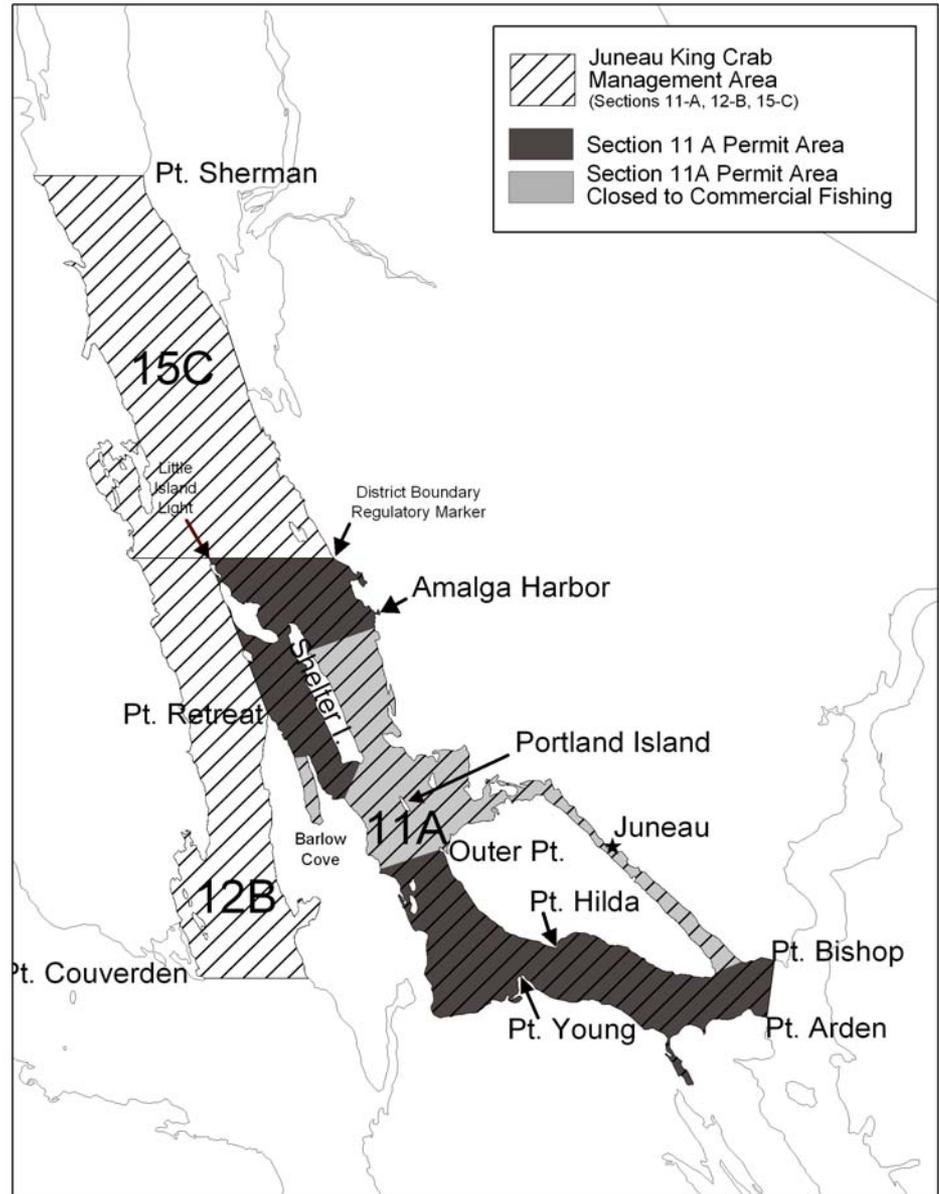


Red and Blue King Crab Management Plan

- **Adopted by BOF in 1993**
- **Based on Board's "Policy on King and Tanner Crab Resource Management"**
- **Appropriate harvest rate**
- **Regional GHL set prior to season on district by district basis using results from stock assessment survey, providing minimum of 200,000 pounds of legal male crab are available**



Juneau Red King Crab Allocation Plan Areas





Section 11-A Allocation Plan

- **If commercial threshold met**
 - 50% of GHL to summer PU fishery
 - 10% of GHL to winter PU fishery
 - 40% of GHL to commercial fishery, if minimum threshold is met
- **Reallocation if commercial threshold not met**
 - 80% of GHL to summer personal use fishery
 - 20% of GHL to winter personal use fishery
- **Other**
 - Extend personal use fishery as long as possible within allocation plan, using:
 - Daily bag limits, number of pots/vessel, seasonal bag limit



Red King Crab Management



Joe Stratman, measuring a red king crab during the 2006 red king crab survey aboard the R/V Medeia.

- **Preseason stock assessment survey provides fishery independent information on stock abundance**
- **Model survey and fishery data to determine legal biomass and GHL**
- **Registration**
- **Manage inseason using aerial surveys, fish ticket, and inseason reporting of logbook data to target GHL**
- **Fish tickets**
- **Logbooks**
- **Dockside sampling**



Red and Blue King Crab Management Concerns

- **Decline in population**
- **Uncertainty on PU harvest level**
- **Need for biological threshold**
- **Possibly excessive upper tier of harvest rate**



Red and Blue King Crab Proposals

- **Management**

- 173: Eliminate the re-allocation of red king crab in Section 11-A to the personal use fishery when the commercial fishery is closed. (NEUTRAL)
- 174: Prohibit commercial king crab fishing in all waters of Section 11-A. (NEUTRAL)
- 175: Eliminate management plan, season length of 7 days (OPPOSE)

- **Gear**

- 185: Allow permit stacking and increase the vessel pot limit to XX. (NEUTRAL)

- **Enforcement**

- 145: Specify crab measurement devices and allow for broken spines. (NEUTRAL AND OPPOSE)
- 146: Allow 2% tolerance for mistakes made in sorting crab. (OPPOSE)



Red and Blue King Crab Proposals

- **Personal use**

- **168: Provide department flexibility to alter PU RKC bag limits in Peril Strait and designate Peril Strait as a subsistence area (NEUTRAL)**
- **172: Define a 9-month season for the personal use king crab fishery in the Yakutat area, consistent with that of the SE PU RKC and Yakutat subsistence RKC fisheries. (SUPPORT)**
- **176: Allow bag limit reductions inseason for the Southeast (SE) personal use (PU) red king crab fishery when the commercial fishery is below threshold and eliminate the separate season for the PU king crab fishery in the waters of District 16, SE. (SUPPORT)**

- **Area closures**

- **167: Either close waters of Sections 13-B and 13-C to commercial harvest of red king crab or designate as a subsistence area. (NEUTRAL)**



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1. Southeast Tanner Crab Fishery

Julie Bednarski, Shellfish Research Biologist
Division of Commercial Fisheries, Southeast Region



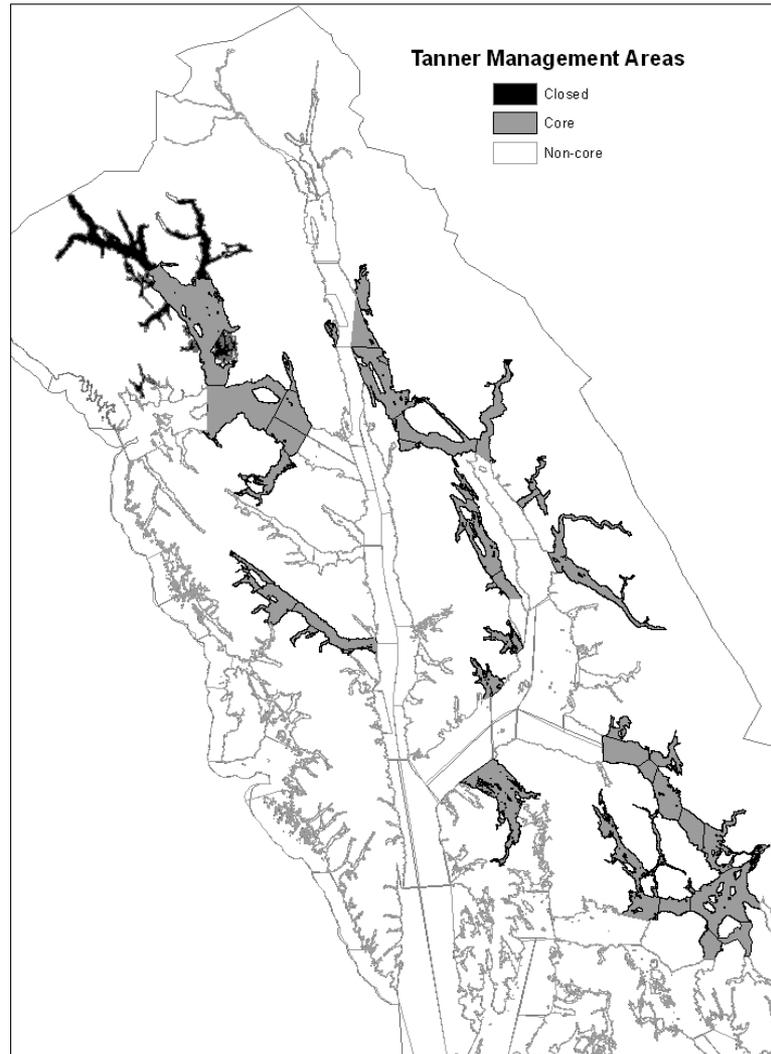
SE Tanner Crab Fishery

- **Fishery description**
- **Harvest and effort history**
- **Regulations**
- **Management**
- **Management concerns**
- **Proposals**





Fishing Area





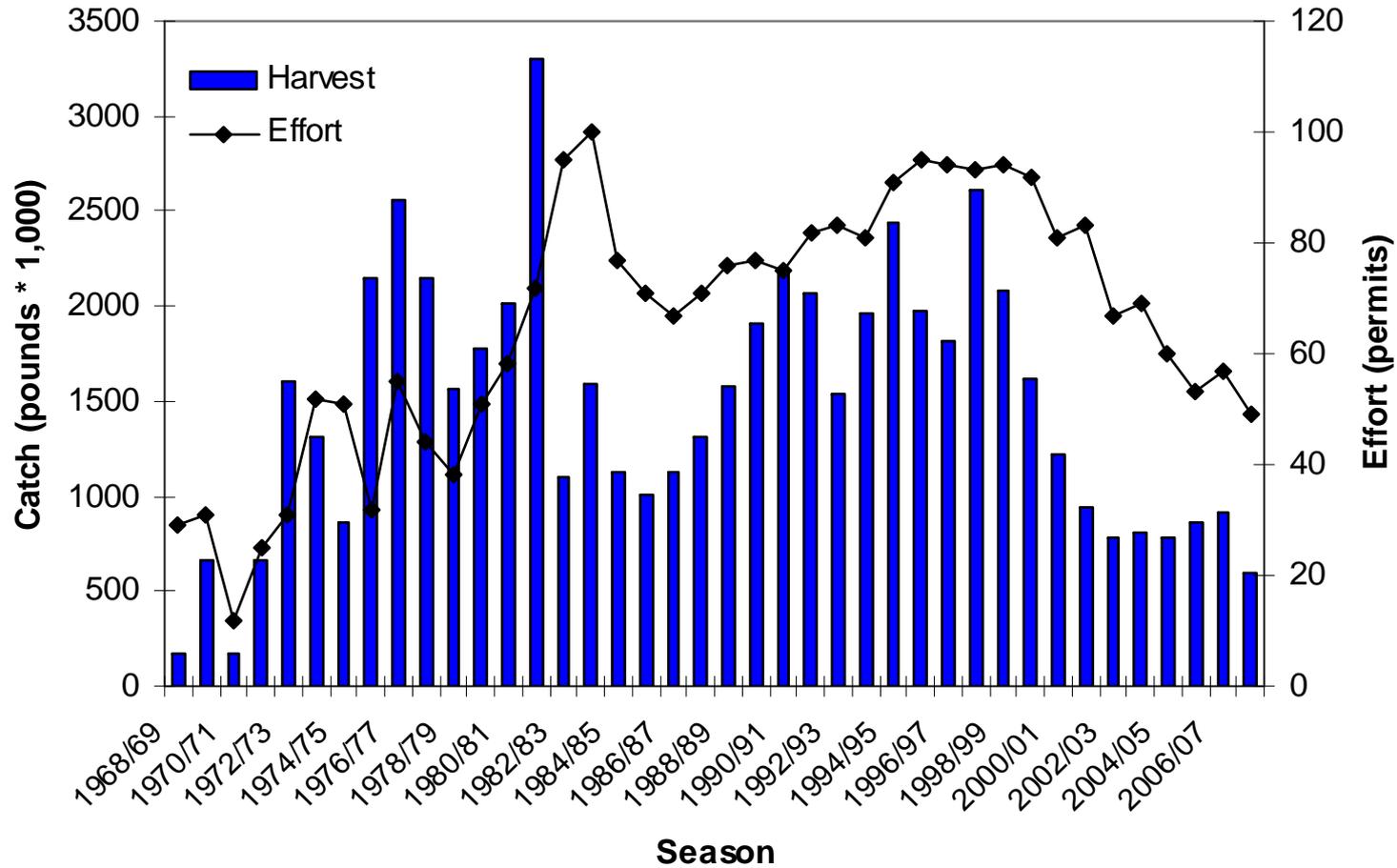
SOUTHEAST TANNER CRAB SEASON LENGTH

SEASON	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY
75/76	Sept 1								May 15
76/77	Sept 1								May 15
77/78	Sept 1							Apr 30	
78/79	Sept 1								May 1
79/80	Sept 1								May 1
80/81	Sept 15							May 1	
81/82				Dec 1				Apr 16	
82/83				Dec 1-15					
83/84						Feb 10	Mar 18		
84/85						Feb 10	Mar 28		
85/86						Feb 10	Mar 25		
86/87					Jan 15	Feb 17			
87/88					Jan 15	Feb 16			
88/89						Feb 15	Mar 8		
89/90						Feb 15	Mar 8		
90/91						Feb 15	Mar 5		
91/92						Feb 15	Mar 2		
92/93						Feb 15	Mar 1		
93/94						Feb 15	Mar 4		
94/95						Feb 15-26			
95/96						Feb 15-24			
96/97						Feb 15-23			
97/98						Feb 15-22			
98/99						Feb 15-21			
99/00						Feb 15-21			
00/01						Feb 15-22			
01/02						Feb 15-21			
02/03						Feb 15-20*			
03/04						Feb 15-20*			
04/05						Feb 15-19*			
05/06						Feb 15-20*			
06/07						Feb 10-16*			
07/08						Feb 14-20*			

*5-day season in non-core areas followed the core season.



Tanner Crab Harvest and Effort





Tanner Crab Regulations

- **Limited entry for pot fishery, open access for ring nets**
- **Size, sex, season**
- **Males only, 5 ½-inch minimum carapace width**
- **Season start date is the smallest Juneau tidal range between February 10 and February 17, concurrent with golden king crab**
- **GHL 2 million pounds**
- **Gear**
- **Vessel limit of 80 pots or 20 ring nets**
- **Mandatory logbooks**



Tanner Crab Management

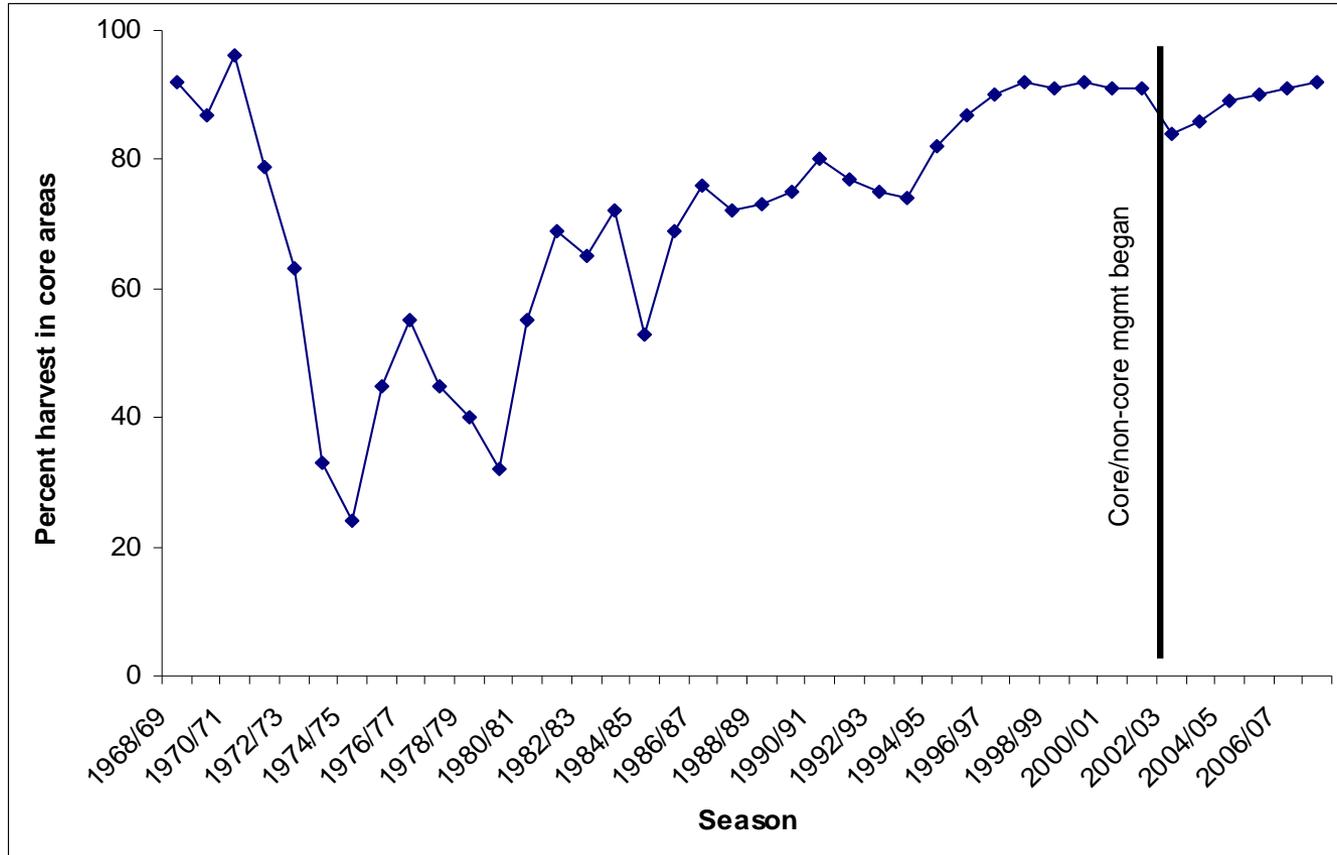
- Fish tickets
- Logbooks
- Dockside sampling
- Estimate preseason harvestable biomass
- Fishery aerial surveys
- Core/Non-core management



Sorting crab during the 2002 Tanner crab survey aboard the R/V Medeia.

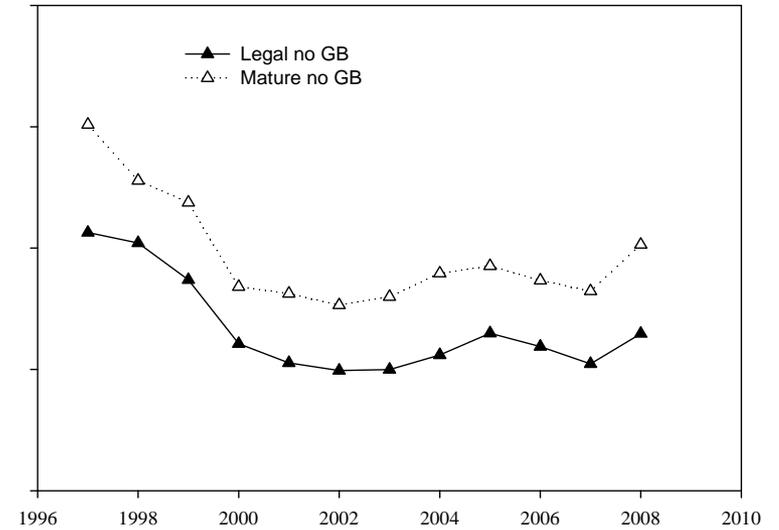
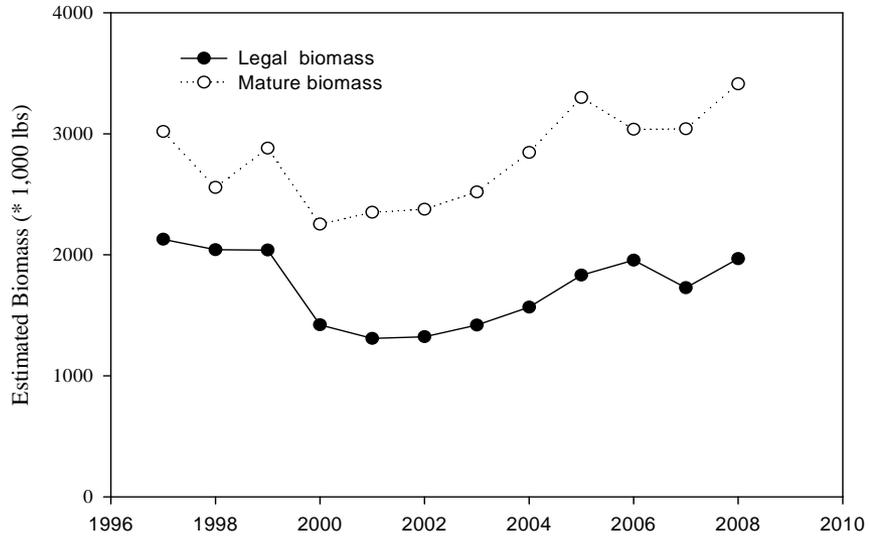


Core/Non-core Area





Tanner Crab Biomass Estimates





Tanner Crab Management Concerns

- **Low stock level**
- **High harvest rates**
- **Bitter crab syndrome**
- **No management plan**
- **Need for biological threshold**



Setting pots during the 2004 Tanner crab survey aboard the R/V Medeia.

Need for management plan

Lack of mgmt plan +

Lack of harvest rate policy =

Tension between the department and industry on appropriate harvest strategy

Causes of tension -

- **Uncertainty of annual fishing plan**
- **Uncertainty of season length**
- **Uncertainty of partial area closure**
- **Delayed fishery announcement**
- **Increased lobbying**



Tanner Crab Proposals

- **Management**
 - **181: Require 6-day season (OPPOSE)**
 - **182: Require 2-week season (OPPOSE)**
 - **183: Extend gear storage (SUPPORT)**
- **Gear**
 - **184: Allow stacking of 2 permits and increase vessel pot limit to 120 (OPPOSE)**
 - **185: Allow stacking of 2 permits and increase vessel pot limit to 150 (OPPOSE)**



Tanner Crab Proposals

- **Enforcement**

- **145: Implement measuring device restrictions and make undersize crabs with broken spines legal (NEUTRAL/OPPOSE)**
- **146: Allow 2% tolerance (OPPOSE)**

- **Personal use**

- **169: 2-week stand down period for PU Tanner fishery prior to opening of PU king crab (SUPPORT)**
- **170: 1-week stand down period for PU Tanner fishery prior to opening of PU king crab (NEUTRAL)**
- **186: Escape rings on all PU Tanner pots (SUPPORT)**



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1. Southeast Shrimp Pot Fishery
2. Yakutat Shrimp Pot Fishery
3. Southeast Shrimp Beam Trawl Fishery
4. Yakutat Shrimp Otter Trawl Fishery

Gretchen Bishop, Shellfish Research Project Leader
Division of Commercial Fisheries, Southeast Region



Southeast Shrimp Pot Fishery

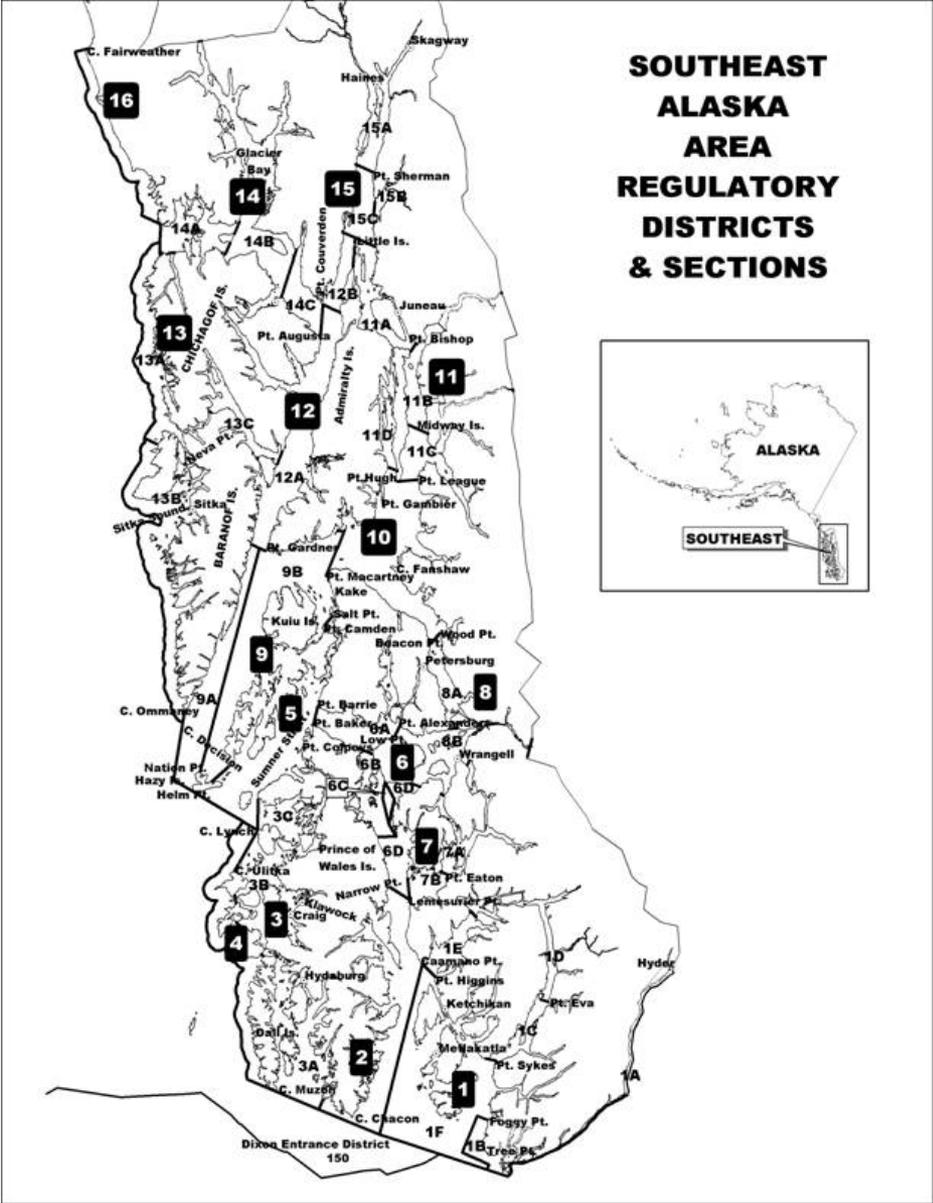
- **Fishery description**
- **Catch and effort history**
- **Regulations**
- **Management**
- **Stock assessment**
- **Management concerns**
- **Proposals**



Figure 1. Southeast Alaska Spot Prawn
Pandalus platyceros.

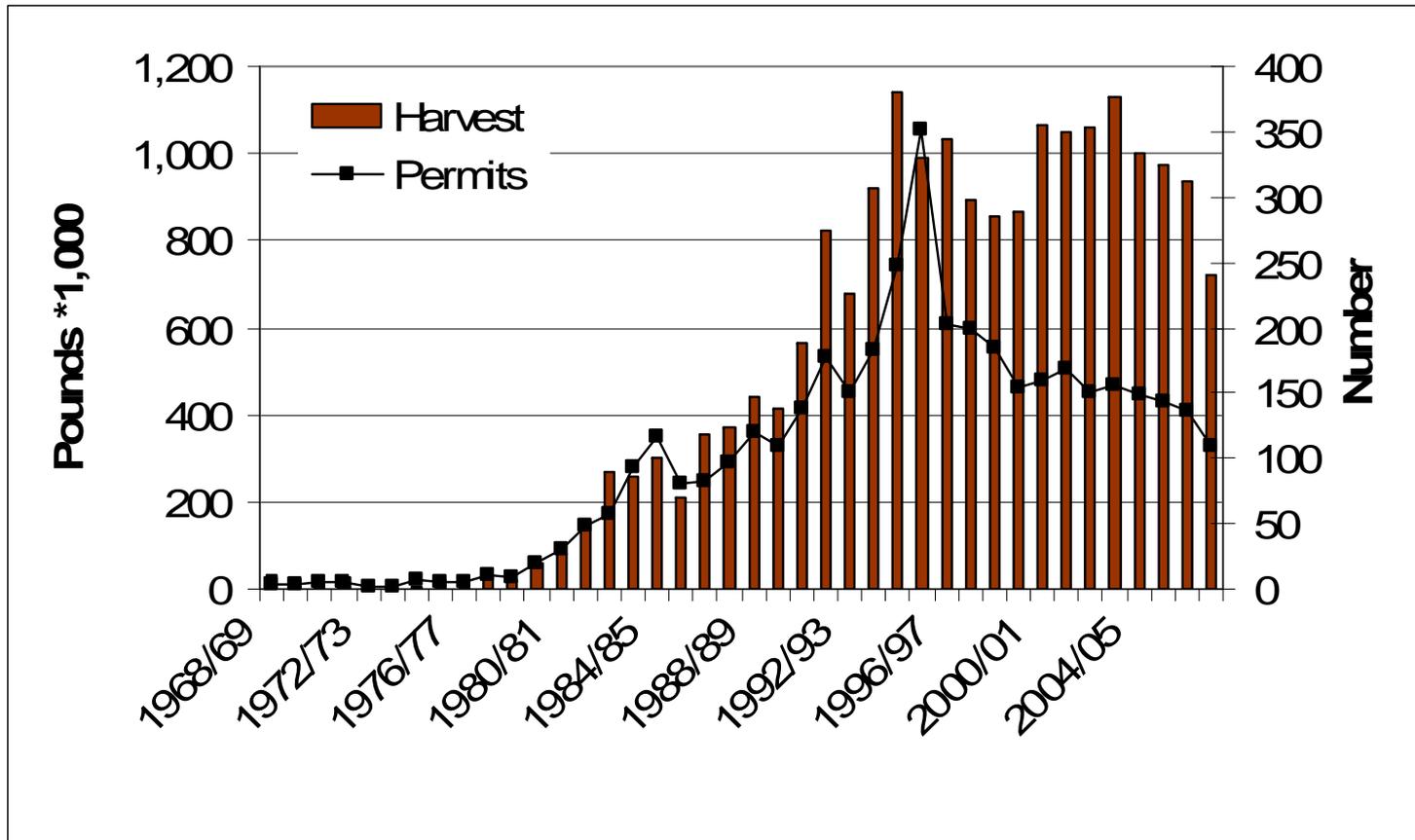


Commercial Shrimp Pot Fishery Management Units of Southeast Alaska





Harvest and Effort in the Southeast Shrimp Pot Fishery





SE Shrimp Pot Fishery Regulations

- **Limited entry implemented in 1998**
- **Season**
 - Oct 1 - Feb 28 and by EO May 15 – July 31
- **Gear**
 - Daily fishing hours of 8:00 am to 4:00 pm
 - Minimum mesh of 1-3/4 inches
 - 100 large pots (perimeter of more than 124 inches but no more than 153 inches); or
 - 140 small pots (perimeter 124 inches or less)
 - Maximum vertical height of 24 inches
 - No more than 4 tunnels
- **Original GHRs based on historic harvest**
- **Inseason reporting for catcher processors**



SE Shrimp Pot Fishery Management

- **Fish tickets**
- **On-the-grounds sampling**
- **Inseason reporting for catcher-processors**
- **Dockside sampling**
- **Aerial overflights**
- **Preseason survey program**
- **Shrimp pot fishery task force meetings**

SE Shrimp Pot Stock Assessment

- **Fishery-independent pot surveys in 4 of 19 management units (MU)**
- **On-the-grounds sampling from 12 MUs**
- **Dockside sampling from 7 MUs**
- **Voluntary logbooks from 15 MUs**
- **Stock status established using matrix to summarize data and score it based on relation to long-term averages**





SE Shrimp Pot Fishery Management Concerns

- **Overcapitalization**
 - Too many permits
- **Catch and sorting of small shrimp**
 - Short soak times means small shrimp are sorted above water
 - Market shifting to favor retention of small males
- **GHLs based on historic average harvests**
- **Data-poor fishery**



SE Shrimp Pot Fishery Proposals

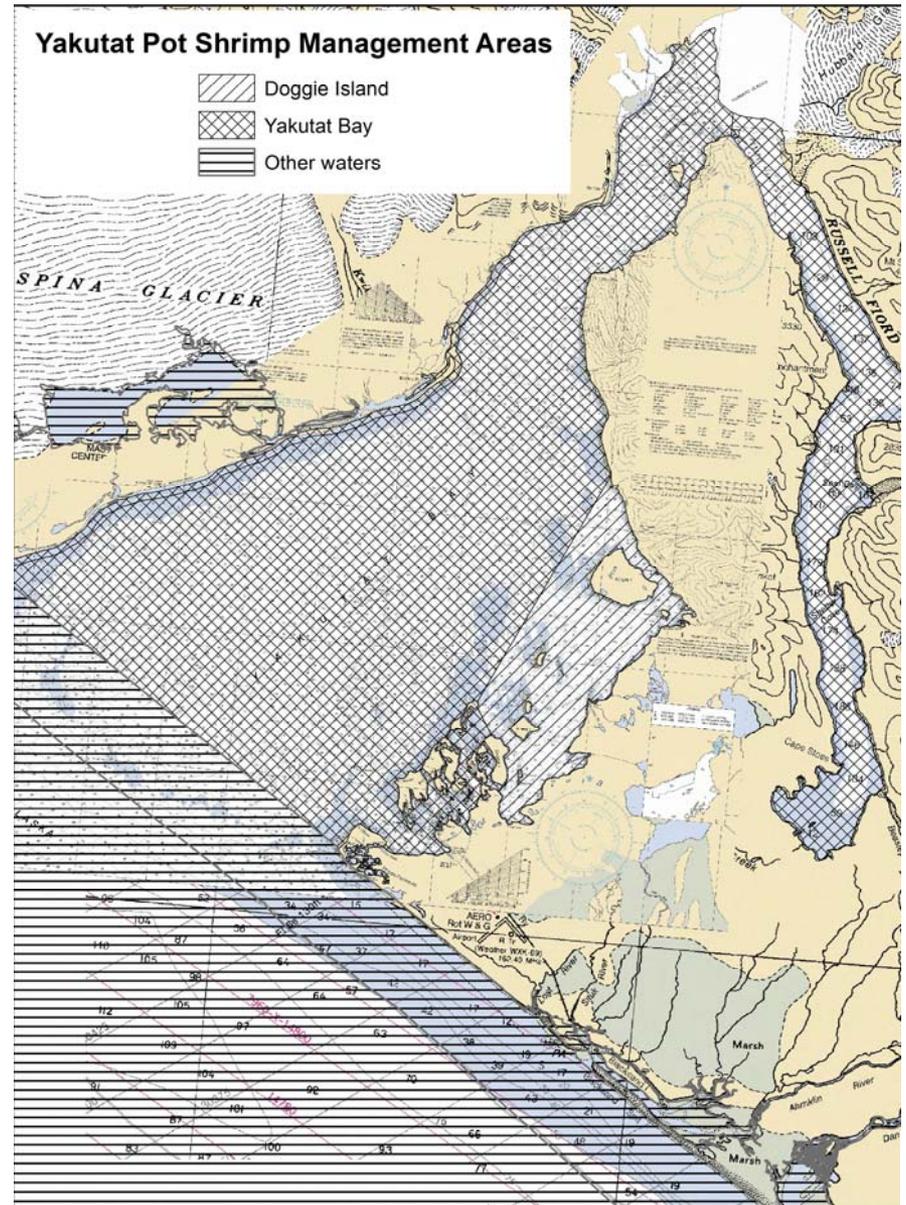
- **Management Plan**
 - **140: Amend reporting requirements (SUPPORT)**
- **Gear**
 - **141: Amend pot limit in SEAK to 100 pots no larger than 48 in (SUPPORT)**
 - **142: Amend shrimp pot size limit to 140 36-in small pots or 100 48-in large pots (SUPPORT/NEUTRAL)**
- **Area Closures**
 - **144: Close shrimp fishery within 1-mile radius around Sukoi Island (NEUTRAL)**



Yakutat Shrimp Pot Fishery

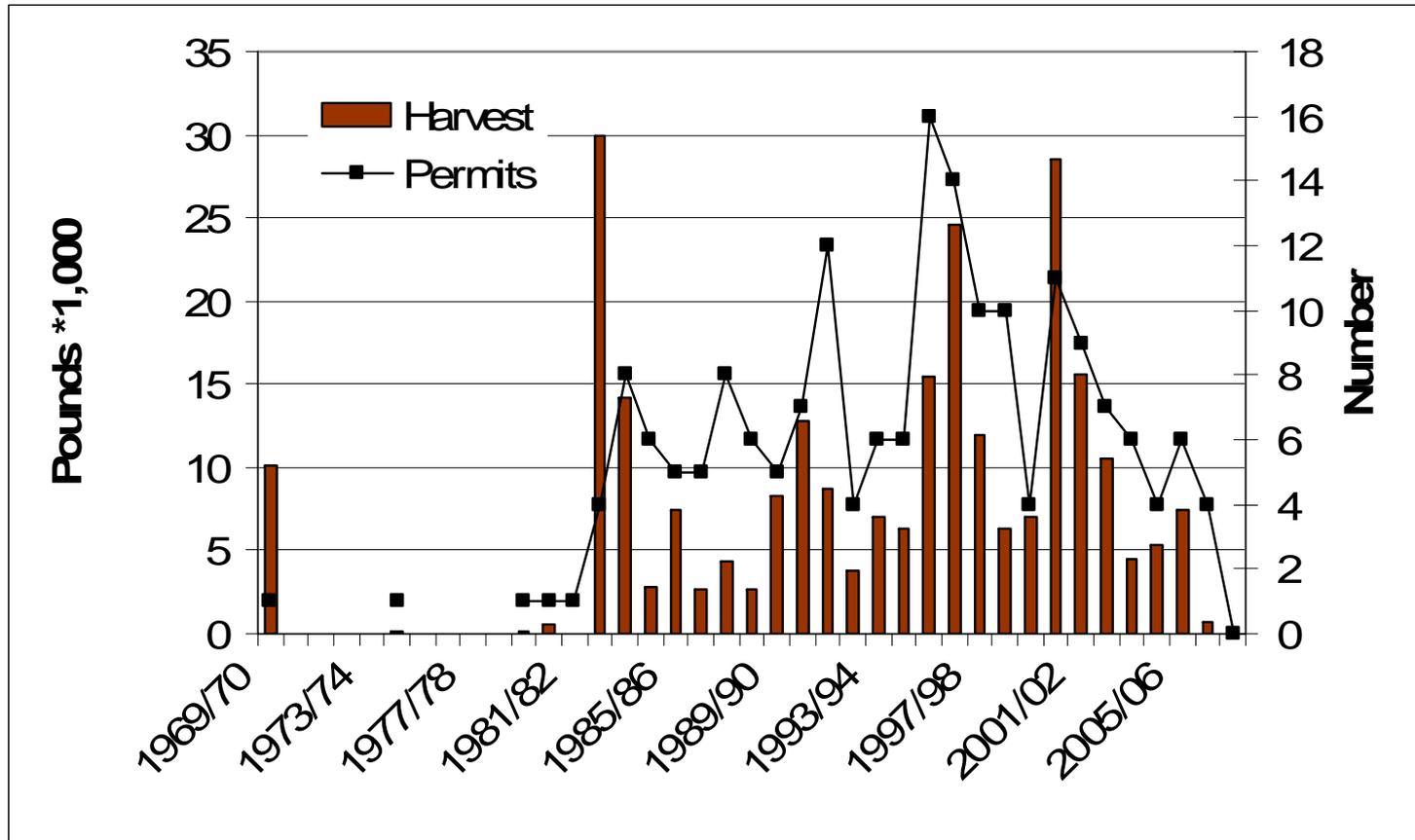
- **Fishery description**
- **Catch and effort history**
- **Regulations**
- **Management**
- **Management concerns**

Shrimp Pot Fishery Commercial Grounds in Yakutat





Harvest and Effort in the Yakutat Shrimp Pot Fishery





Yakutat Shrimp Pot Fishery Regulations

- **Open access**
- **Season**
 - Yakutat Bay: May 1 through February 28
 - Doggie Island: October 1 through February 28
 - Other waters of Registration Area D: Year-round
- **Gear**
 - Minimum mesh of 1-1/2 inches
 - Maximum of 30 pots in Yakutat Bay
 - No pot limits elsewhere
 - No pot size requirements
- **Monthly GHRs**
 - Yakutat Bay: 1,000 pounds
 - Doggie Island: 2,000 pounds



Yakutat Shrimp Pot Fishery Management

- **Fish tickets**
- **Very limited dockside sampling**
- **Monthly GHLS tracked using fish ticket data**



Yakutat Shrimp Pot Fishery Management Concerns

- **No stock assessment information**
- **Decline in harvest and effort**



SE Shrimp Beam Trawl Fishery

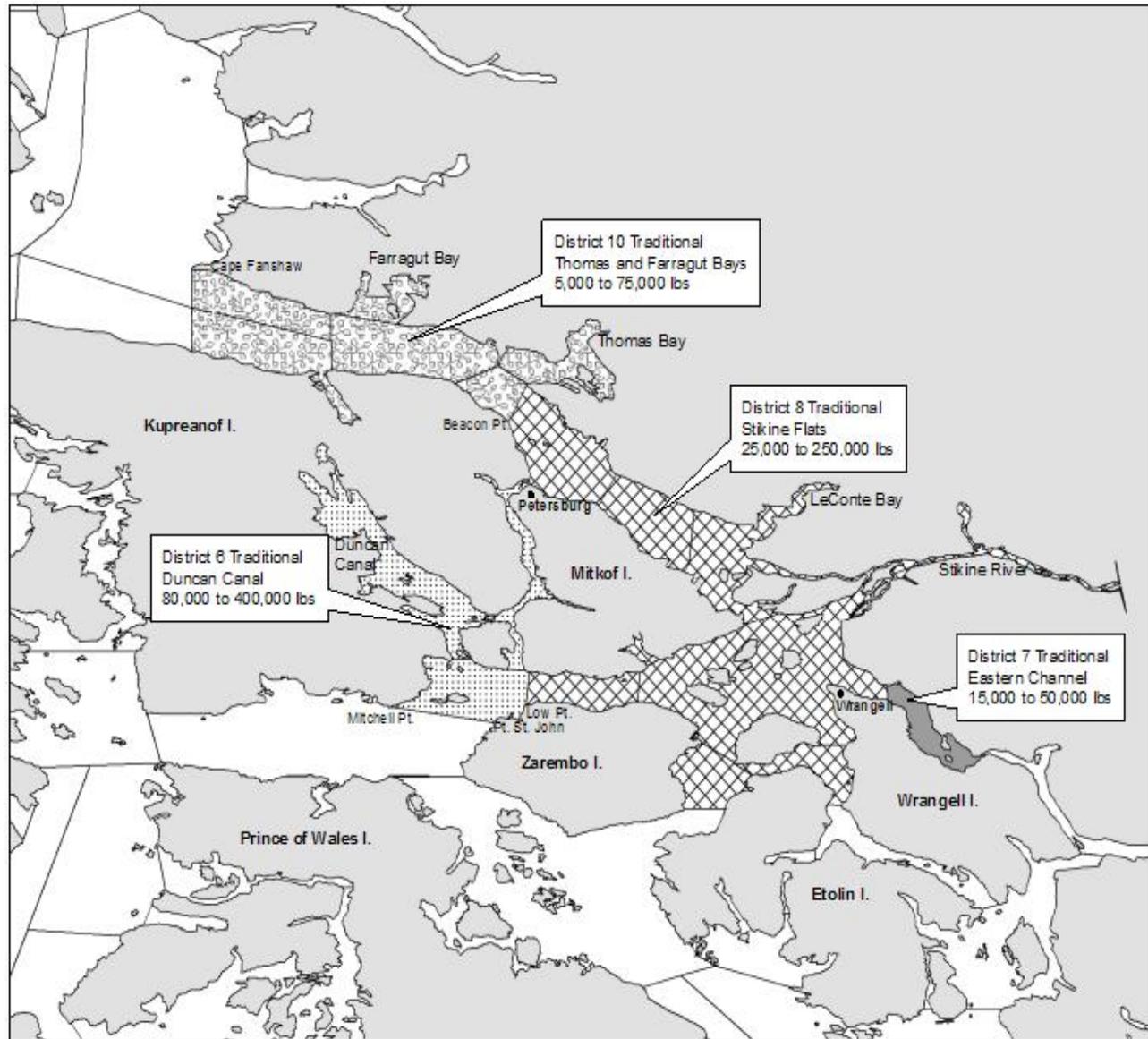
- **Proposals**
- **Fishery description**
- **Catch and effort history**
- **Regulations**
- **Management**
- **Management concerns**



Figure 1. Pandalid shrimp species commonly captured in trawls.

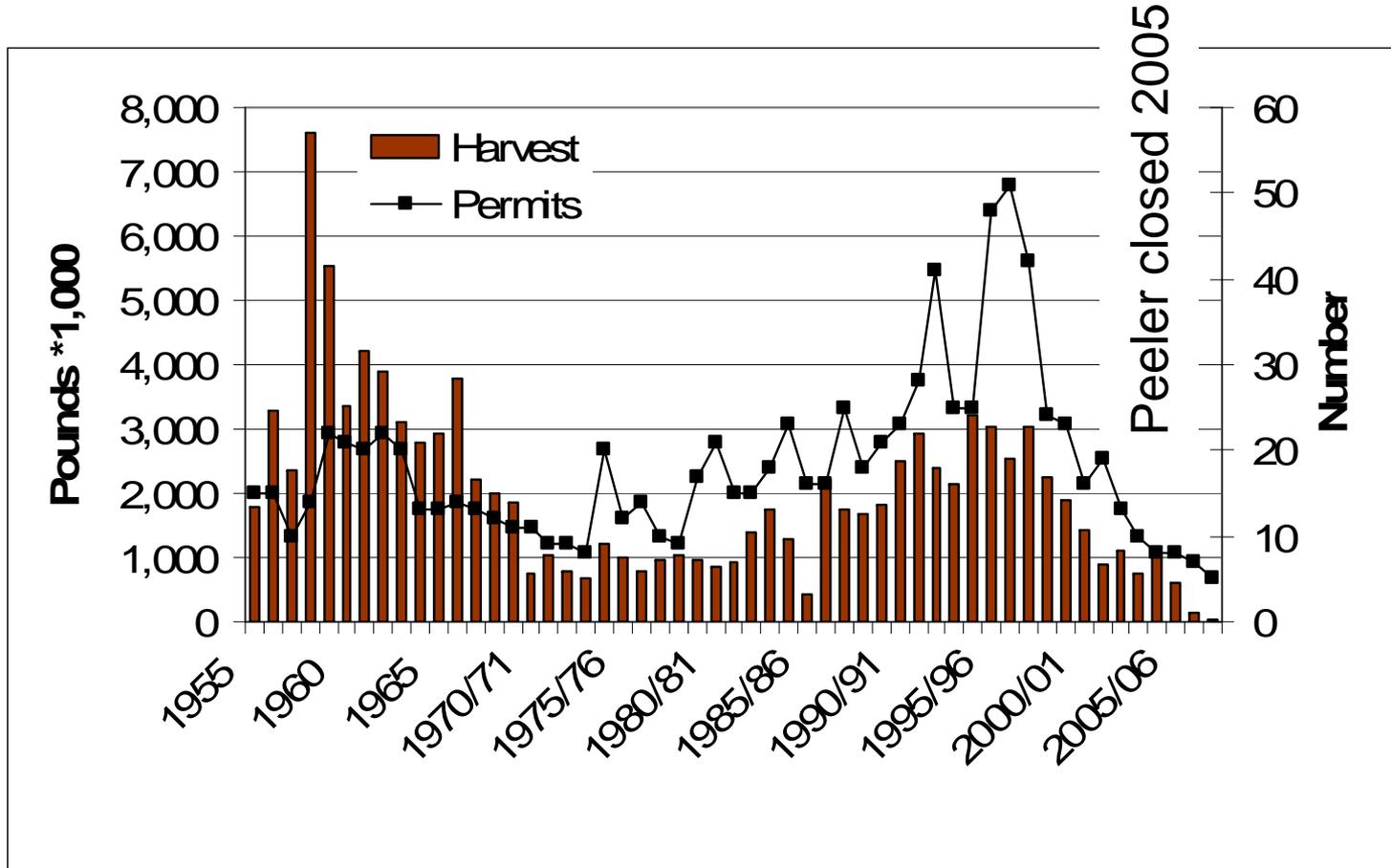


Major Beam Trawl Shrimp Fishing Grounds in Southeast Alaska





Harvest and Effort in the Southeast Shrimp Beam Trawl Fishery





SE Shrimp Beam Trawl Regulations

- **Fishing seasons & periods**
 - **Egg hatch closure**
 - **March 1 – April 30**
 - **Three fishing periods for traditional areas**
 - **May 1 – June 30**
 - **July 1 – August 31**
 - **September 1 – February 28**
 - **Four fishing periods in District 8**
 - **May 1 – June 30**
 - **July 1 – August 31**
 - **September 1 – November 30**
 - **December 1 – February 28**
 - **One fishing period for nontraditional areas**
 - **May 1 – February 28**



SE Shrimp Beam Trawl Regulations

- **Limited entry in 1997**
- **Guideline harvest ranges**
 - **Traditional areas**
 - Based on historic harvests by fishing area
 - Same GHR for each fishing period
 - **Nontraditional areas**
 - Arbitrary
 - Generally up to 100,000 pounds
- **Bycatch limits for spot and coonstripe shrimp**
- **Mesh size restrictions**
 - Minimum mesh size, 1-3/8 inches
 - No maximum mesh size





SE Shrimp Beam Trawl Management

- **Fish tickets**
- **Dockside sampling**
- **Logbooks for developing areas or fisheries**
- **Directed sidestripe fishery by EO**
- **Seasons closed by EO**
- **Call-ins required of catcher-processors**



Southeast Shrimp Trawl Fishery Management Concerns

- **No processing capacity**
- **No research program**
- **Management program limited**





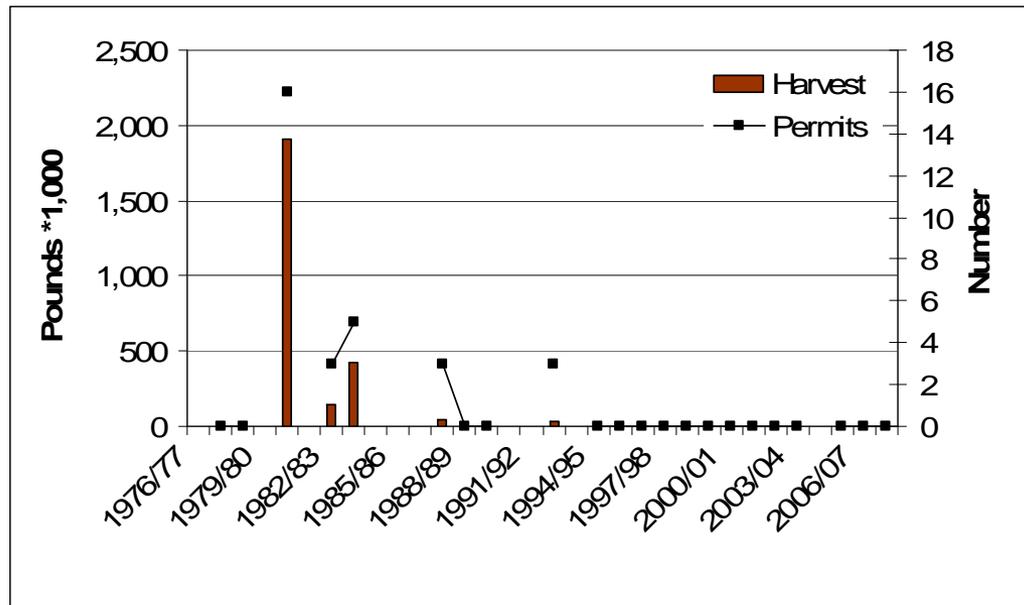
SE Shrimp Trawl Proposals

- **Management**
 - **143: Eliminate the 10% trip bycatch limit on coonstripe shrimp for beam trawlers and replace it with a harvest level in pounds for each area or bay (NEUTRAL)**
 - **144: Close shrimp fishery within 1-mile radius around Sukoi Island (NEUTRAL)**



Yakutat Shrimp Trawl Fishery

- No processing capacity
- No significant harvest since 1983/84 season





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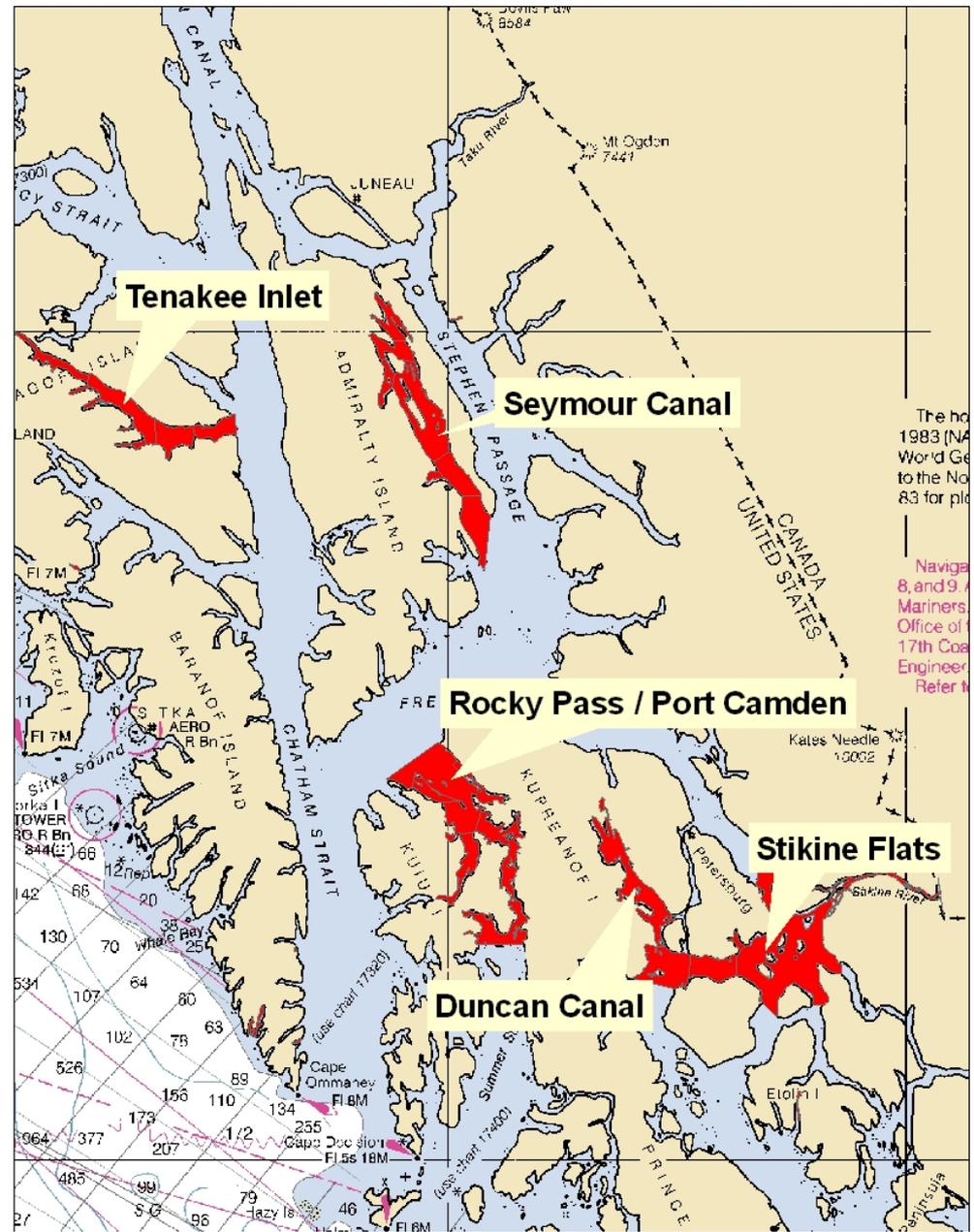


Dungeness Crab

- **Southeast Alaska**
 - Fishery description
 - Harvest and effort history
 - Regulations
 - Management
 - Research
 - Management concerns
 - Proposals
- **Yakutat**
 - Fishery description
 - Harvest and effort history
 - Regulations
 - Management
 - Future plans



Current Major Dungeness Crab Commercial Fishing Grounds in Southeast Alaska

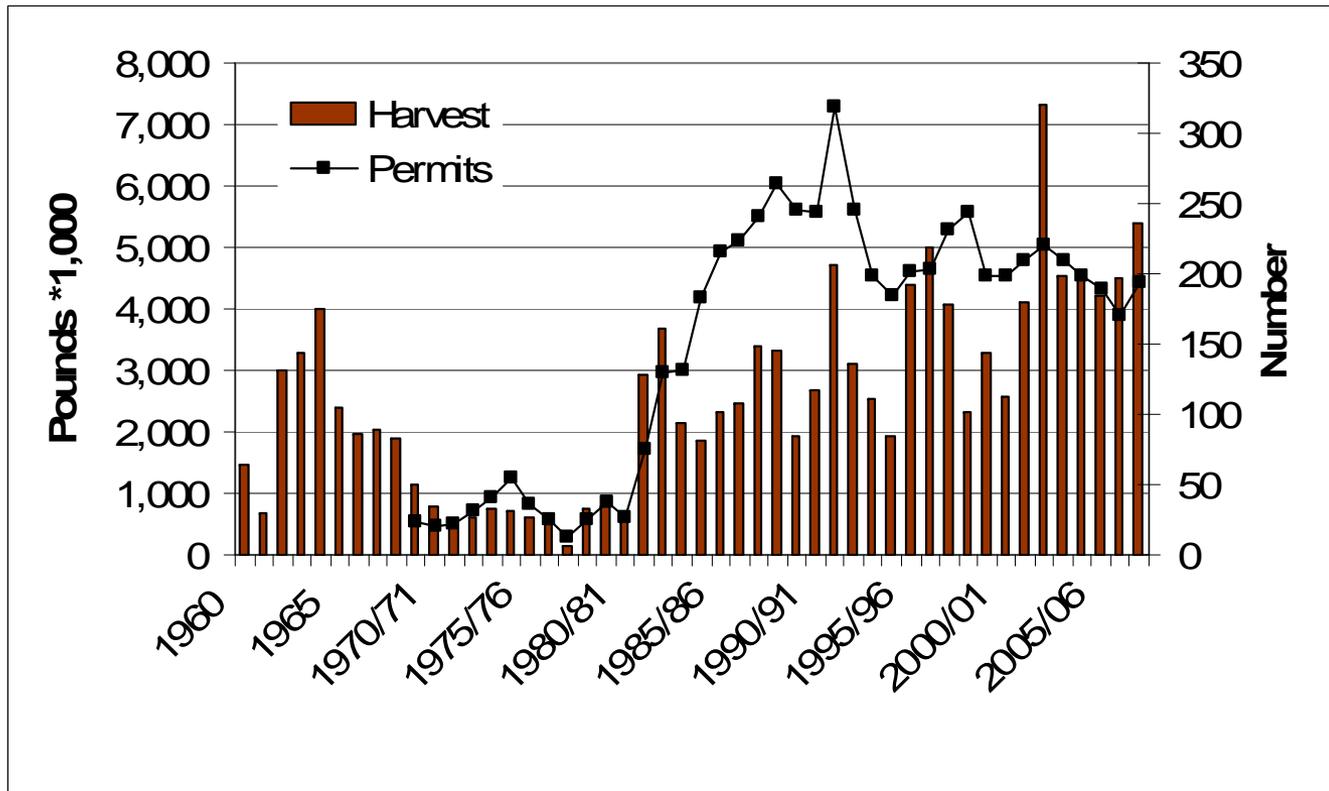


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Harvest and Effort of Dungeness Crab in Southeast Alaska





SE Dungeness Regulations

- **Limited entry established in 1995**
- **Size, sex, season**
 - males only, 6 1/2-inch minimum carapace width
 - split season
 - June 15 – August 15 and October 1 – November 30
 - October 1 – February 28 for southern districts and Sitka Sound Special Use Area
 - Sitka Sound Special Use Area October 1 – November 30
 - closed during the mating and female molt period August 16 – September 30
- **SE Dungeness management plan**
- **Gear**
 - tiered pot limits by permit type, 100%, 75%, 50%, and 25% of the 300-pot vessel limit



SE Dungeness Management

- **Fish tickets**
- **SE Dungeness crab management plan**
 - Established in 2000
 - First week's catch is used to predict season harvest
 - Plan triggers early closure under very poor stock conditions
- **Dockside sampling**
- **Aerial overflights**





SE Dungeness Management

District 16

- **1997/98 through 1999/2000 seasons – no reported harvest or effort**
- **2000/01 through 2002/03 seasons – entire season closed**
- **2003/04 season – limited fishery, 2 vessels participated with no reported harvest, observer present**
- **2004/05 season – entire season closed**
- **Adjacent to Area D, Yakutat**



SE Dungeness Research

Survey program

- 1987-88 – Sea Otter Survey in Icy Strait
- 1996-97 – Stikine Flats softshell survey
- 1999 – Onboard observing
- 2000-2004 – Preseason survey
- 2000-2003 – Postseason survey
- 2000-2004 – Life history survey

● Tagging program

- September 2000-June 2004





SE Dungeness Research

- **Results of Survey**

- Preseason softshell percentage is variable between years and areas
- Softshell percentage was high preseason in Duncan Canal in 2001 and 2002
- Preseason abundance prediction is difficult in some areas because catchability is low due to inactive crab; full recruitment has not occurred
- Molt increment is ~30 mm





Handling Effects

- **Soft-shell 30 - 50 % mortality**
- **Hard-shell 0 - 10 % mortality**
- **Reduced growth**
- **Life history changes**
 - molt timing and frequency
 - reproductive potential





Soft-shell in June Duncan Canal Survey

Year	Average number of legal males per pot	Average number of soft shelled males per pot	Percentage of soft shell
2000	3.54	0.50	14%
2001	9.39	5.55	59%
2002	10.61	6.28	59%
2003	8.61	1.45	17%
2004	6.82	1.76	26%

*Number of males and soft-shelled males is per pot per soak day



Soft-shell During June Survey

	Stikine Flats	Duncan Canal	Tenakee Inlet	Peril Strait
2001	18 %	59 %	25 %	7 %
2002	14 %	59 %	21 %	14 %
2003	14 %	17 %	12 %	10 %



Soft, New, and
Old Shell
Males



SE Dungeness Management Concerns

- **High harvest rate with strong reliance upon single year class**
- **Season partially overlaps male soft shell period**
- **Soft shell handling/sorting**
- **Shrinking commercial areas, intense concentrations of gear in remaining areas**
- **Limited stock assessment, preseason survey for 4 years**





SE Dungeness Crab Proposals

- **Management**
 - **151: Modify Dungeness management plan to account for years with high softshell (SUPPORT)**
 - **152: Require permit stacking vessels to have both permit holders onboard (NEUTRAL)**
 - **153: Make permit stacking illegal (NEUTRAL)**
- **Season**
 - **148: Delay start, eliminate summer female soft shell closure and extend northern season, change to summer southern season (OPPOSE)**
 - **149 and 150: Change southern districts to summer and fall seasons (OPPOSE)**
- **Size**
 - **145: Implement measuring device restrictions and make undersized crabs with broken spines legal (NEUTRAL/OPPOSE)**
 - **147: Standardize legal description of Dungeness in commercial, sport and PU and subsistence regulations (SUPPORT)**

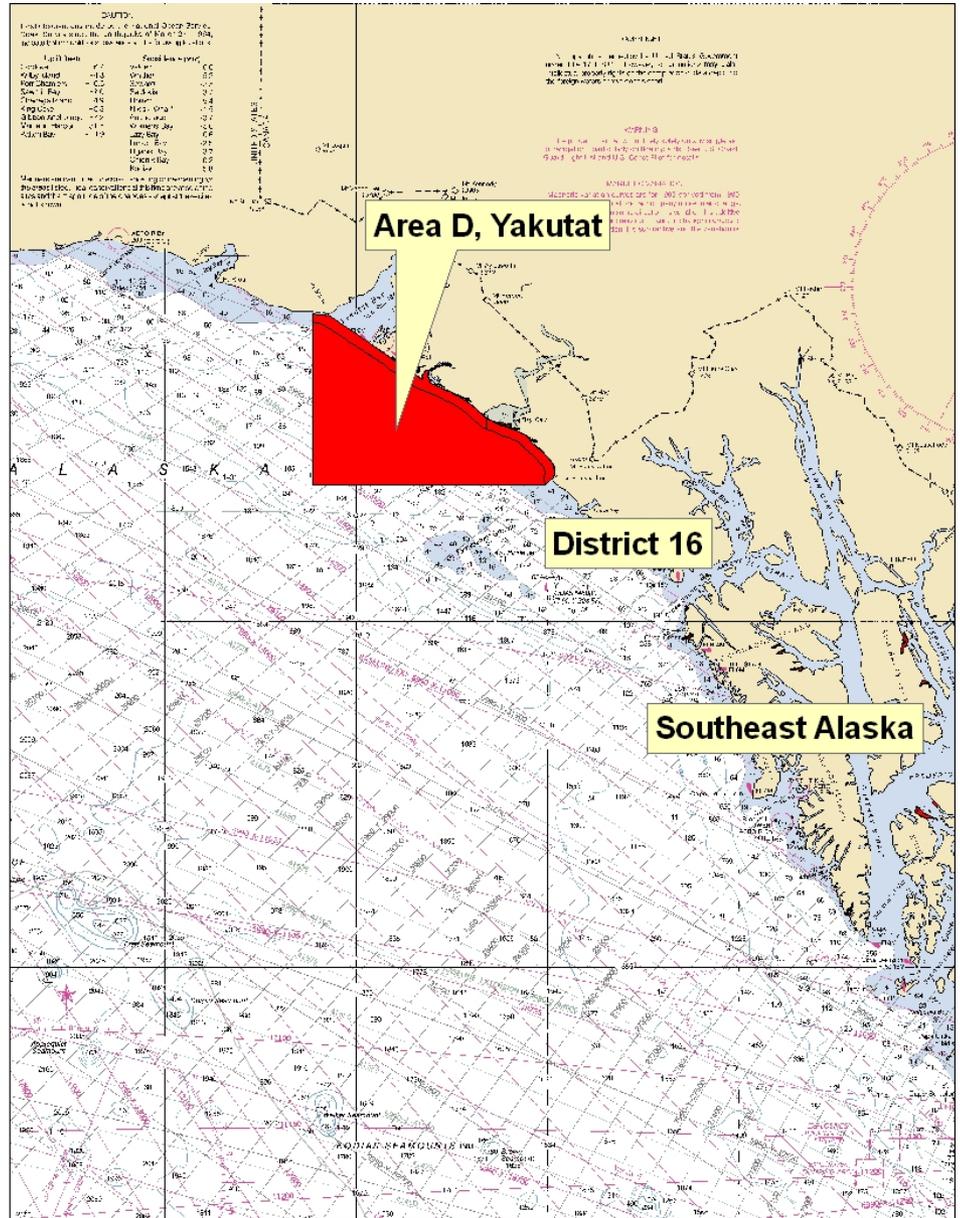
SE Dungeness Crab Proposals

- **Closed waters**
 - 155: Re-open Twelve-mile Arm during fall season only (NEUTRAL)
 - 156: Re-open Chaik Bay (NEUTRAL)
 - 157: Close Coffman Cove, Lake Bay, and Barns Lake (NEUTRAL)
 - 158: Close part of Wrangell Narrows (NEUTRAL)
 - 159: Close Naukati Bay (NEUTRAL)
- **Ecotourism**
 - 162: Permit a second vessel in the George Inlet Ecotourism fishery (NEUTRAL)
 - 163: Increase the pot limit and pot pulls for the George Inlet Ecotourism fishery (NEUTRAL)



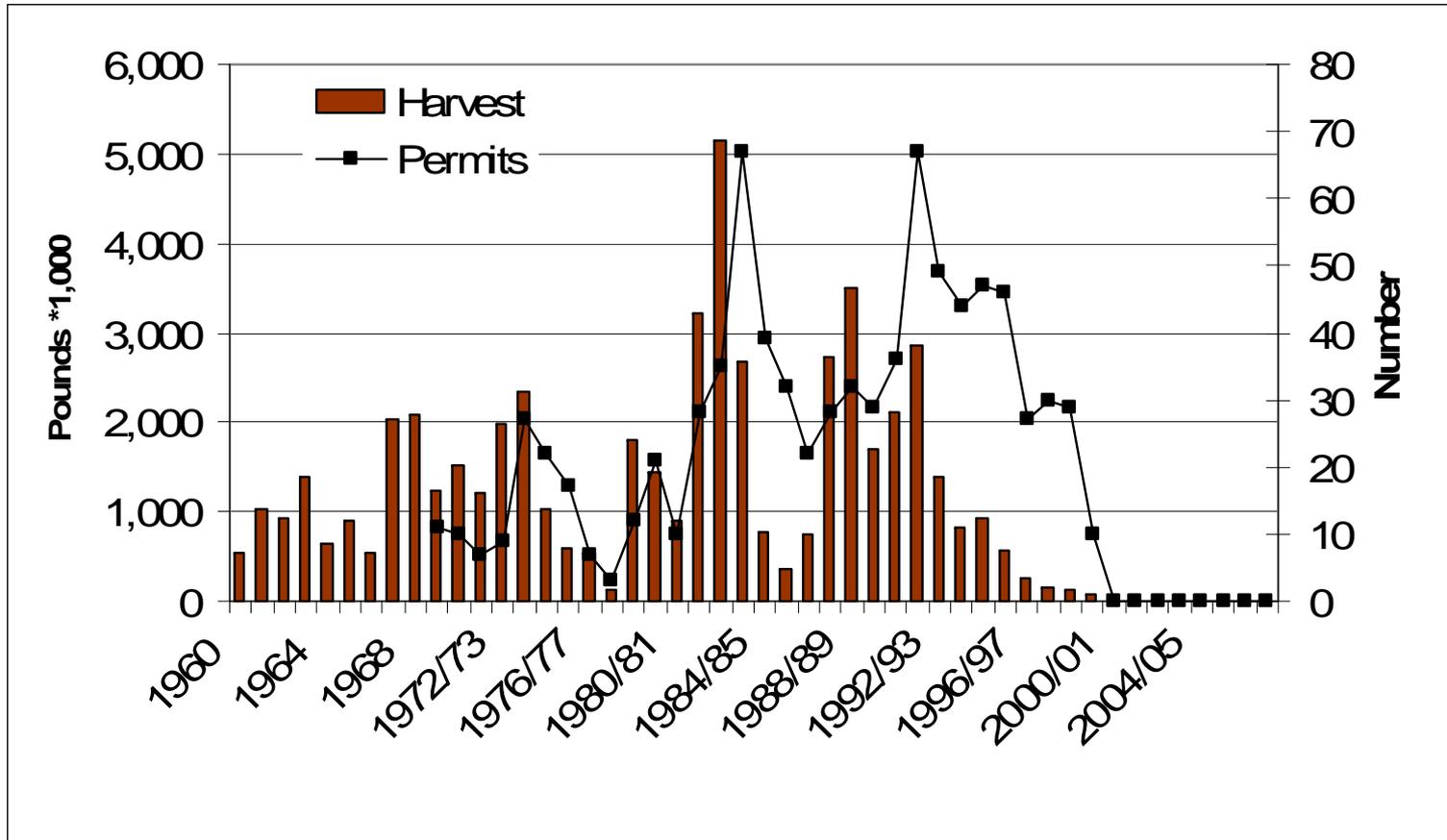


Registration Area D, Yakutat





Harvest and Effort of Dungeness Crab in Yakutat





Yakutat Dungeness Regulations

- **Open access fishery**
- **Size, sex, season**
 - males only, 6 1/2-inch minimum carapace width
 - split season
 - May 15 – July 14 and November 1 – February 28
 - closure during the female molt and mating period in August and September
- **Gear**
 - 400-pot vessel limit





Yakutat Dungeness Management

- Designated as collapsed and recovering at 2000 BOF meeting.
- 2003/04 season - a limited fishery occurred in District 16, which is adjacent to Area D, Yakutat. Two vessels participated and almost no crab were caught.
- 2004/05 season - ADF&G contracted a vessel to conduct a Yakutat survey. Almost no crab were caught.
- 2005/06 season - Yakutat commercial fishery remained closed.
- Summer 2005 – Personal use and sport fisheries closed.





Yakutat Dungeness Fishery Future Plans

- **Fishery to remain closed until**
 - Evidence of stock recovery
 - Adequate management program in place
 - Adequate stock assessment program in place
- **Requires long term stable funding**



Southeast Alaska Dive Fisheries

ABALONE, GEODUCK CLAMS, SEA
CUCUMBERS, and RED SEA URCHINS



By
Zac Hoyt
and Marc Pritchett

SOUTHEAST REGIONAL HERRING AND
DIVE FISHERIES STAFF

Jan. 21-27, 2009 Petersburg, AK 99833





Southeast Alaska Dive Fisheries

- Dive Fisheries Overview
 - CFEC
 - SARDFA
 - Effort
- Historical Overview
 - Geoducks
 - Sea Cucumbers
 - Red Sea Urchins
- 2007-08 Season
- Sea otters
- Proposals



DIVE FISHERY LIMITED ENTRY

Dive Fishery Moratorium, House Bill 547

Purpose: to allow review and analysis of dive fisheries.
Effective July 1, 1996 through June 30, 2000.

CFEC Limited Entry Permits

Geoducks and Sea Cucumbers Limited - May, 2001.
Red Sea Urchins Limited - November, 2000.

ABALONE

- Open access fishery.
- Low stocks. No fishery planned.

GEODUCKS

- 111 limited entry permits

SEA CUCUMBERS

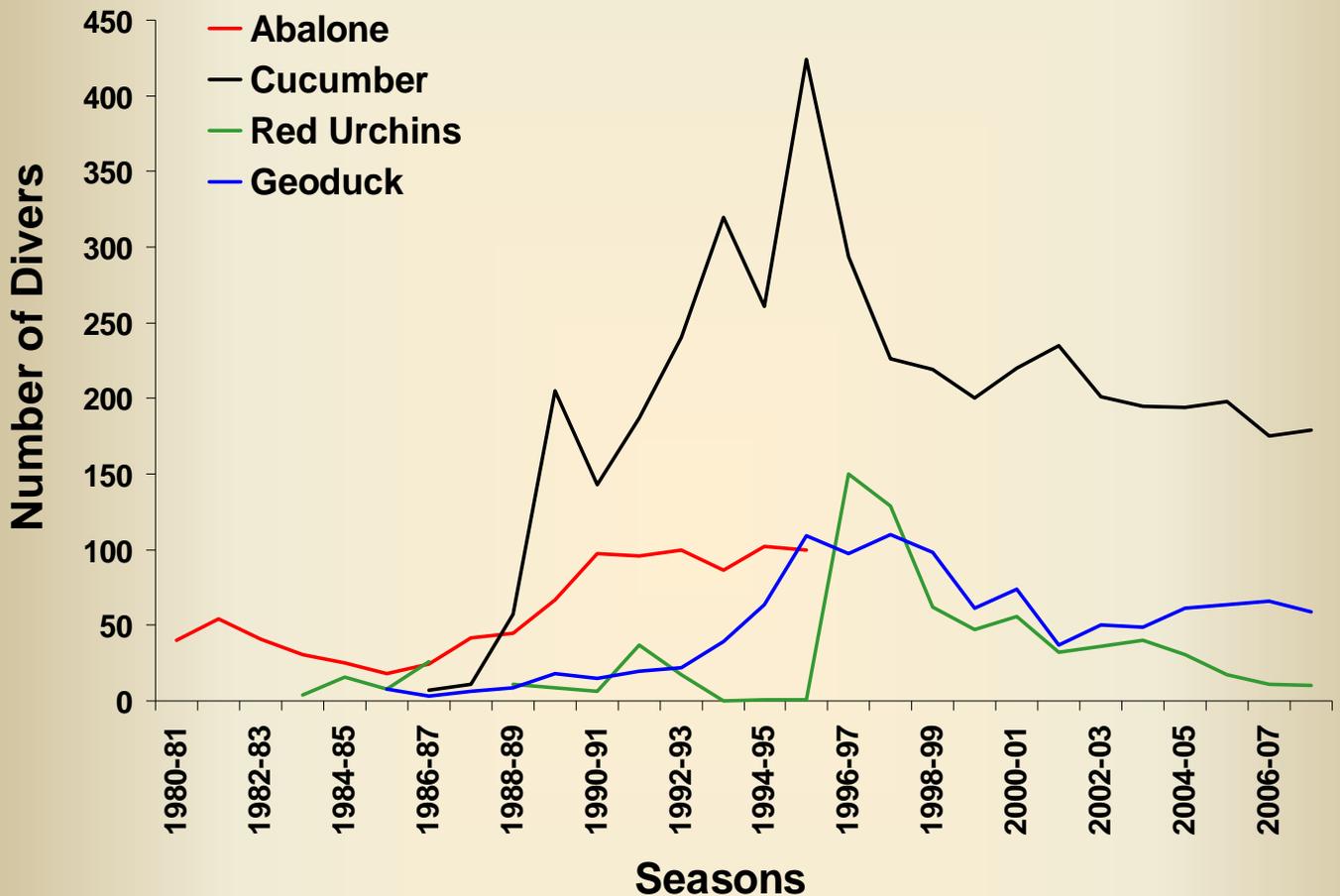
- 389 limited entry permits

RED SEA URCHINS

- 83 limited entry permits



Active CFEC Permits Fished in Southeast Alaska 1980-81 to 2007-08



CFEC lists 477 active permits for 2008.

- Geoduck = 97 active of 111
- Urchins = 73 active of 83
- Cucumber = 307 active of 389





- Authorized by Legislature in 1997 (CSHB 198) to develop dive fisheries
- All permit holders are members.
- Board of Directors includes divers, processors and municipalities.
- SARDFFA members tax themselves:
 - Geoduck & Red Urchin = 7%,
 - Sea Cucumber = 5%.
- Funds used by ADF&G and SARDFFA in cooperation
- Tax Revenue for 2007-08 season = \$348,159.
- Management coordinated between SARDFFA and ADF&G



Geoduck Clams



GEODUCK FISHERY

- 1985-1998
 - Fishery consisted of 4 areas with 10 fisheries
 - Fishery managed by registration permits
- 2000 – Management Plan Adopted
 - Fisheries must be surveyed every 12 years
 - 2% of biomass harvested
 - No size limit
 - Openings decided by ADF&G, ADEC and industry.
- 1998-2008 additional fisheries open
 - Current total: 38 defined commercial areas



GEODUCK FISHERY

- PSP protocol based on lot sampling prior to 2003
- 2003 BOF: ADF&G may manage based on PSP testing
- 2003-06 season
 - PSP testing protocol changed to fishery testing and evolved to current protocol.
- 2008-09 season: 1 negative PSP test prior to harvest
- 2006-07 BOF: logbooks required

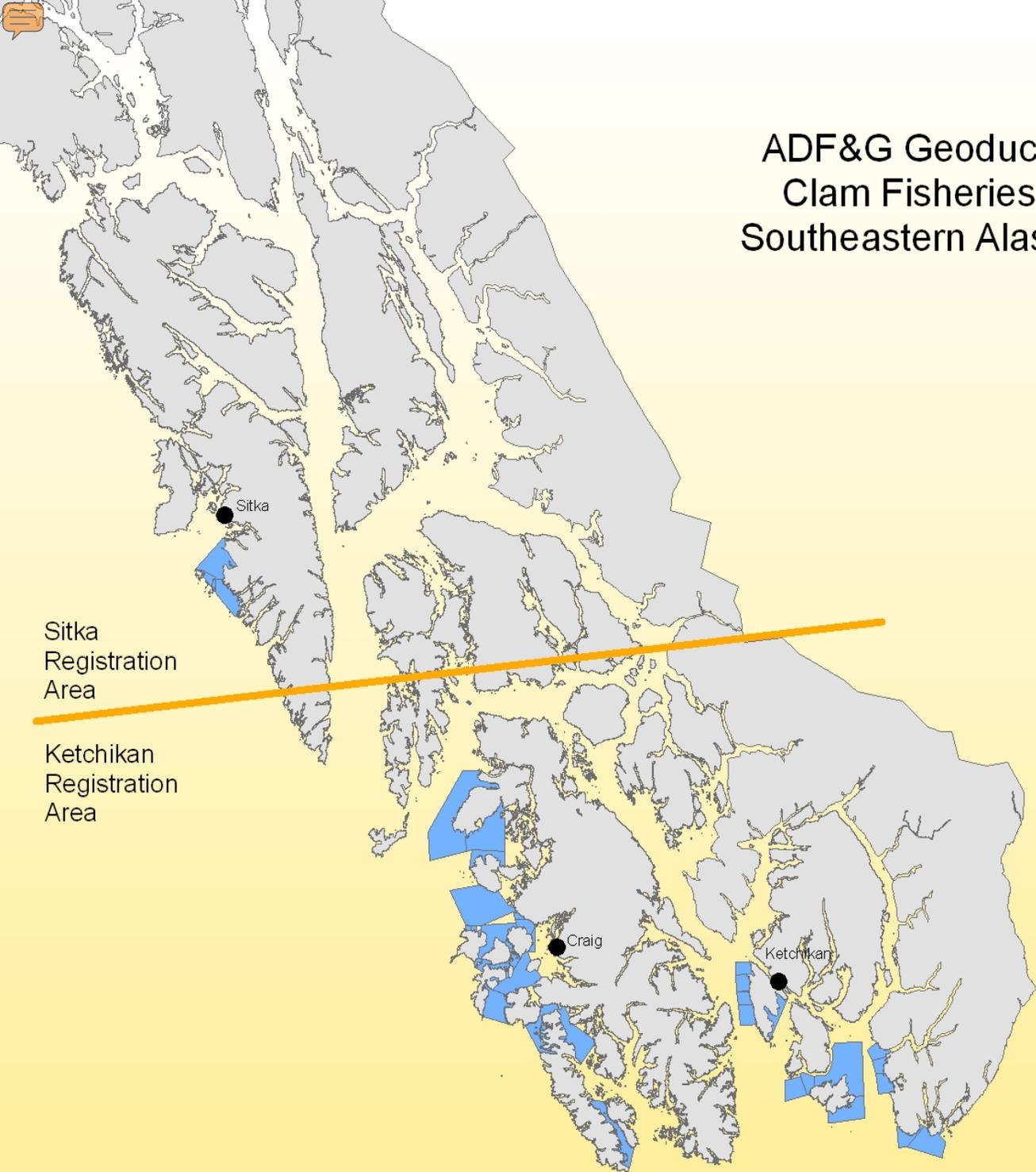


Harvest Method

- Dive gear only
- hand held, manually operated water jet
- nozzle max. inside diameter = 7/8 in.
- surface supplied water pump



ADF&G Geoduck Clam Fisheries Southeastern Alaska



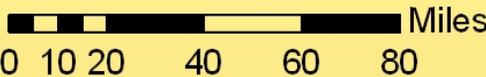
Sitka
Registration
Area

Ketchikan
Registration
Area

Sitka

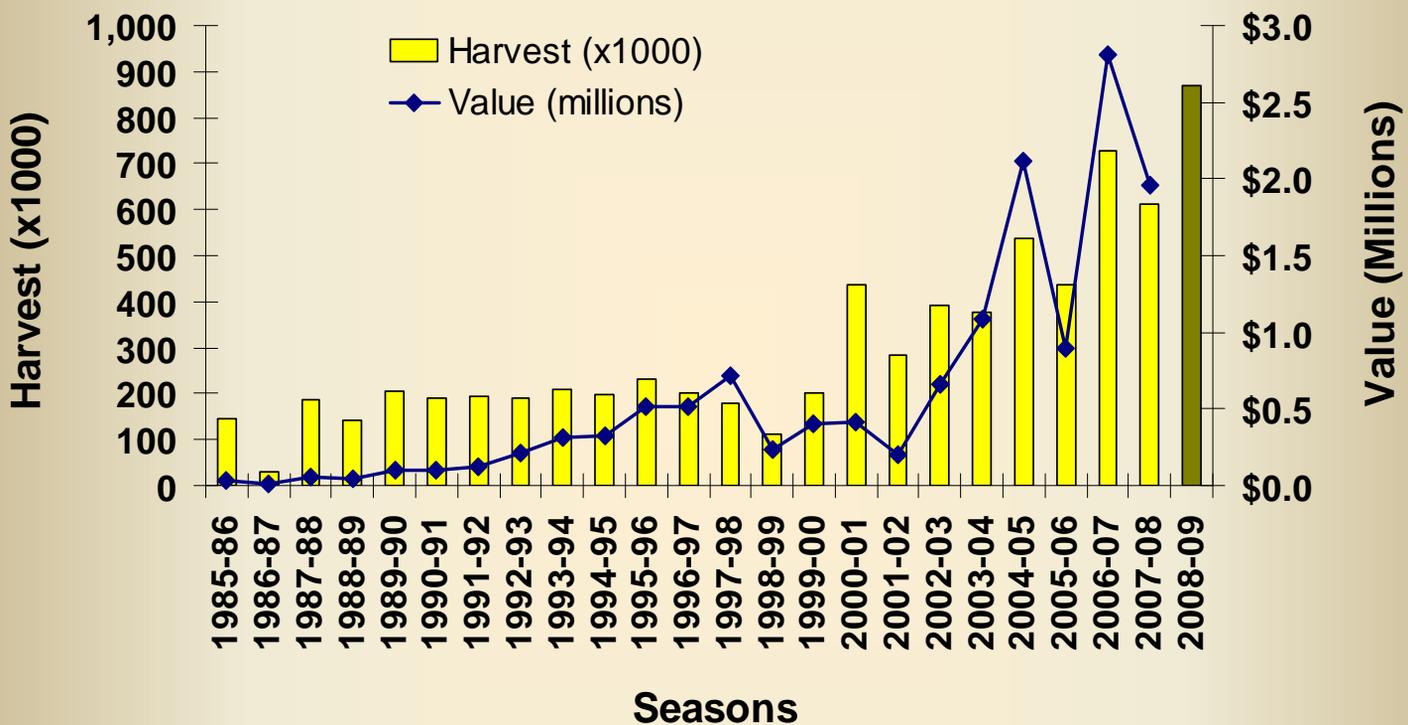
Craig

Ketchikan



Geoduck Clams in Southeast Alaska

Harvest and Value



•2008-09 GHJ = 868,700 pounds



Sea Cucumbers



Sea Cucumber Management Plan

- Season: October through March
- Weekly Fishing Periods:
 - Monday 8:00 a.m. to 3:00 p.m.
 - Tuesday 8:00 a.m. to 12:00 noon,
 - Open periods may be extended if appropriate.
- Area open only after biomass assessment
- 3 year rotations

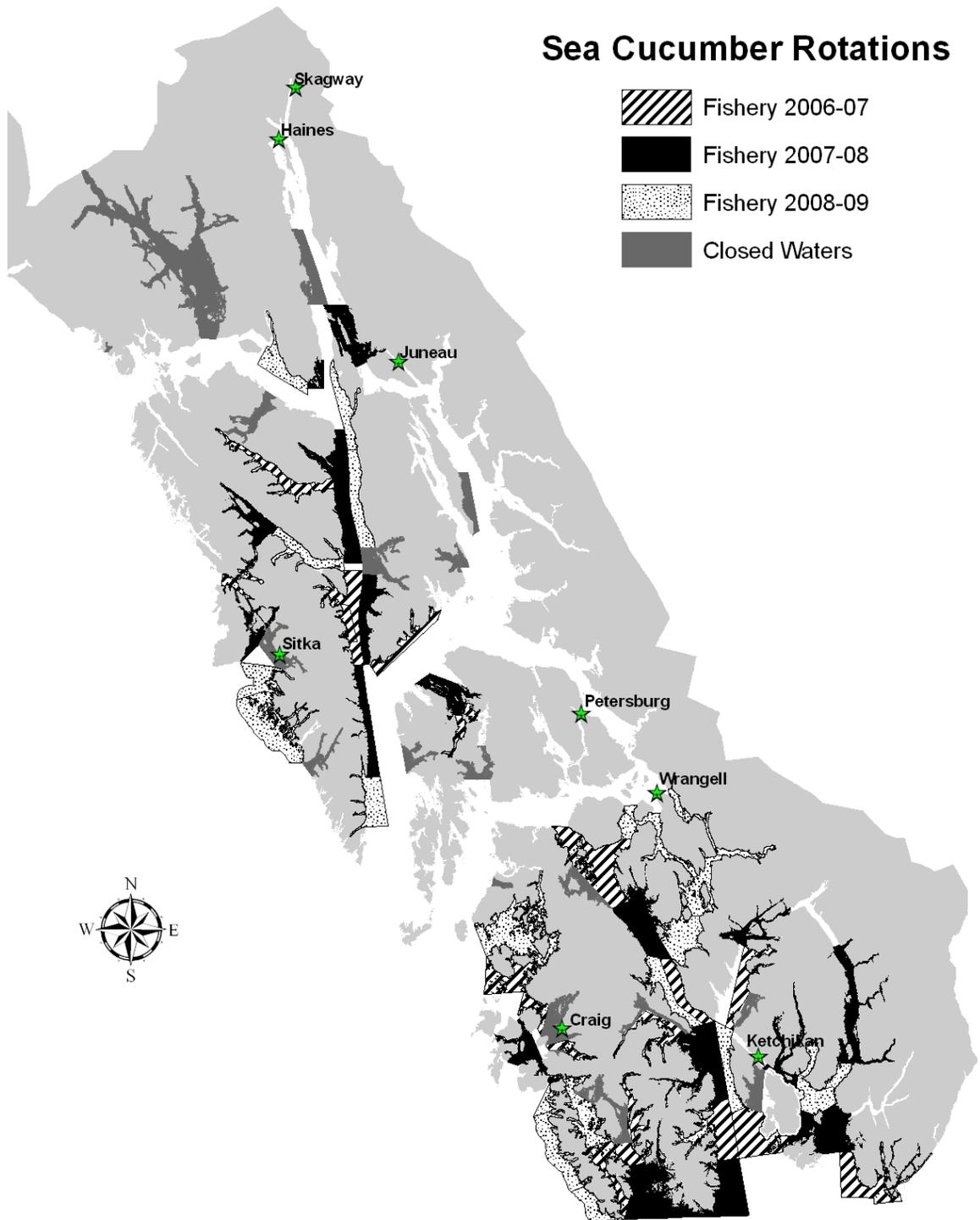


Sea Cucumber Management Plan

- 2,000 lb max per diver per opening
- Maximum of two permit holders may fish from a single vessel per opening.
- Enhanced air nitrox is allowed.
- Harvest by hand picking using scuba, tethered surface supplied air, or snorkel.



Sea Cucumber Rotations

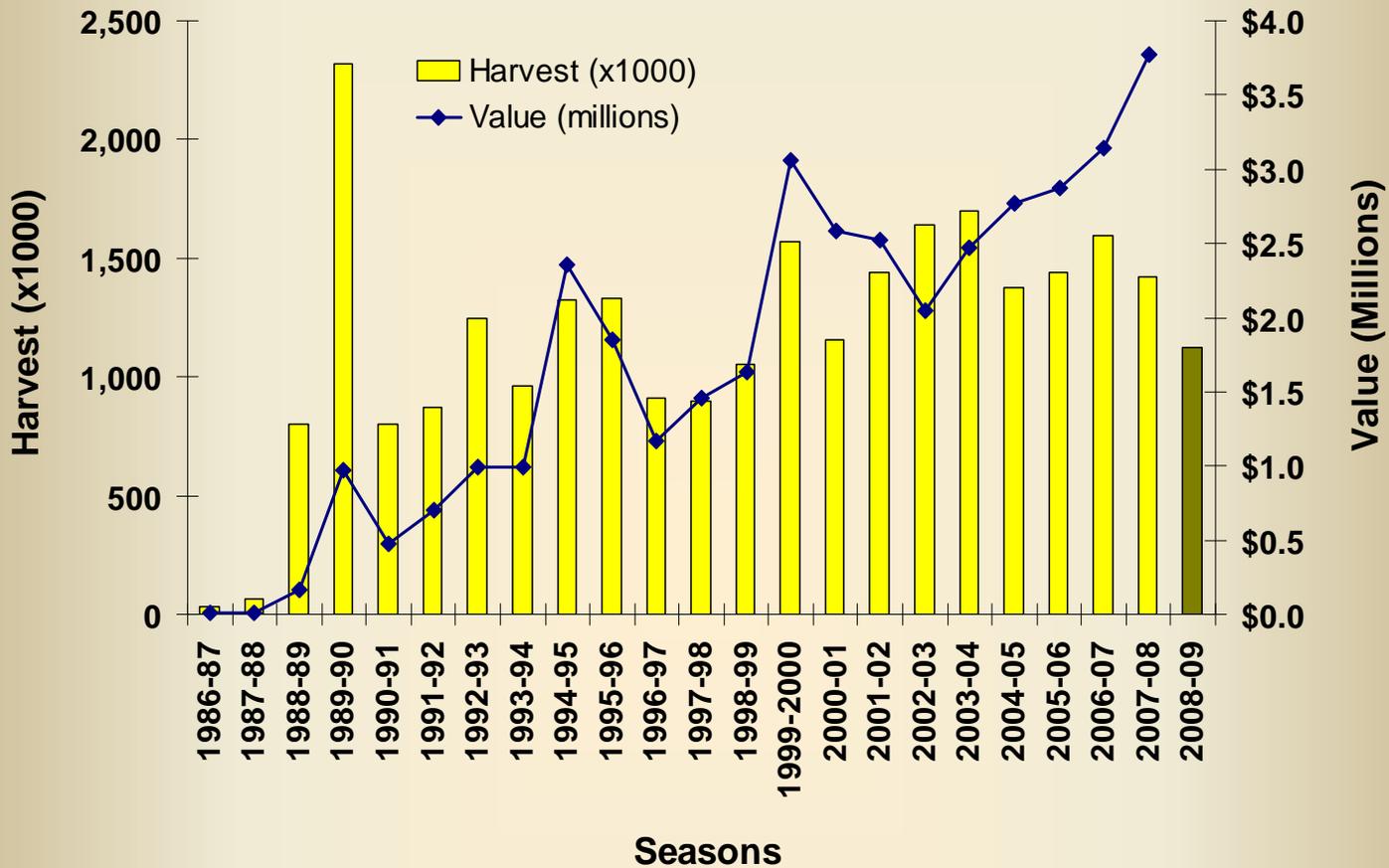


Sea Cucumber Commercial Areas



Sea Cucumbers in Southeast Alaska

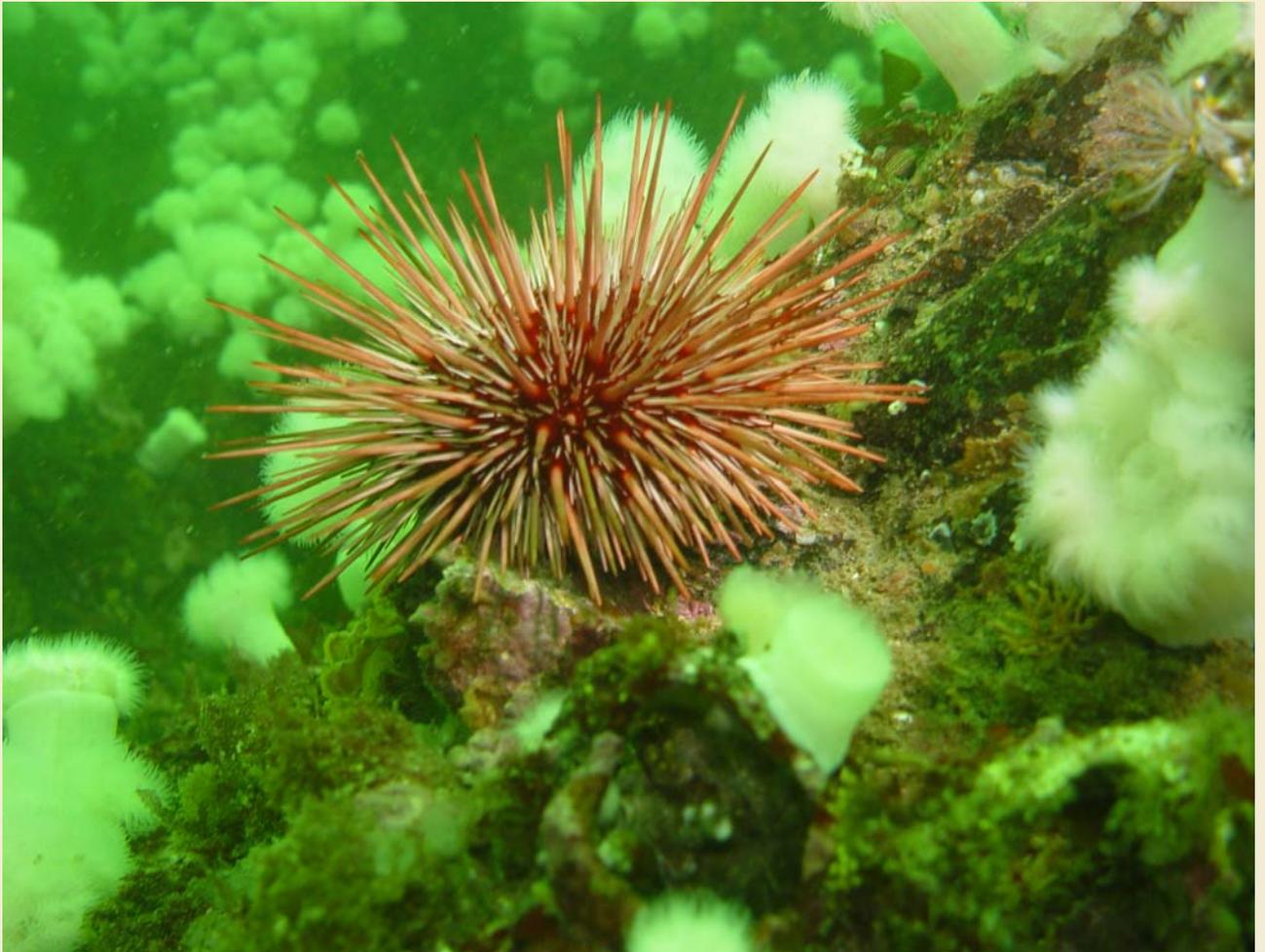
Harvest and Value



•2008-09 GHV = 1,122,100 pounds

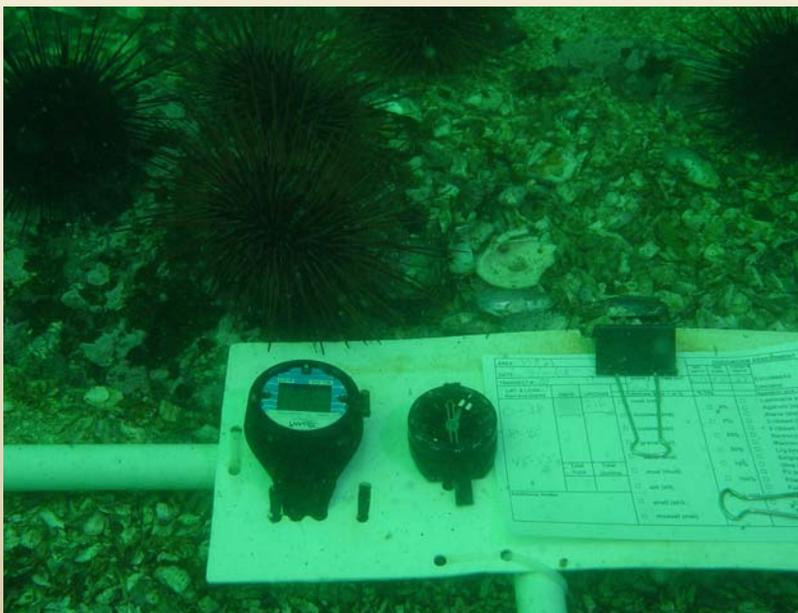


Sea Urchins



RED SEA URCHIN FISHERY

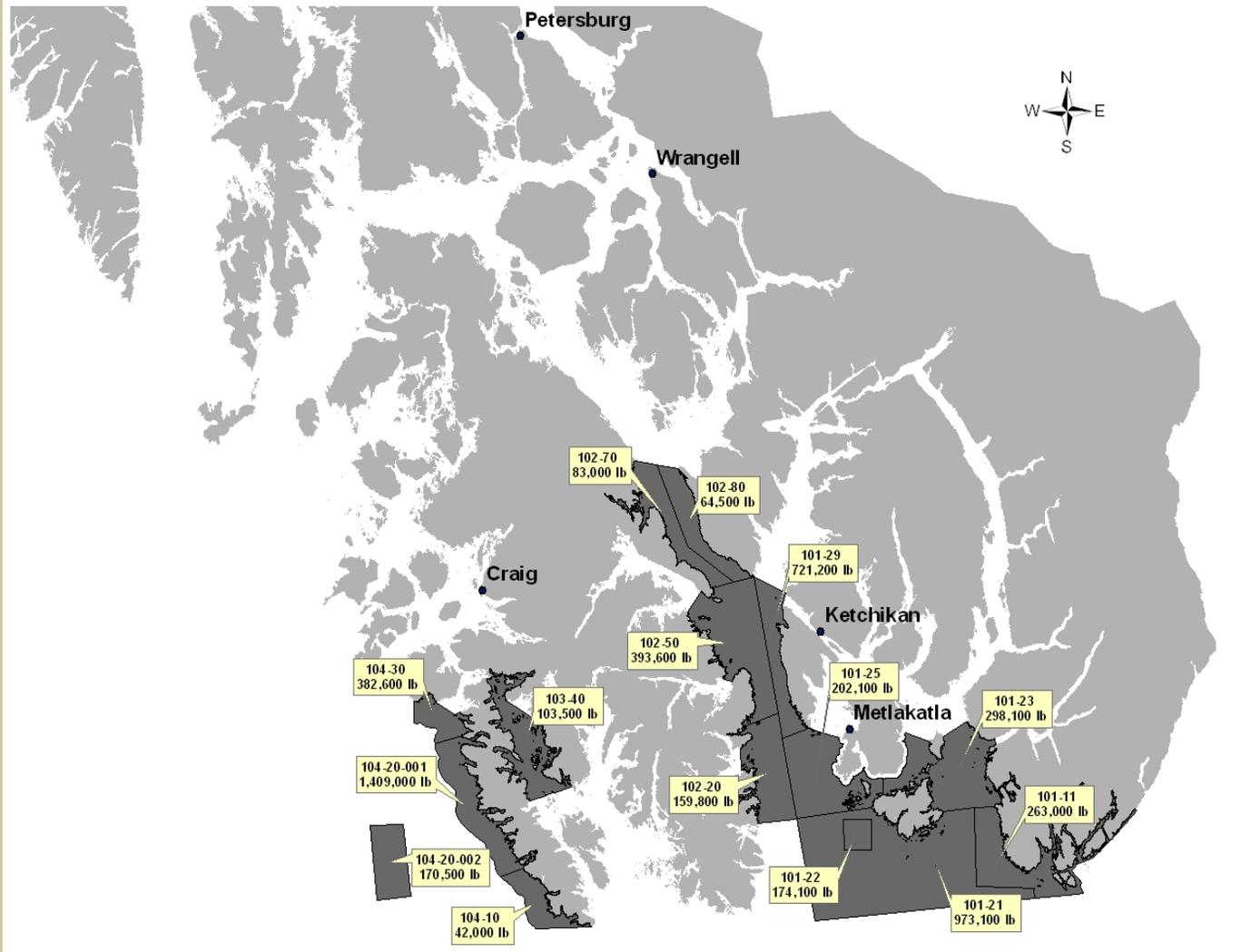
- 1991 – 1993: Small fishery in Sitka Sound, closed due to sea otter predation
- 1994 & 1995: Department surveys conducted in Districts 1 & 2
- 1995 & 1996: Test fishery in Districts 1 & 2 to pay for population assessment surveys
- 1996: Management Plan developed



RED SEA URCHIN FISHERY

- 1997: Fully developed fisheries have occurred ever since the 1996-97 season
- No major regulatory changes since adoption of Management Plan.
- Sea otter predation reduced biomass in several areas.
- Recent harvests and diver participation decreased.



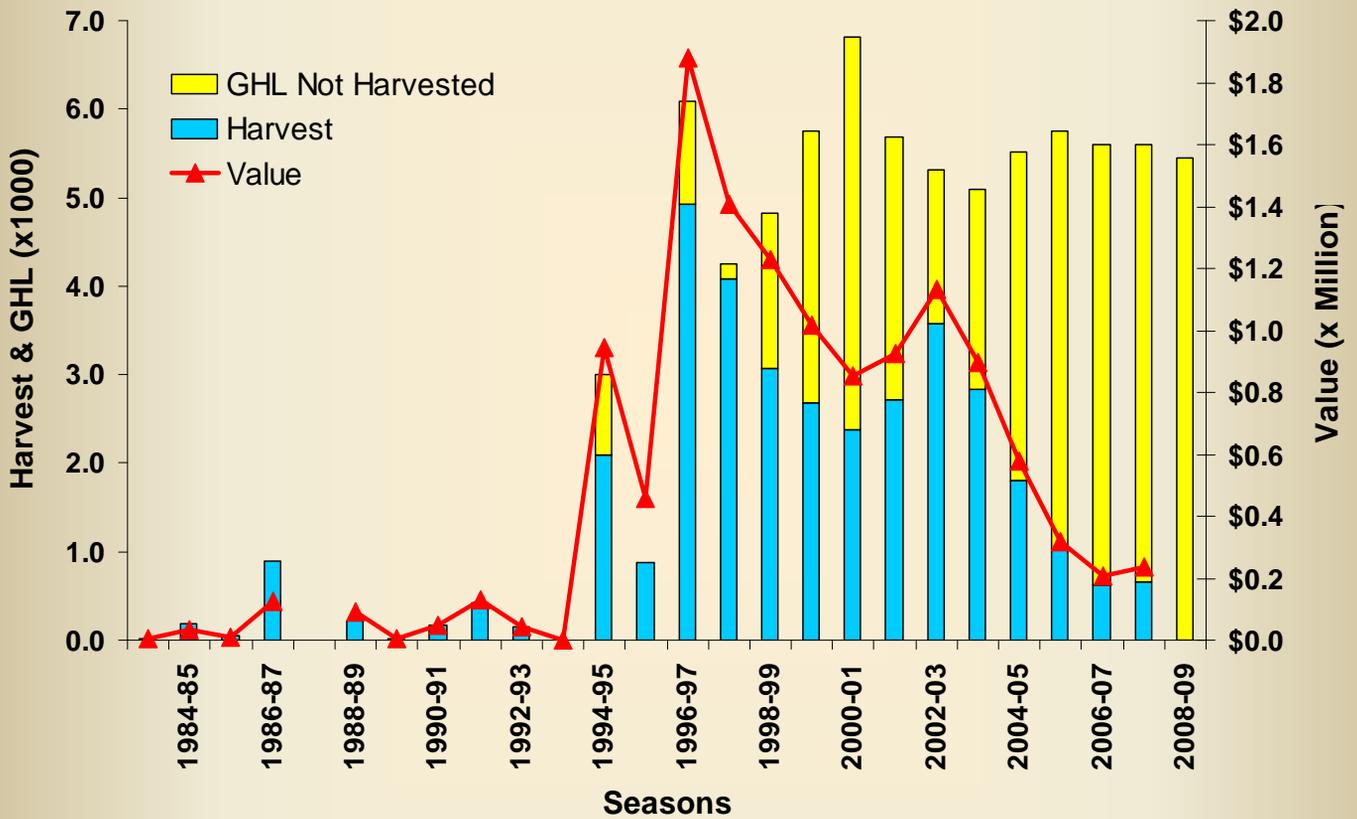


Southeast Alaska Red Sea Urchin Commercial Fishery



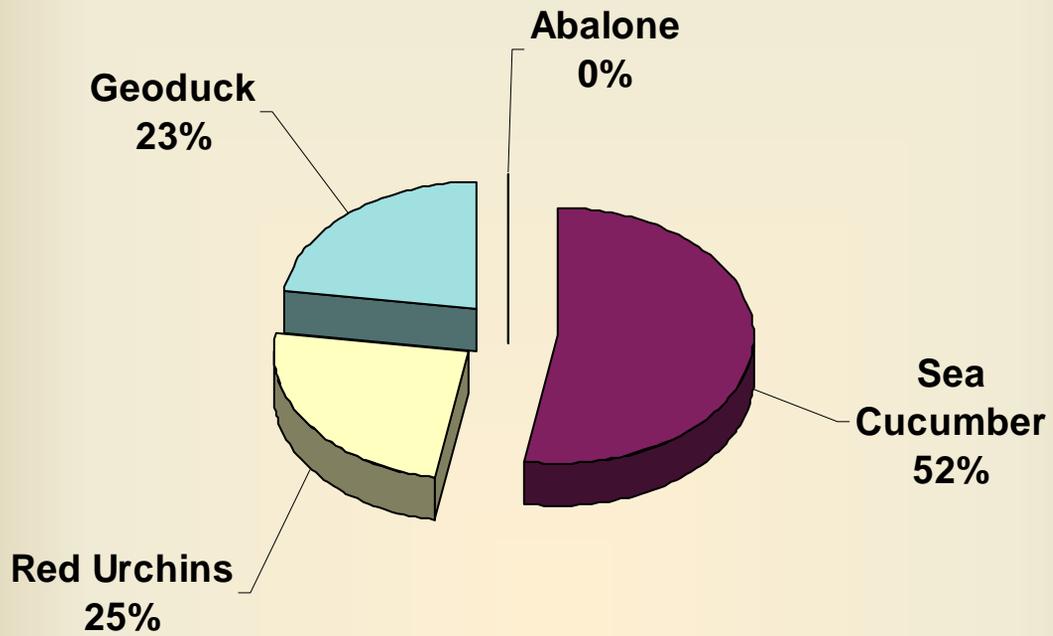
Red Urchins in Southeast Alaska

Harvest and Value



•2008-09 GHL = 5,440,100 pounds

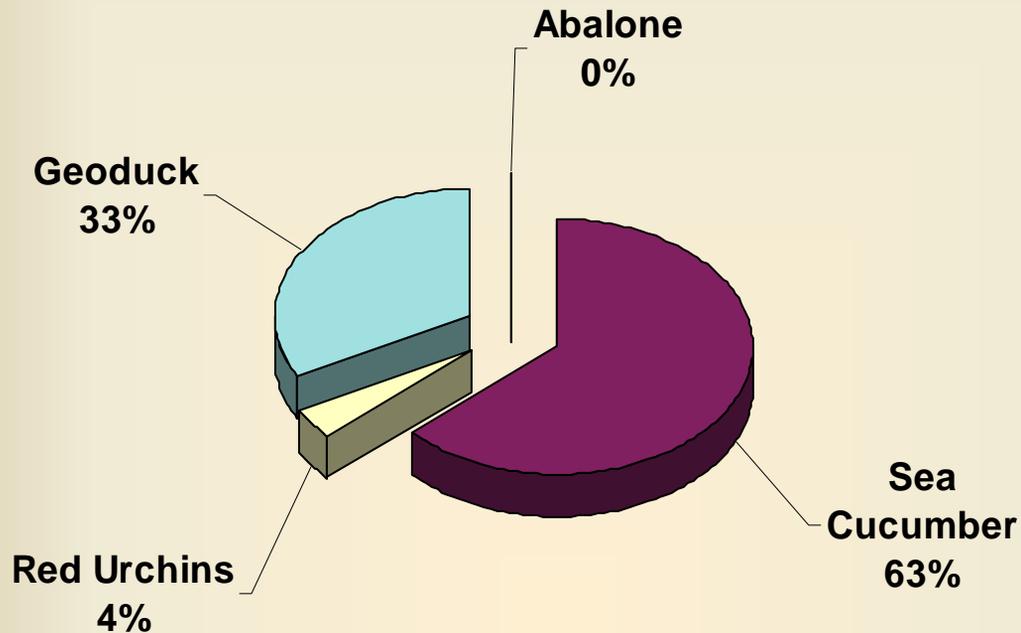




Total Harvest = 2,688,928 lb

2007-08 Dive Fisheries Harvested by Species





Total Value = \$5,966,544

2007-08 Dive Fisheries Exvessel (Fish ticket) Value by Species



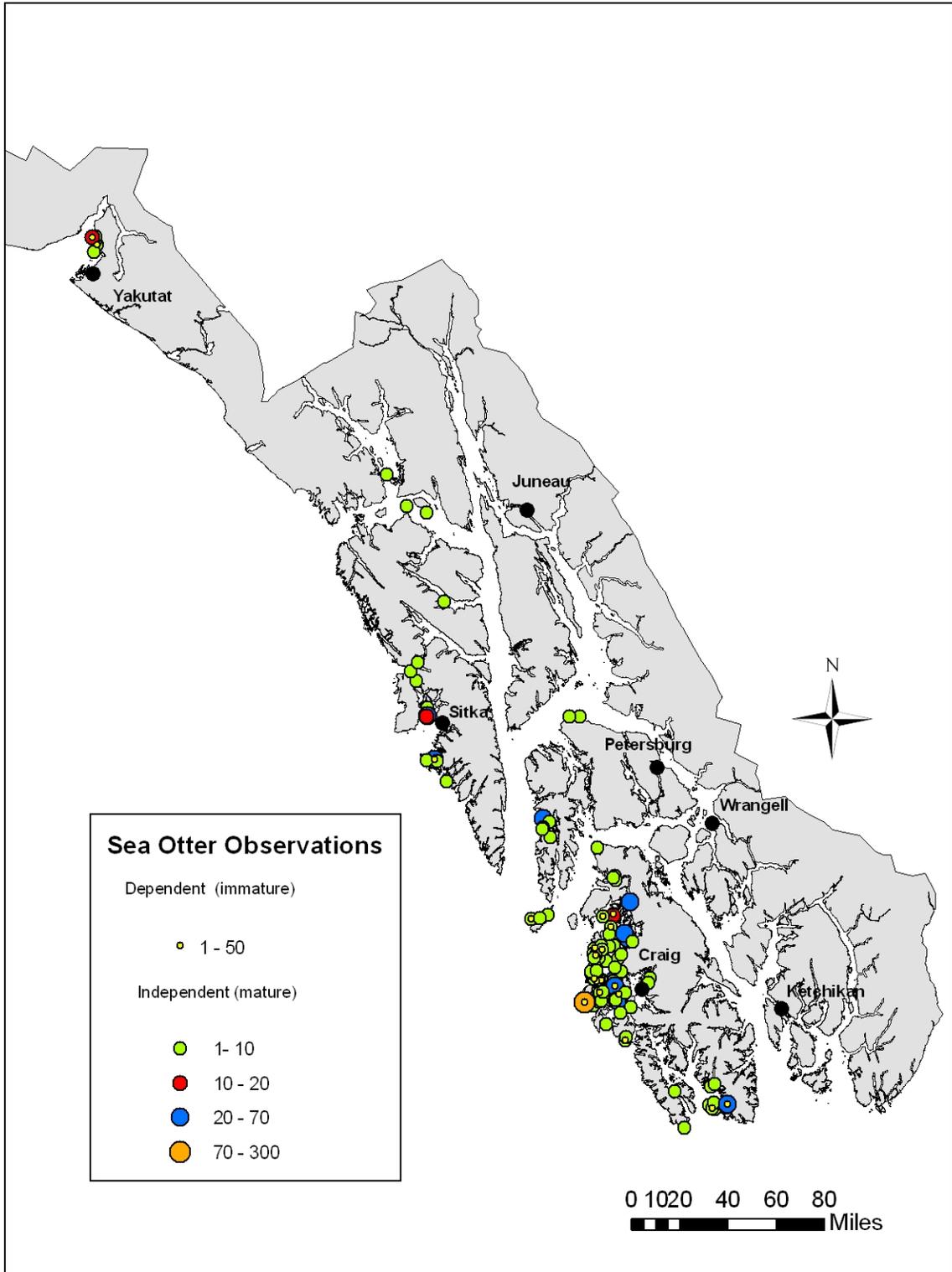
Sea Otter – Dive Fishery Interactions



- Sea Otters were re-introduced into Southeast Alaska beginning in 1965
- 11,697 sea otters estimated in SE AK in 1994
- 10 fishing areas have been closed in the red sea urchin fishery due to presumed sea otter predation
- 6 fishing areas have been closed in the sea cucumber fishery due to presumed sea otter predation
- 1 fishing area has been closed in the geoduck fishery
- Large declines in biomass where sea otters are present



ADF&G Sea Otter Observations 2004-2008



PROPOSALS

12 Miscellaneous Shellfish proposals

- Scallops: Amend Yakutat, District 16 opening date from July 1 to June 1 (187). – **OPPOSES**
- Octopus: Develop octopus management plan with octopus as bycatch only (198). – **SUPPORTS**
- Red Sea Urchin: Delete onboard observer requirement for urchin processors (197). – **OPPOSES**



GEODUCK PROPOSALS (6)

- Establish equal share (188). – **NEUTRAL**
- Change season to start July 1 (189). – **NEUTRAL**
- Establish trip limits (190). – **NEUTRAL**
- Divide Southeast Alaska into two management areas (191). – **NEUTRAL**
- Provide for sub-regional area registration (192). – **SUPPORTS**
- Correct closed waters boundary reference (193).
ADF&G - Housekeeping. – **SUPPORTS**



SEA CUCUMBER PROPOSALS (3)

- Clarify intent to allow a permit holder registered as a tender to harvest commercially and housekeeping clarification of closed waters (194). – **SUPPORTS**
- Adjust boundary of commercial harvest area to previous boundary, north of St. Philip Island (195). – **NEUTRAL**
- Reopen Clover Pass to commercial cucumber harvest (196). – **NEUTRAL**



Alaska Mariculture Program Update



Cynthia Pring-Ham
Mariculture Program Manager
Alaska Dept. of Fish and Game

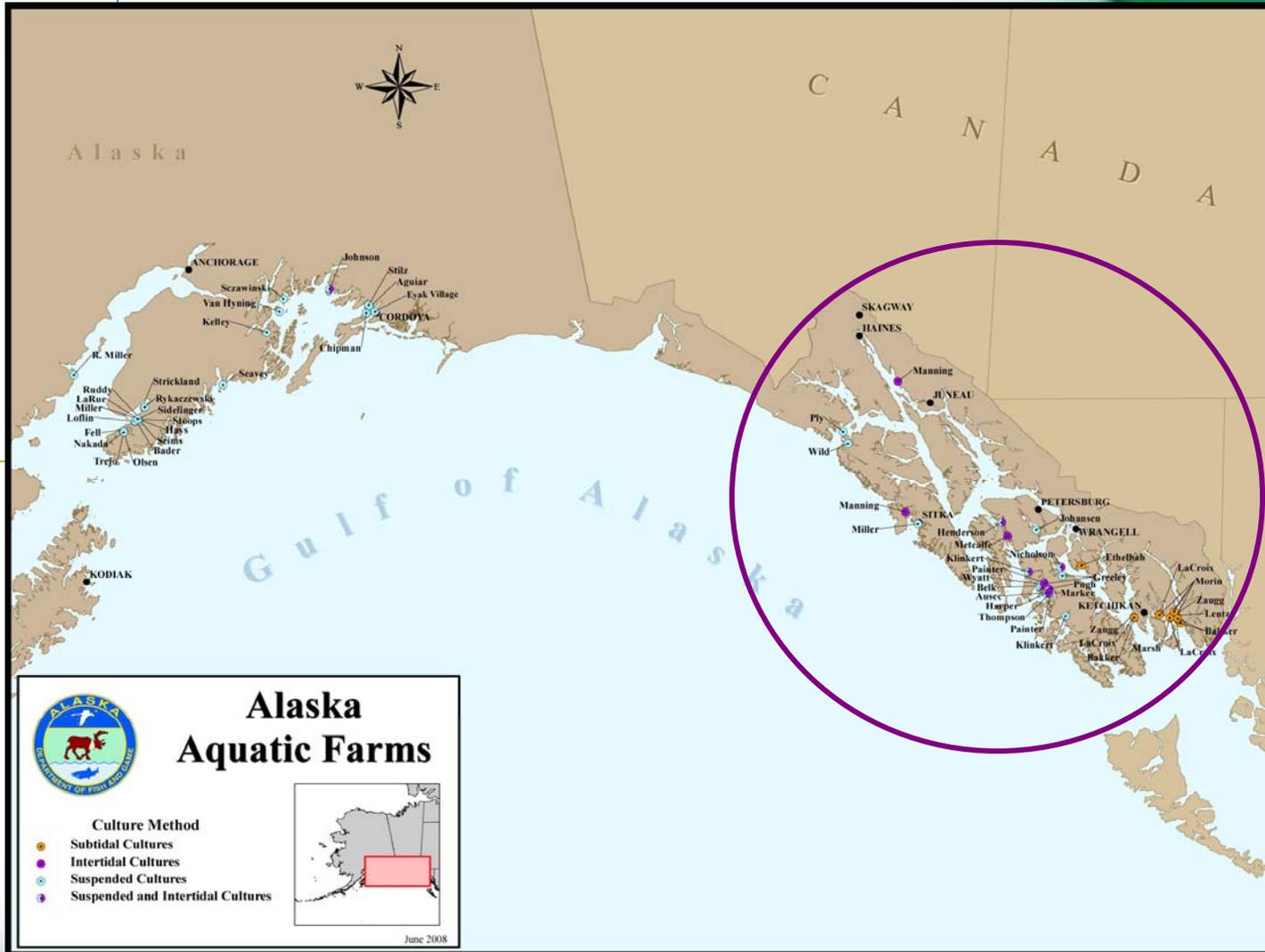
Board of Fisheries Shellfish Meeting
Petersburg, January 2009



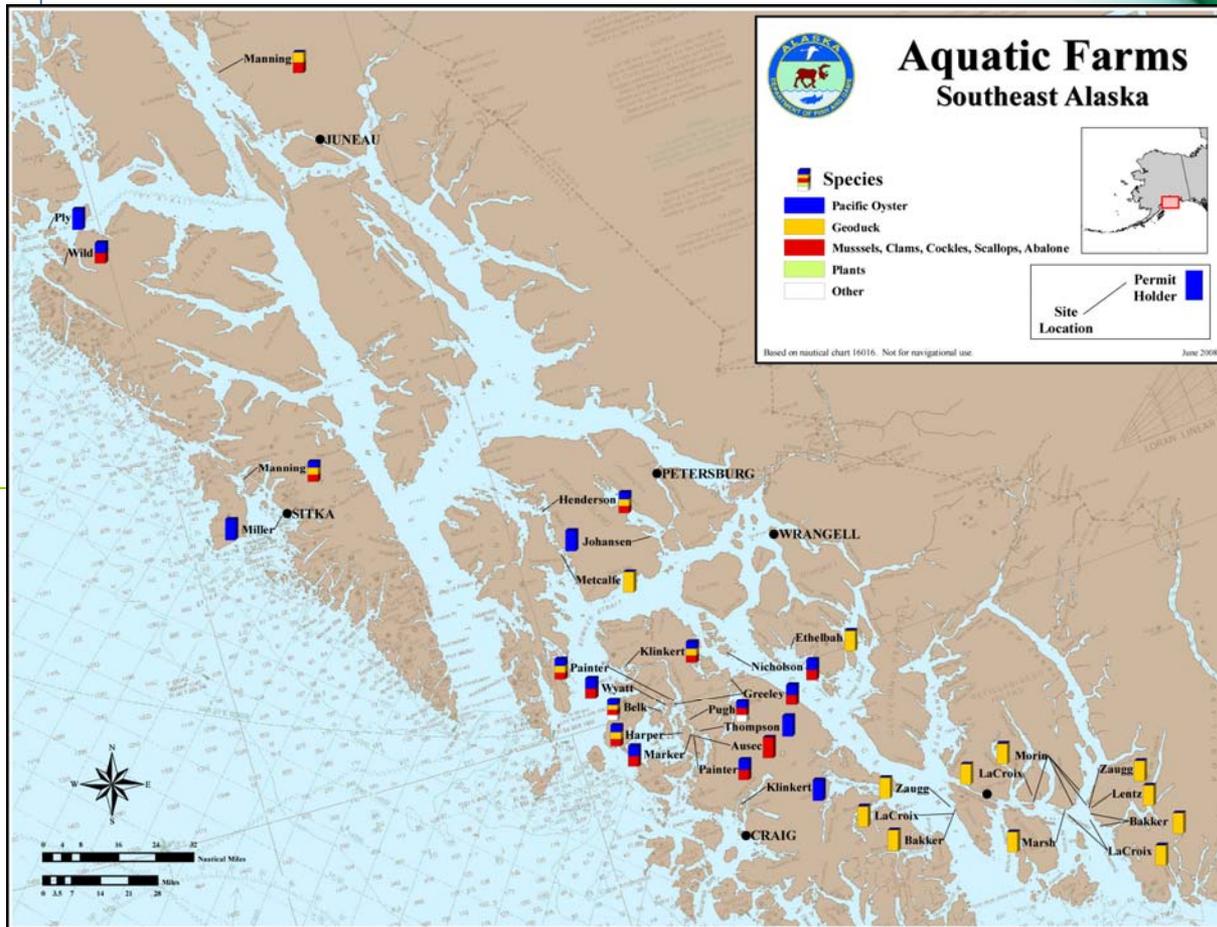
Mariculture Program Beginnings The Aquatic Farm Act

- Aquatic Farm Act – 1988
 - Issue permits to operate aquatic farms and shellfish hatcheries
 - Contribute to state's economy
 - Provide year-round supplies of premium quality Alaskan shellfish and aquatic plants

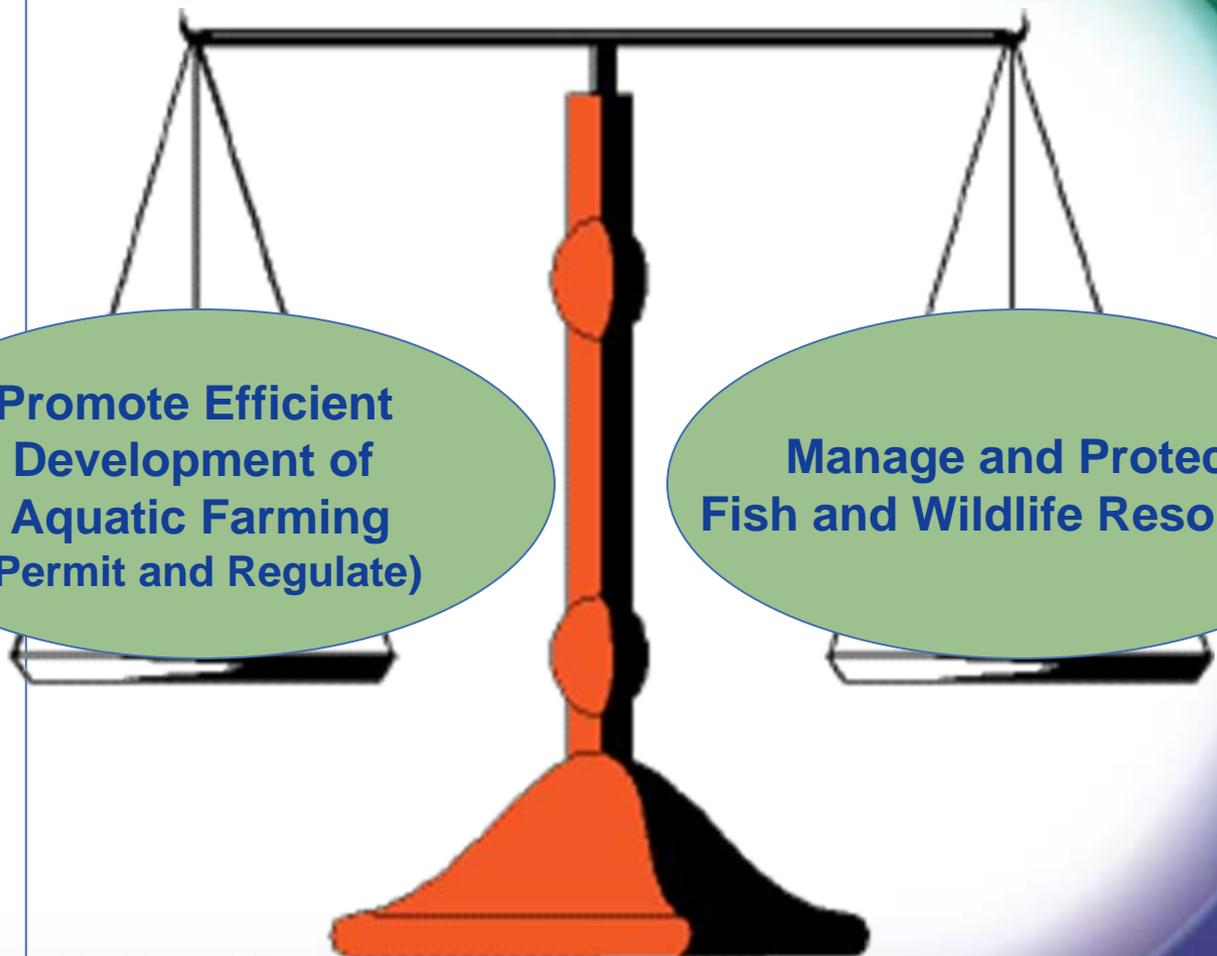
Aquatic Farm Site Locations



Southeast Aquatic Farms - Species Approved for Culture



ADF&G Missions



**Promote Efficient
Development of
Aquatic Farming
(Permit and Regulate)**

**Manage and Protect
Fish and Wildlife Resources**

How does one apply for a farm site?

- Opening - Every Two Years
 - Next one - January 1 - April 30, 2009
 - Multiagency Application and Batch Review Process
 - 9 - 15 months (suspended and intertidal) to 24 months (subtidal/on bottom)
- Over the Counter
 - Designated areas (HB208)
 - Available
 - Suspended culture: 76 areas/710 acres
 - Intertidal culture: 8 areas/55 acres
 - Subtidal culture: 0 acres
 - Pre-authorized Sites
 - Suspended culture: 11 sites = 45 acres
 - 3 - 6 months (suspended) to 12 months if survey required (intertidal or subtidal/on bottom)

Aquatic Farm Permitting

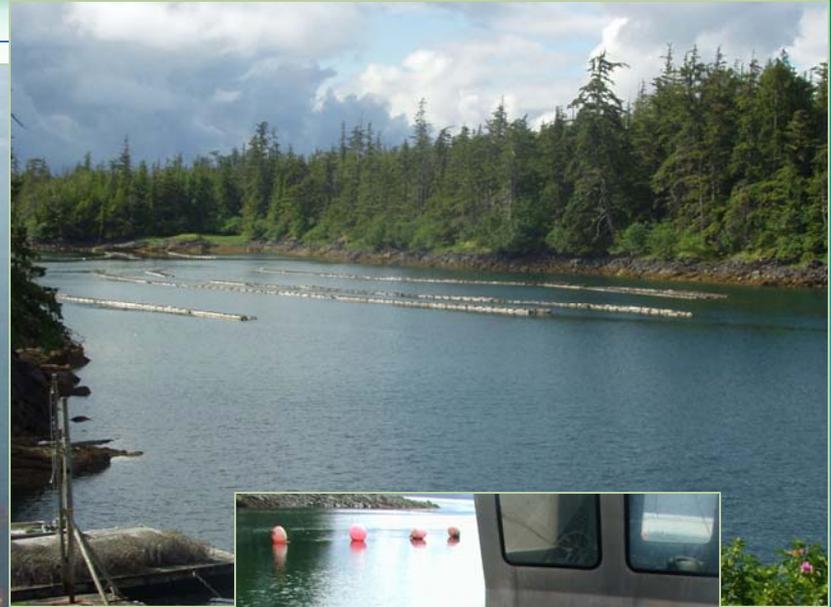
**Statewide
Batch Process
Method**

**DNR
CONSISTENCY
REVIEW
AND LEASE**

**ADF&G
OPERATION
PERMITS**

**DEC
Water Classification
Shipper and Harvest
Permits**

Aquatic Farm Permits - Oysters



92%

Aquatic Farm Permits - Littleneck Clams & Mussels



8%

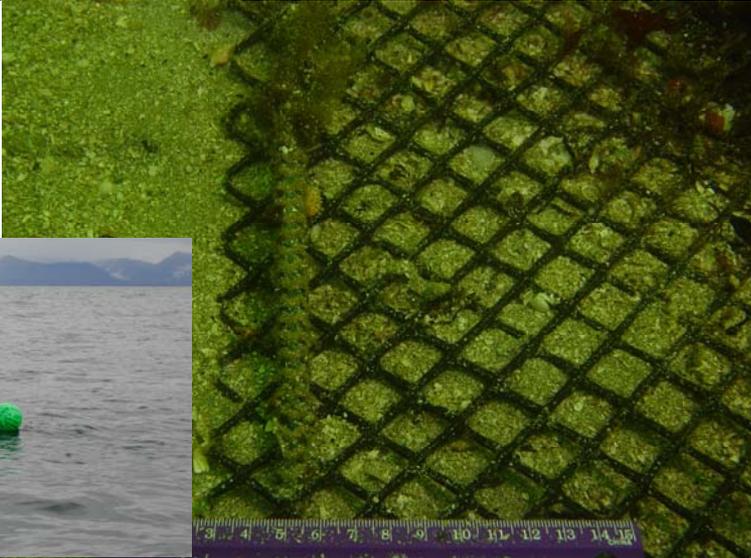


<1%



Aquatic Farm Permits – Geoducks

SUBTIDAL



INTERTIDIAL



Hatchery Operation Permits and Certifications

- **Alutiiq Pride Shellfish Hatchery – Seward**



Nursery Operation Permits and Certifications

- 5 Nurseries



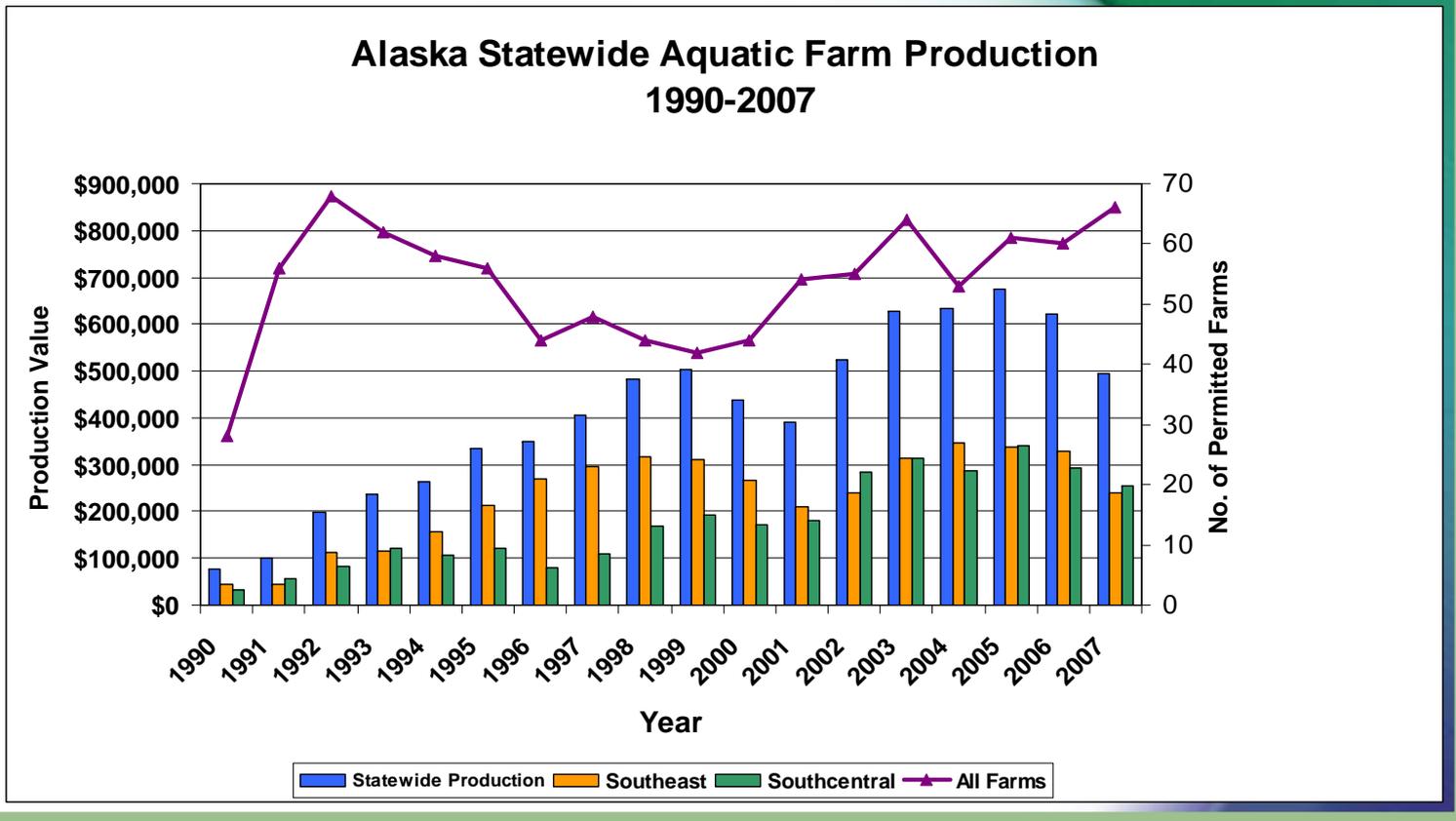
Shellfish Acquisition and Transport Permits

- **Protect health of Alaskan shellfish**
- **Protect genetic integrity of stocks**
- **Prevent the introduction of invasive species**



Don Nicholson and Sharon Gray,
Canoe Lagoon Oyster Co.
Blashke Islands

Statewide Aquatic Farm Production



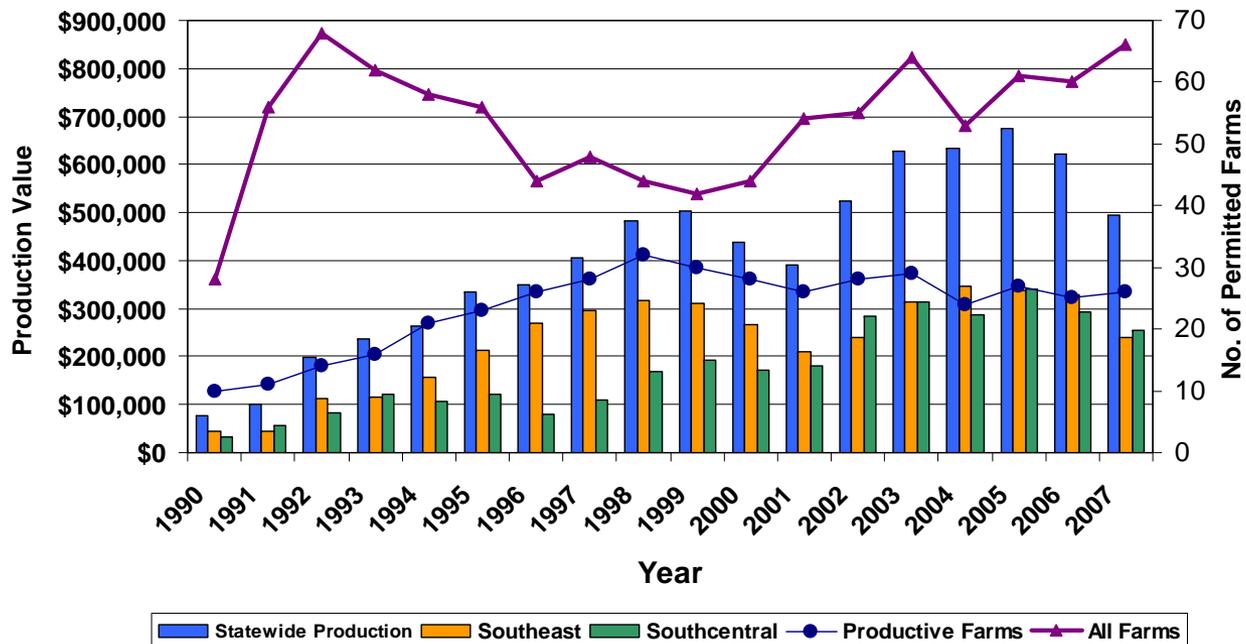
Statewide

- 66 active permits
- \$493,458 value
- 325 acres

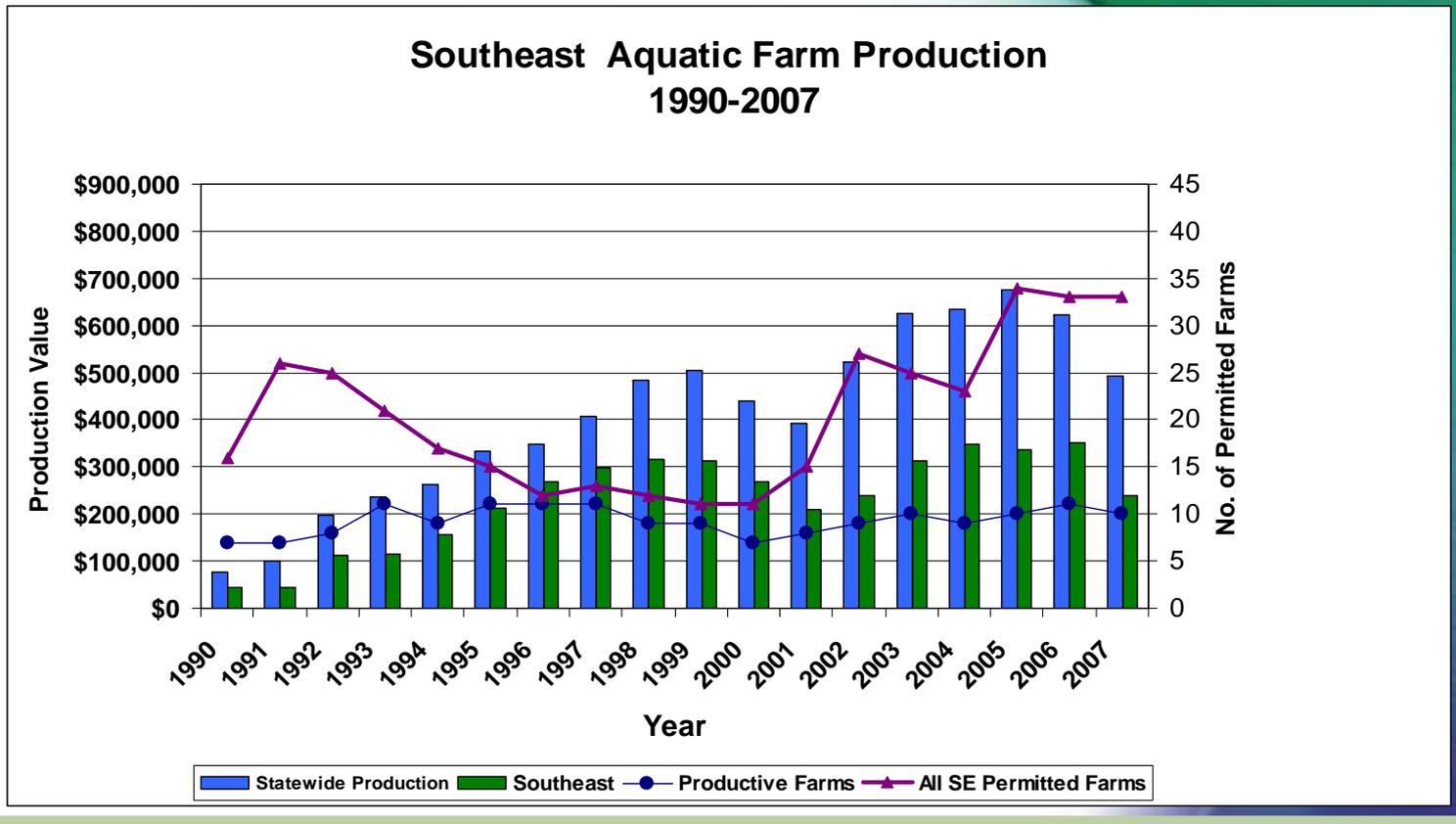
Statewide Aquatic Farm Production

Statewide
39% of
farms are
productive

Alaska Statewide Aquatic Farm Production 1990-2007



Southeast Aquatic Farm Production

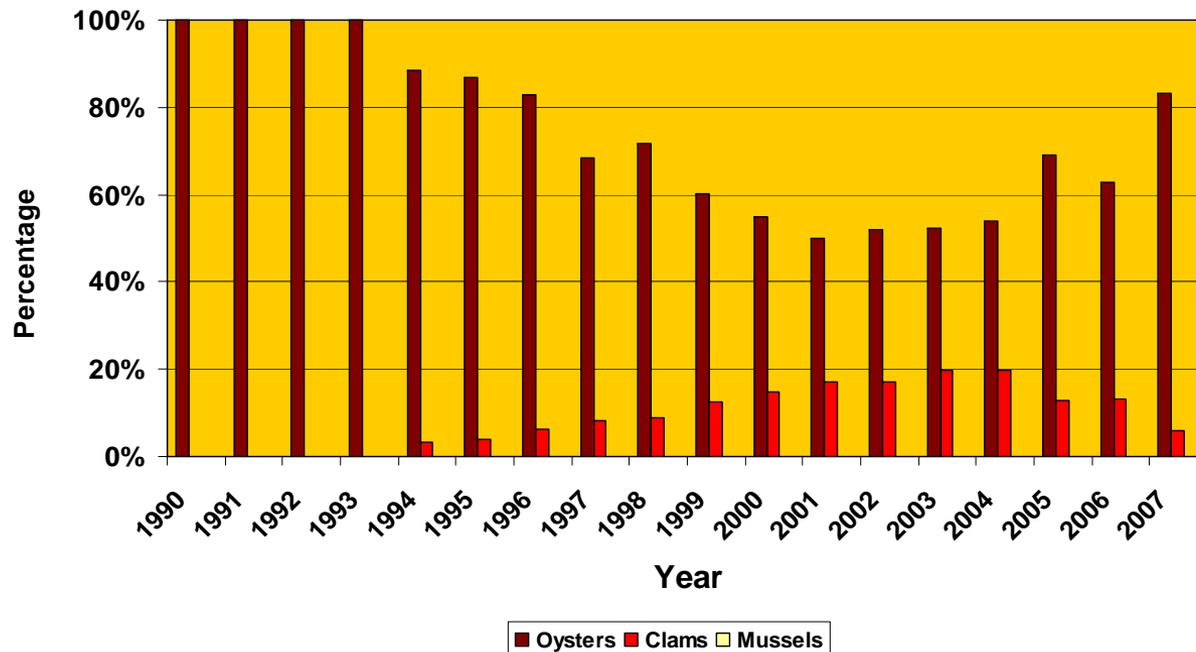


Southeast

- 48% of total production in SE
- 50% of active permits in SE
- 30% in SE productive
- 65% of total acres in SE

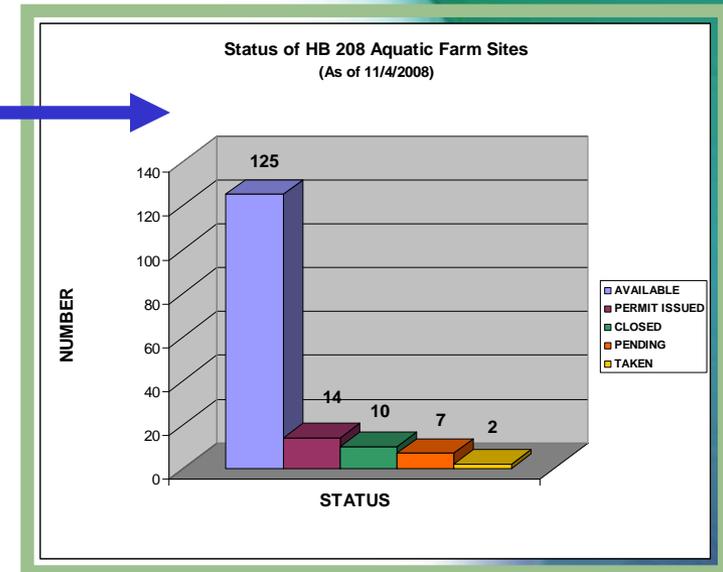
Southeast Production by Species

**Southeast Aquatic Farm Percentage Production By Species
1990-2007**



Status of Sites Applied for within HB 208 Areas

- 158 designated areas made available for lease by DNR in 2003
- Status
20% Taken – DNR/OTC Program
 - 14 sites permitted
 - 10 sites closed or withdrawn
 - 7 sites pending
 - 2 sites taken
- Problems
 - Remote Locations
 - Biomass Survey and Fee Not Paid (intertidal and subtidal only)
 - Applicant or permit holder change mind or have incomplete information



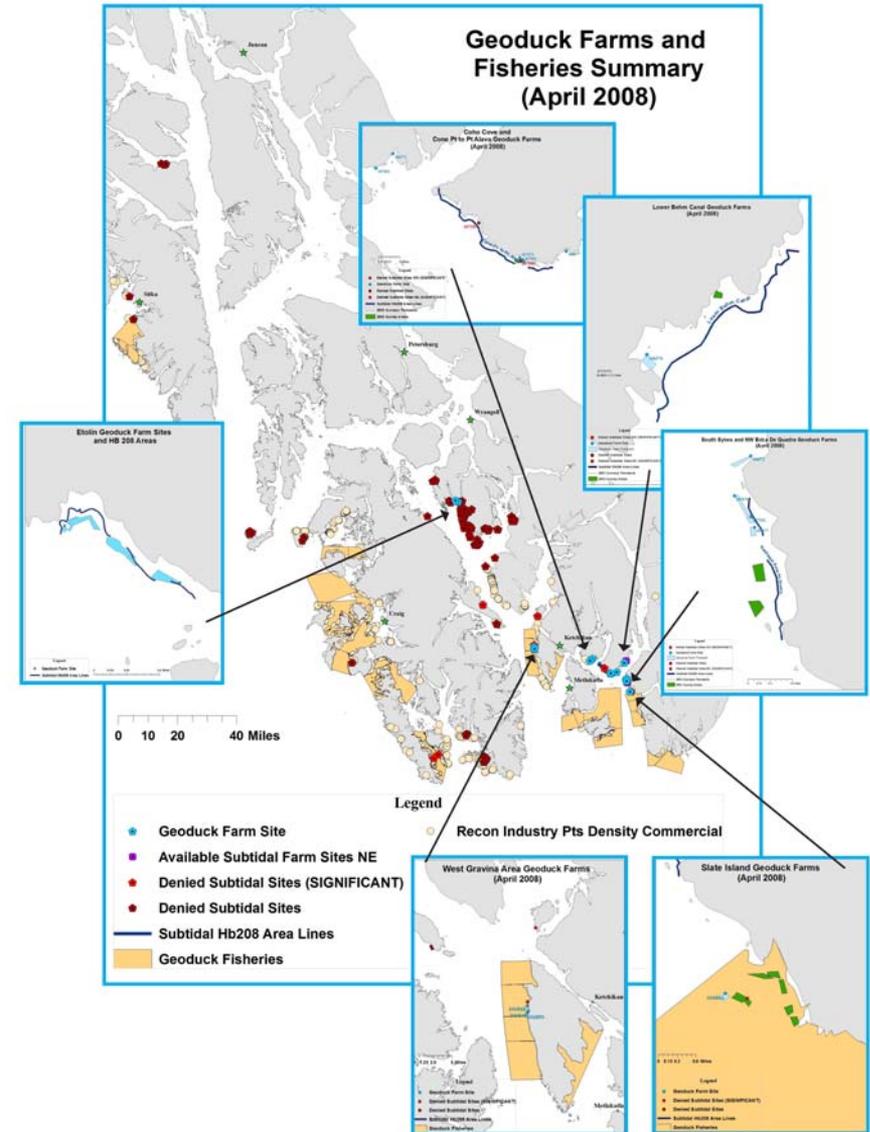
Geoduck Farming

- 22 Farm Sites
 - 5 intertidal and 17 subtidal
 - No production yet



Subtidal Geoduck Farm Provisions

- Insignificant Wild Stock Threshold
 - No more than 2000 lbs of geoduck per acre
 - Determined by Biomass Survey
 - Payment of Survey Fee with Application
 - \$5,000 cap/farm site
- Restoration of Wild Stock Harvested
 - Notification of Landings
 - Record of No. of Geoduck Harvested
 - Security
 - Assurance for performance
 - Certificate of Deposit Established between State of Alaska and Permit Holder
 - Return at Termination when provision met



Future Activities



Alutiiq Pride Shellfish Hatchery Management Plan



ArcGIS Farm Review Software Application



Mariculture Development Zones



OceansAlaska Research Advisory Coordination

Questions



Photo by David Petree, ADF&G
Kahli Cove, SE Alaska