



**NOAA  
FISHERIES**

Alaska Region

# BSAI Inseason Management Report

December 2019

Catch data are through November 9, 2019

Management reports can be found at:

<https://www.fisheries.noaa.gov/alaska/commercial-fishing/fisheries-catch-and-landings-reports>

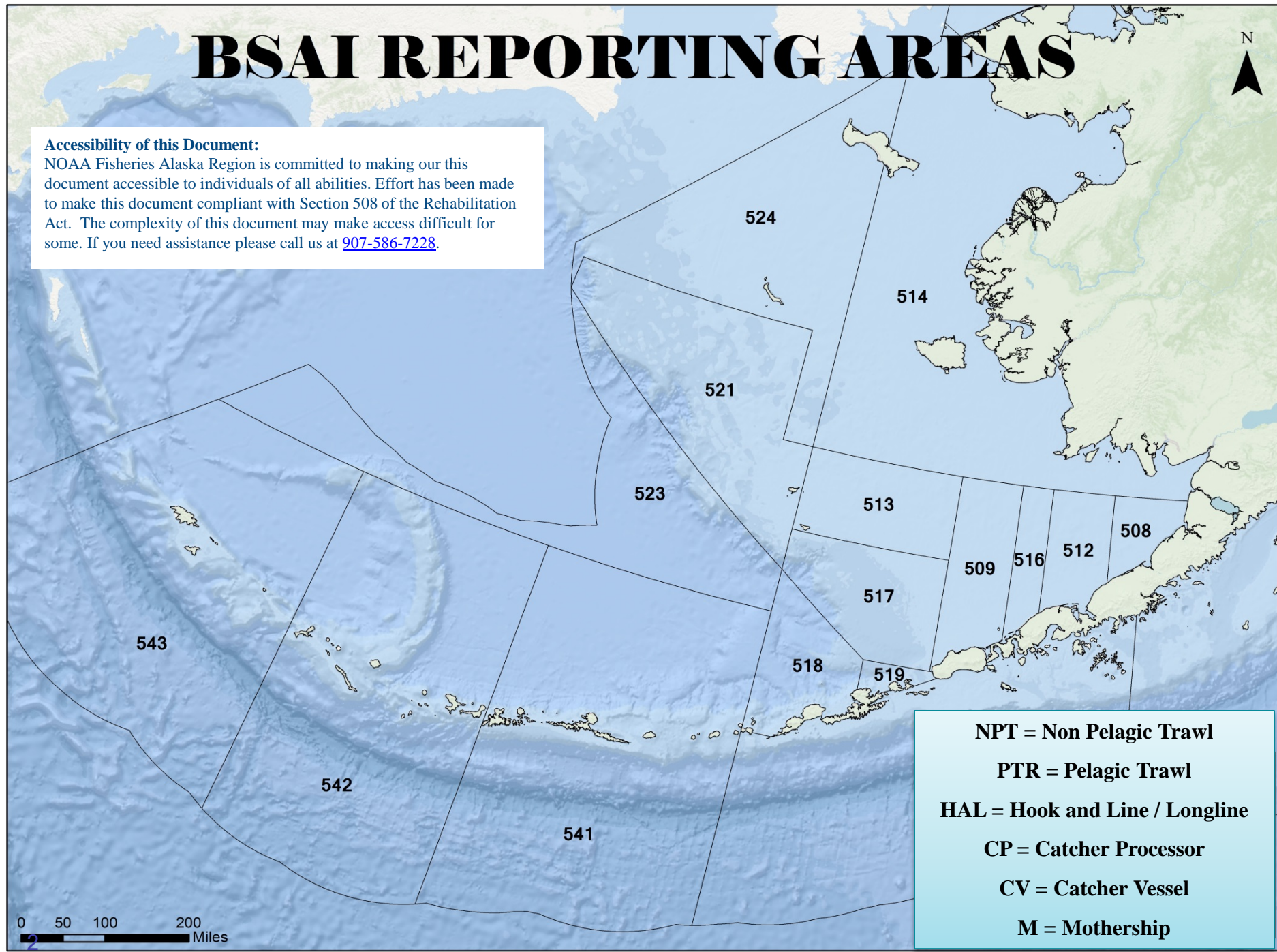
Report Prepared by:  
Josh Keaton  
November 2019

# BSAI REPORTING AREAS



## Accessibility of this Document:

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**NPT = Non Pelagic Trawl**

**PTR = Pelagic Trawl**

**HAL = Hook and Line / Longline**

**CP = Catcher Processor**

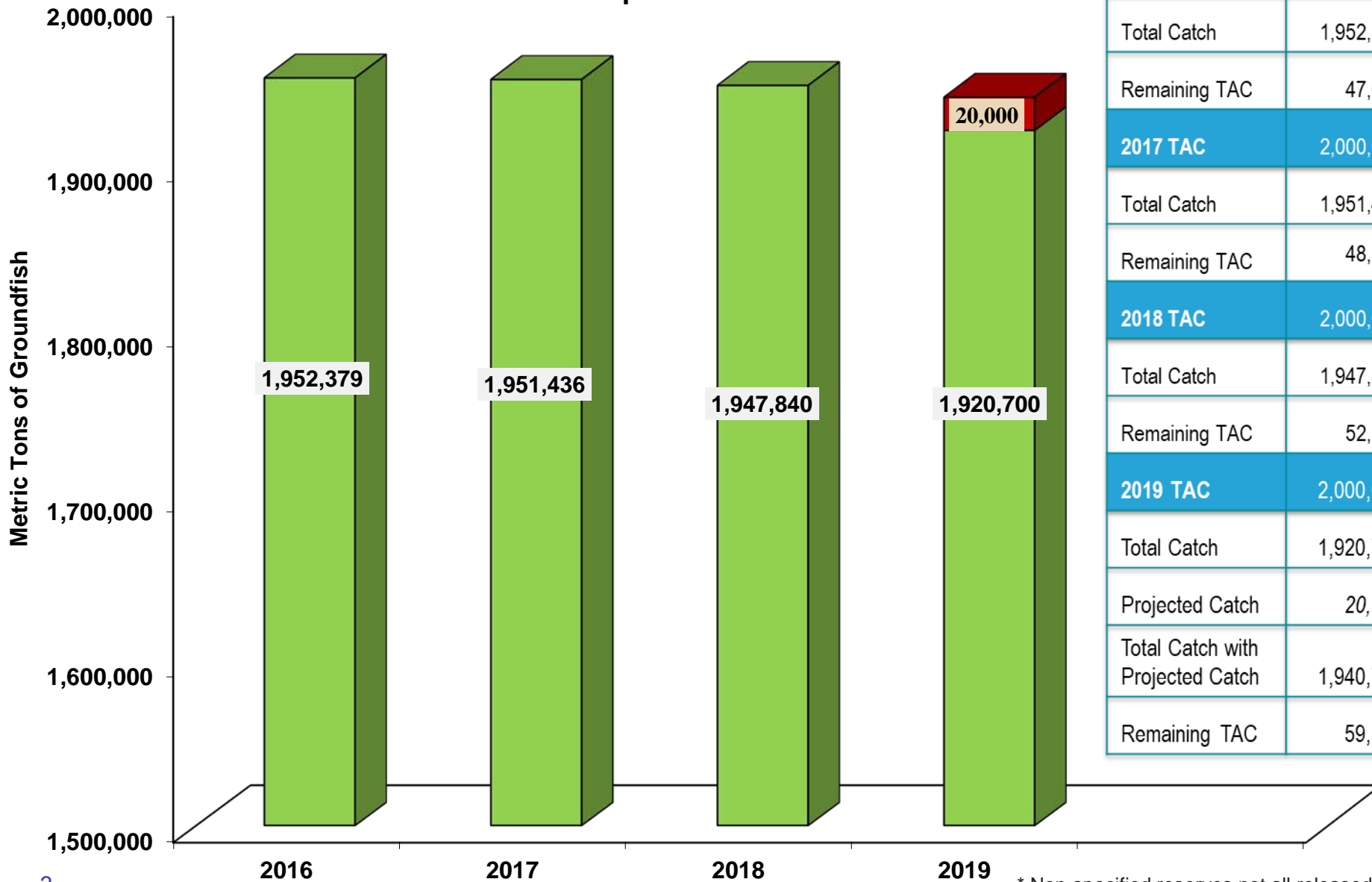
**CV = Catcher Vessel**

**M = Mothership**

0 50 100 200 Miles

# 2016-2019 BSAI Total Catch

■ Anticipated Catch    ■ Total Catch

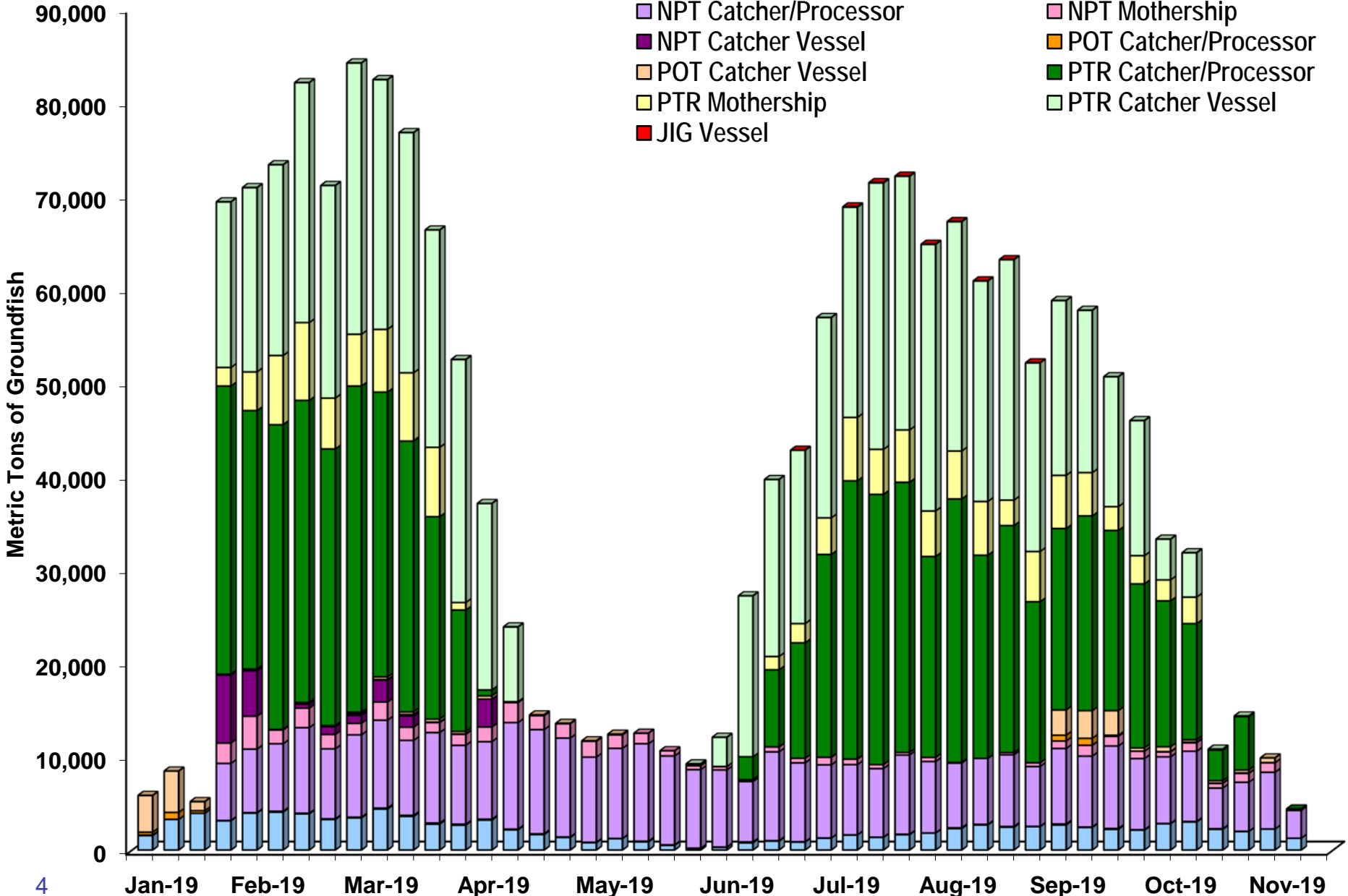


<b>2016 TAC</b>	2,000,000
Total Catch	1,952,379
Remaining TAC	47,621
<b>2017 TAC</b>	2,000,000
Total Catch	1,951,436
Remaining TAC	48,564
<b>2018 TAC</b>	2,000,000
Total Catch	1,947,840
Remaining TAC	52,160
<b>2019 TAC</b>	2,000,000
Total Catch	1,920,700
Projected Catch	20,000
Total Catch with Projected Catch	1,940,700
Remaining TAC	59,300

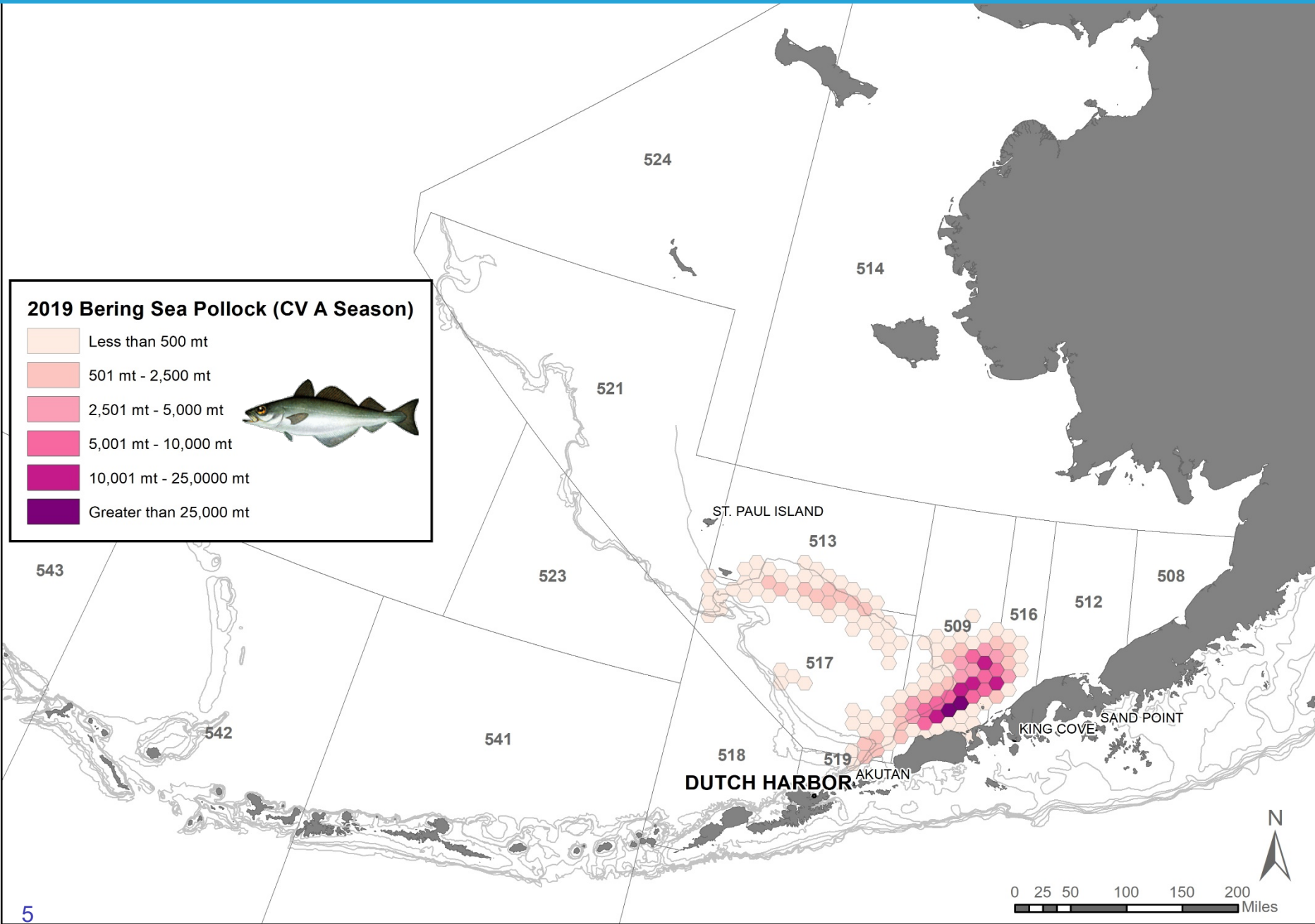
\* Non-specified reserves not all released

# 2019 BSAI Total Groundfish Catch by Gear & Sector

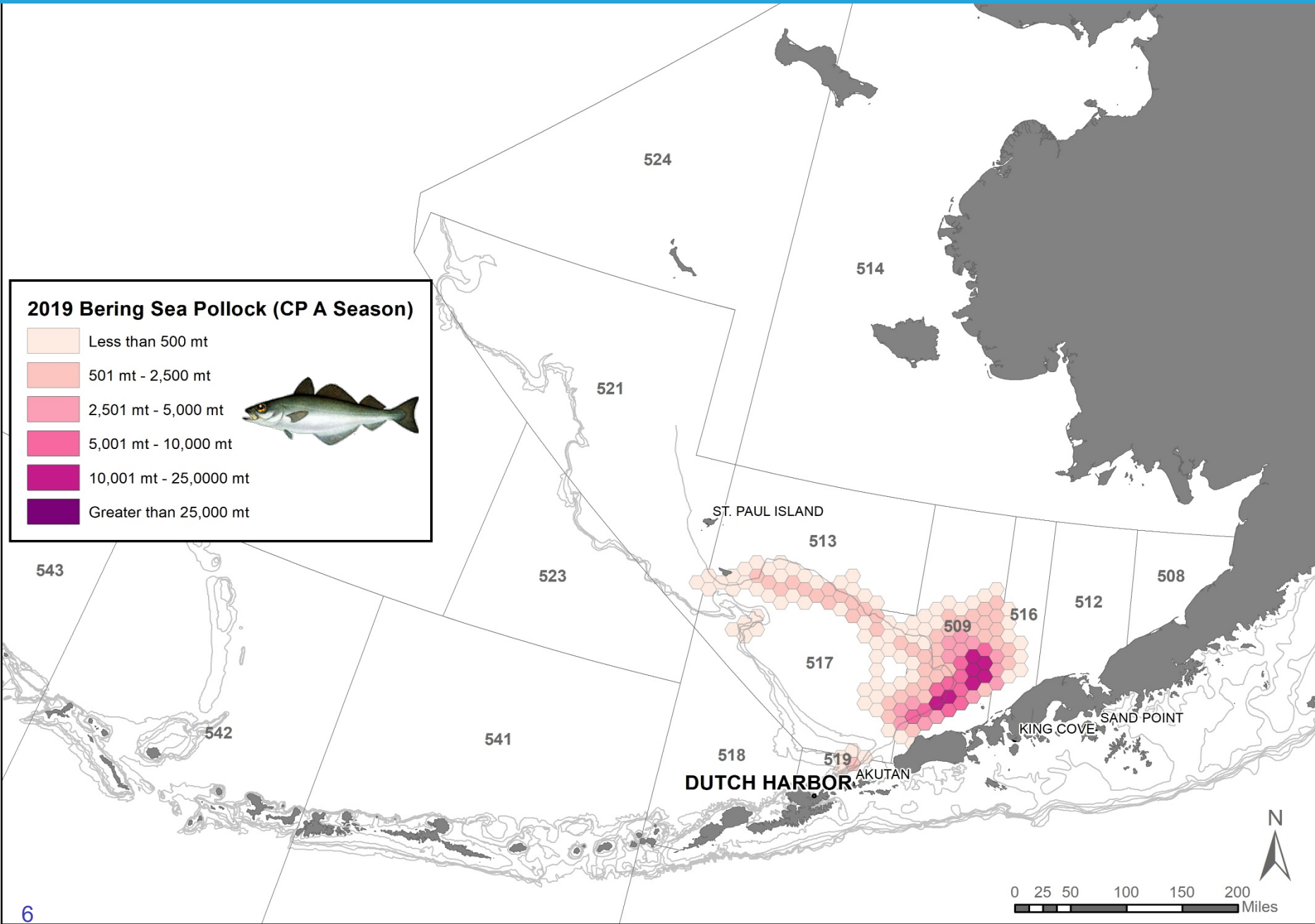
- HAL Catcher/Processor
- HAL Catcher Vessel
- NPT Catcher/Processor
- NPT Mothership
- NPT Catcher Vessel
- POT Catcher/Processor
- PTR Mothership
- PTR Catcher/Processor
- PTR Catcher Vessel
- JIG Vessel



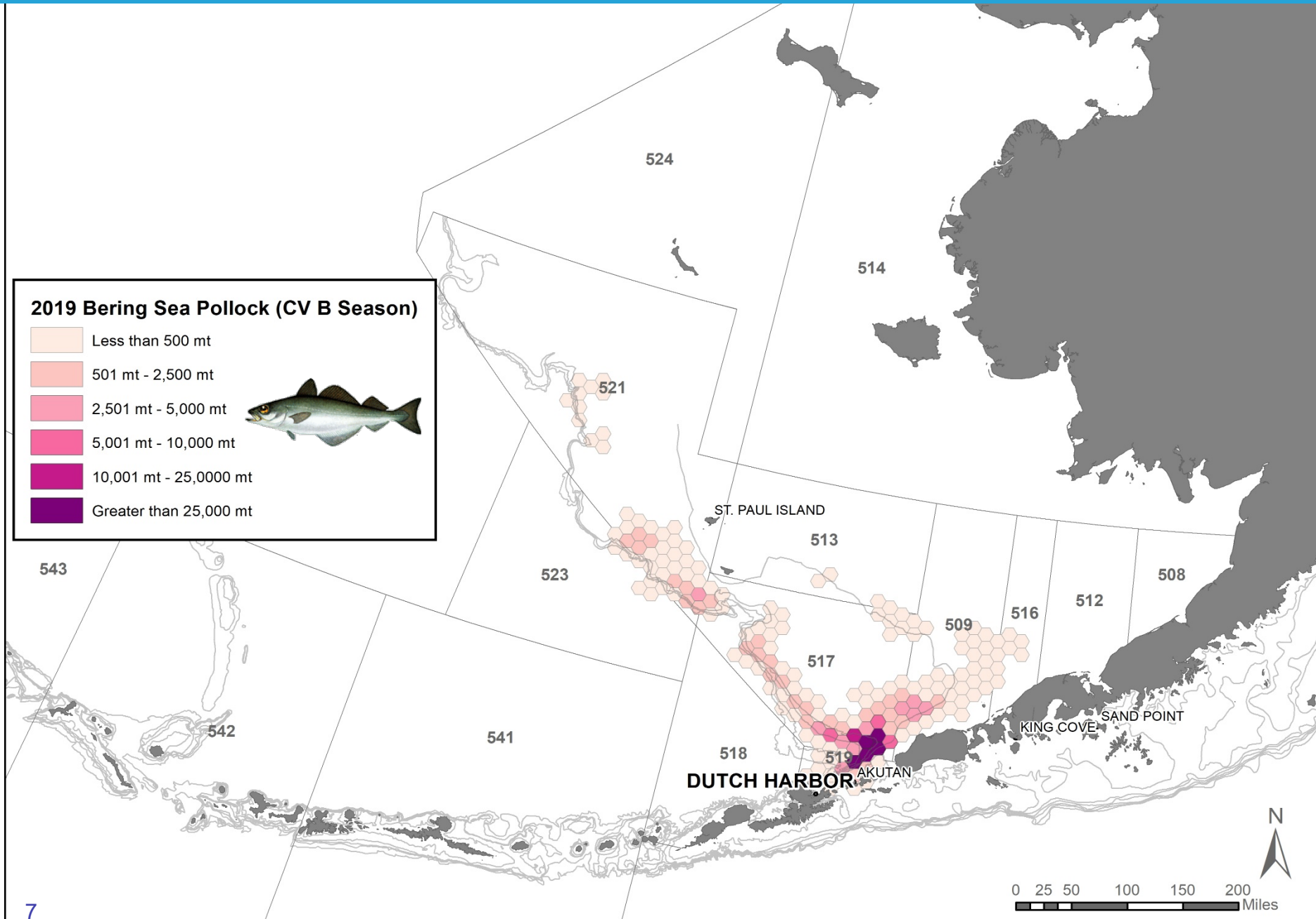
# 2019 A Season Bering Sea Pollock Directed Fishery (CV)



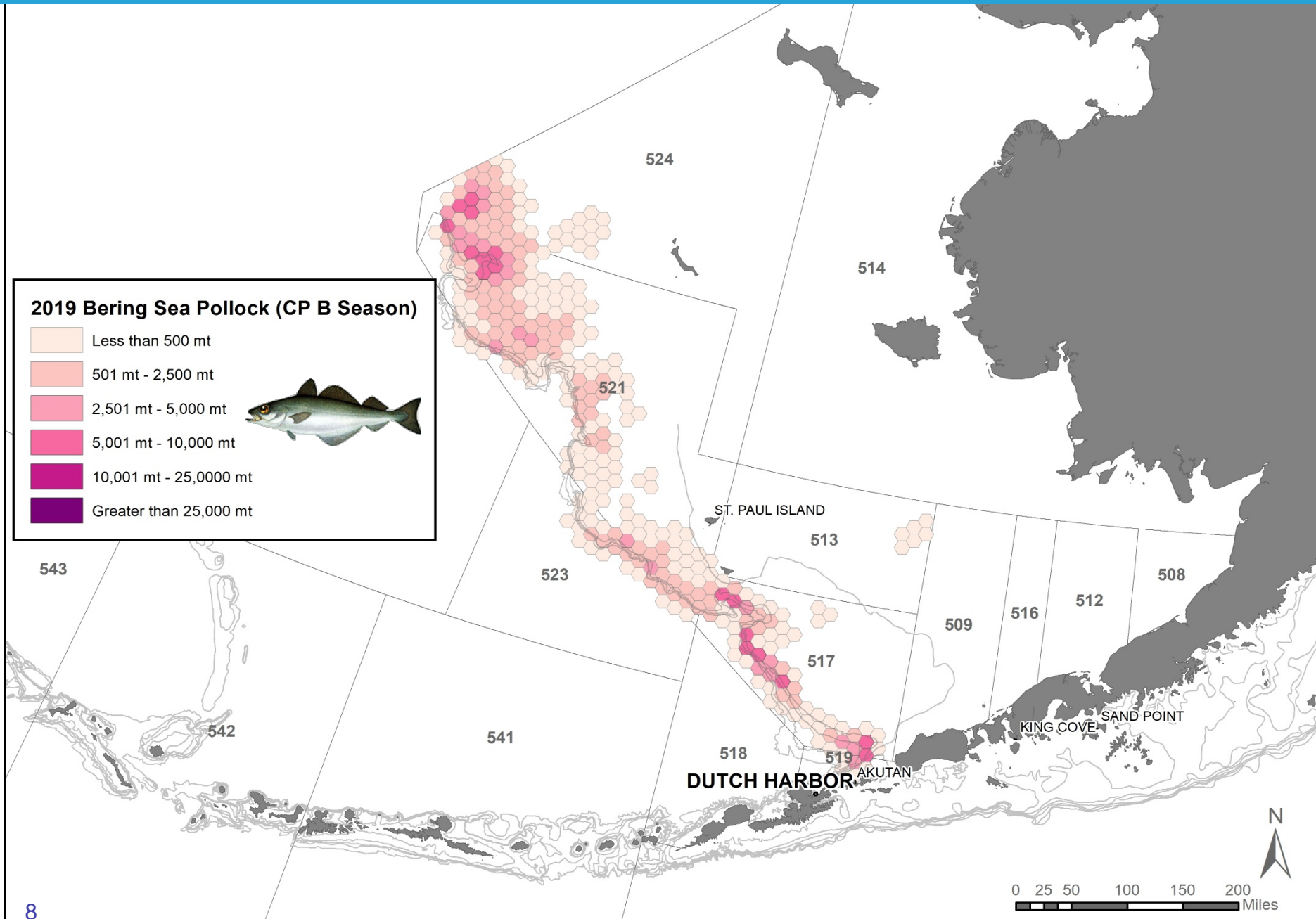
# 2019 A Season Bering Sea Pollock Directed Fishery (CP)



# 2019 B Season Bering Sea Pollock Directed Fishery (CV)



# 2019 B Season Bering Sea Pollock Directed Fishery (CP)



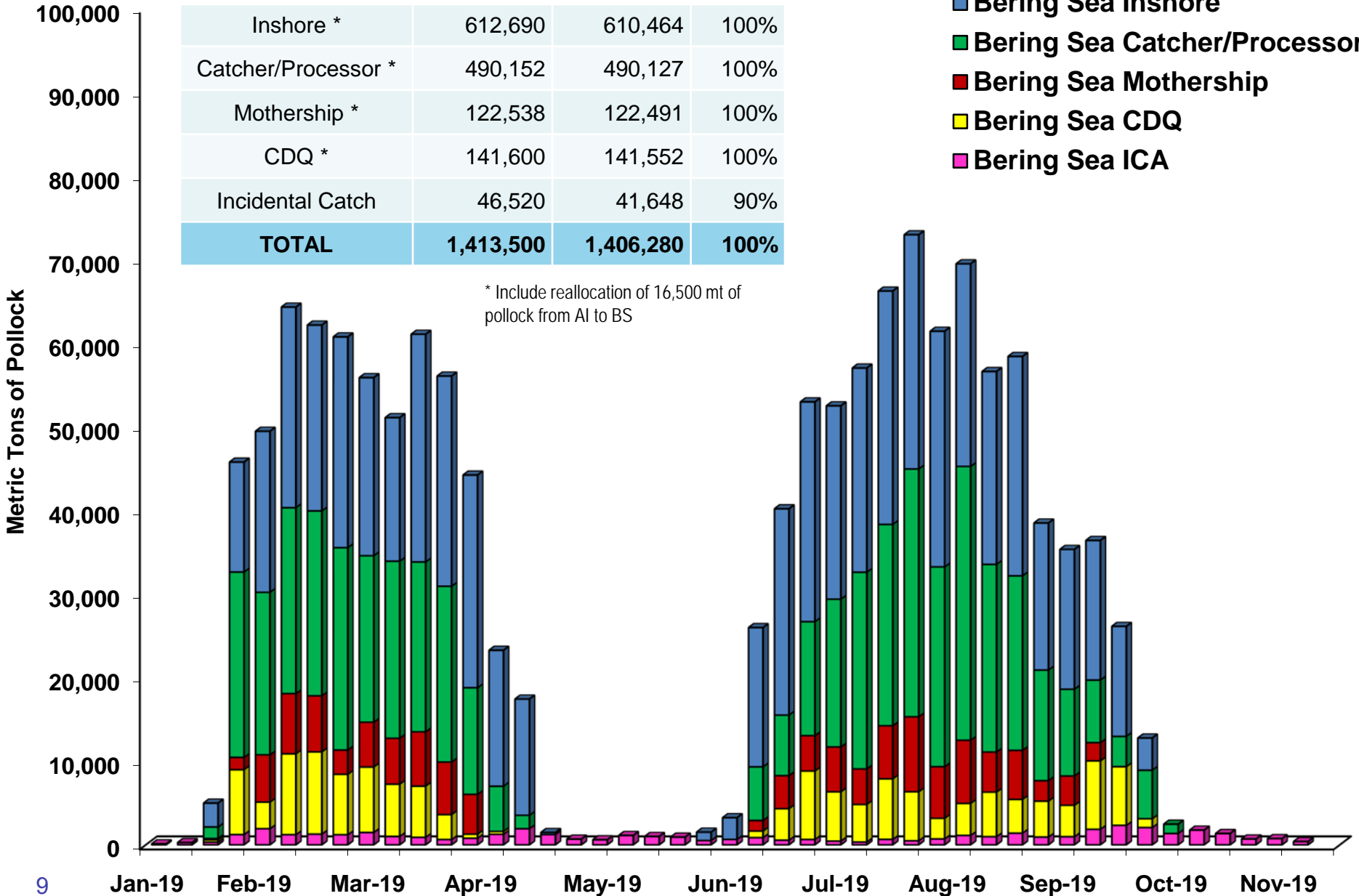


# 2019 Bering Sea Pollock Catch by Week and Sector

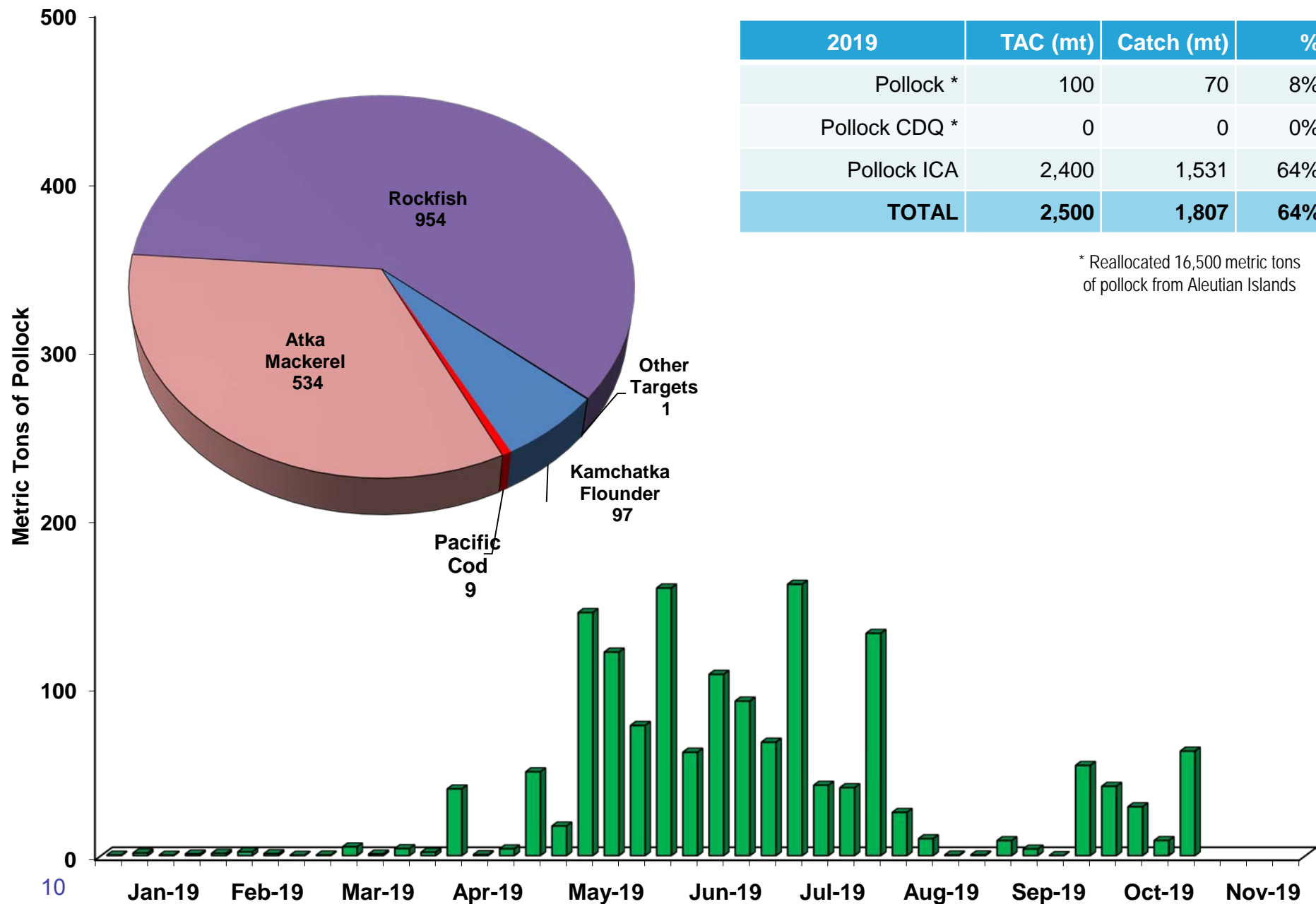
2019	TAC (mt)	Catch (mt)	%
Inshore *	612,690	610,464	100%
Catcher/Processor *	490,152	490,127	100%
Mothership *	122,538	122,491	100%
CDQ *	141,600	141,552	100%
Incidental Catch	46,520	41,648	90%
<b>TOTAL</b>	<b>1,413,500</b>	<b>1,406,280</b>	<b>100%</b>

- Bering Sea Inshore
- Bering Sea Catcher/Processor
- Bering Sea Mothership
- Bering Sea CDQ
- Bering Sea ICA

\* Include reallocation of 16,500 mt of pollock from AI to BS



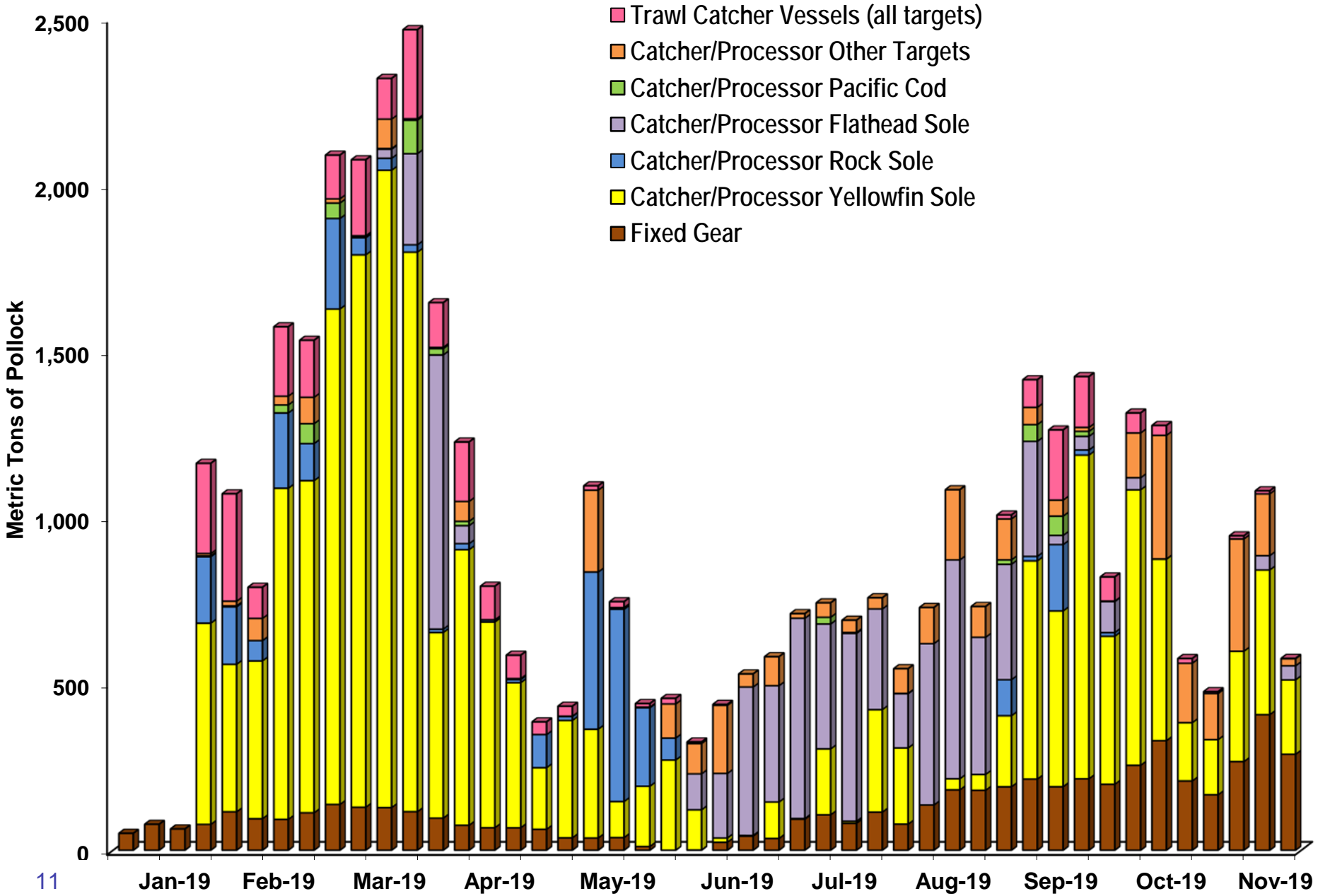
# 2019 Aleutian Islands Pollock Catch by Week and Sector



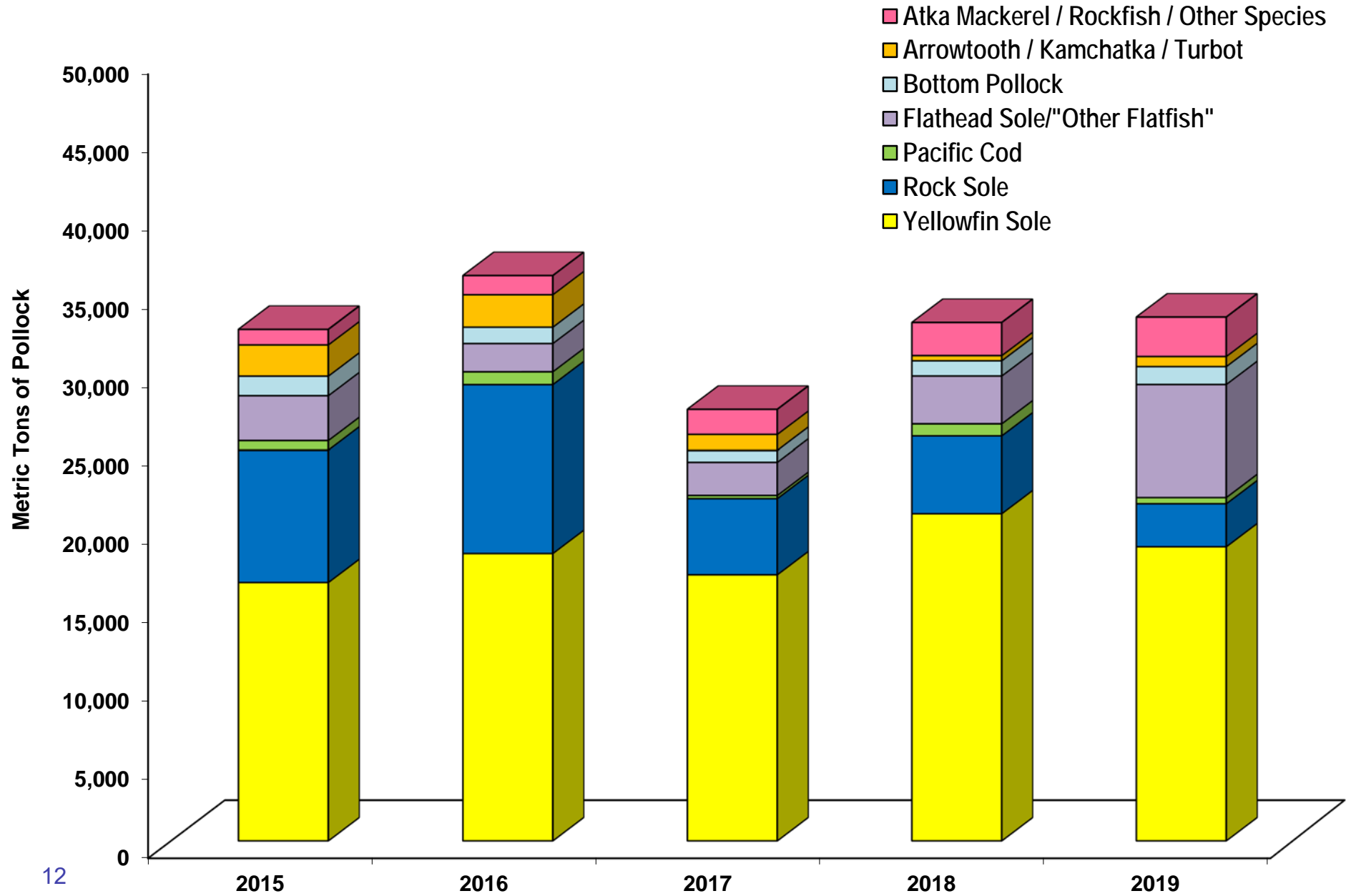
2019	TAC (mt)	Catch (mt)	%
Pollock *	100	70	8%
Pollock CDQ *	0	0	0%
Pollock ICA	2,400	1,531	64%
<b>TOTAL</b>	<b>2,500</b>	<b>1,807</b>	<b>64%</b>

\* Reallocated 16,500 metric tons of pollock from Aleutian Islands

# 2019 Bering Sea Pollock ICA Catch by Week and Sector

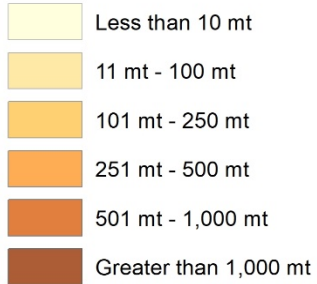


# 2015-2019 Trawl Catcher/Processor Incidental Catch of Pollock by Year and Target

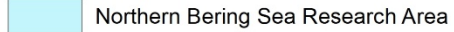


# 2019 Pacific Cod Catch by Trawl Gear

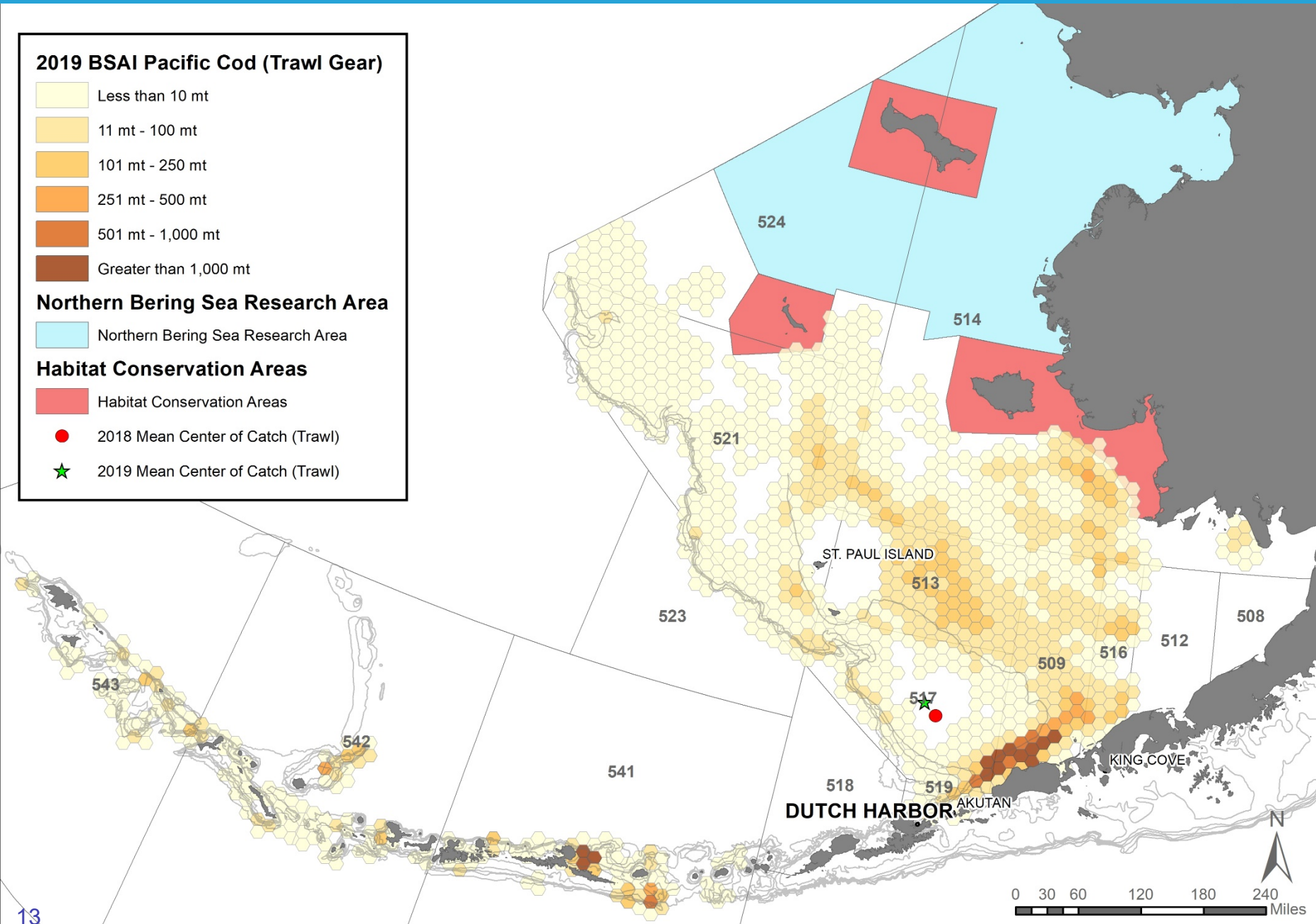
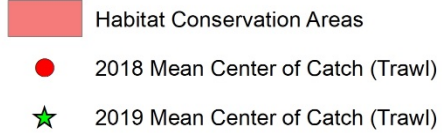
## 2019 BSAI Pacific Cod (Trawl Gear)



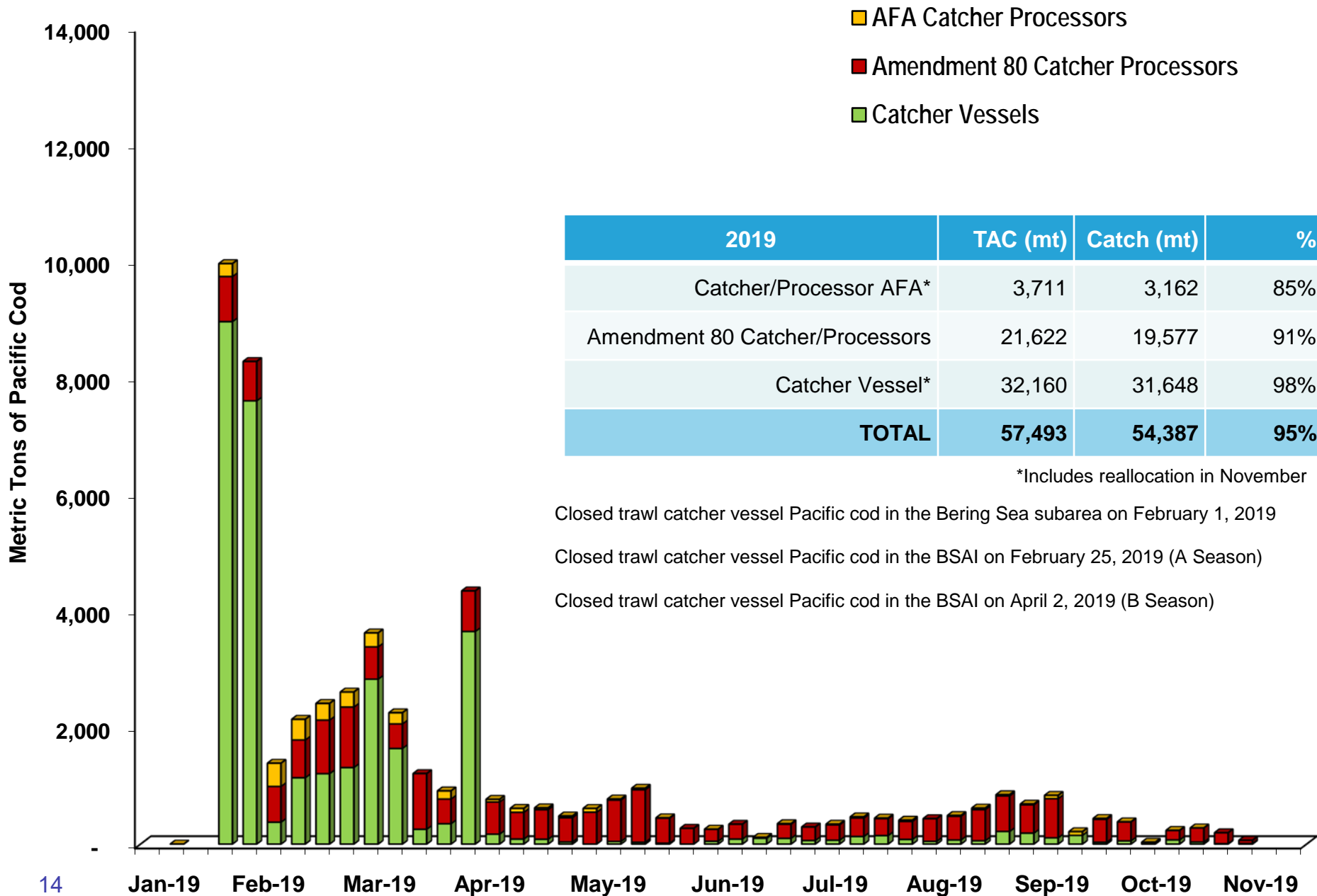
## Northern Bering Sea Research Area



## Habitat Conservation Areas



# 2019 BSAI Trawl Pacific Cod Catch



2019	TAC (mt)	Catch (mt)	%
Catcher/Processor AFA*	3,711	3,162	85%
Amendment 80 Catcher/Processors	21,622	19,577	91%
Catcher Vessel*	32,160	31,648	98%
<b>TOTAL</b>	<b>57,493</b>	<b>54,387</b>	<b>95%</b>

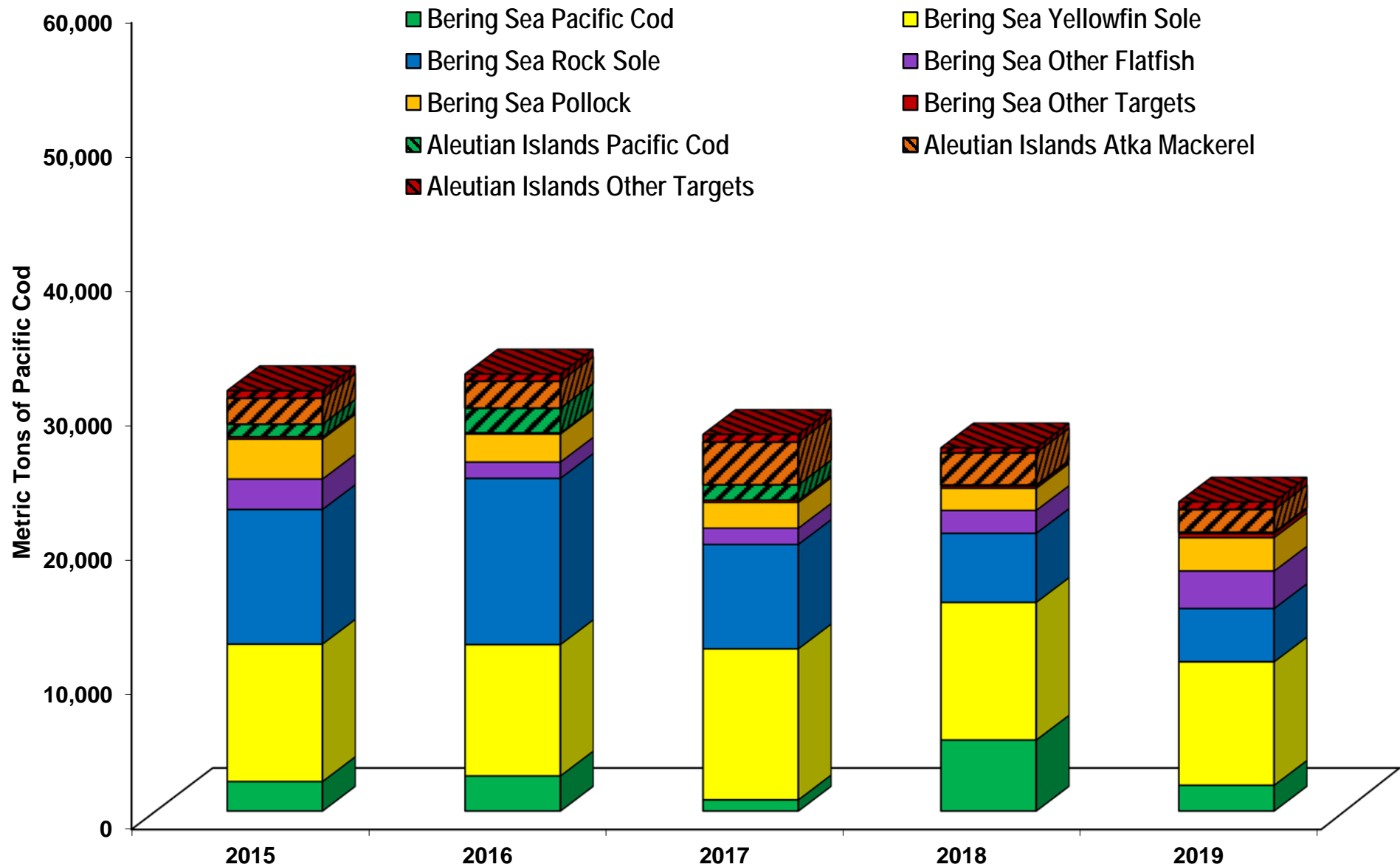
\*Includes reallocation in November

Closed trawl catcher vessel Pacific cod in the Bering Sea subarea on February 1, 2019

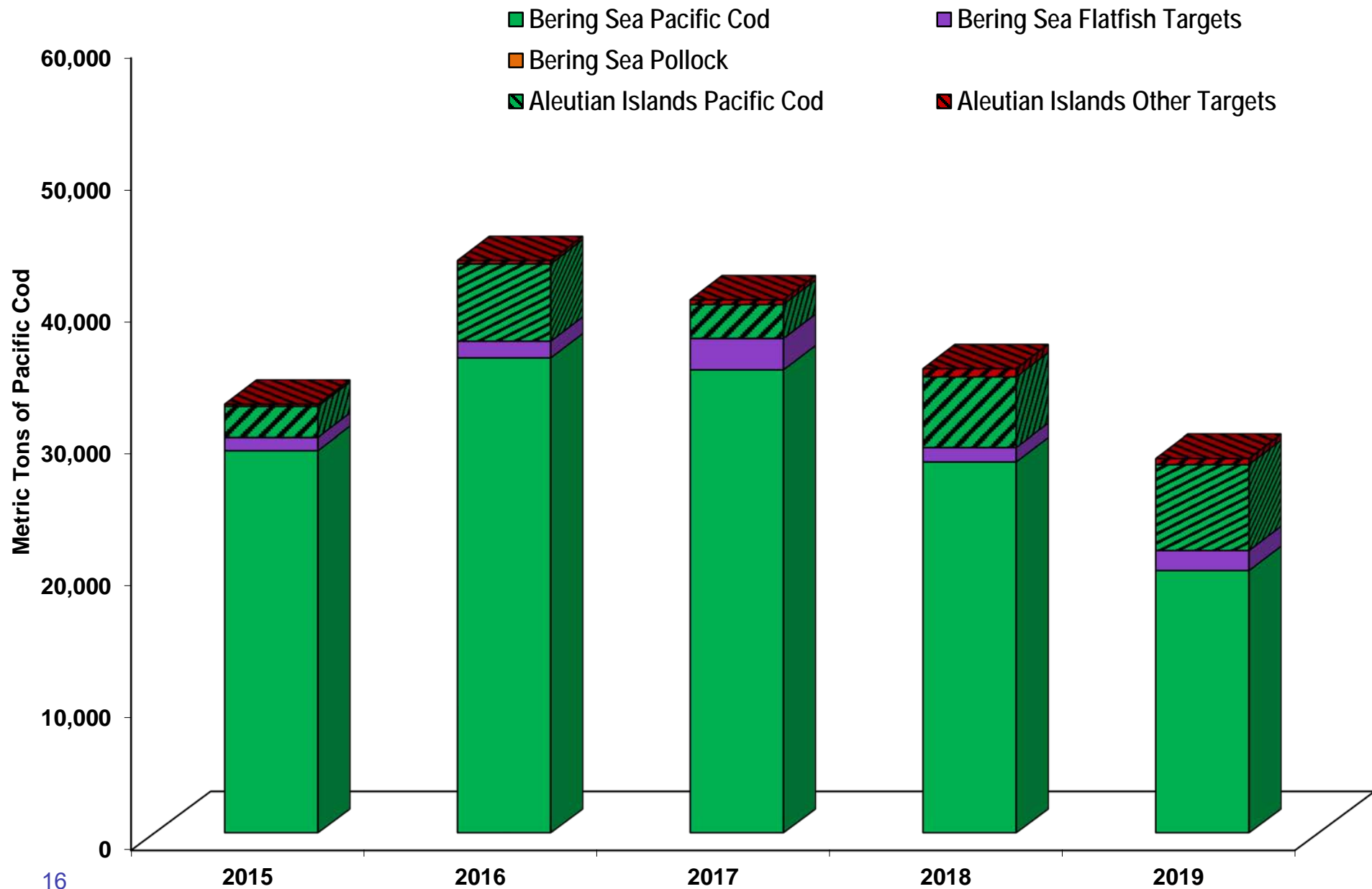
Closed trawl catcher vessel Pacific cod in the BSAI on February 25, 2019 (A Season)

Closed trawl catcher vessel Pacific cod in the BSAI on April 2, 2019 (B Season)

# 2015-2019 BSAI Trawl Catcher/Processor Pacific Cod Catch by Target

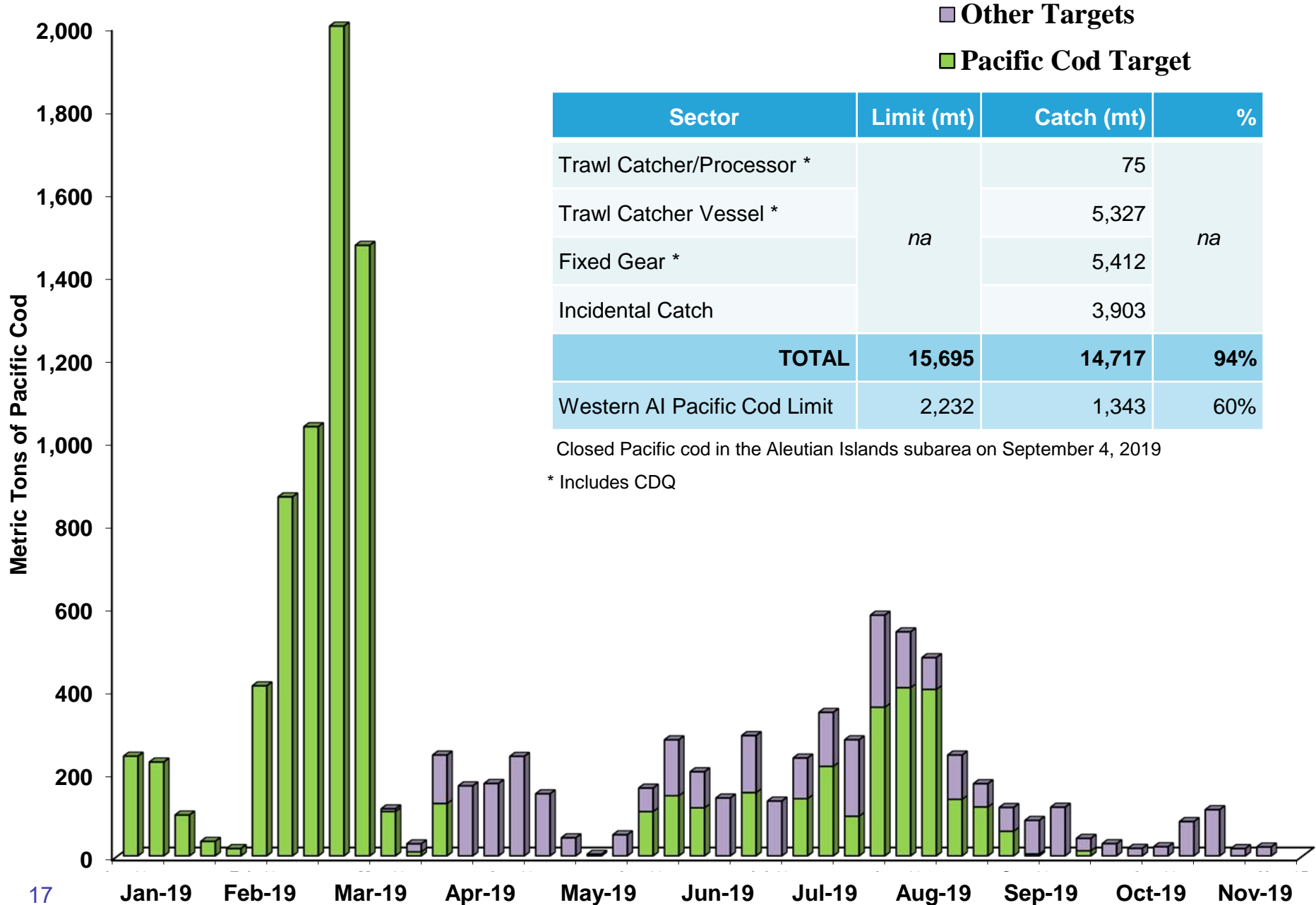


# 2015-2019 BSAI Trawl Catcher Vessel Pacific Cod Catch by Target





# 2019 Aleutian Islands Pacific Cod Catch



# 2019 Pacific Cod Catch by Non-Trawl Gear

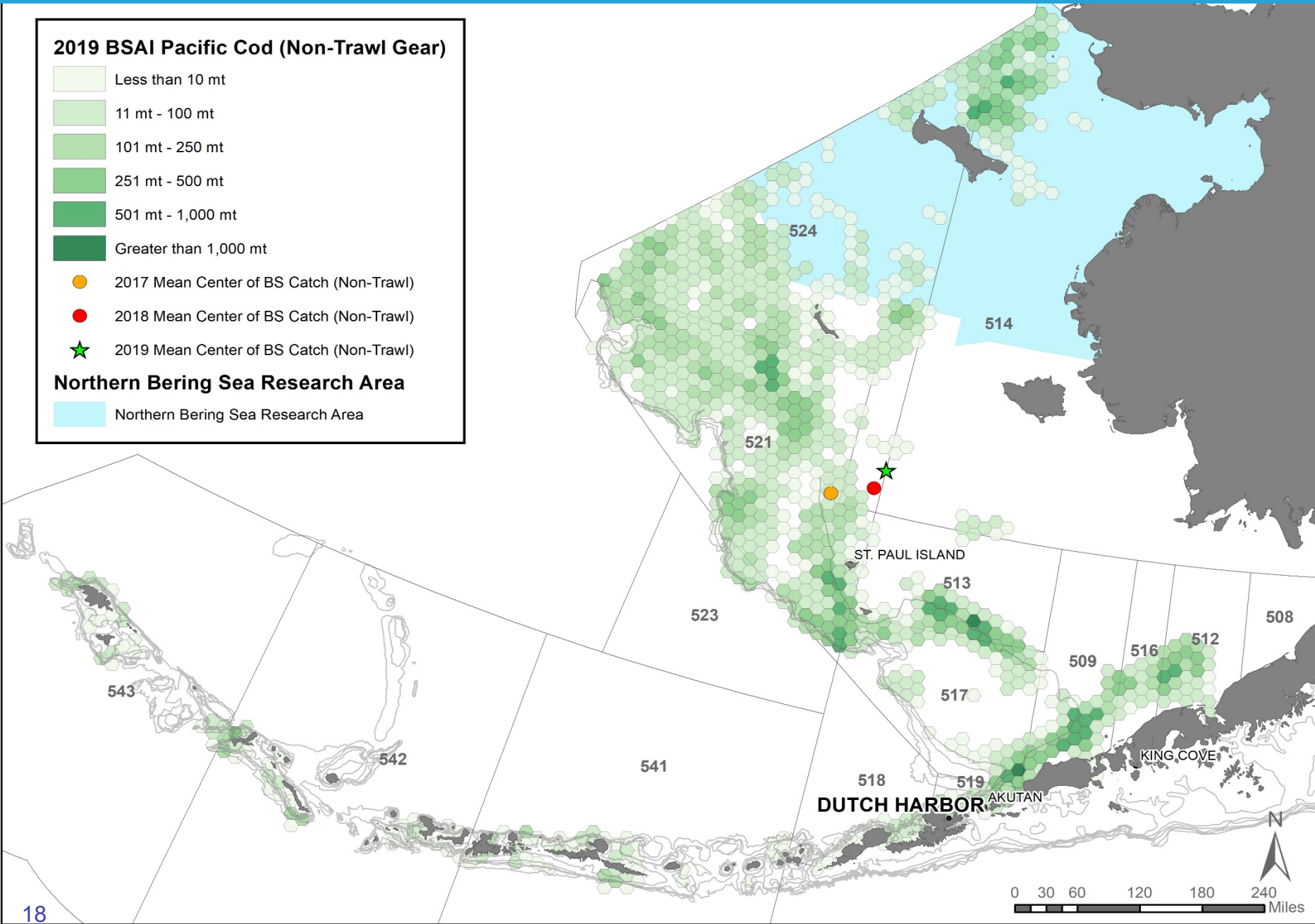
**2019 BSAI Pacific Cod (Non-Trawl Gear)**

- Less than 10 mt
- 11 mt - 100 mt
- 101 mt - 250 mt
- 251 mt - 500 mt
- 501 mt - 1,000 mt
- Greater than 1,000 mt

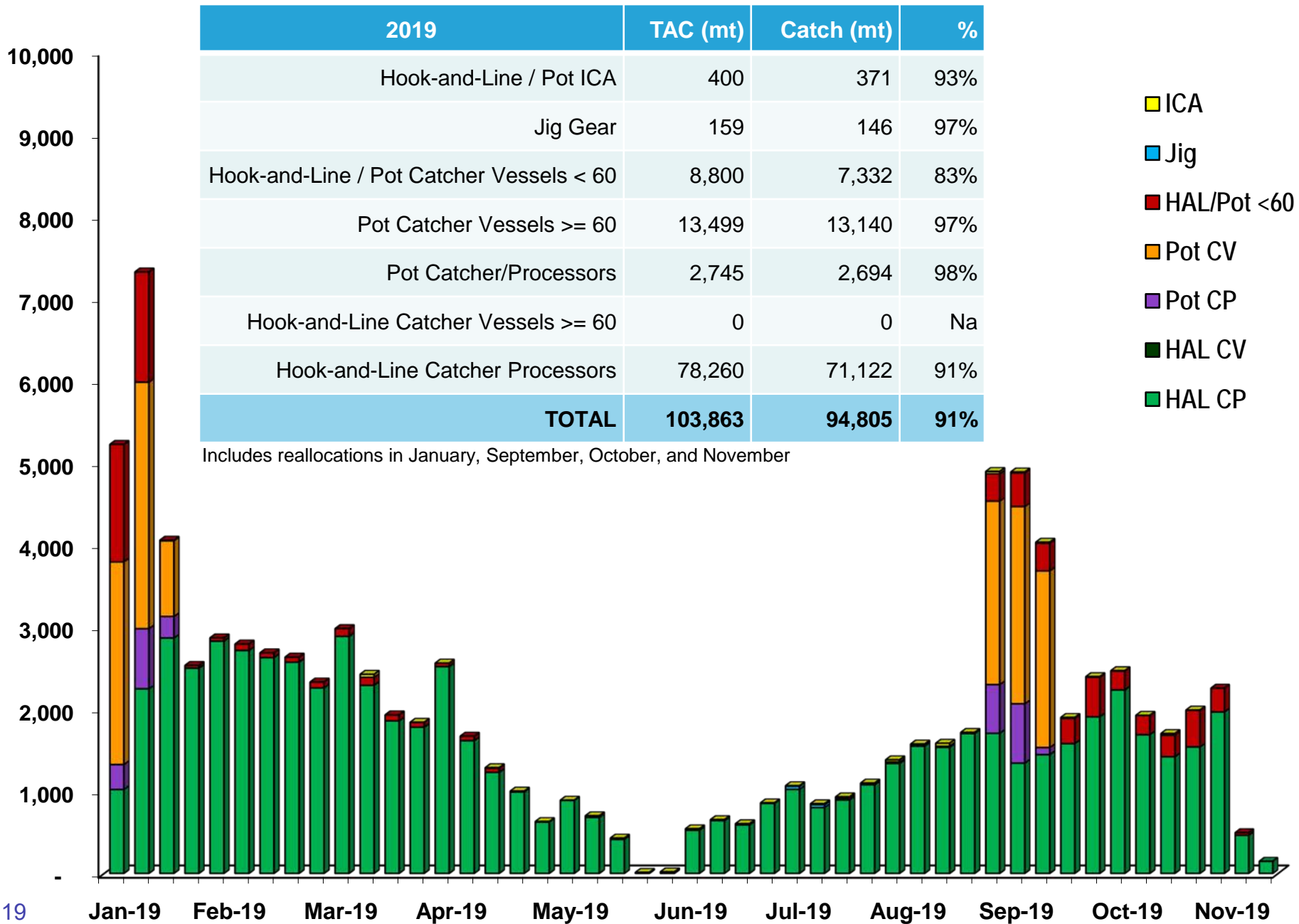
● 2017 Mean Center of BS Catch (Non-Trawl)  
● 2018 Mean Center of BS Catch (Non-Trawl)  
★ 2019 Mean Center of BS Catch (Non-Trawl)

**Northern Bering Sea Research Area**

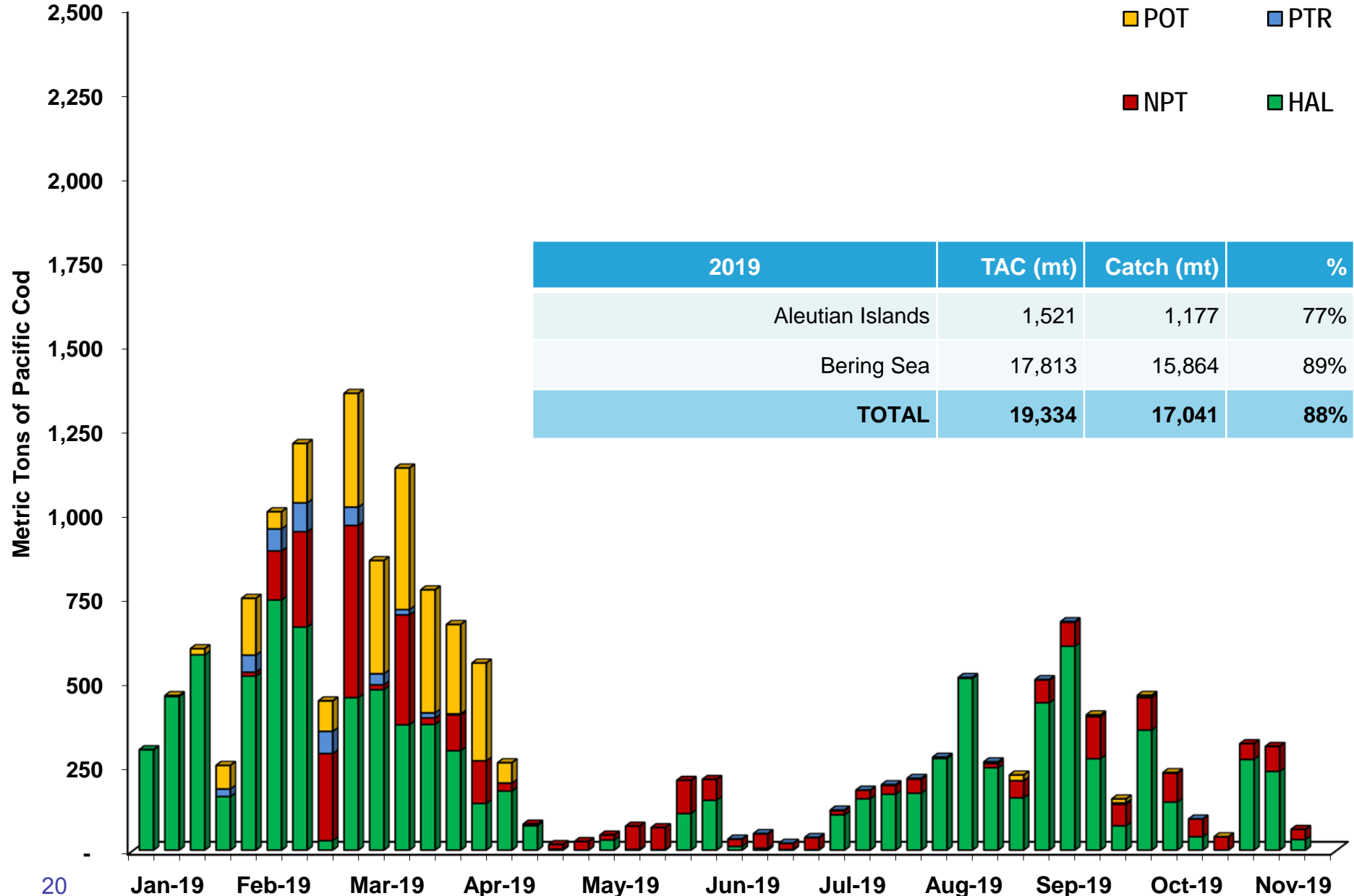
■ Northern Bering Sea Research Area



# 2019 BSAI Non-Trawl Pacific Cod Catch



# 2019 CDQ Pacific Cod Catch

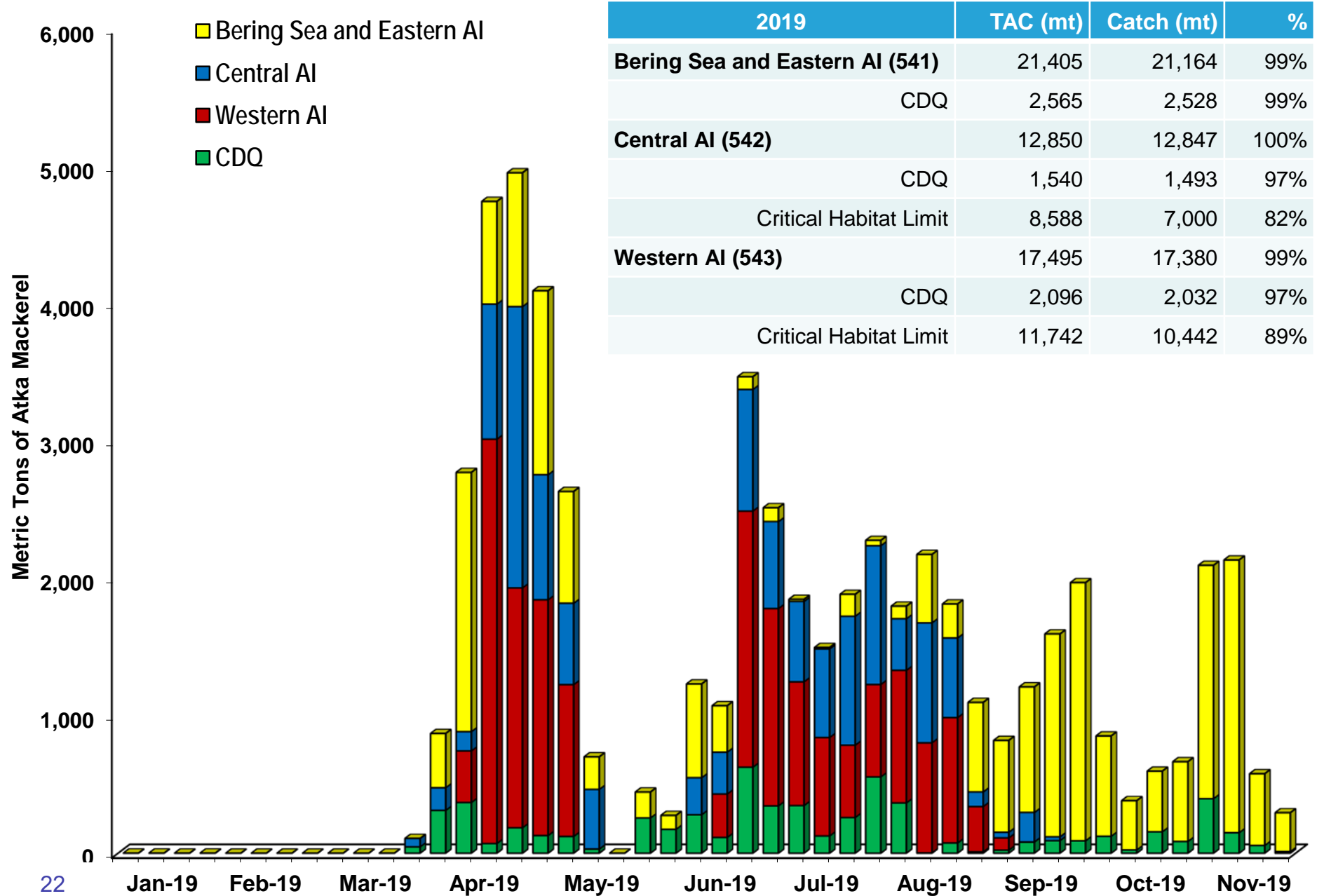


2019	TAC (mt)	Catch (mt)	%
Aleutian Islands	1,521	1,177	77%
Bering Sea	17,813	15,864	89%
<b>TOTAL</b>	<b>19,334</b>	<b>17,041</b>	<b>88%</b>

# 2019 Pacific Cod Apportionments and Catch in the BSAI

Fishery Component	TAC (mt)	Reallocations	Revised TAC	Catch (mt)	%
<b>Hook-and-Line Gear</b>					
Catcher/Processors	78,260	0	78,260	71,122	91%
Catcher Vessels >= 60 Feet	321	-321	0	0	0%
<b>Pot Gear</b>					
Catcher/Processors	2,410	+335	2,745	2,694	98%
Catcher Vessels >= 60 Feet	13,499	0	13,499	13,140	97%
<b>Hook-and-Line and Pot Gear</b>					
Catcher Vessels < 60 feet	3,214	+ 5,586	8,800	7,332	83%
<b>Trawl Gear</b>					
AFA Catcher/Processors	3,711	0	3,711	3,162	85%
A80 Catcher/Processors	21,622	0	21,622	19,883	92%
Catcher Vessels	35,660	-3,500	32,160	31,666	98%
<b>Jig Gear</b>	2,259	- 2,100	159	146	92%
<b>CDQ</b>					
Aleutian Islands	1,521	0	1,521	1,177	77%
Bering Sea	17,813	0	17,813	15,864	89%
<b>Hook-and-Line / Pot Gear ICA</b>	400	0	400	371	93%
<b>TOTAL</b>	<b>180,690</b>	<b>0</b>	<b>180,690</b>	<b>166,557</b>	<b>92%</b>

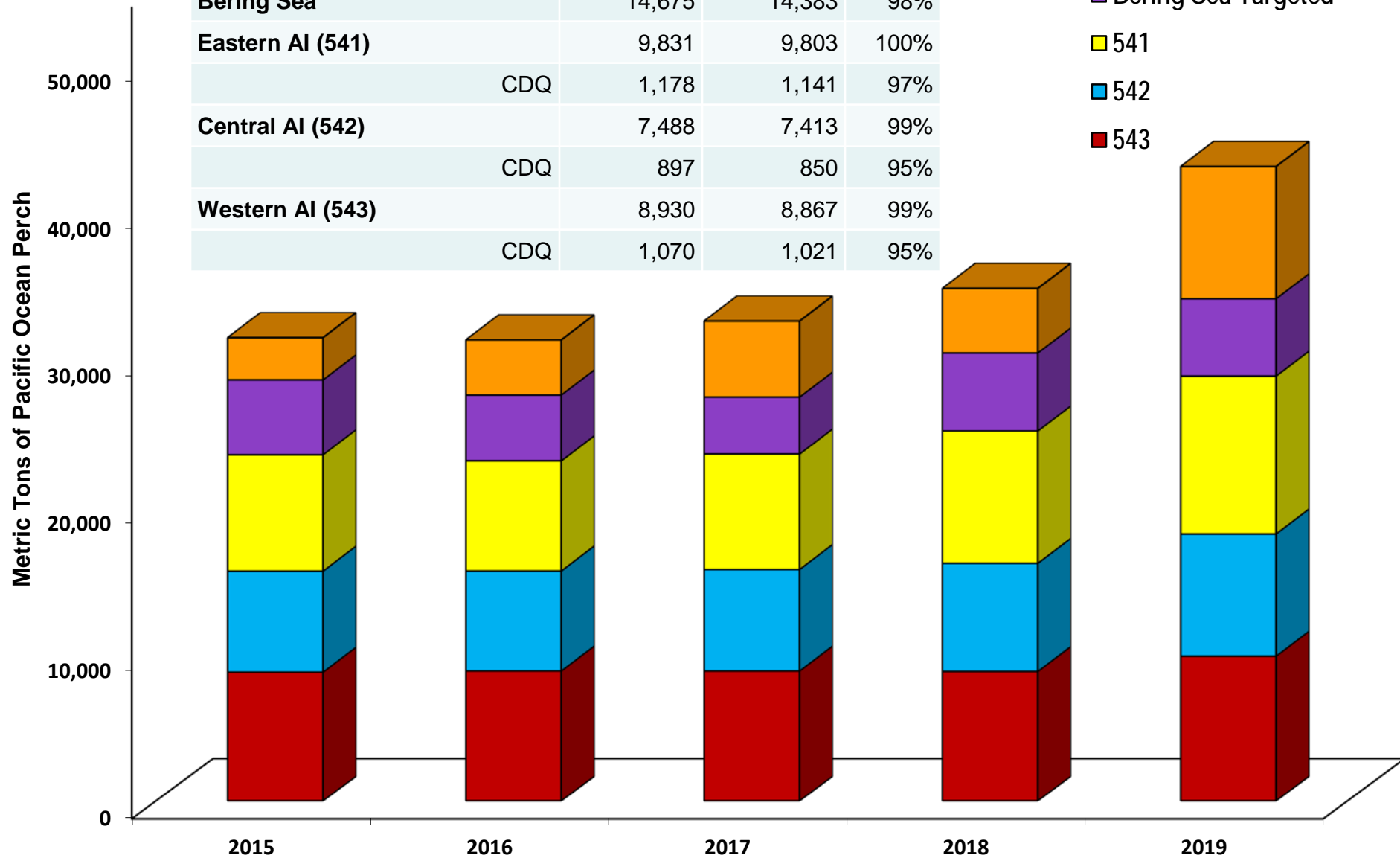
# 2019 Atka Mackerel Catch by Week and Area



# 2015-2019 Pacific Ocean Perch Catch by Area

2019		TAC (mt)	Catch (mt)	%
<b>Bering Sea</b>		14,675	14,383	98%
<b>Eastern AI (541)</b>		9,831	9,803	100%
	CDQ	1,178	1,141	97%
<b>Central AI (542)</b>		7,488	7,413	99%
	CDQ	897	850	95%
<b>Western AI (543)</b>		8,930	8,867	99%
	CDQ	1,070	1,021	95%

- Bering Sea Incidental
- Bering Sea Targeted
- 541
- 542
- 543



# 2015-2019 Northern Rockfish Catch by Area

2019	ABC	TAC (mt)	Catch (mt)	%
<b>Northern Rockfish</b>	12,664	9,125	9,070	99%

\* Reallocation from non-specified reserves

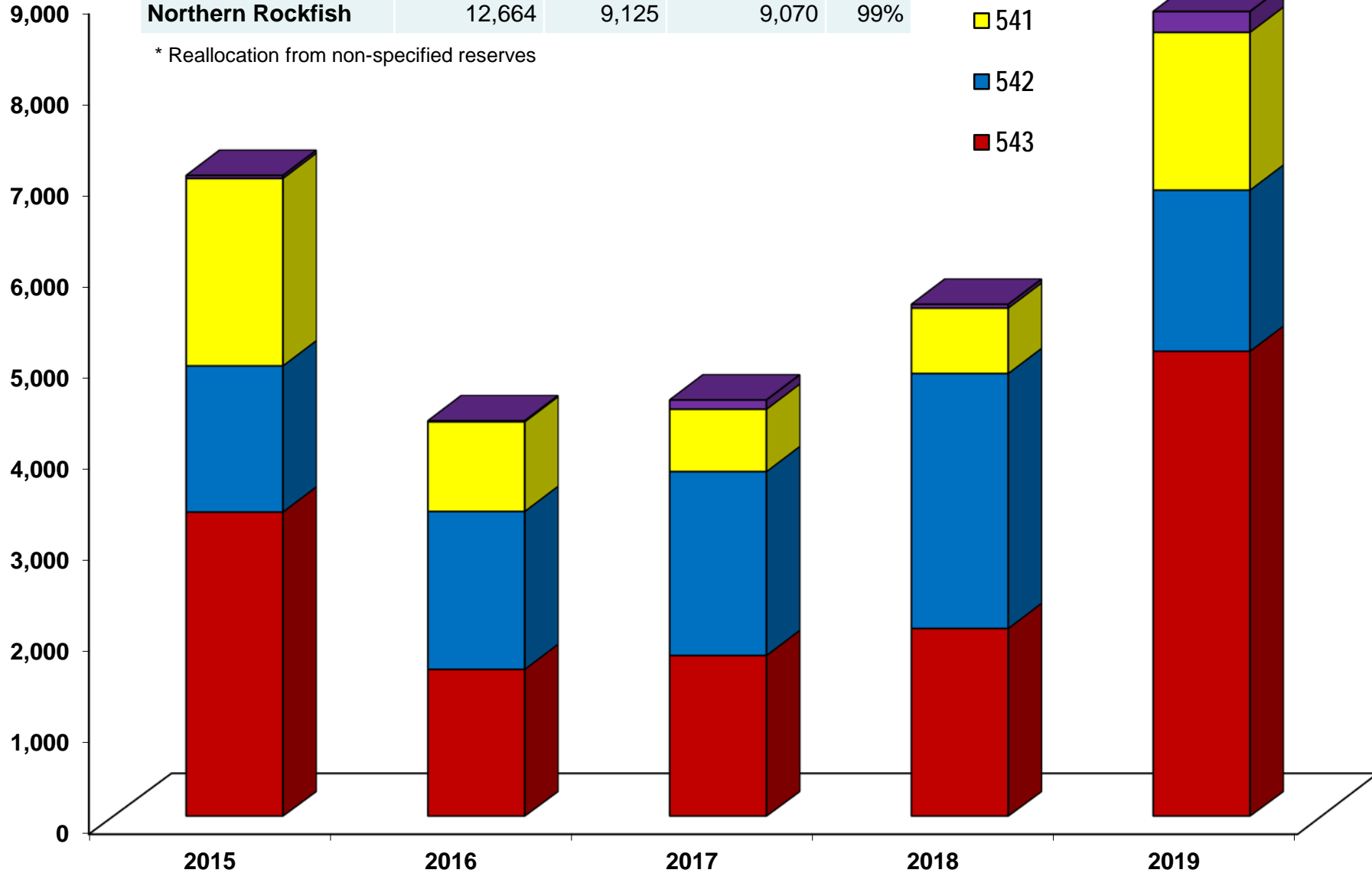
■ Bering Sea

■ 541

■ 542

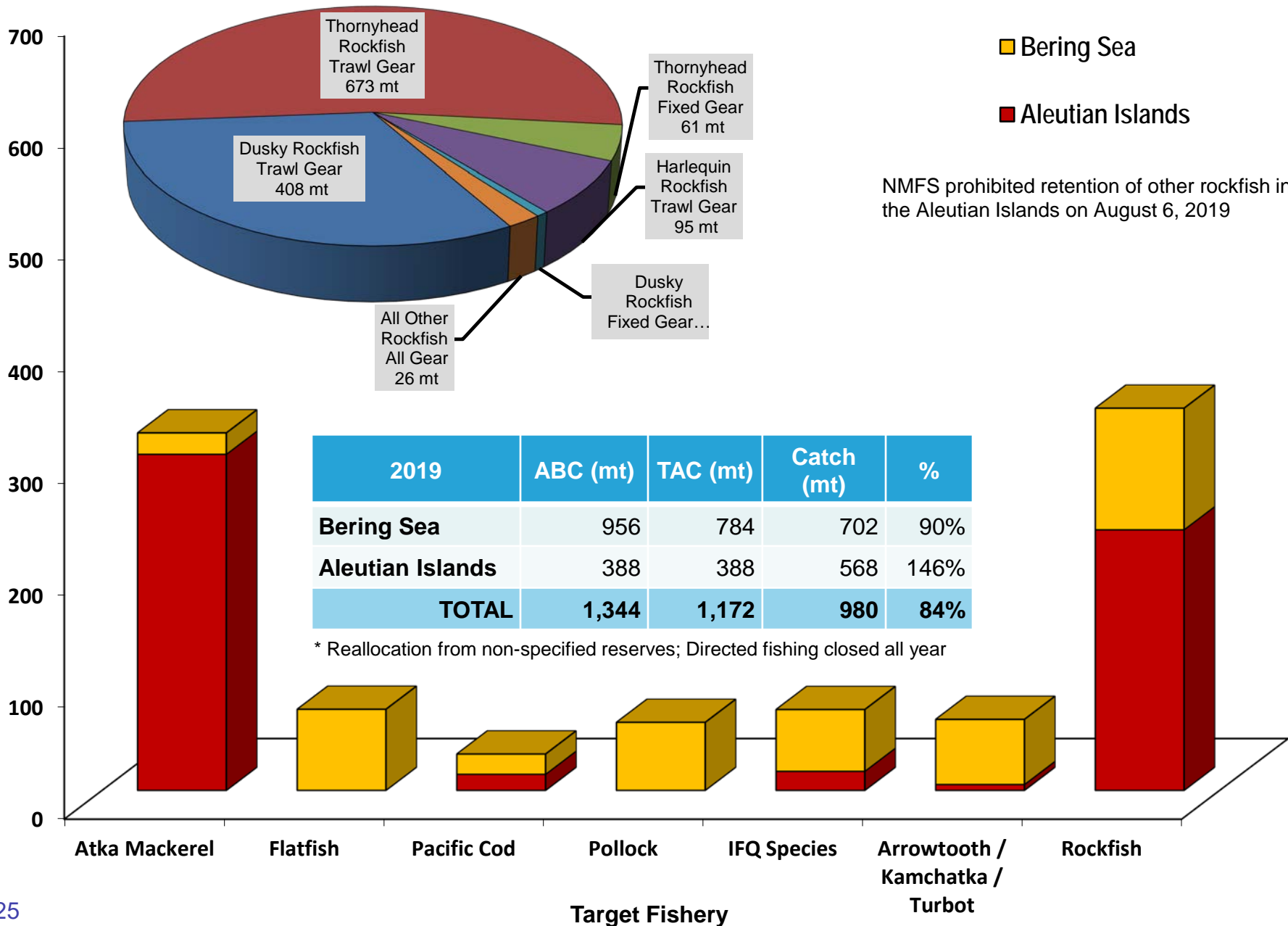
■ 543

Metric Tons of Northern Rockfish





# 2019 BSAI Other Rockfish Catch



# 2019 BSAI Blackspotted / Rougheye Rockfish Catch

■ BS / EAI Rougheye Rockfish  
 ■ CAI / WAI Rougheye Rockfish

2019	ABC (mt)	TAC (mt)	Catch (mt)	%
BS / EAI Rougheye Rockfish	351	95	86	91%
CAI / WAI Rougheye Rockfish *	204	204	304	149%
<b>TOTAL</b>	<b>555</b>	<b>299</b>	<b>390</b>	<b>70%</b>

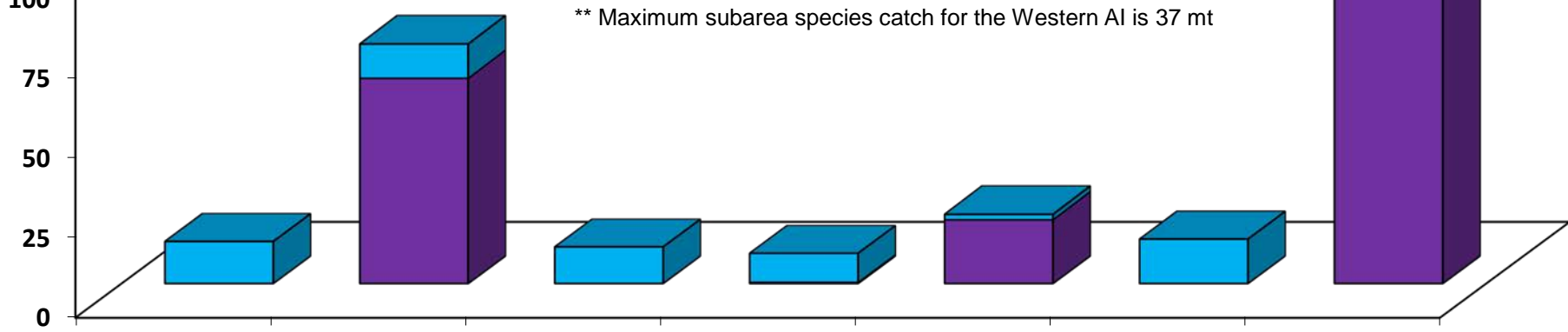
Directed fishing closed all year

\* NMFS prohibited retention of CAI/WAI Blackspotted / Rougheye on August 6, 2019

2019	Rougheye Rockfish catch (mt)
Bering Sea	55
Eastern AI (541)	32
Central AI (542)	204
Western AI (543)**	100

\*\* Maximum subarea species catch for the Western AI is 37 mt

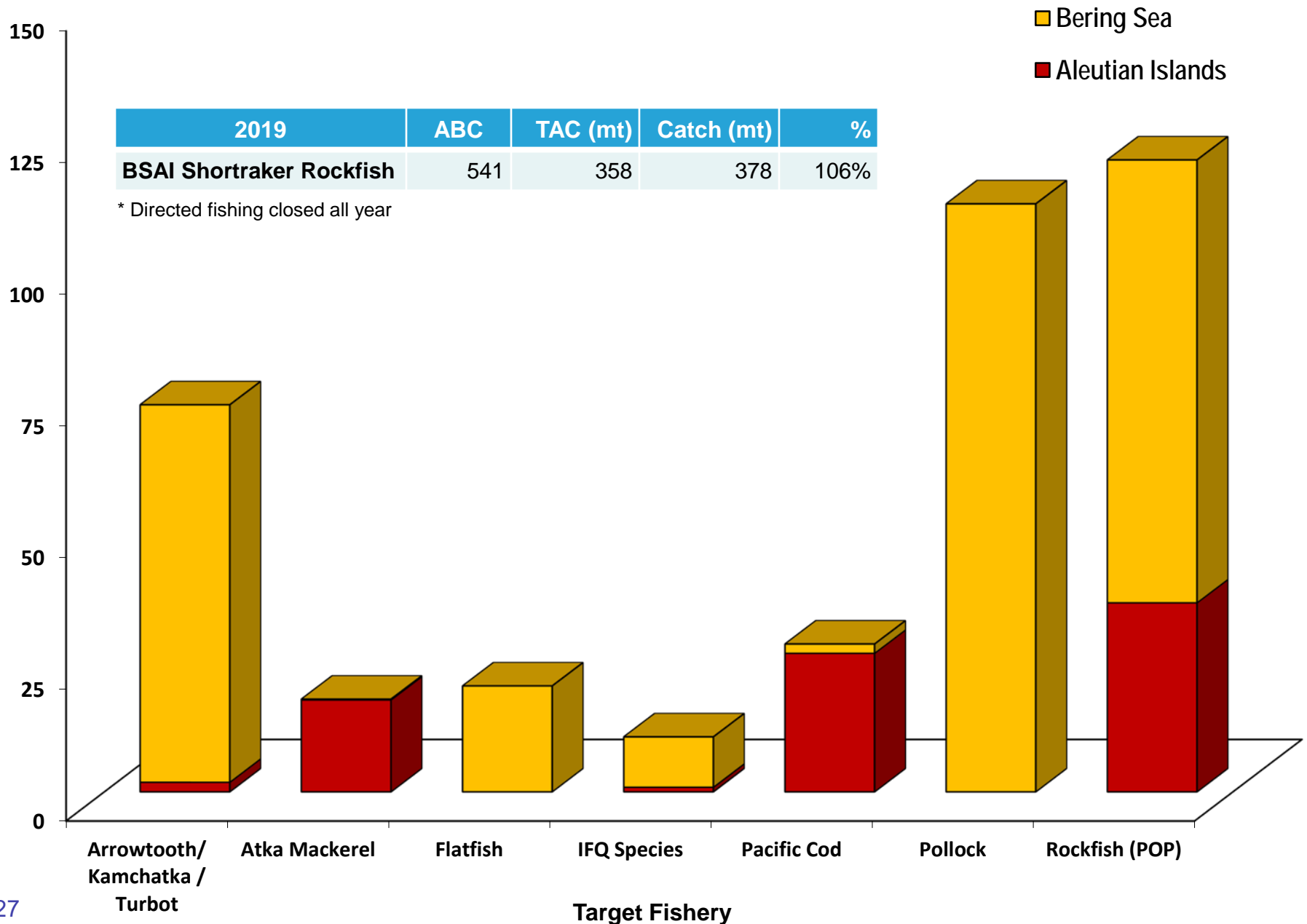
Metric Tons of Rougheye Rockfish



Arrowtooth/ Kamchatka / Turbot    Atka Mackerel    Flatfish    IFQ Species    Pacific Cod    Pollock    Rockfish (POP)

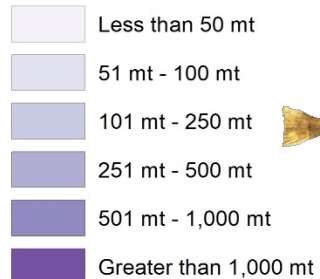
Target Fishery

# 2019 BSAI Shortraker Rockfish Catch



# 2019 Flatfish Catch

## 2019 Flatfish Catch

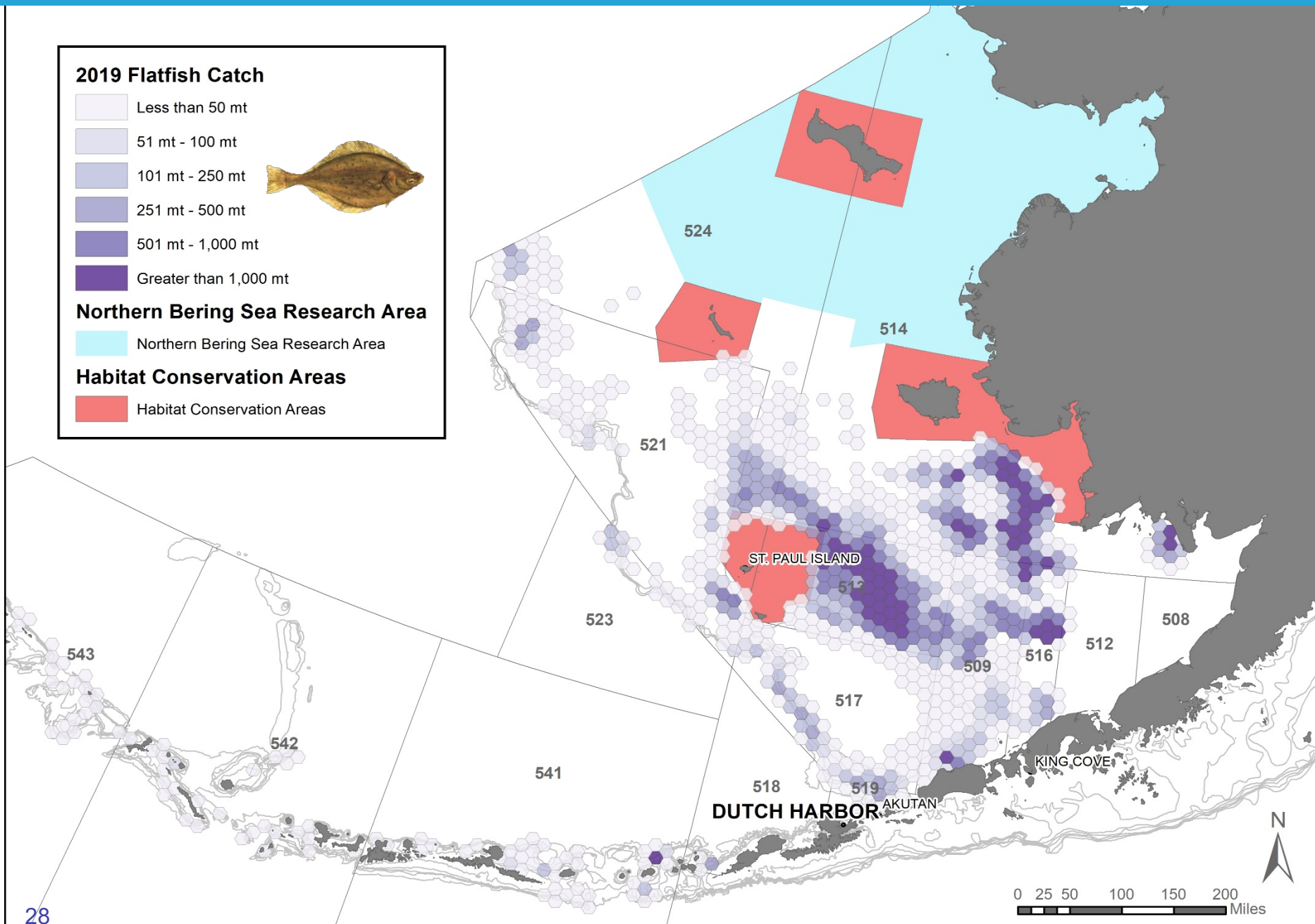


## Northern Bering Sea Research Area

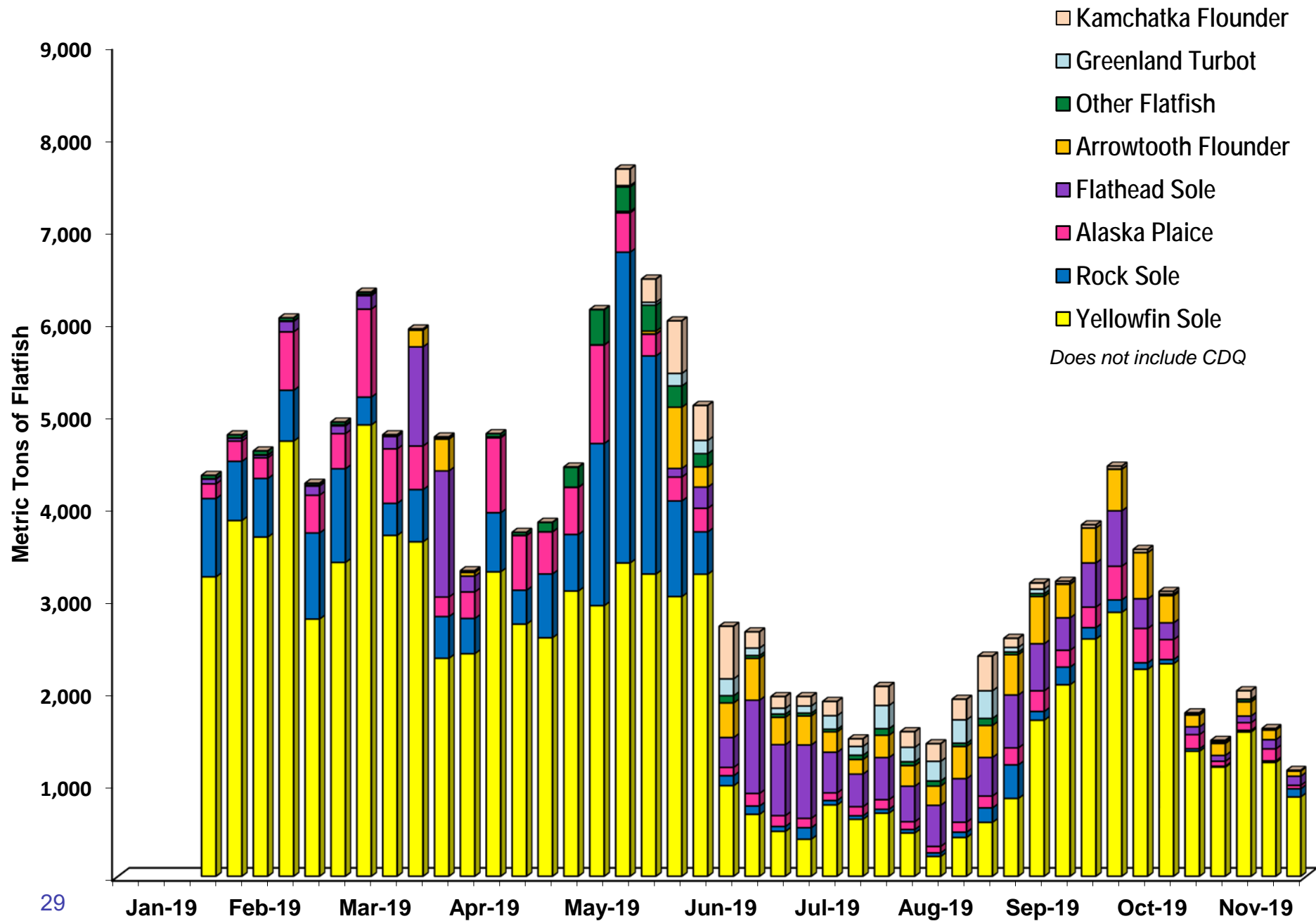
Northern Bering Sea Research Area

## Habitat Conservation Areas

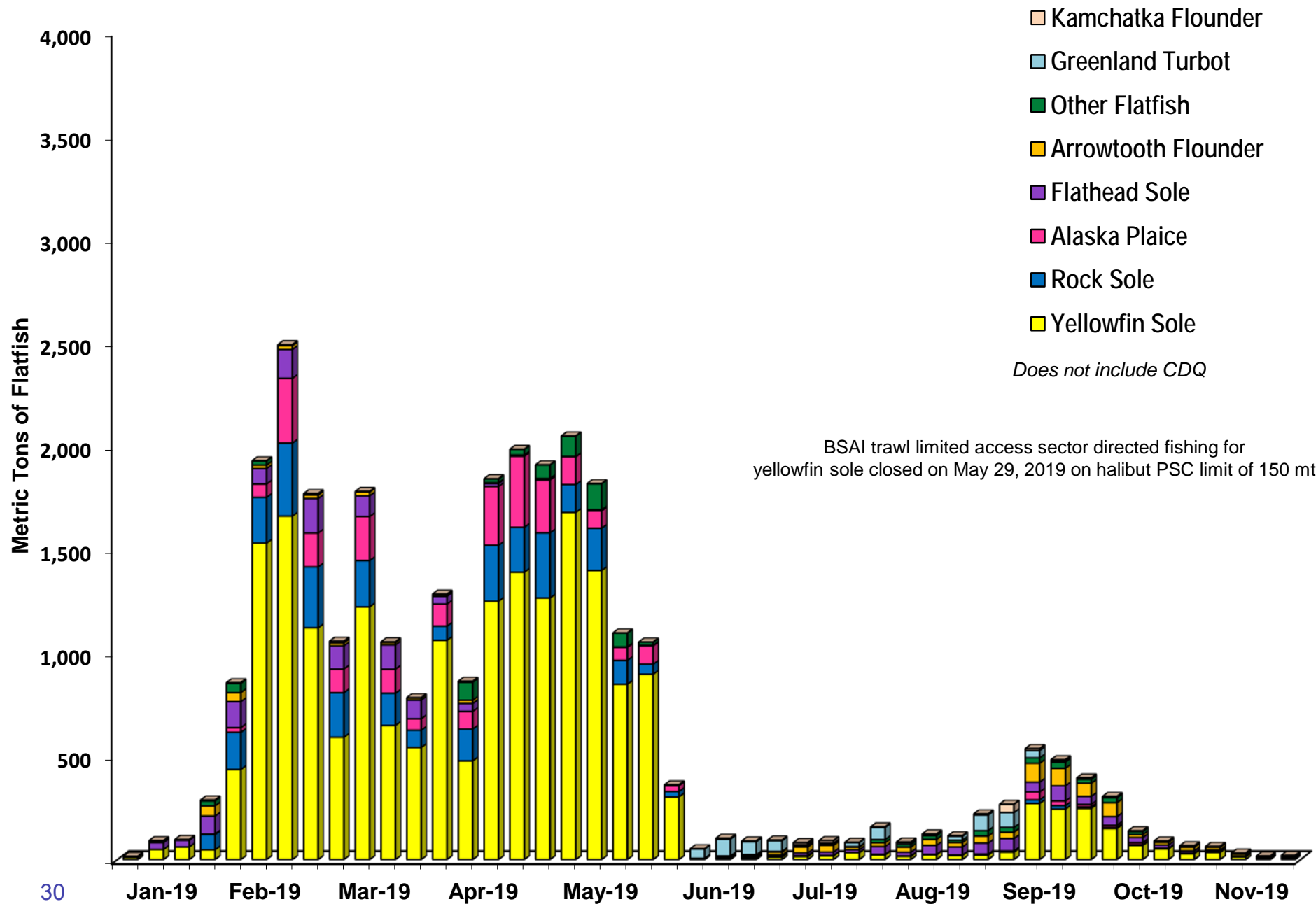
Habitat Conservation Areas



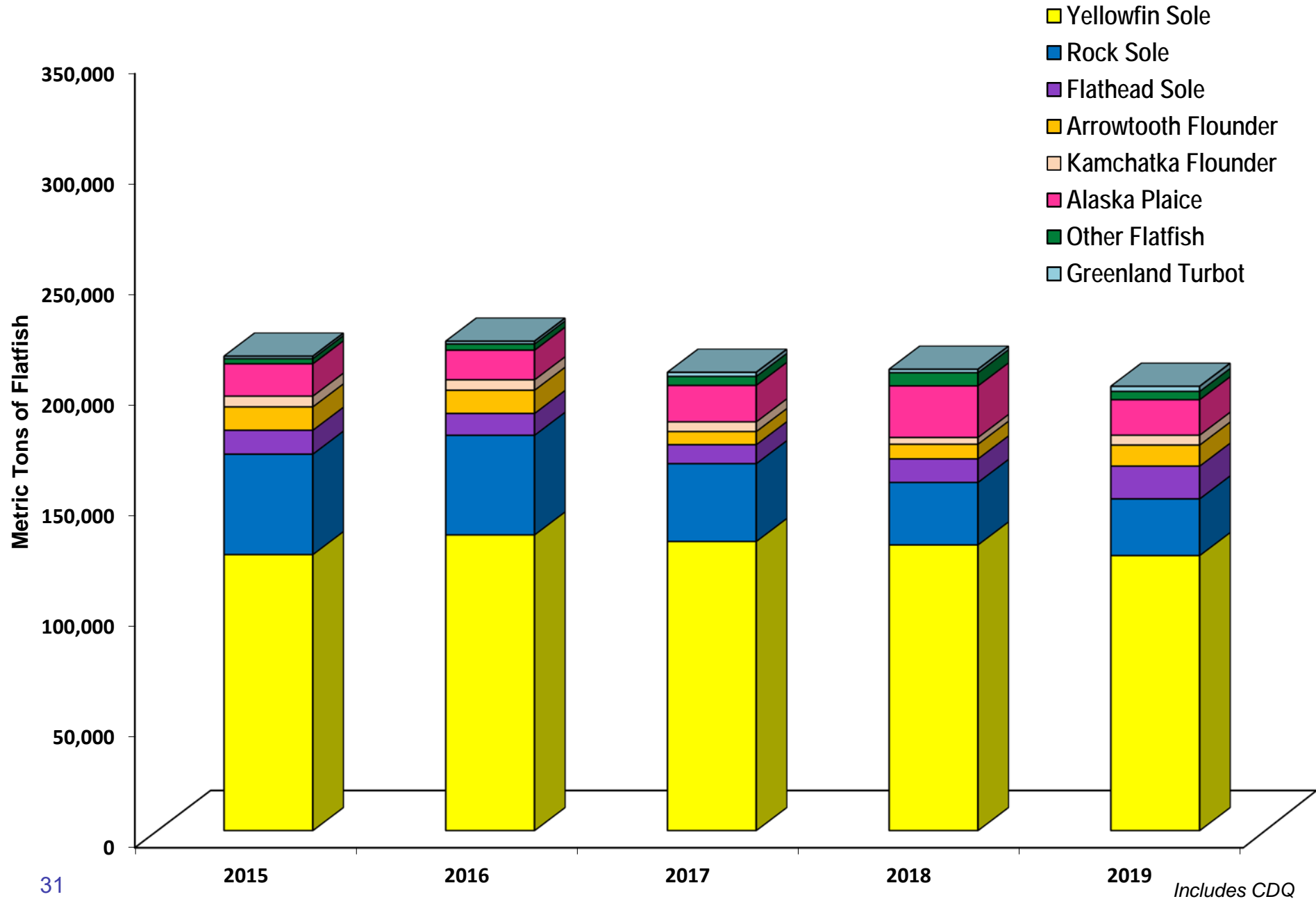
# 2019 BSAI Flatfish Catch by Amendment 80 Catcher/Processors



# 2019 BSAI Flatfish Catch by Non-Amendment 80 Vessels



# 2015-2019 BSAI Trawl Flatfish Catch by Species

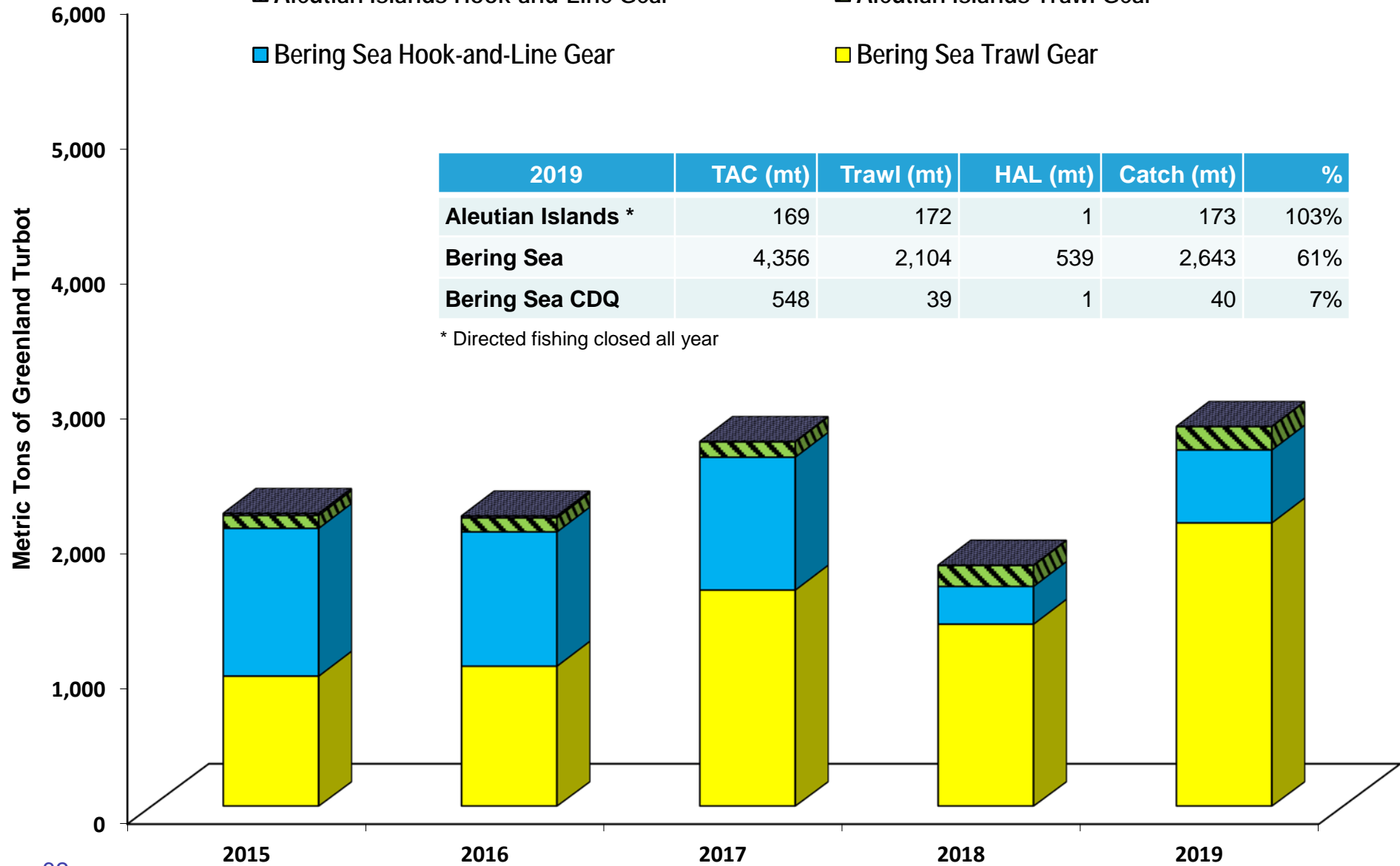


# 2015-2019 BSAI Greenland Turbot Catch

- Aleutian Islands Hook-and-Line Gear
- Bering Sea Hook-and-Line Gear
- Aleutian Islands Trawl Gear
- Bering Sea Trawl Gear

2019	TAC (mt)	Trawl (mt)	HAL (mt)	Catch (mt)	%
<b>Aleutian Islands *</b>	169	172	1	173	103%
<b>Bering Sea</b>	4,356	2,104	539	2,643	61%
<b>Bering Sea CDQ</b>	548	39	1	40	7%

\* Directed fishing closed all year





# 2015-2019 BSAI Arrowtooth / Kamchatka Flounder Catch

## Arrowtooth Flounder by Target

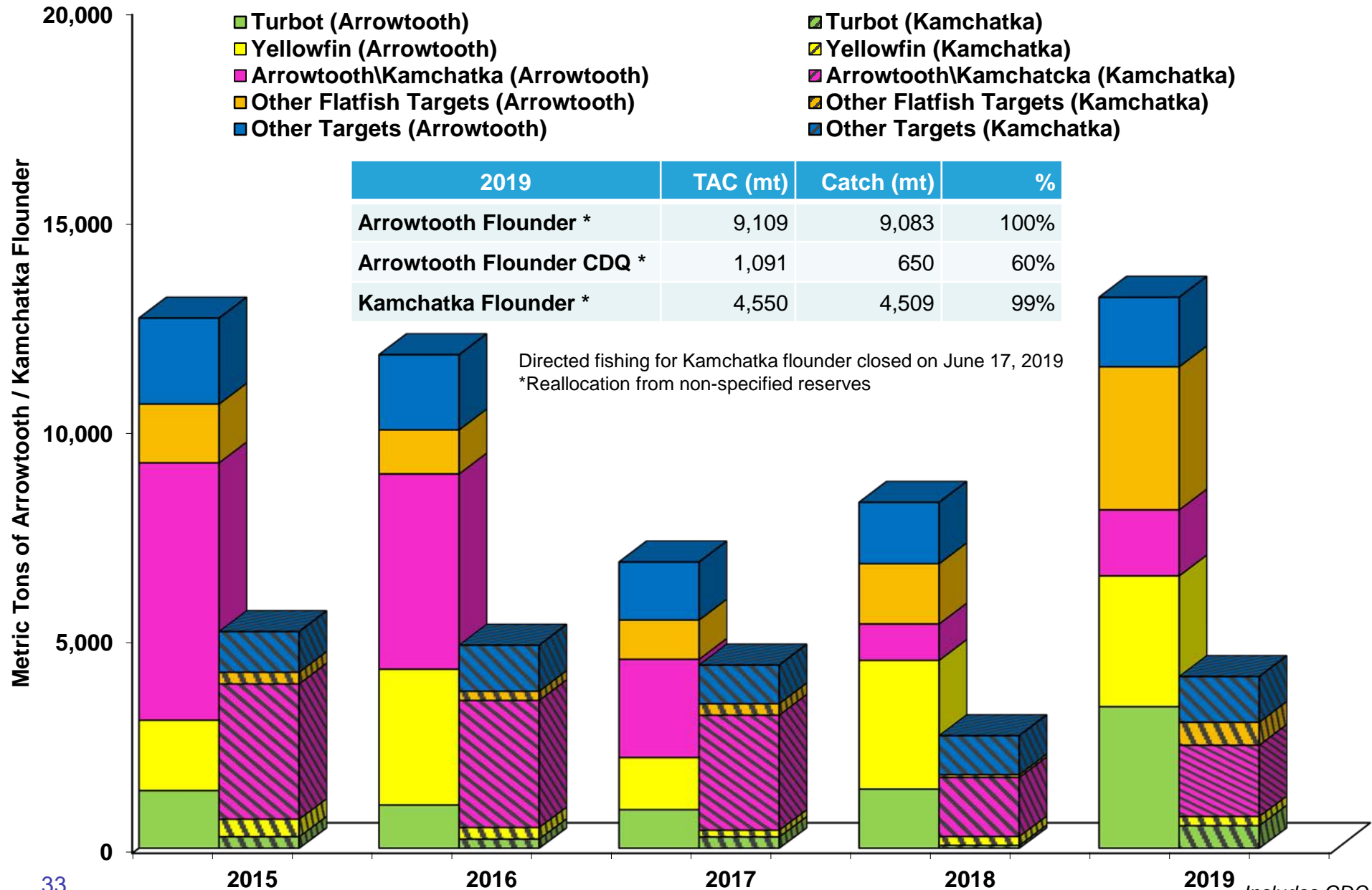
- Turbot (Arrowtooth)
- Yellowfin (Arrowtooth)
- Arrowtooth\Kamchatka (Arrowtooth)
- Other Flatfish Targets (Arrowtooth)
- Other Targets (Arrowtooth)

## Kamchatka Flounder by Target

- Turbot (Kamchatka)
- Yellowfin (Kamchatka)
- Arrowtooth\Kamchatcka (Kamchatka)
- Other Flatfish Targets (Kamchatka)
- Other Targets (Kamchatka)

	2019	TAC (mt)	Catch (mt)	%
Arrowtooth Flounder *		9,109	9,083	100%
Arrowtooth Flounder CDQ *		1,091	650	60%
Kamchatka Flounder *		4,550	4,509	99%

Directed fishing for Kamchatka flounder closed on June 17, 2019  
 \*Reallocation from non-specified reserves



# 2019 Flatfish Catch in the BSAI

2019	ABC (mt)	Sector	TAC (mt)	Catch (mt)	%
<b>Arrowtooth Flounder</b>	70,673		9,109	9,083	100%
		CDQ	1,091	650	60%
<b>Flathead Sole*</b>	66,625		19,749	14,592	74%
		CDQ	1,602	596	37%
<b>Rock Sole*</b>	118,900		33,960	23,277	69%
		CDQ	5,040	2,266	45%
<b>Yellowfin Sole*</b>	263,200		138,822	112,189	81%
		CDQ	16,428	12,216	74%
<b>Kamchatka Flounder</b> <i>Includes CDQ</i>	9,260		4,550	4,509	99%
<b>Alaska Plaice</b> <i>Includes CDQ</i>	33,600		16,300	15,993	98%
<b>“Other Flatfish”</b> <i>Includes CDQ</i>	16,368		5,525	3,763	68%

*Includes CDQ means there is no CDQ allocation for that species*

*\* Include flatfish flexibility exchanges*



*Arrowtooth Flounder*



*Flathead Sole*



*Rock Sole*



*Yellowfin Sole*

# 2019 Changes in Flatfish TAC from Flatfish Exchanges

Group	Date	Flathead Sole		Rock Sole		Yellowfin Sole	
		TAC	Exchange	TAC	Exchange	TAC	Exchange
Initial	13-Mar	14,500		47,100		154,000	
APICDA (1)	5-May	14,500	0	47,500	400	153,600	-400
ASC (1)	17-Jul	16,500	2,000	42,300	-5,200	156,800	3,200
ASC (2)	18-Sep	20,100	3,600	39,400	-2,900	156,100	-700
APIDCA (2)	7-Oct	20,150	50	39,000	-400	156,450	350
<b>Total Change</b>			<b>5,650</b>		<b>-8,100</b>		<b>2,450</b>

Number of Amendment 80 Catcher/Processors	
2018	19
<b>2019</b>	<b>19</b>

Number of Motherships (non-pollock)	
2018	10
<b>2019</b>	<b>10</b>

Number of CVs delivering to Motherships (non-pollock)	
2018	12
<b>2019</b>	<b>15</b>

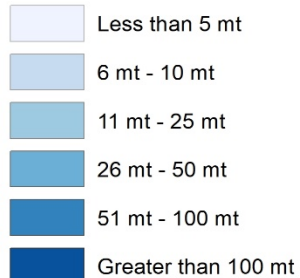
# 2019 CDQ Inter-Group Transfers



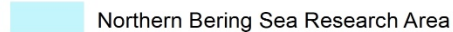
Species	# of Transfers	Weight	Count
Arrowtooth Flounder	8	309	n/a
Atka Mackerel	10	1,229	n/a
Flathead Sole	3	326	n/a
Greenland Turbot	2	42	n/a
Pacific Cod	11	963	n/a
Pacific Ocean Perch	8	415	n/a
Pollock	2	6,005	n/a
Rock Sole	6	1,388	n/a
Sablefish	9	35	n/a
Yellowfin Sole	5	5,198	n/a
Crab Species	8	n/a	365,815
Halibut	5	46	n/a
<b>TOTAL</b>	<b>77</b>	<b>15,956</b>	<b>365,815</b>

# 2019 Skates Catch

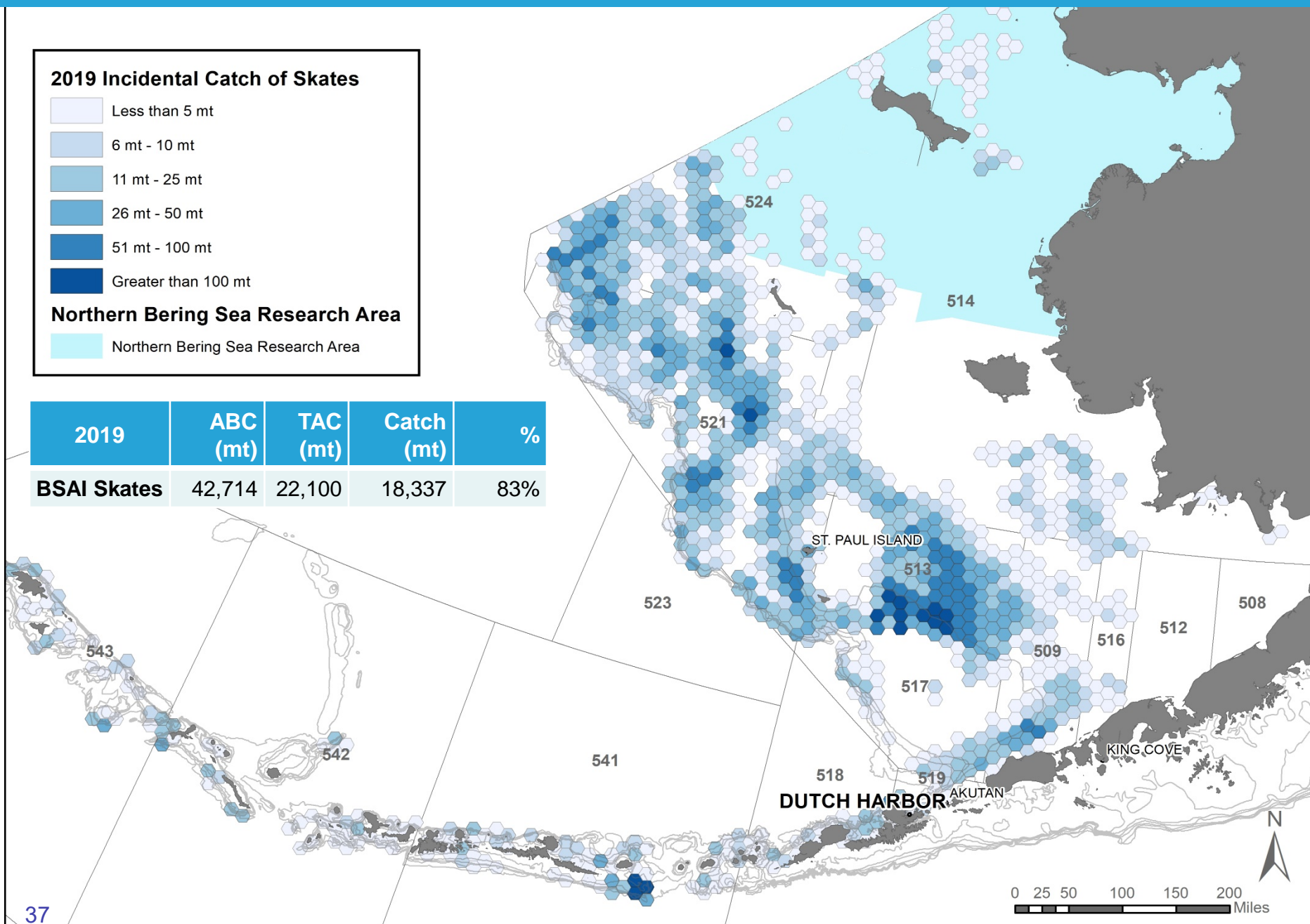
## 2019 Incidental Catch of Skates



## Northern Bering Sea Research Area



2019	ABC (mt)	TAC (mt)	Catch (mt)	%
<b>BSAI Skates</b>	42,714	22,100	18,337	83%



# 2019 BSAI Sharks and Octopus

2019 <i>(all weights in mt)</i>	Salmon Sharks	Sleeper Sharks	Spiny Dogfish	Other Sharks	Octopus
<b>Hook-and-Line</b>	3	26	4	0	39
<b>Non-Pelagic Trawl</b>	4	11	< 1	<1	18
<b>Pelagic Trawl</b>	81	14	< 1	1	3
<b>Pot</b>	0	< 1	0	0	197
<b>Total</b>	<b>88</b>	<b>50</b>	<b>5</b>	<b>1</b>	<b>257</b>

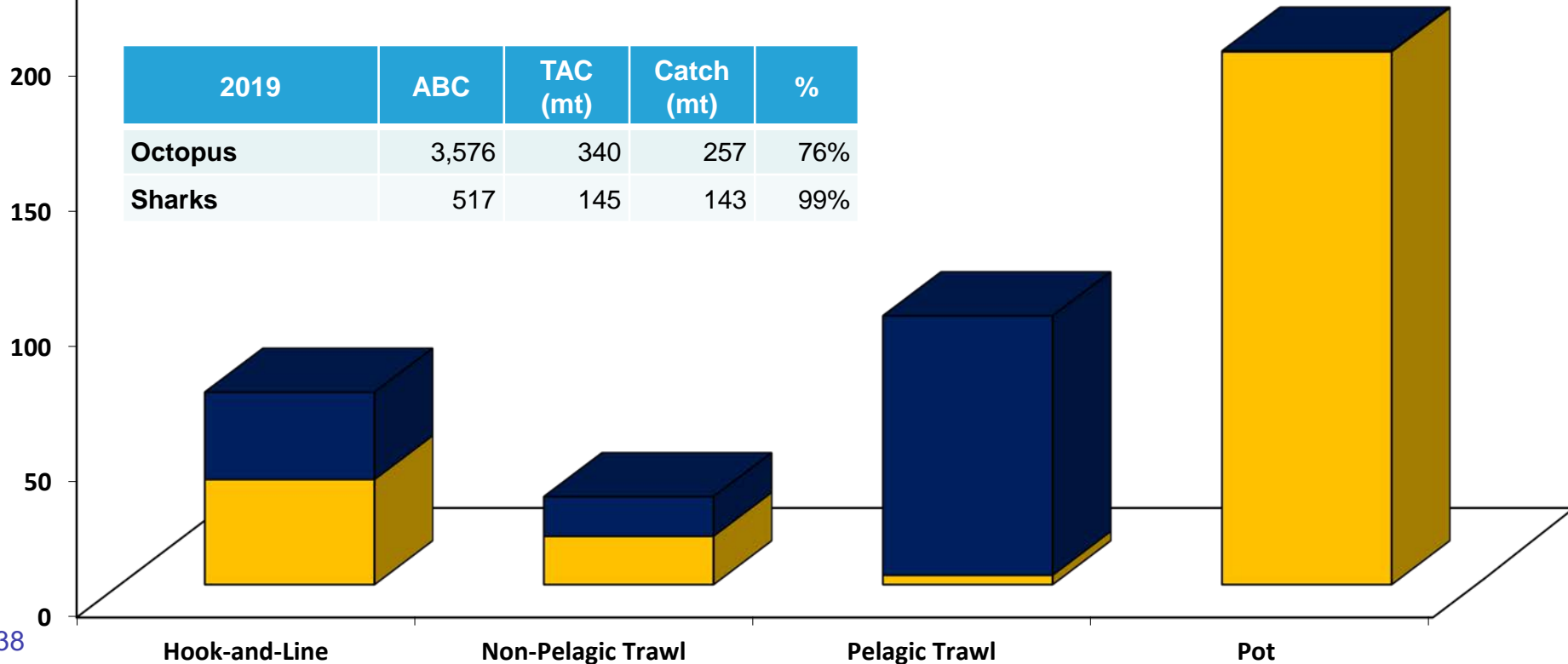
■ Octopus

■ Sharks

*Includes CDQ*

2019	ABC	TAC (mt)	Catch (mt)	%
<b>Octopus</b>	3,576	340	257	76%
<b>Sharks</b>	517	145	143	99%

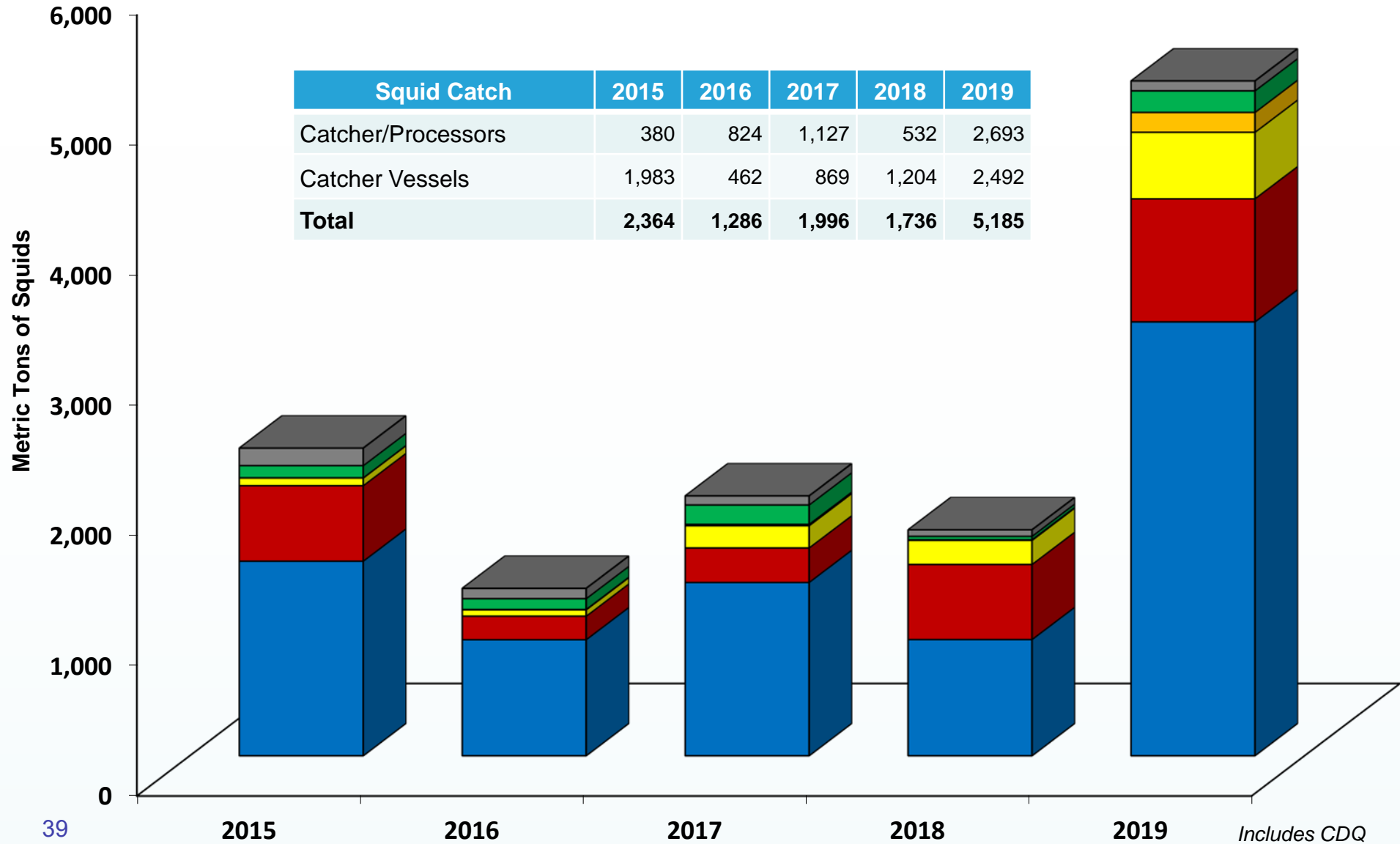
Metric Tons of Sharks and Octopus



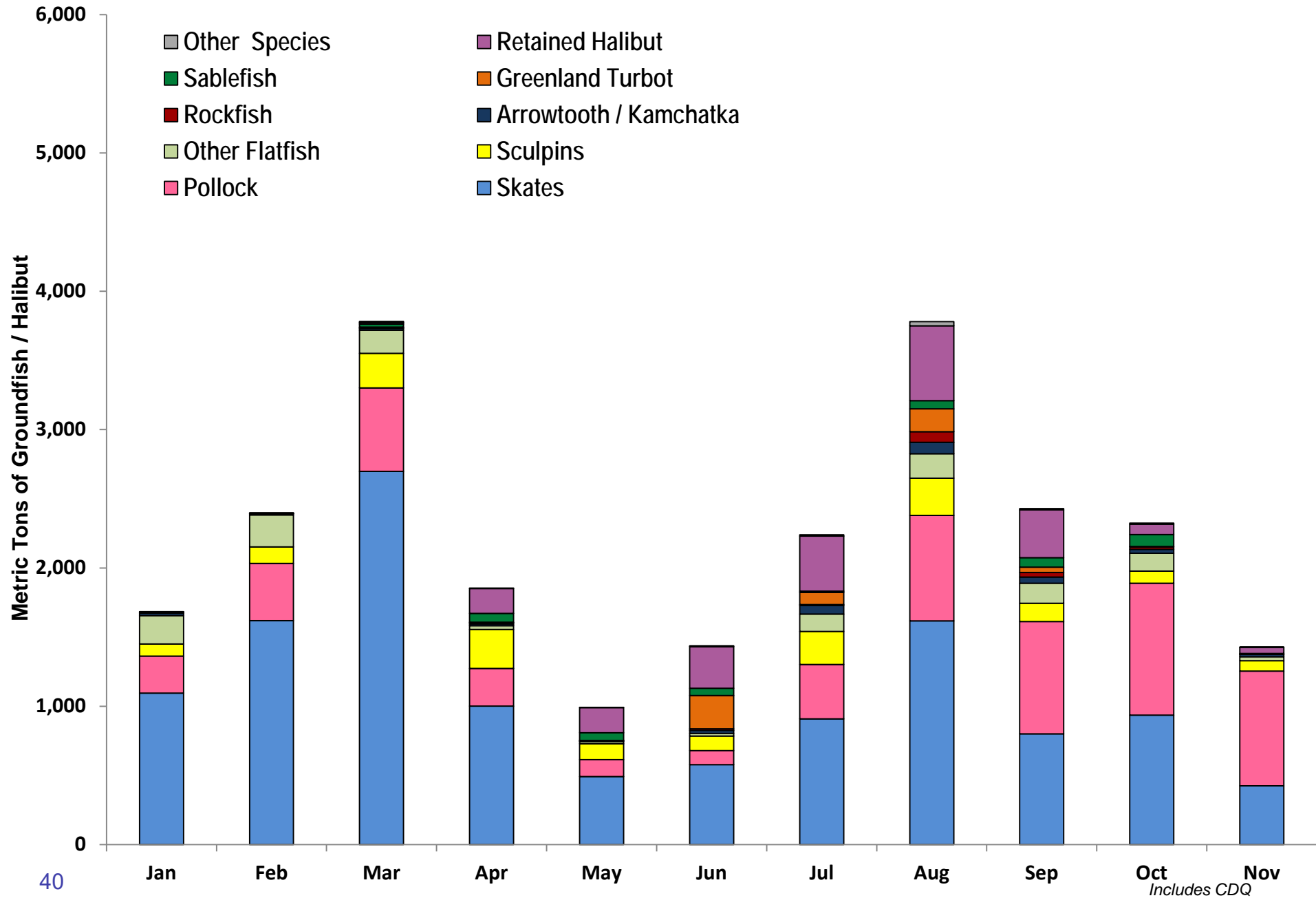
# 2015-2019 BSAI Squid Catch

■ 517    
 ■ 519    
 ■ 521    
 ■ 524    
 ■ 523    
 ■ Other

Squid Catch	2015	2016	2017	2018	2019
Catcher/Processors	380	824	1,127	532	2,693
Catcher Vessels	1,983	462	869	1,204	2,492
<b>Total</b>	<b>2,364</b>	<b>1,286</b>	<b>1,996</b>	<b>1,736</b>	<b>5,185</b>



# 2019 BSAI Hook-and-Line Non Pacific Cod Catch

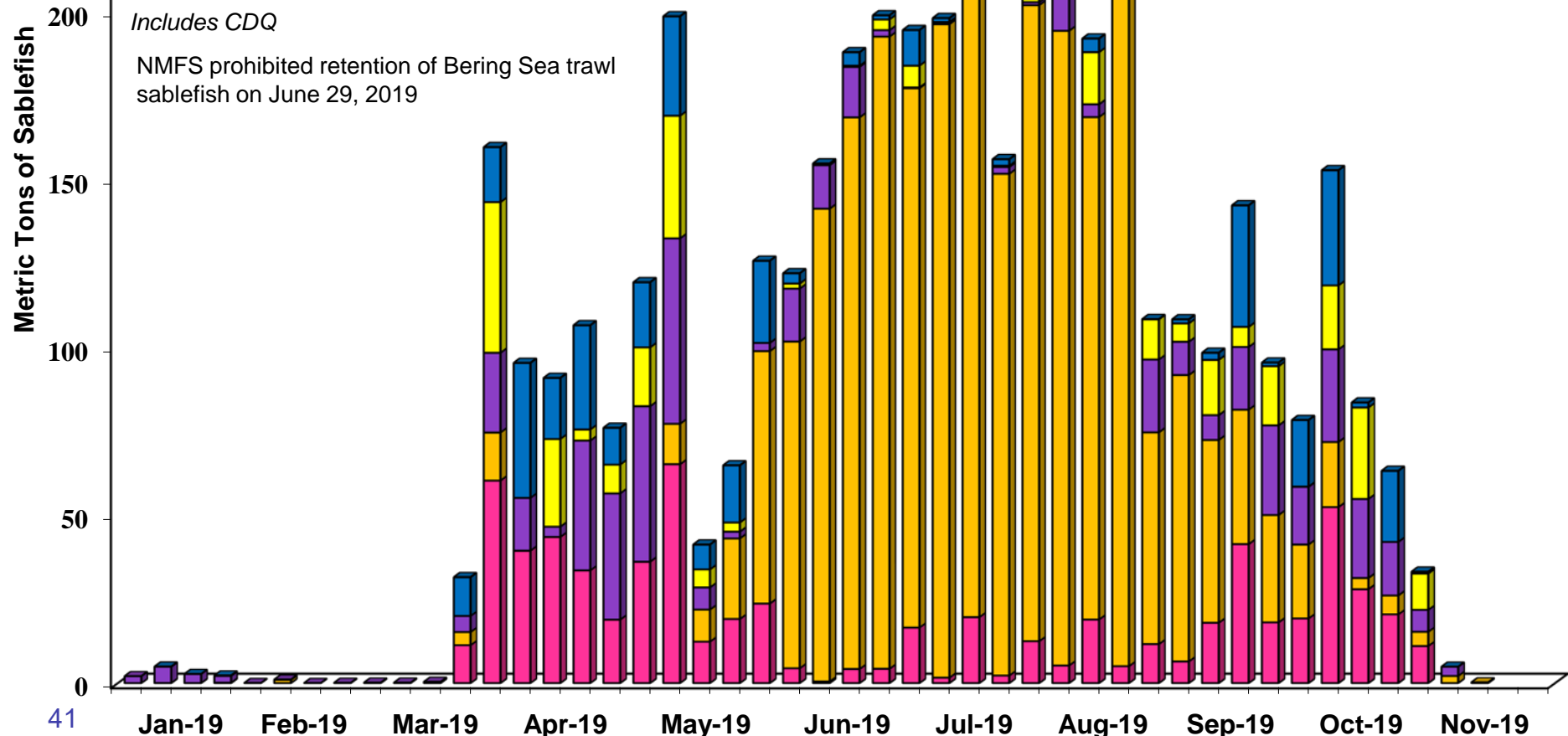




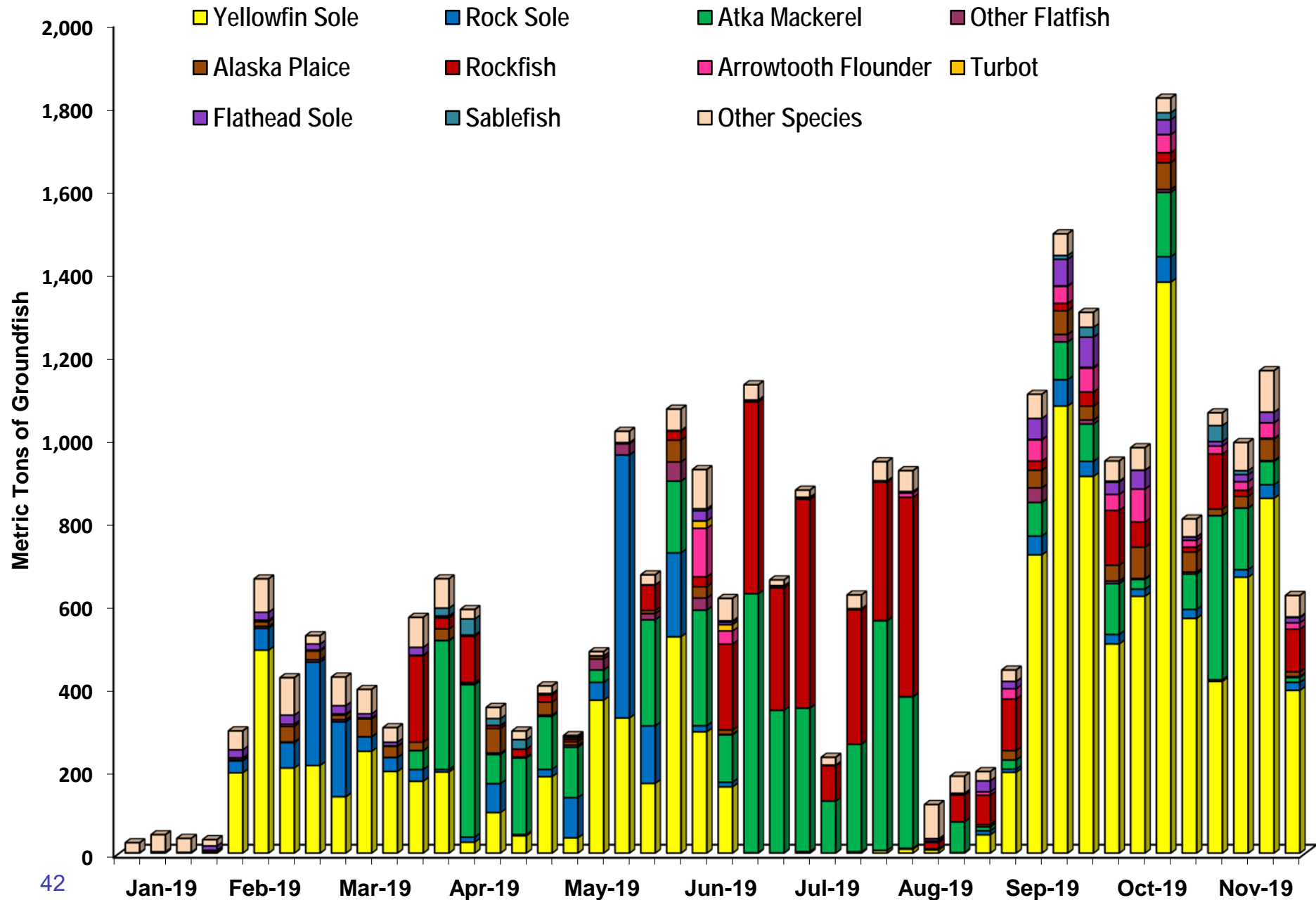
# 2019 BSAI Sablefish Catch

2019	TAC (mt)	Catch (mt)	%
Aleutian Islands (Trawl)	464	226	49%
Aleutian Islands (Fixed)	1,205	383	32%
Aleutian Islands (CDQ)	339	46	14%
Bering Sea (Trawl)	689	2,514	365%
Bering Sea (Fixed)	596	500	84%
Bering Sea (CDQ)	205	178	87%
<b>TOTAL</b>	<b>2,864</b>	<b>3,338</b>	<b>116%</b>

- Aleutian Islands Trawl Gear
- Aleutian Islands Hook-and-line / Pot Gear
- Bering Sea Hook-and-Line / Pot Gear
- Bering Sea Trawl Gear
- CDQ



# 2019 CDQ Non Pollock / Pacific Cod Catch by Species



# 2019 Non-specified Reserve Releases

Species	Initial TAC (mt)	Reallocations	Revised TAC	Catch (mt)	%
AI Greenland Turbot*	144	+35	179	174	97%
AI Sablefish	1,971	+37	2,008	561	28%
BS "Other Rockfish"*	234	+ 550	784	703	90%
BS Pacific Ocean Perch	12,474	+ 2,201	14,675	14,413	98%
BS Sablefish	1,433	+ 56	1,489	3,192	214%
BSAI Alaska Plaice	15,300	+ 1,000	16,300	16,078	99%
BSAI Arrowtooth Flounder*	7,656	+ 3,796	11,452	9,849	86%
BSAI Kamchatka Flounder	4,250	+300	4,550	4,522	99%
BSAI Northern Rockfish*	5,525	+3,600	9,125	9,071	99%
BSAI Sculpins*	4,250	+1,358	5,608	5,438	97%
BSAI Sharks*	106	+49	155	143	92%
BSAI Shortraker Rockfish*	304	+96	400	381	95%
BS/EAI Rougheye Rockfish*	64	+41	105	90	86%
CAI/WAI Rougheye Rockfish	173	+31	204	304	149%
<b>Reserves</b>	<b>13,150</b>	<b>-13,150</b>	<b>0</b>	<i>Na</i>	<i>Na</i>

## BSAI Groundfish Species Placed on Prohibited Species Status

2018	Date
Sablefish in BS subarea by non-CDQ trawl	April 5
"Other Flatfish" in the BSAI	September 13
"Other Rockfish" in the AI subarea	September 27

2019	Date
Sablefish in BS subarea by non-CDQ trawl	June 29
Blackspotted /Rougheye in Western/Central AI	August 6
"Other Rockfish" in the AI subarea	August 6

# BSAI Trawl Groundfish Retained and Discards

2018 Trawl	Retained	Discards	% Retained
Pollock	1,364,481	10,846	99%
Yellowfin Sole	127,109	2,070	98%
Pacific Cod	68,754	454	99%
Atka Mackerel	69,691	652	99%
Pacific Ocean Perch	32,459	2,288	93%
Rock Sole	27,150	1,099	96%
Alaska Plaice	21,323	2,018	91%
Flathead Sole	10,180	462	96%
Arrowtooth Flounder	5,797	845	87%
Northern Rockfish	5,240	493	91%
Skates	2,810	2,664	51%
Kamchatka Flounder	2,853	189	94%
Other Flatfish *	876	5,068	15%
Sculpin	87	3,118	3%
Sablefish *	892	355	72%
Greenland Turbot	1,509	41	97%
Other Rockfish *	687	205	77%
Rougeye Rockfish	186	21	90%
Shortraker Rockfish	174	54	76%
Other Species	16	90	15%
Squid	1,299	437	75%
<b>44 TOTAL</b>	<b>1,743,574</b>	<b>33,471</b>	<b>98%</b>

2019 Trawl	Retained	Discards	% Retained
Pollock	1,395,497	8,438	99%
Yellowfin Sole	123,188	1,676	99%
Pacific Cod	57,902	511	99%
Atka Mackerel	56,823	587	99%
Pacific Ocean Perch	39,398	3,807	91%
Rock Sole	24,192	1,457	94%
Alaska Plaice	15,451	607	96%
Flathead Sole	14,367	501	97%
Arrowtooth Flounder	8,650	898	91%
Northern Rockfish	8,577	462	95%
Skates	3,048	3,346	48%
Kamchatka Flounder	4,188	283	94%
Other Flatfish	1,090	2,642	29%
Sculpin	39	3,393	1%
Sablefish *	1,317	1,481	47%
Greenland Turbot	2,276	40	98%
Other Rockfish *	829	360	70%
Rougeye Rockfish*	264	102	72%
Shortraker Rockfish	282	66	81%
Other Species	11	121	9%
Squid	na	na	na
<b>TOTAL</b>	<b>1,757,388</b>	<b>30,776</b>	<b>98%</b>

Sorted by 2019 Total catch: \* prohibited retention of that species in that year

# BSAI Fixed Gear Groundfish Retained and Discards

2018 Hook-and-Line	Retained	Discards	% Retained
Pacific Cod	101,787	1,707	98%
Skates	9,472	16,261	37%
Pollock	5,272	577	90%
Sculpins	2	1,684	0%
Other Flatfish	192	2,251	8%
Greenland Turbot	251	26	90%
Sablefish	274	73	79%
Arrowtooth	132	286	32%
Other Rockfish	43	80	35%
Other Species	15	48	24%
Sharks	0	25	0%
Shortraker Rockfish	6	15	29%
Rougeye Rockfish	14	17	44%
<b>TOTAL</b>	<b>117,460</b>	<b>23,051</b>	<b>84%</b>

2019 Hook-and-Line	Retained	Discards	% Retained
Pacific Cod	82,444	1,365	98%
Skates	5,786	6,280	48%
Pollock	5,172	632	89%
Sculpins	4	1,704	0%
Other Flatfish	35	1,241	3%
Greenland Turbot	521	20	96%
Sablefish	277	138	67%
Arrowtooth	138	178	44%
Other Rockfish*	35	64	36%
Other Species	15	32	32%
Sharks	0	32	0%
Shortraker Rockfish	1	29	5%
Rougeye Rockfish*	6	19	23%
<b>TOTAL</b>	<b>94,434</b>	<b>11,732</b>	<b>89%</b>

2018 Pot	Retained	Discards	% Retained
Pacific Cod	28,620	43	100%
Sablefish	623	40	94%
Octopus	163	69	70%
Other Species	86	537	14%
<b>TOTAL</b>	<b>29,492</b>	<b>735</b>	<b>98%</b>

2019 Pot	Retained	Discards	% Retained
Pacific Cod	25,076	17	100%
Sablefish	109	63	63%
Octopus	595	27	96%
Other Species	46	739	6%
<b>TOTAL</b>	<b>25,825</b>	<b>846</b>	<b>97%</b>

# 2019 Salmon, Crab, and Herring PSC

Chinook Salmon (#)	Total Catch	Limit	%
Pollock Fishery	24,984	45,000	56%
Non-Pollock Fisheries	6,327	<i>na</i>	<i>na</i>
Non-Chinook Salmon (#)	Total Catch	Limit	%
Pollock Fishery	347,879	<i>na</i>	<i>na</i>
Non-Pollock Fisheries	9,974	<i>na</i>	<i>na</i>

## Trawl Gear

Other PSC Species	Total Catch
Opilio Tanner Crab (#)	930,241
Bairdi Tanner Crab (#)	324,420
Red King Crab (#)	65,711
Blue King Crab (#)	727
Golden King Crab (#)	32,879
Herring (mt)	1,182

## Fixed Gear

Other PSC Species	Total Catch
Opilio Tanner Crab (#)	85,239
Bairdi Tanner Crab (#)	125,339
Red King Crab (#)	46,703
Blue King Crab (#)	4,206
Golden King Crab (#)	13,335

# 2019 BSAI Halibut Catch

## Hook-and-Line Halibut Catch

Hook-and-Line Halibut (mt)	Retained	Discard *	% Discarded	Mortality **	Limit	%
IFQ \ CDQ Halibut Fishery	2,060	639	24%	102	na	na
IFQ \ CDQ Sablefish Fishery	17	8	32%	1	na	na
Pacific Cod \ Other Species	5	1,002	99%	79	710	11%
<b>TOTAL</b>	<b>2,082</b>	<b>1,649</b>	<b>44%</b>	<b>182</b>	<b>na</b>	<b>na</b>

All Catch, retained and discarded is in round weight metric tons

- \* Halibut discards are based on best available information collected by the North Pacific Observer program. Methods used by observers may overestimate total discards because average weights contain both retained and discarded halibut.

- \*\* IFQ Halibut discard mortality rate is 16%

- Gilroy, H.L. 2012. Incidental mortality of halibut in the commercial halibut fishery (Wastage). *Int. Pac. Halibut Comm. Report of Assessment and Research Activities*

- \*\* IFQ Sablefish and Pacific cod halibut mortality rate is 8% for HAL CPs, 4% for HAL CVs, and 19% for Pot CPs and CVs.

## Trawl Halibut Catch\*

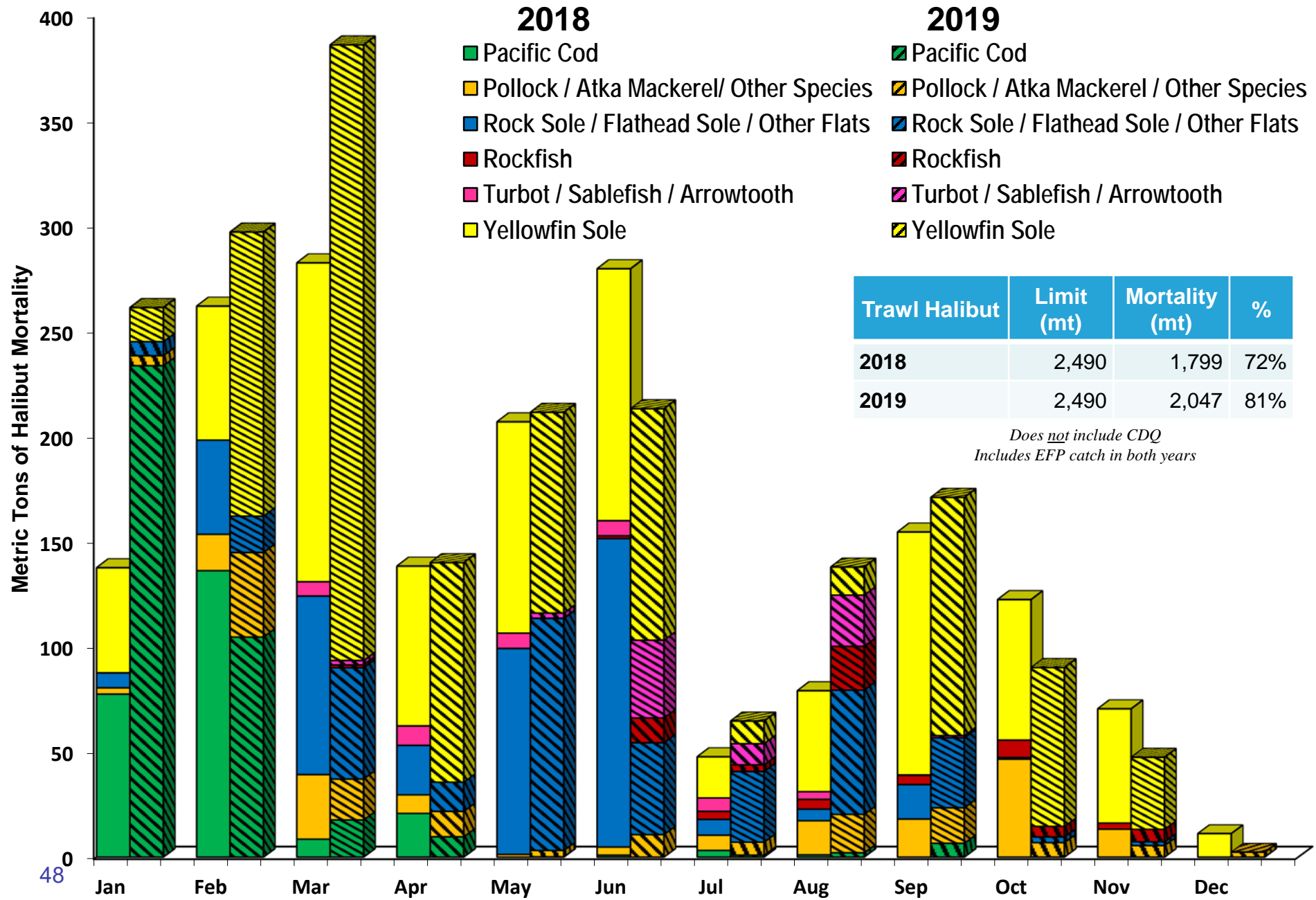
Trip Target	Mortality	Limit
Arrowtooth / Kamchatka / Turbot	77	2,490
Atka Mackerel	51	
Flathead Sole / Other Flatfish	189	
Pacific Cod	377	
Pollock	95	
Rockfish	49	
Rock Sole	192	
Yellowfin Sole	1,017	
<b>TOTAL</b>	<b>2,047</b>	

## EFP Deck Sorting Halibut Mortality

Year	EFP Mortality	Vessels	% of Trawl Halibut Mortality
2016	206	11	10%
2017	578	17	33%
2018	895	21	50%
2019	1,107	22	54%

The EFP halibut mortality above is included in the Trawl halibut mortality totals to the left.

# 2018 / 2019 BSAI Trawl Halibut Mortality





# 2019 BSAI Reduction in Halibut Mortality Compared to 5 year Average

Sector	2014-2018 Average (mt)	2019 ** (mt)	% Change (mt)	2014-2018 Rate*	2019 Rate*	% Change in Rate
<b>Hook-and-line</b>						
Catcher/Processors	238	74	-69%	1.71	0.83	-52%
Catcher Vessels	2	2	-36%	3.09	1.43	-54%
<b>Total</b>	<b>241</b>	<b>76</b>	<b>-69%</b>	<b>1.72</b>	<b>0.84</b>	<b>-51%</b>
<b>Non-Pelagic Trawl</b>						
Amendment 80 Catcher/Processors	1,547	1,404	-9%	4.96	4.61	-7%
AFA Catcher/Processors	103	39	-62%	5.00	4.26	-15%
Catcher Vessels	334	499	49%	5.62	8.94	59%
<b>Total</b>	<b>1,984</b>	<b>1,943</b>	<b>-2%</b>	<b>5.06</b>	<b>5.26</b>	<b>4%</b>
<b>Pelagic Trawl</b>						
AFA Catcher/Processors	61	66	8%	0.13	0.13	2%
AFA Catcher Vessels	27	16	-41%	0.04	0.02	-44%
<b>Total</b>	<b>88</b>	<b>82</b>	<b>-7%</b>	<b>0.07</b>	<b>0.07</b>	<b>-12%</b>
<b>CDQ</b>						
Hook-and-line Vessels	23	4	-83%	1.10	0.32	-71%
Non-pelagic Trawl Vessels	138	154	12%	3.60	4.72	31%
Pelagic Trawl Vessels	10	17	67%	0.07	0.12	59%
<b>Total</b>	<b>171</b>	<b>175</b>	<b>2%</b>	<b>1.09</b>	<b>0.93</b>	<b>-14%</b>
<b>TOTAL</b>	<b>2,484</b>	<b>2,275</b>	<b>-8%</b>	<b>1.33</b>	<b>1.20</b>	<b>-10%</b>

\* Rate is kg of halibut / mt of groundfish

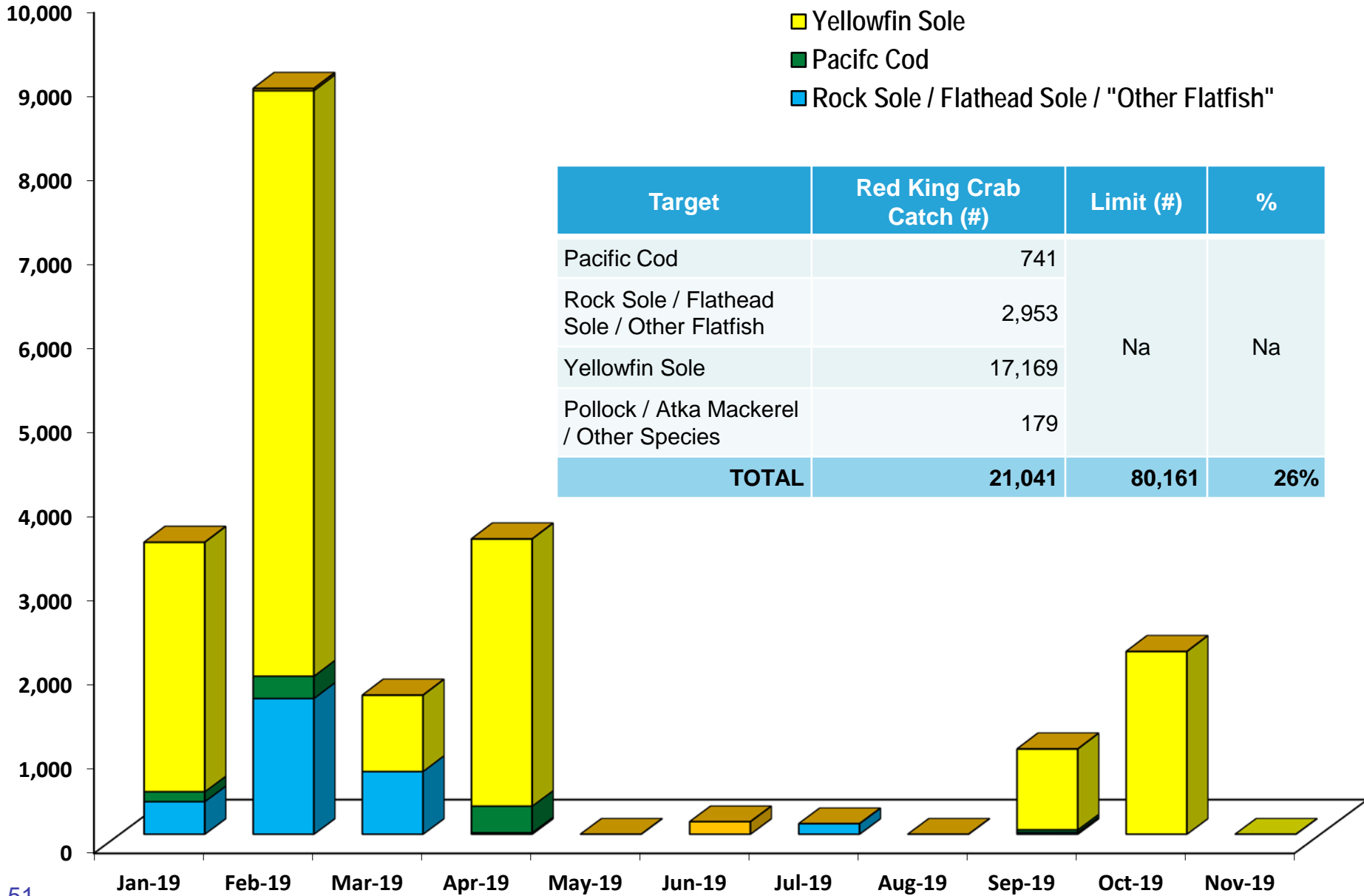
\*\* 2019 Data through November 11, 2019

# 2019 BSAI Reduction in Halibut Mortality Compared to 2018

Sector	2018 (mt)	2019 (mt) **	% Change (mt)	2018 Rate*	2019 Rate*	% Change (Rate)
<b>Hook-and-line</b>						
Catcher/Processors	115	74	-36%	0.96	0.83	-14%
Catcher Vessels	4	2	-63%	4.52	1.43	-68%
<b>Total</b>	<b>120</b>	<b>76</b>	<b>-37%</b>	<b>0.99</b>	<b>0.84</b>	<b>-15%</b>
<b>Non-Pelagic Trawl</b>						
Amendment 80 Catcher/Processors	1,343	1,404	4%	4.32	4.61	7%
AFA Catcher/Processors	105	39	-62%	5.34	4.26	-20%
Catcher Vessels	309	499	62%	5.21	8.94	72%
<b>Total</b>	<b>1,757</b>	<b>1,943</b>	<b>11%</b>	<b>4.51</b>	<b>5.26</b>	<b>17%</b>
<b>Pelagic Trawl</b>						
AFA Catcher/Processors	32	66	106%	0.07	0.13	100%
AFA Catcher Vessels	10	16	57%	0.01	0.02	53%
<b>Total</b>	<b>42</b>	<b>82</b>	<b>95%</b>	<b>0.03</b>	<b>0.07</b>	<b>89%</b>
<b>CDQ</b>						
Hook-and-line Vessels	11	4	-66%	0.62	0.32	-49%
Non-pelagic Trawl Vessels	137	154	13%	3.44	4.72	37%
Pelagic Trawl Vessels	7	17	135%	0.05	0.12	129%
<b>Total</b>	<b>156</b>	<b>175</b>	<b>13%</b>	<b>0.79</b>	<b>0.93</b>	<b>18%</b>
<b>TOTAL</b>	<b>2,074</b>	<b>2,275</b>	<b>10%</b>	<b>1.08</b>	<b>1.20</b>	<b>11%</b>

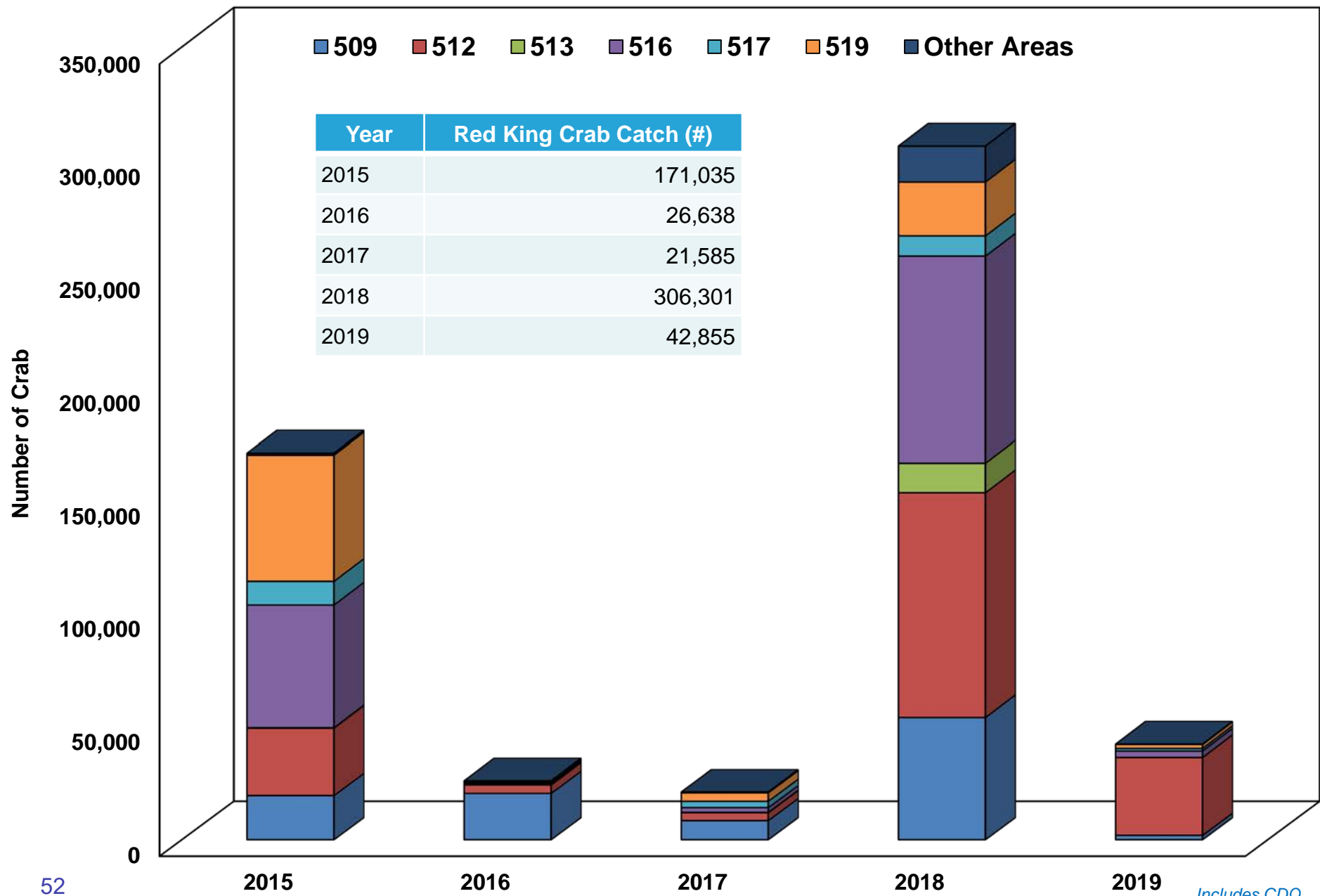
# 2019 Zone 1 Trawl Red King Crab Incidental Catch by Target

- Pollock / Atka Mackerel / Other Species
- Yellowfin Sole
- Pacific Cod
- Rock Sole / Flathead Sole / "Other Flatfish"

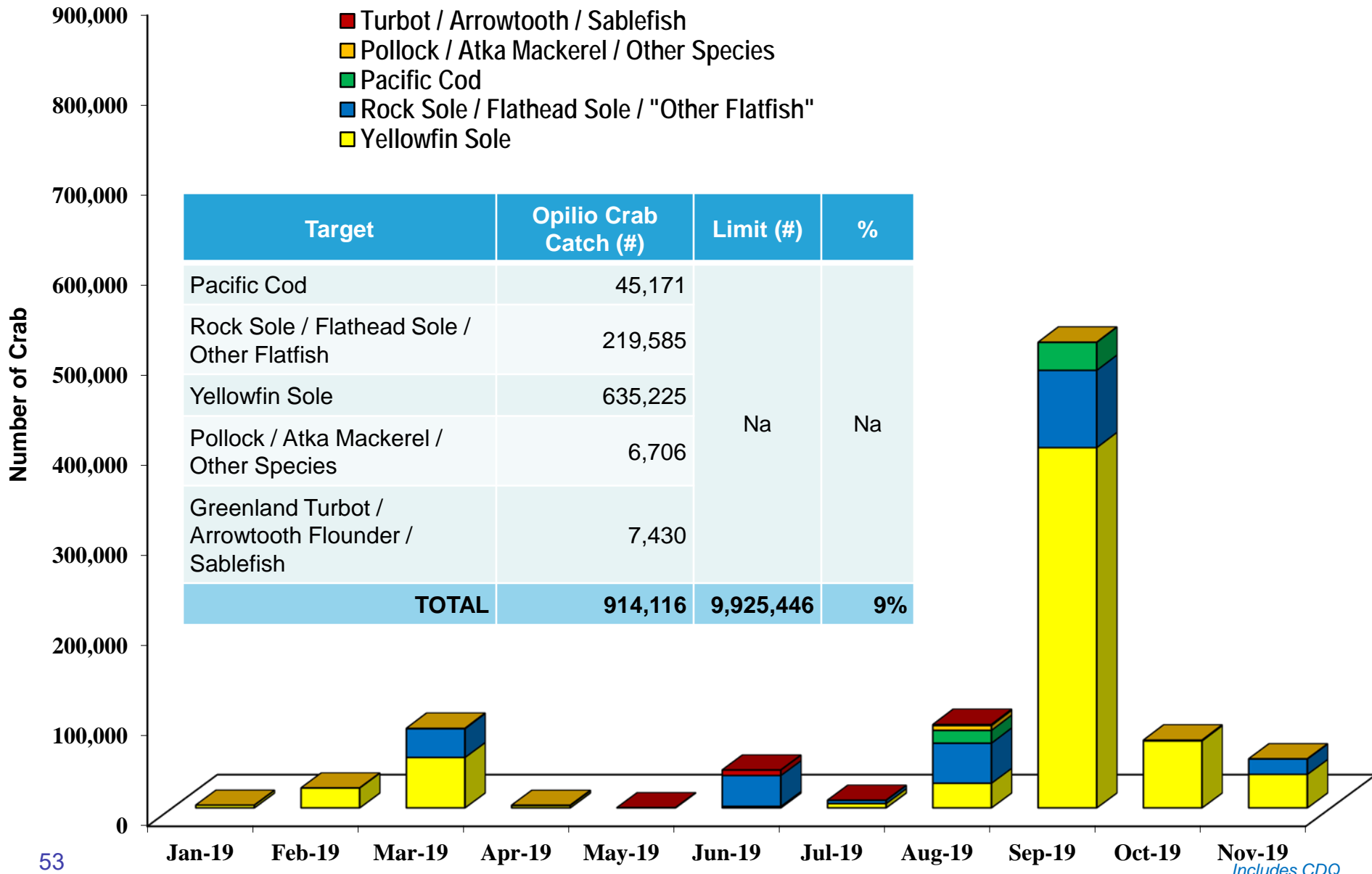


Target	Red King Crab Catch (#)	Limit (#)	%
Pacific Cod	741	Na	Na
Rock Sole / Flathead Sole / Other Flatfish	2,953		
Yellowfin Sole	17,169		
Pollock / Atka Mackerel / Other Species	179		
<b>TOTAL</b>	<b>21,041</b>	<b>80,161</b>	<b>26%</b>

# 2015-2019 Fixed Gear Red King Crab Incidental Catch

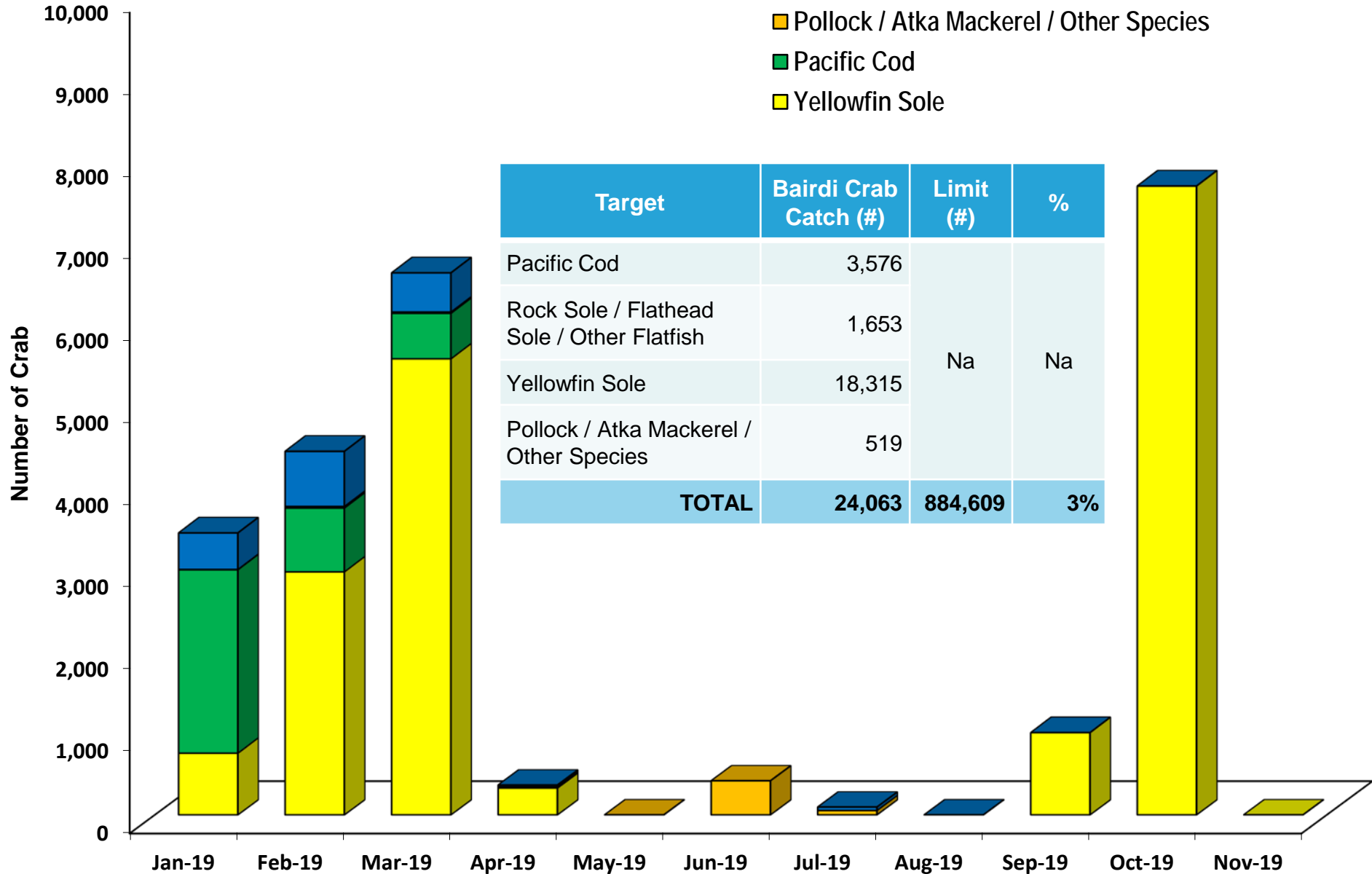


# 2019 COBLZ Trawl Opilio Crab Incidental Catch by Target



# 2019 Zone 1 Trawl Bairdi Crab Incidental Catch by Target

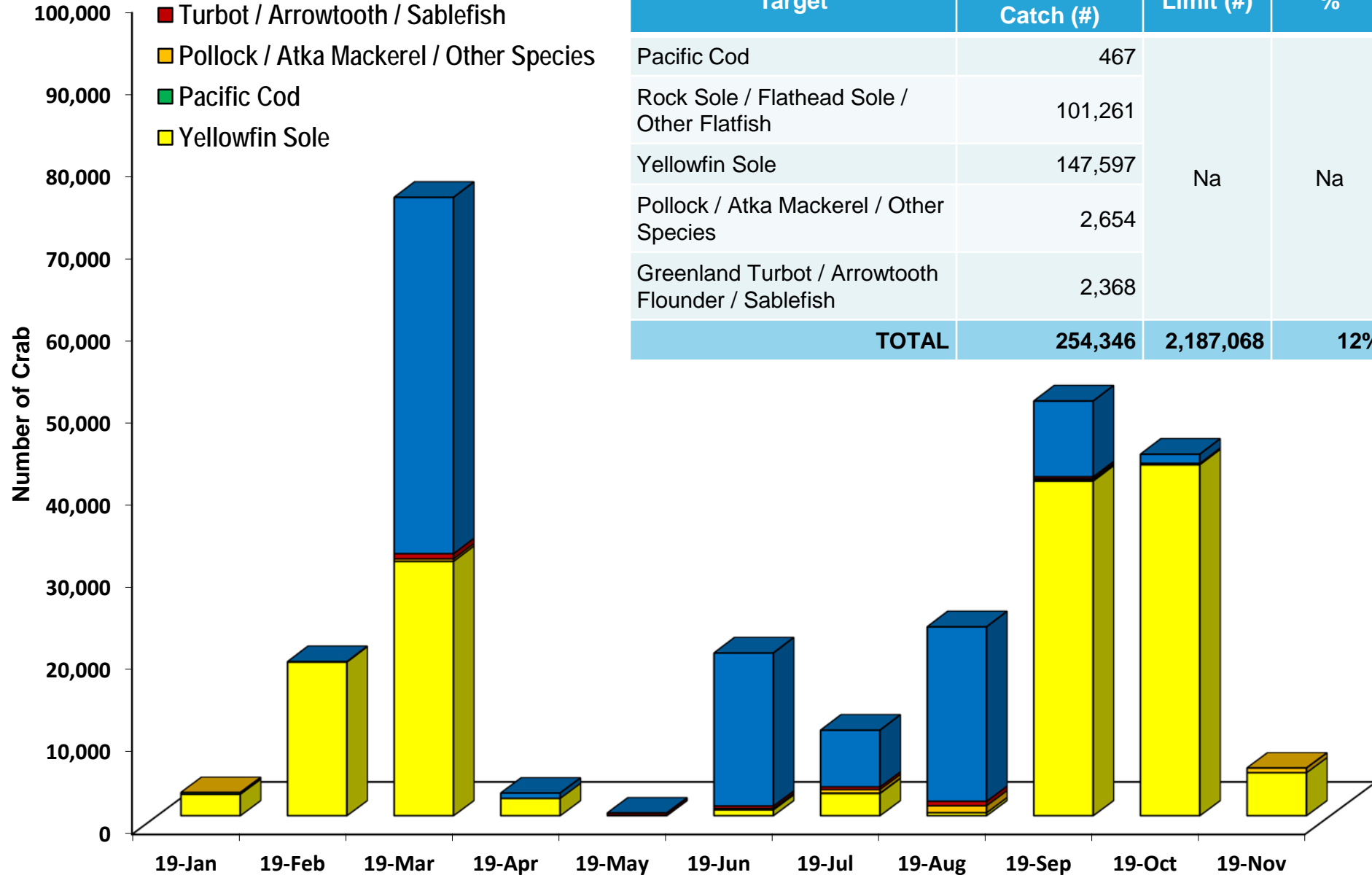
- Rock Sole / Flathead Sole/ Other Flatfish
- Pollock / Atka Mackerel / Other Species
- Pacific Cod
- Yellowfin Sole



# 2019 Zone 2 Trawl Bairdi Crab Incidental Catch by Target

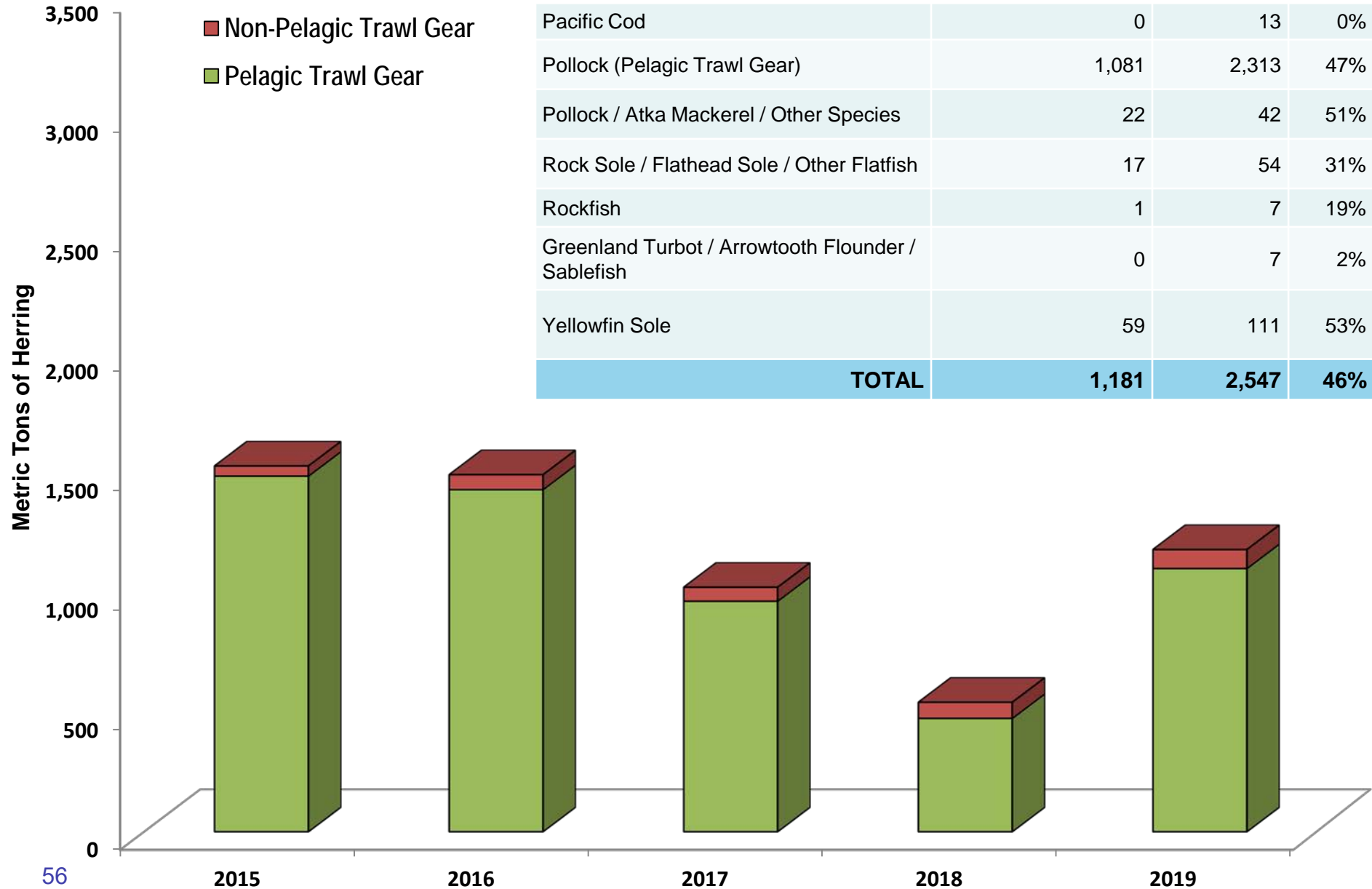
- Rock Sole / Flathead Sole / Other Flatfish
- Turbot / Arrowtooth / Sablefish
- Pollock / Atka Mackerel / Other Species
- Pacific Cod
- Yellowfin Sole

Target	Bairdi Crab Catch (#)	Limit (#)	%
Pacific Cod	467	Na	Na
Rock Sole / Flathead Sole / Other Flatfish	101,261		
Yellowfin Sole	147,597		
Pollock / Atka Mackerel / Other Species	2,654		
Greenland Turbot / Arrowtooth Flounder / Sablefish	2,368		
<b>TOTAL</b>	<b>254,346</b>	<b>2,187,068</b>	<b>12%</b>



# 2015 - 2019 BSAI Trawl Herring Incidental Catch

Target	Herring Catch (mt)	Limit (mt)	%
Pacific Cod	0	13	0%
Pollock (Pelagic Trawl Gear)	1,081	2,313	47%
Pollock / Atka Mackerel / Other Species	22	42	51%
Rock Sole / Flathead Sole / Other Flatfish	17	54	31%
Rockfish	1	7	19%
Greenland Turbot / Arrowtooth Flounder / Sablefish	0	7	2%
Yellowfin Sole	59	111	53%
<b>TOTAL</b>	<b>1,181</b>	<b>2,547</b>	<b>46%</b>

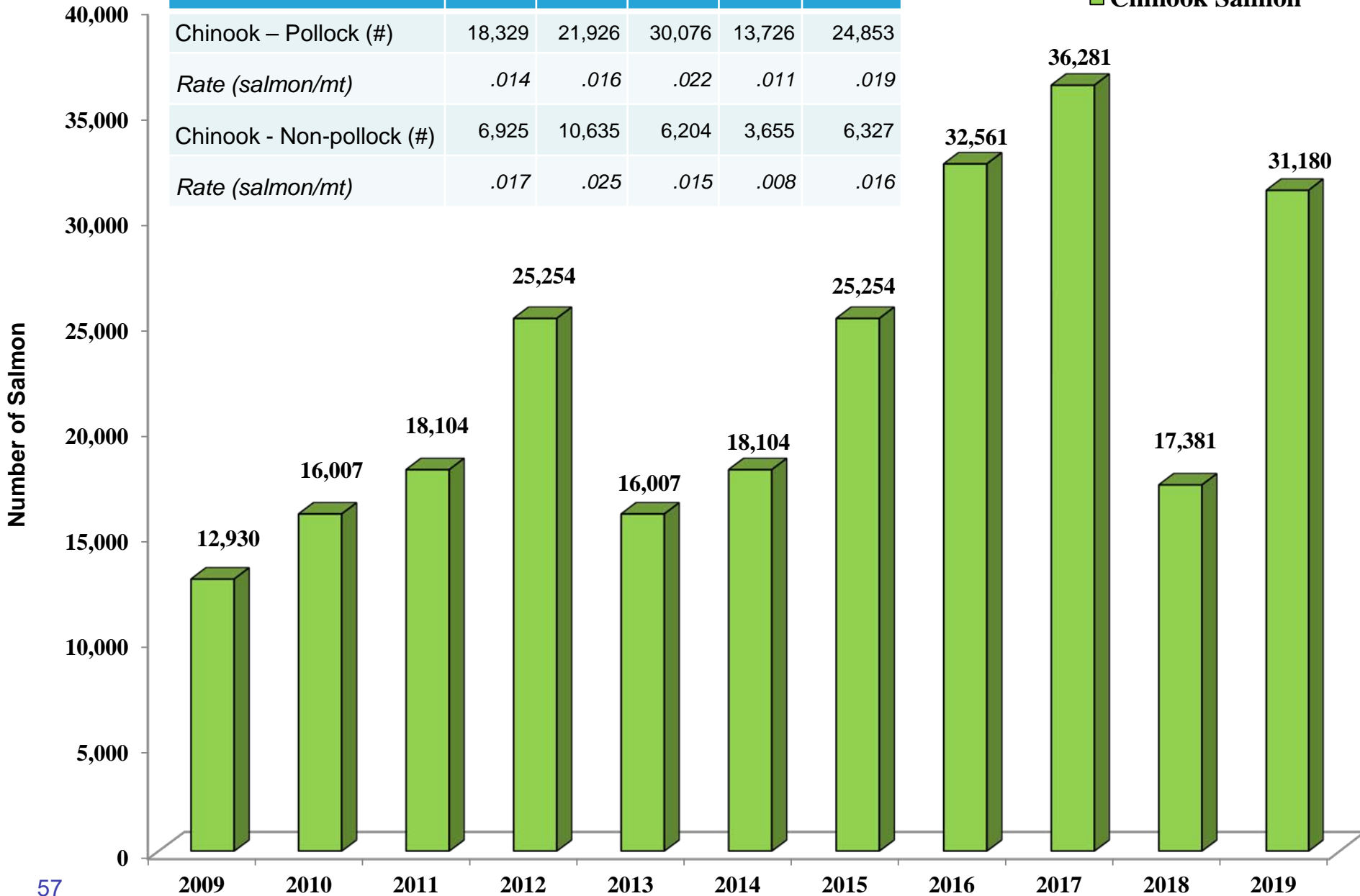




# BSAI Trawl Chinook Salmon Incidental Catch

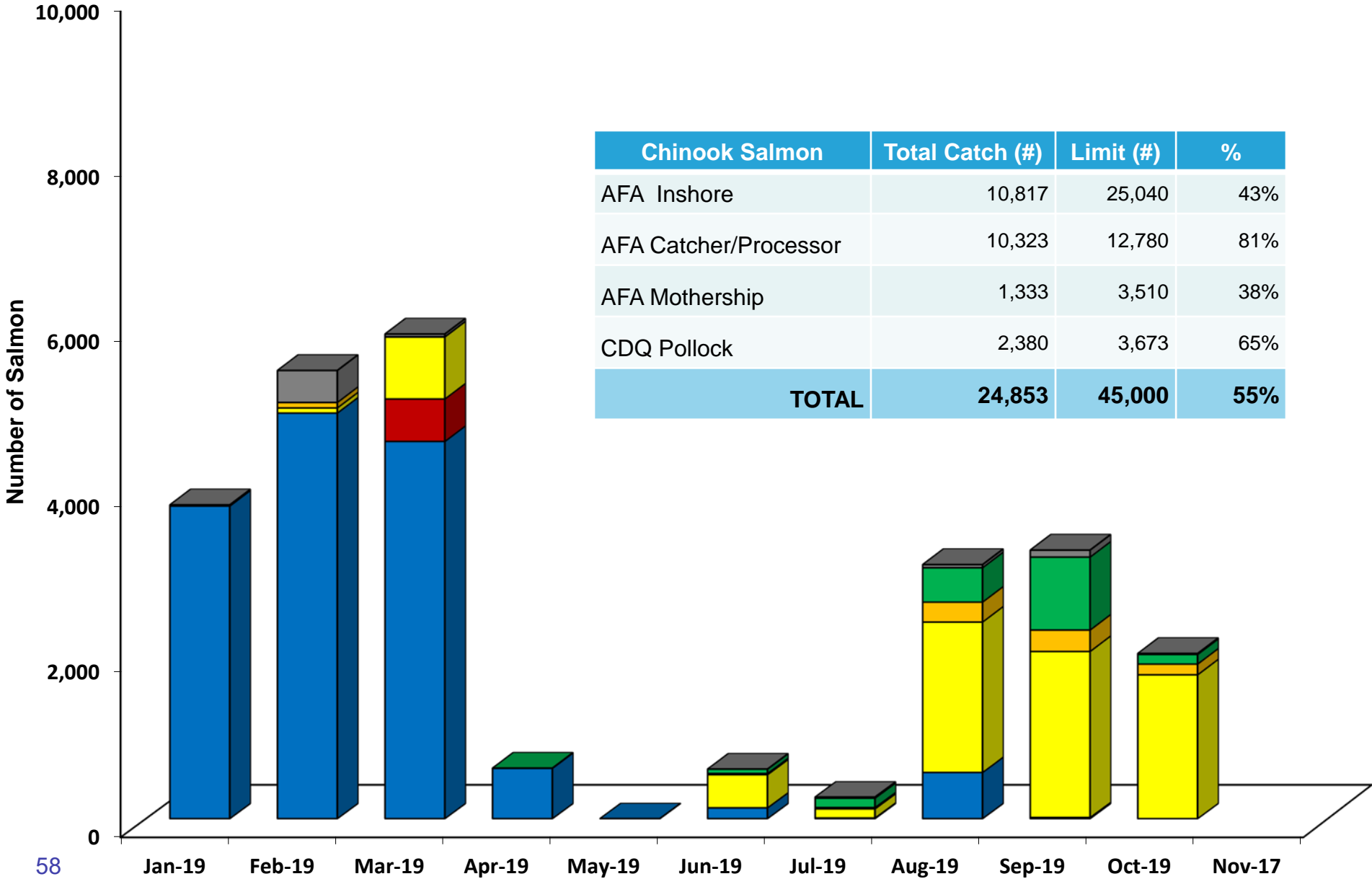
Chinook Salmon	2015	2016	2017	2018	2019
Chinook – Pollock (#)	18,329	21,926	30,076	13,726	24,853
<i>Rate (salmon/mt)</i>	.014	.016	.022	.011	.019
Chinook - Non-pollock (#)	6,925	10,635	6,204	3,655	6,327
<i>Rate (salmon/mt)</i>	.017	.025	.015	.008	.016

■ Chinook Salmon



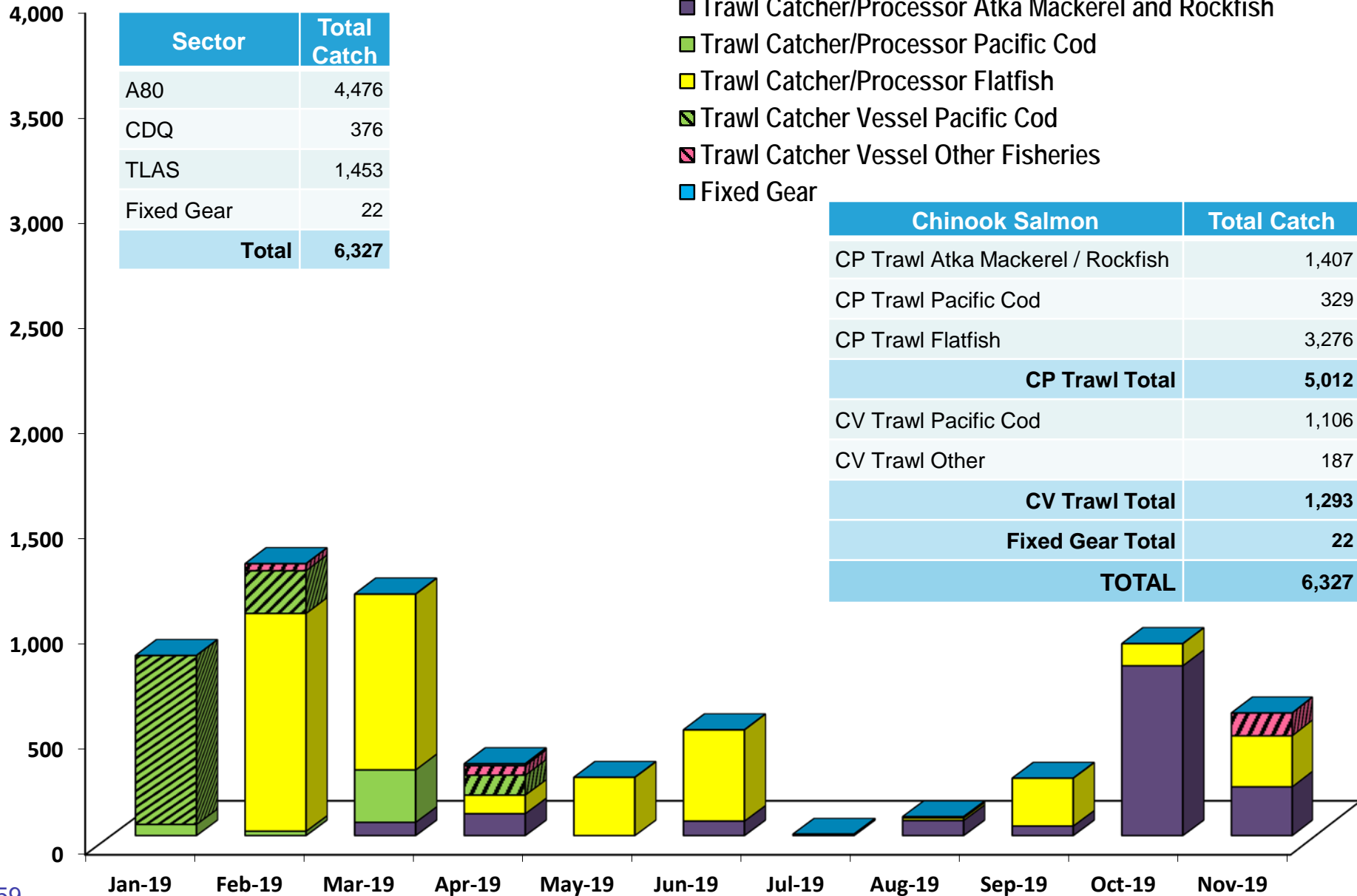
# BSAI Pollock Fishery Chinook Salmon Incidental Catch

■ 509     
 ■ 513     
 ■ 517     
 ■ 519     
 ■ 521     
 ■ Other



Chinook Salmon	Total Catch (#)	Limit (#)	%
AFA Inshore	10,817	25,040	43%
AFA Catcher/Processor	10,323	12,780	81%
AFA Mothership	1,333	3,510	38%
CDQ Pollock	2,380	3,673	65%
<b>TOTAL</b>	<b>24,853</b>	<b>45,000</b>	<b>55%</b>

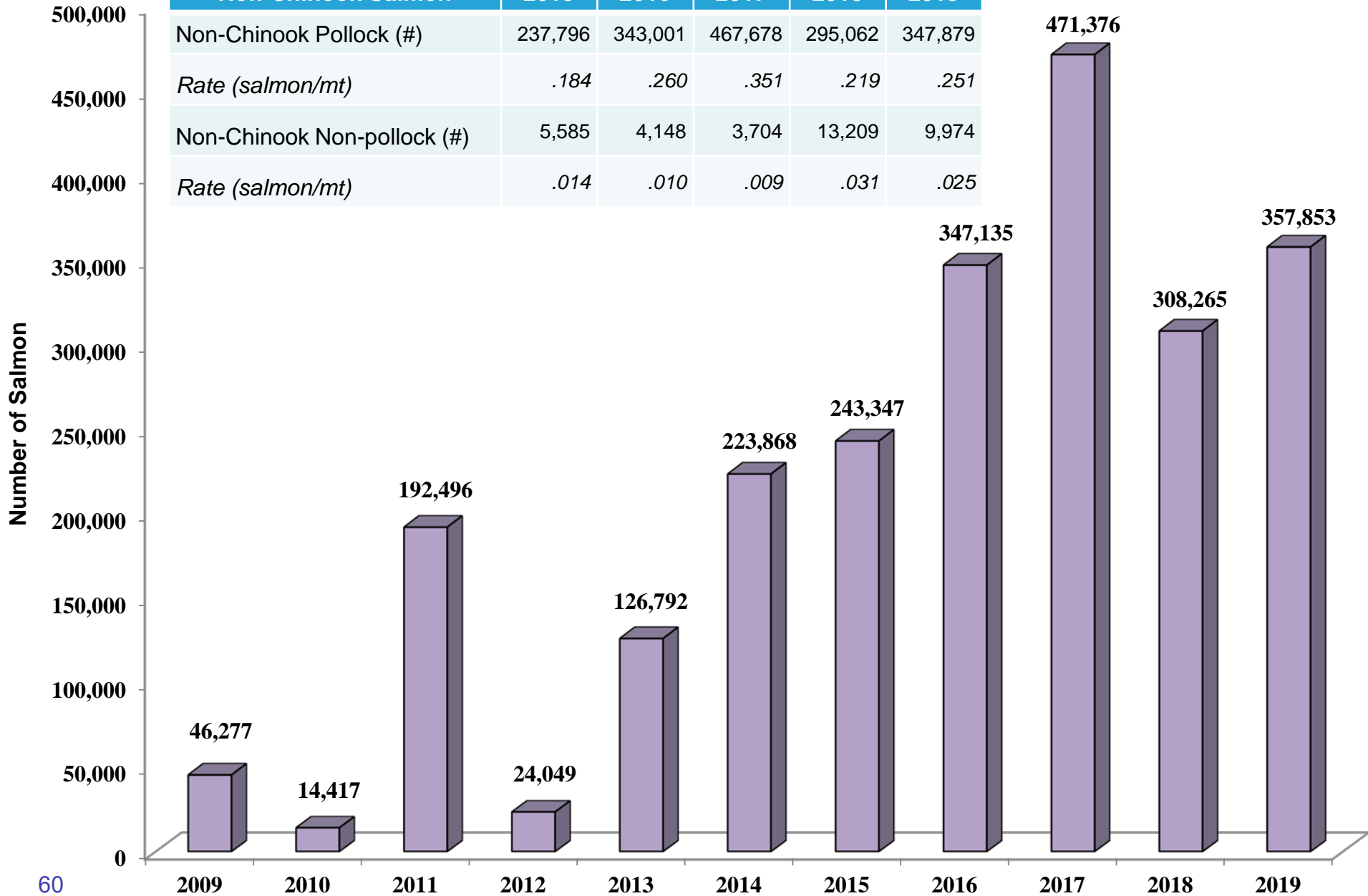
# 2019 Non-Pollock Fishery Chinook Salmon Incidental Catch by Fishery and Sector



# BSAI Trawl Non-Chinook Salmon Incidental Catch

Non-Chinook Salmon	2015	2016	2017	2018	2019
Non-Chinook Pollock (#)	237,796	343,001	467,678	295,062	347,879
<i>Rate (salmon/mt)</i>	<i>.184</i>	<i>.260</i>	<i>.351</i>	<i>.219</i>	<i>.251</i>
Non-Chinook Non-pollock (#)	5,585	4,148	3,704	13,209	9,974
<i>Rate (salmon/mt)</i>	<i>.014</i>	<i>.010</i>	<i>.009</i>	<i>.031</i>	<i>.025</i>

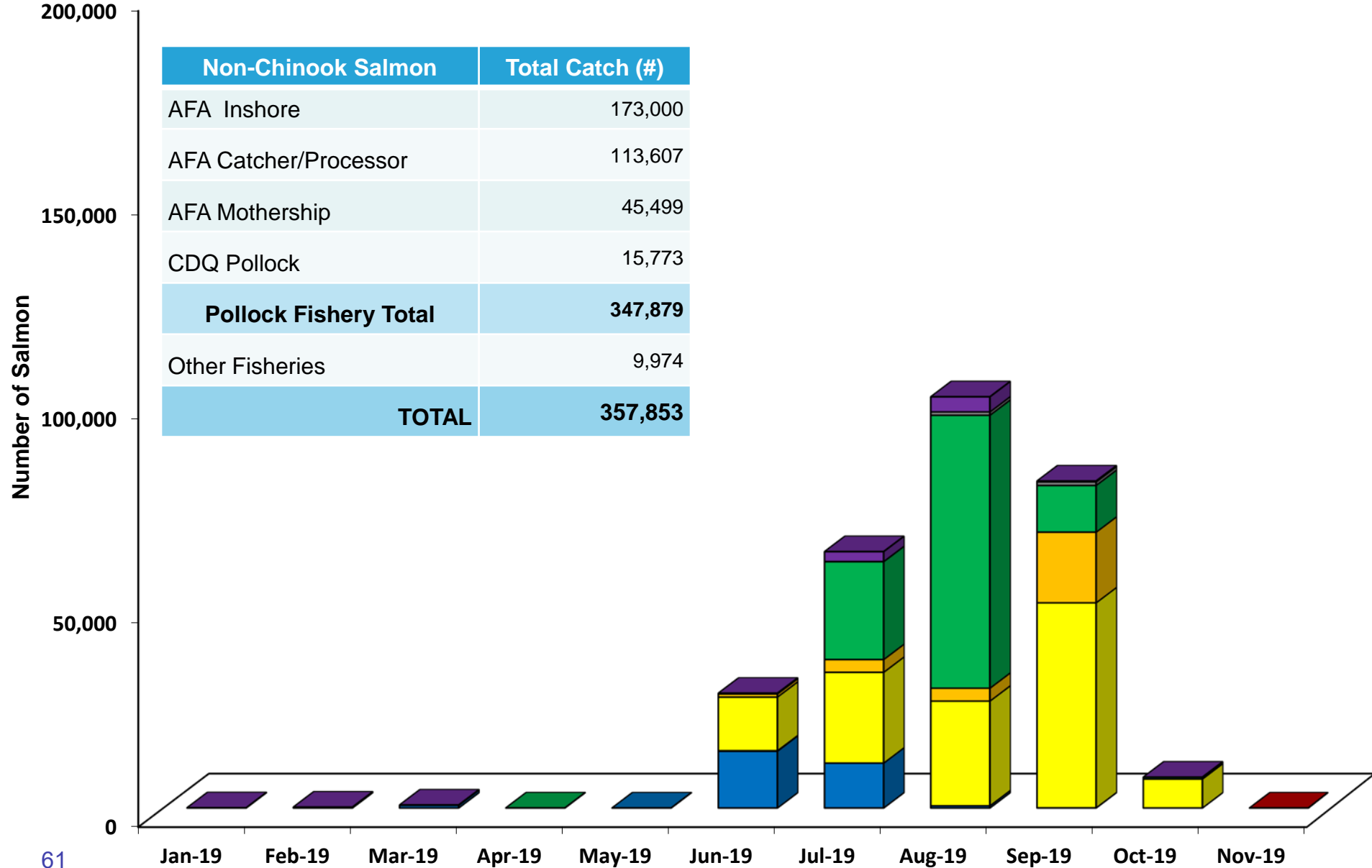
■ Non-Chinook Salmon



# BSAI Trawl Non-Chinook Salmon Incidental Catch

■ 509   
 ■ 513   
 ■ 517   
 ■ 519   
 ■ 521   
 ■ 524   
 ■ AI   
 ■ Other

Non-Chinook Salmon	Total Catch (#)
AFA Inshore	173,000
AFA Catcher/Processor	113,607
AFA Mothership	45,499
CDQ Pollock	15,773
<b>Pollock Fishery Total</b>	<b>347,879</b>
Other Fisheries	9,974
<b>TOTAL</b>	<b>357,853</b>



# Acknowledgements

## (BSAI and GOA)

### Industry Reports:

#### Catcher vessels

- 1,267 unique vessels with approximately 12,548 landings to 75 unique processors

#### Catcher processors

- 67 unique vessels fishing approximately 13,475 vessel days

### Observer Program

- FMA staff
- All observers

### Elandings Team

- ADF&G, IPHC and Enforcement

### Inseason Staff

- Mary Furuness
- Josh Keaton
- Obren Davis
- Steve Whitney
- Krista Milani (Dutch Harbor)

### Information Services

- Application Development Staff
- Contractors

### Permits Staff

- Restricted Access Management

### Catch accounting Staff

- Jennifer Mondragon
- Jason Gasper
- Cathy Tide
- Steve Lewis
- Maggie Chan
- Jennifer Watson
- Phil Ganz
- Vernon Shoemaker
- Bill Donaldson (Kodiak)