Copper River District Salmon Fisheries, 2017 Report to the Alaska Board of Fisheries

RC 3
Oral Report Tab 5

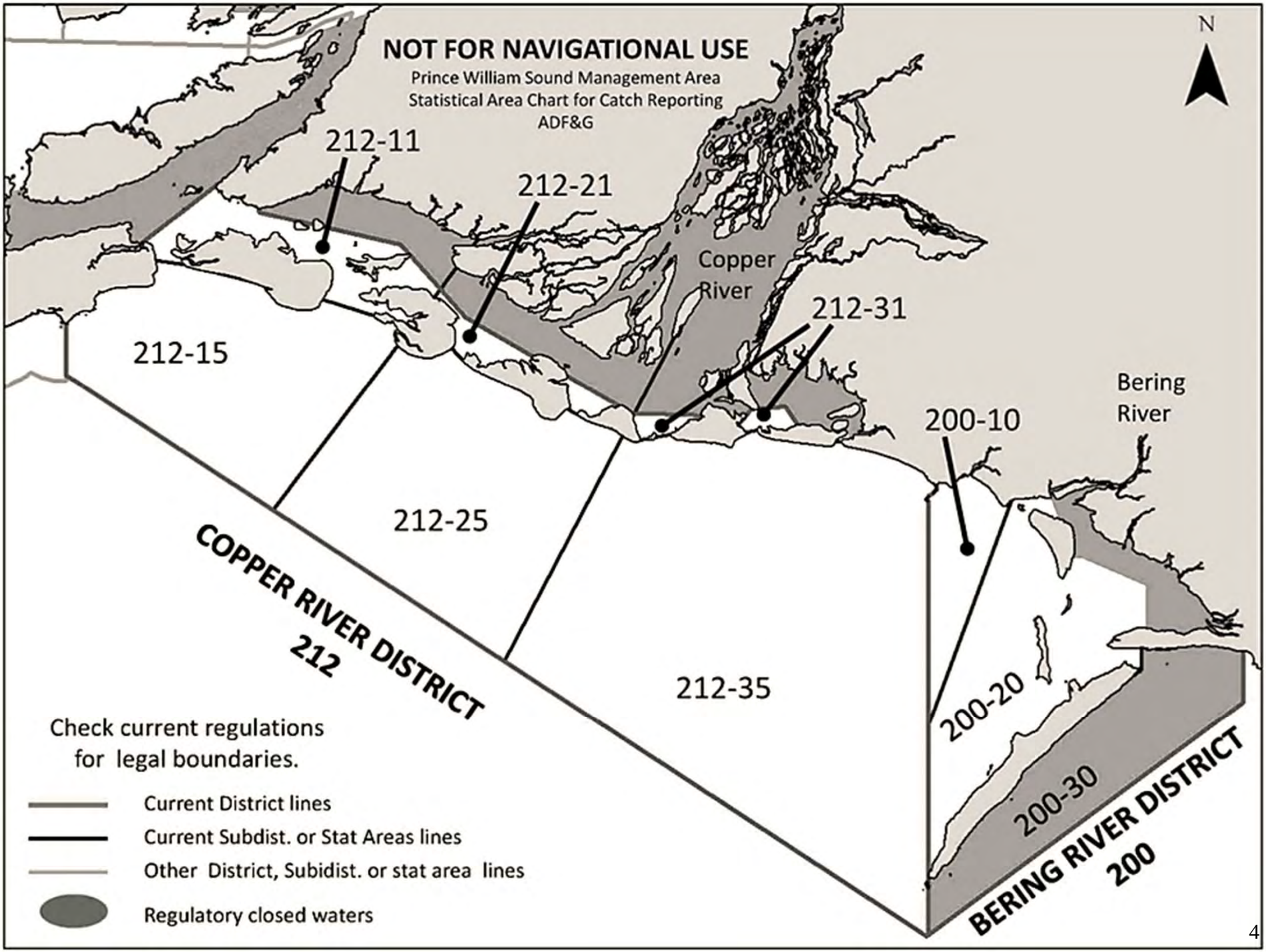
Jeremy Botz
Alaska Department of Fish and Game
Commercial Fisheries Division, Cordova

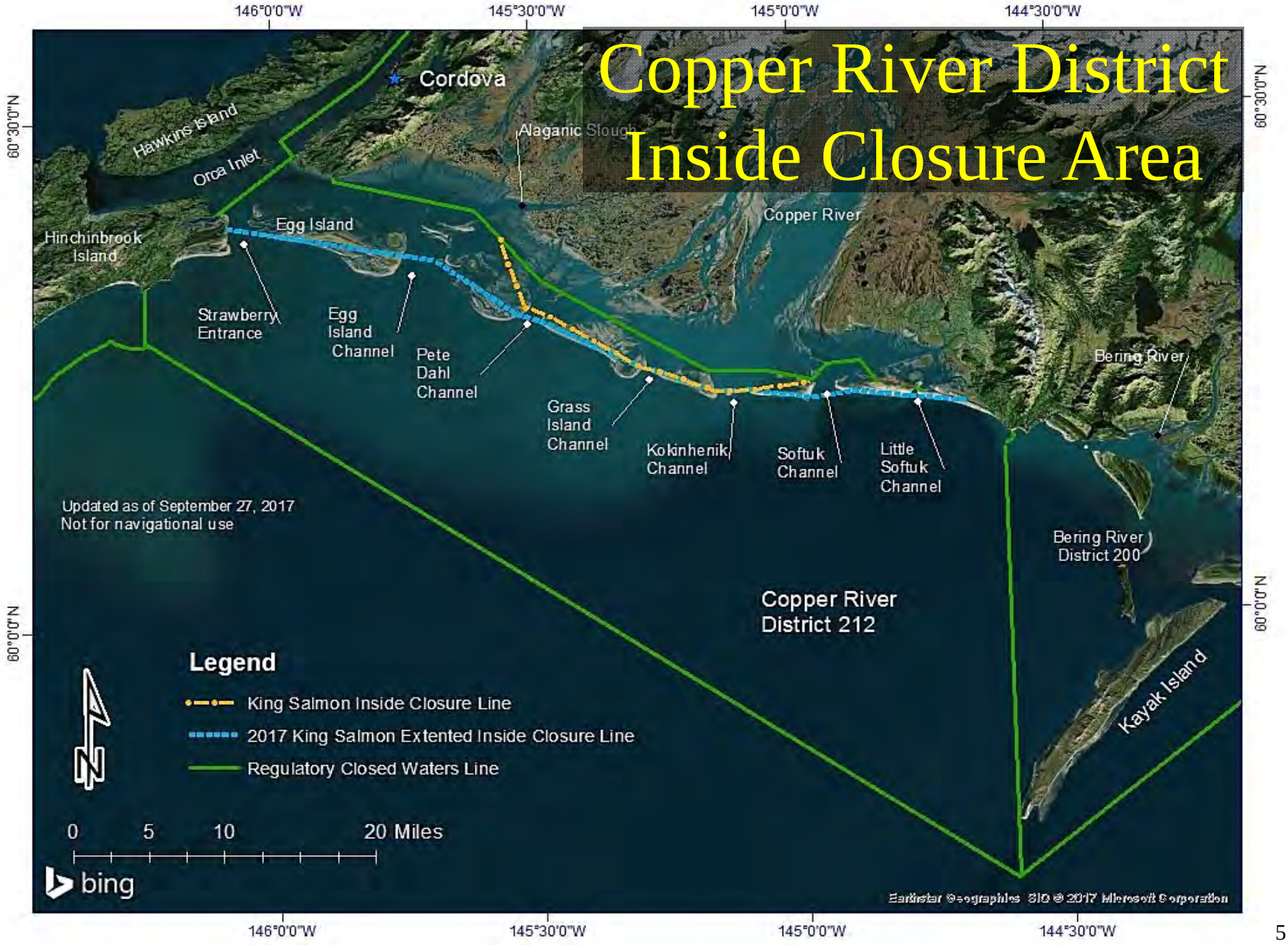
Presentation Overview

- Copper River Drainage and Commercial Districts Overview
- Fishery Assessment Tools and Methods Summary
- Copper River Escapement and Harvest Levels
- Proposals Before the Board

Copper River Drainage

- Encompasses over 24,000 square miles and is Alaska's fifth largest river system
- Extends from Summit Lake to the Gulf of Alaska
- Numerous land managers


NOT FOR NAVIGATIONAL USE
Prince William Sound Management Area
Statistical Area Chart for Catch Reporting
ADF&G
N
212-11
212-21
212-31
212-15
212-25
212-35
Copper River
Bering River
200-10
200-20
200-30
COPPER RIVER DISTRICT
212
BERING RIVER DISTRICT
200
Check current regulations
for legal boundaries.
Current District lines
Current Subdist. or Stat Areas lines
Other District, Subidist. or stat area lines
Regulatory closed waters

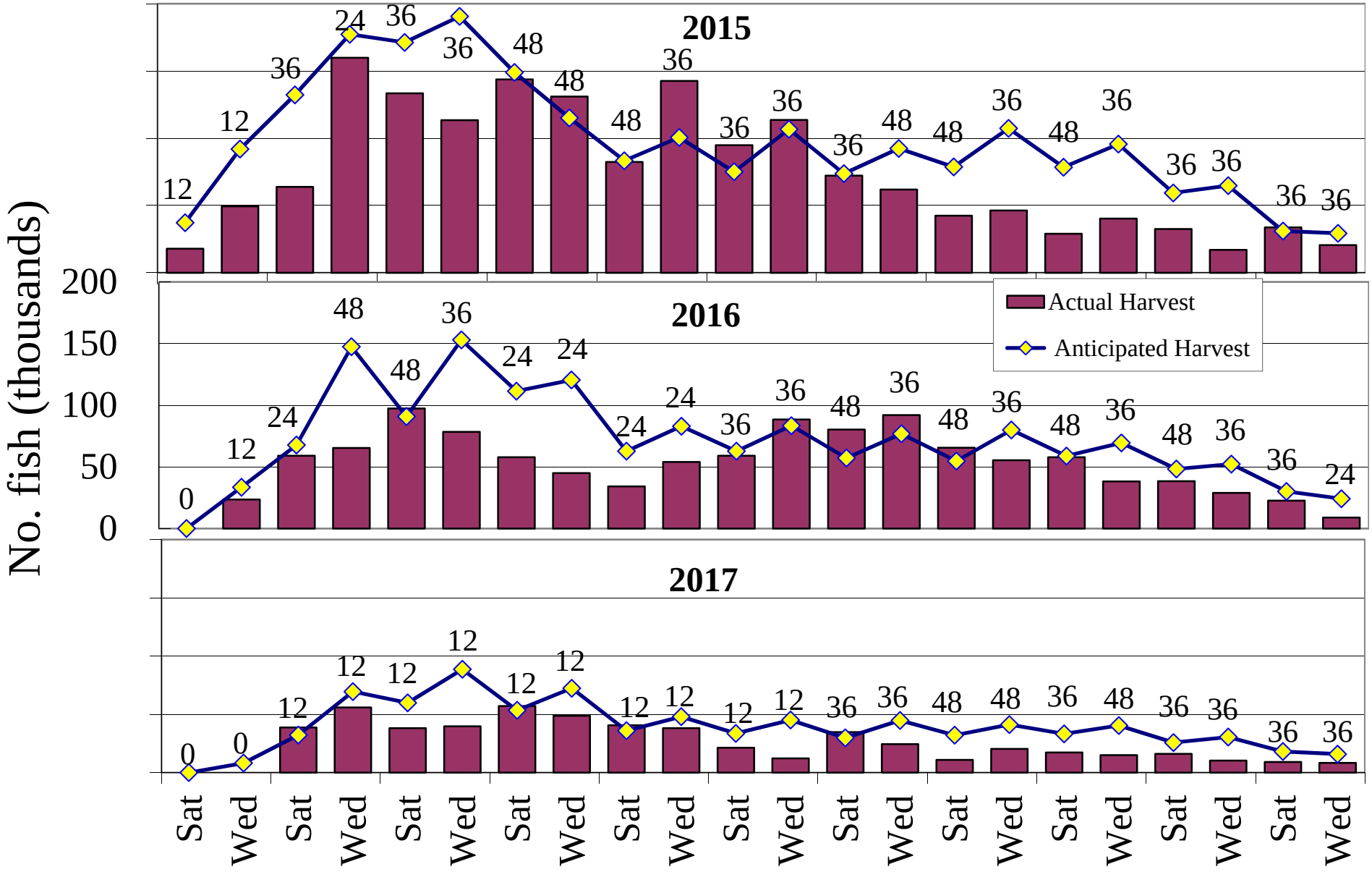

Copper River District
Inside Closure Area
146°0'0"W
145°30'0"W
145°0'0"W
144°30'0"W
60°30'0"N
60°0'0"N
Cordova
Hawkins Island
Orca Inlet
Alaganic Slough
Copper River
Hinchinbrook Island
Egg Island
Strawberry Entrance
Egg Island Channel
Pete Dahl Channel
Grass Island Channel
Kokinhenik Channel
Softuk Channel
Little Softuk Channel
Bering River
Updated as of September 27, 2017
Not for navigational use
Bering River District 200
Copper River District 212
Kayak Island
Legend
King Salmon Inside Closure Line
2017 King Salmon Extented Inside Closure Line
Regulatory Closed Waters Line
0 5 10 20 Miles
bing
Earthstar Geographics SIO © 2017 Microsoft Corporation

Primary Tools for Management of the Copper River District

These are:

- Abundance and environment based management (early season)
- Sonar counts from Miles Lake (early to mid season)
- Aerial survey estimates (mid to late season)

2015–2017 Abundance Based Management – Sockeye Salmon



*Fishing period duration in hours shown on top of bars in graphs

Forecast vs Abundance Based Management
2017 Commercial Fishery Case Study

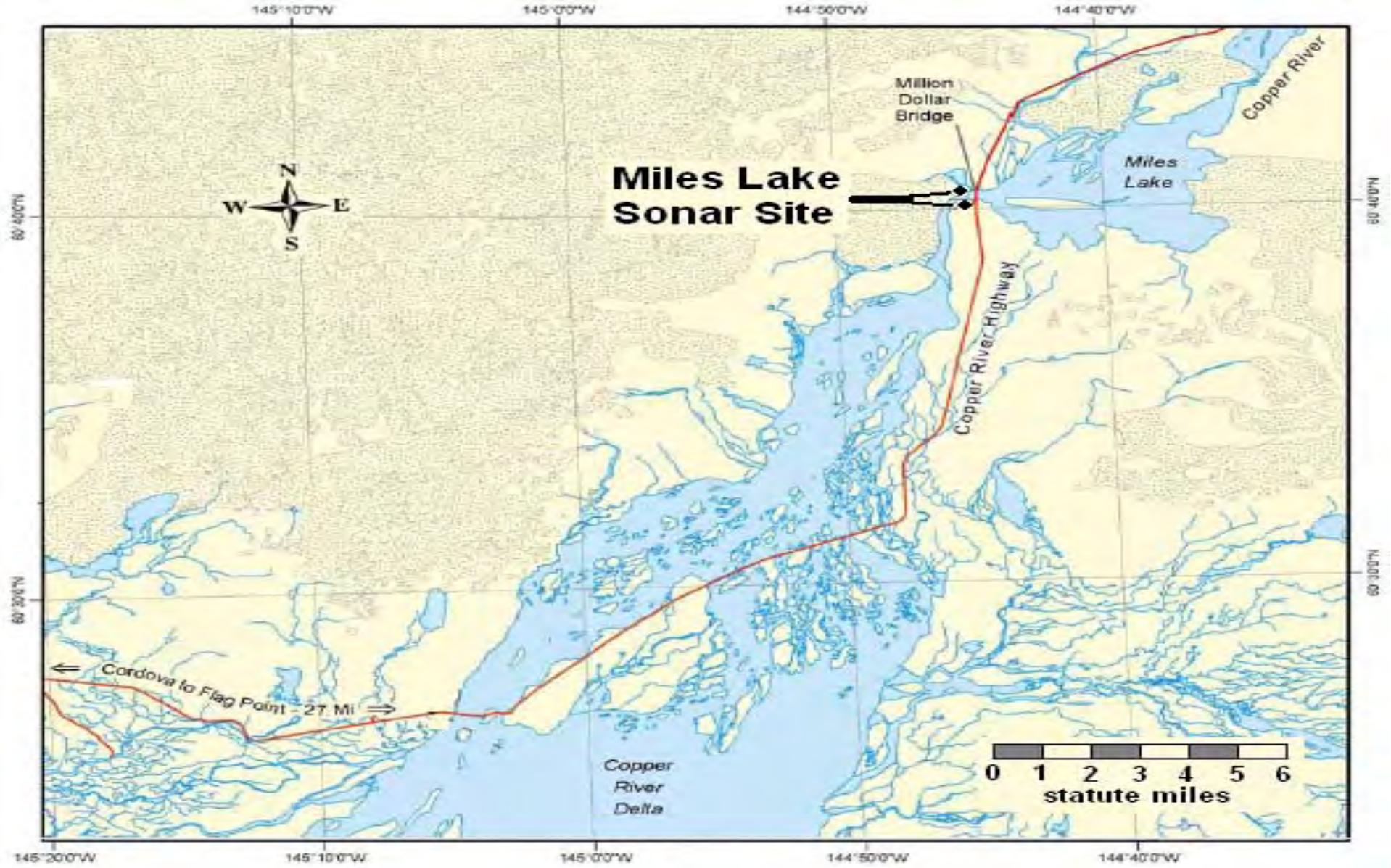
Forecast

- Plan for cautious approach
  - Delayed start
  - Short duration fishing periods
  - Expanded inside closure area

Abundance base management

- Adapt as needed to inseason abundance indices
  - ↑king and ↓sockeye salmon
  - Balance needs
  - 2017 end result- stay the course

Miles Lake DIDSON Sonar

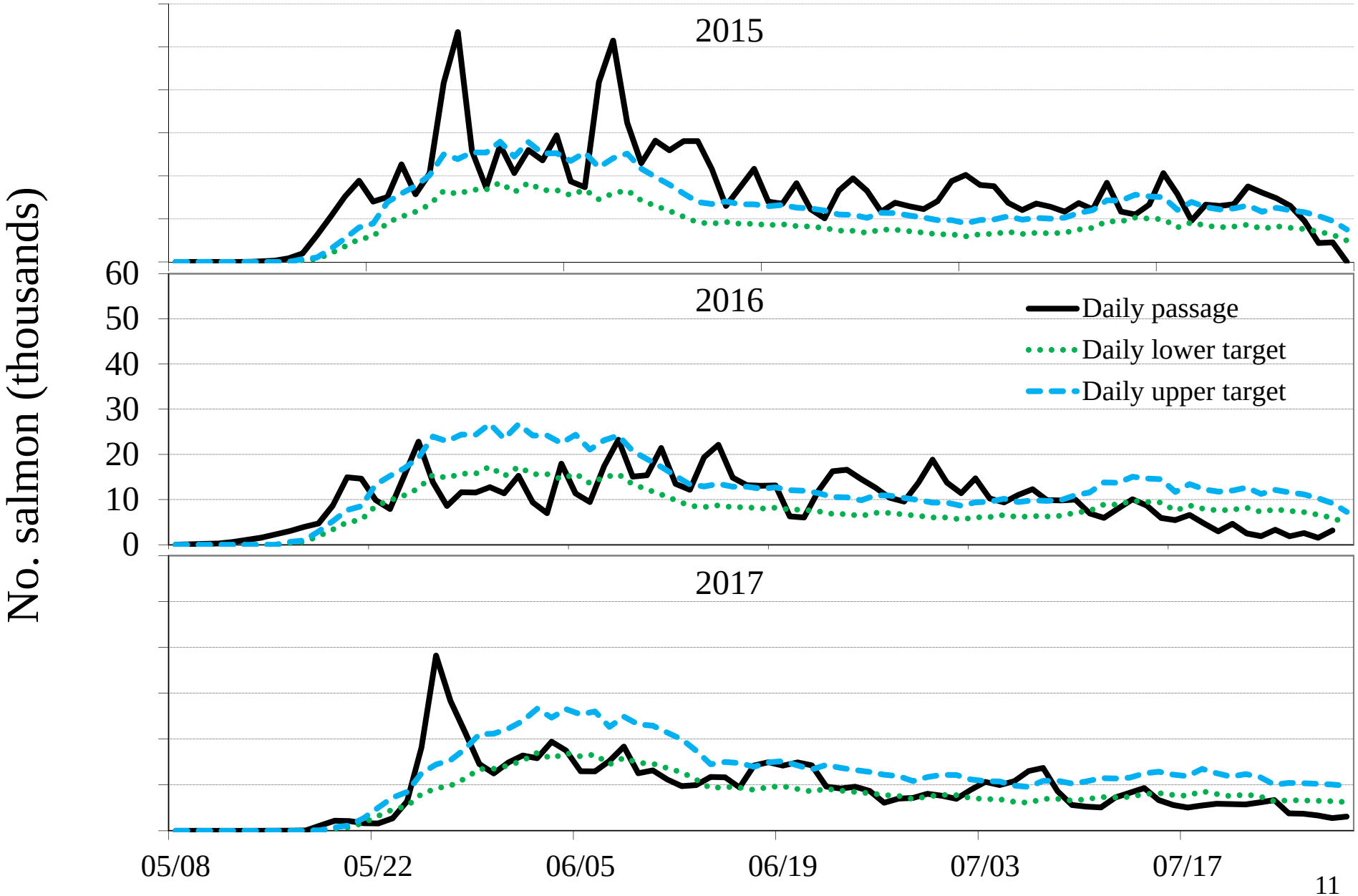


Miles Lake Sonar Sites

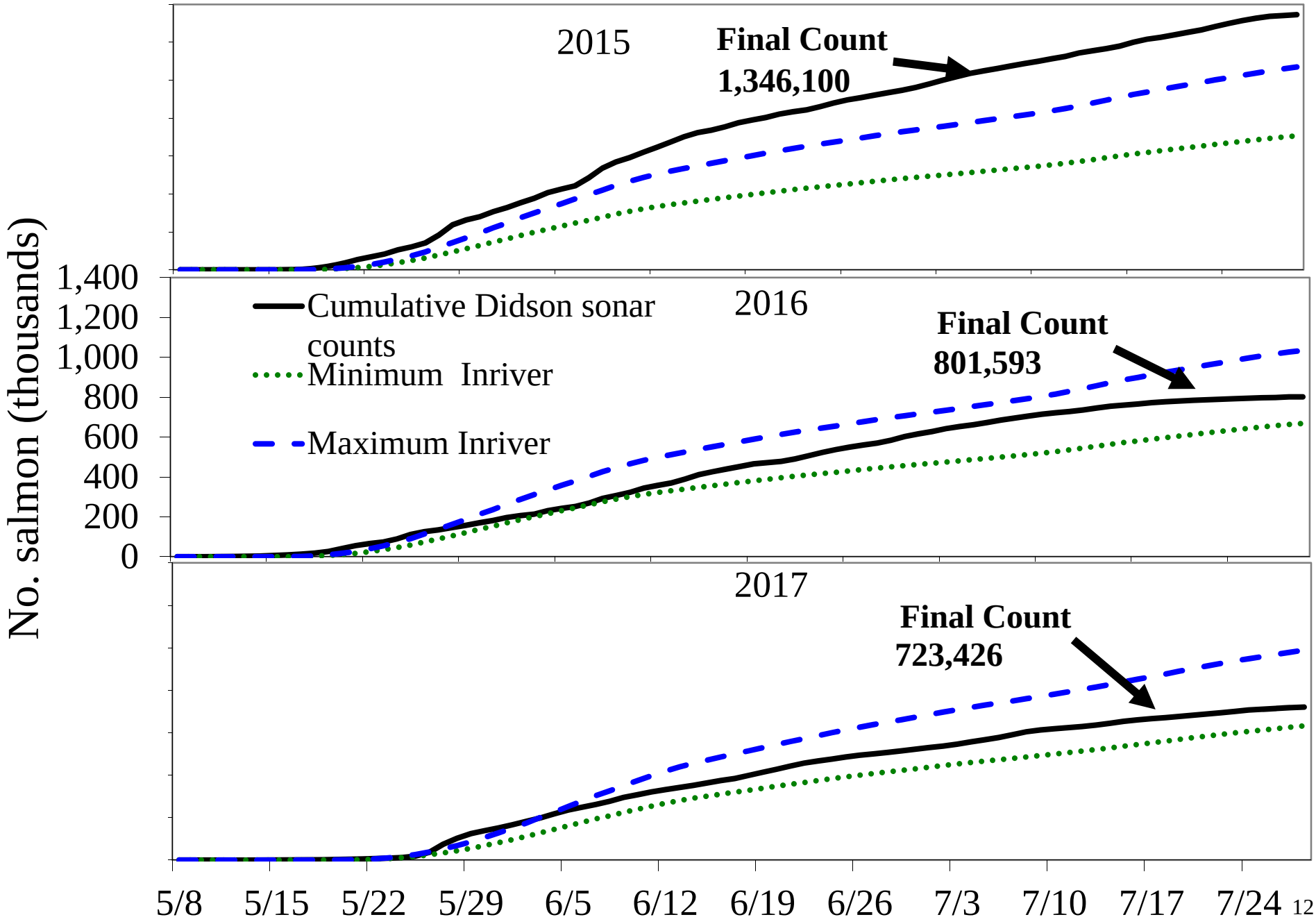
South Bank

North Bank

2015–2017 Miles Lake Daily Sonar Numbers



2015–2017 Miles Lake Cumulative Sonar Numbers

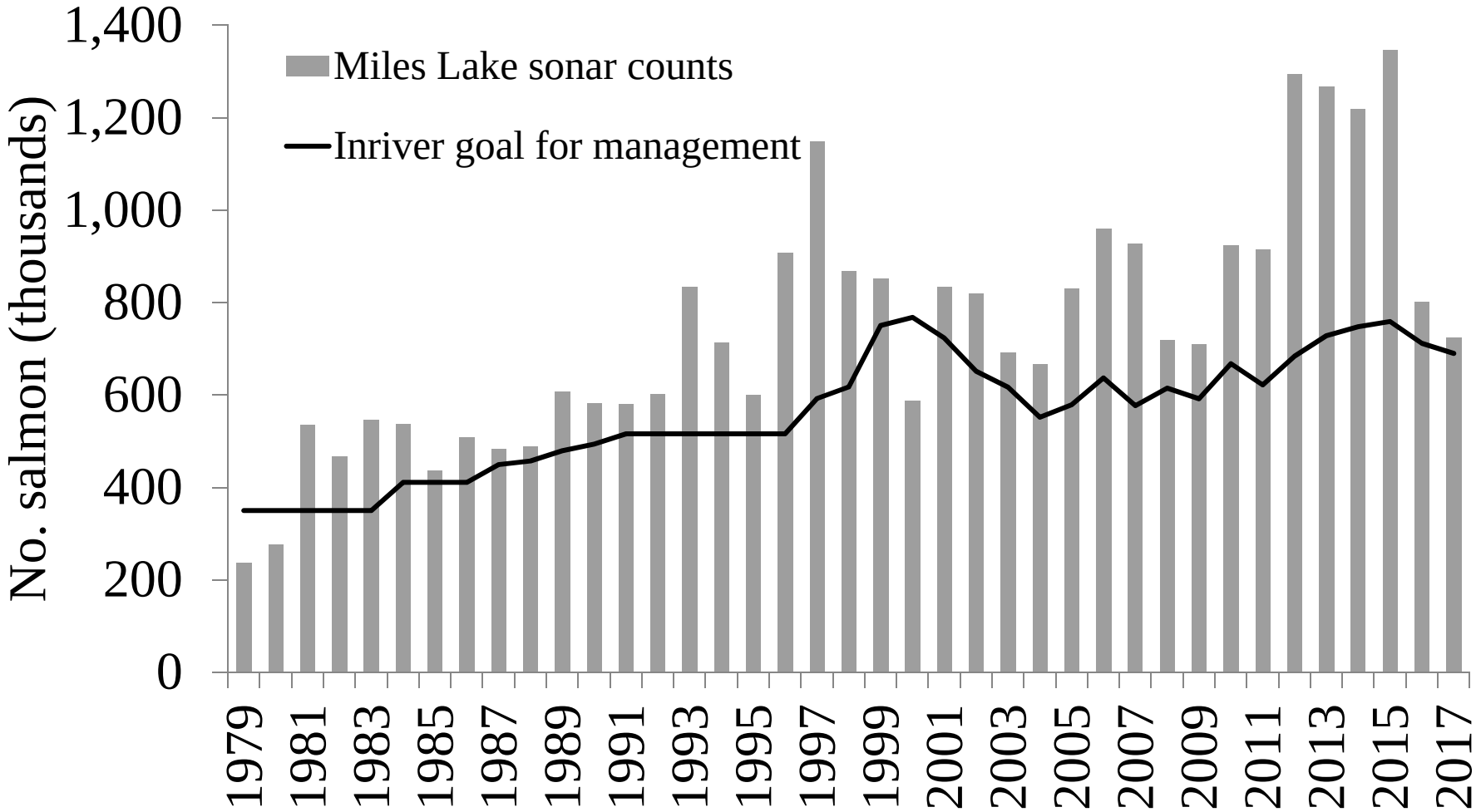


2015–2017 Inriver Goal (Thousands)*

		2015	2016	2017
Spawning Esc.	360 Sockeye	360	360	360
	17.5 Other Salmon	17.5	17.5	17.5
Glennallen Sub.	61 – 82.5 Salmon	**82.5**	**82.5**	**77.9**
Chitina PU	100 – 150 Salmon	**150**	**150**	**130.3**
Sport Fishery	15 Salmon	15	15	15
Hatchery Brood	Estimated Annually	**20**	**20**	**20**
Hatchery Surplus	Estimated Annually	**114**	**67**	**69**
Total	Estimated Annually	**759**	**712**	**690**

*5 AAC 24.360(b)

Sonar Counts vs Inriver Goal

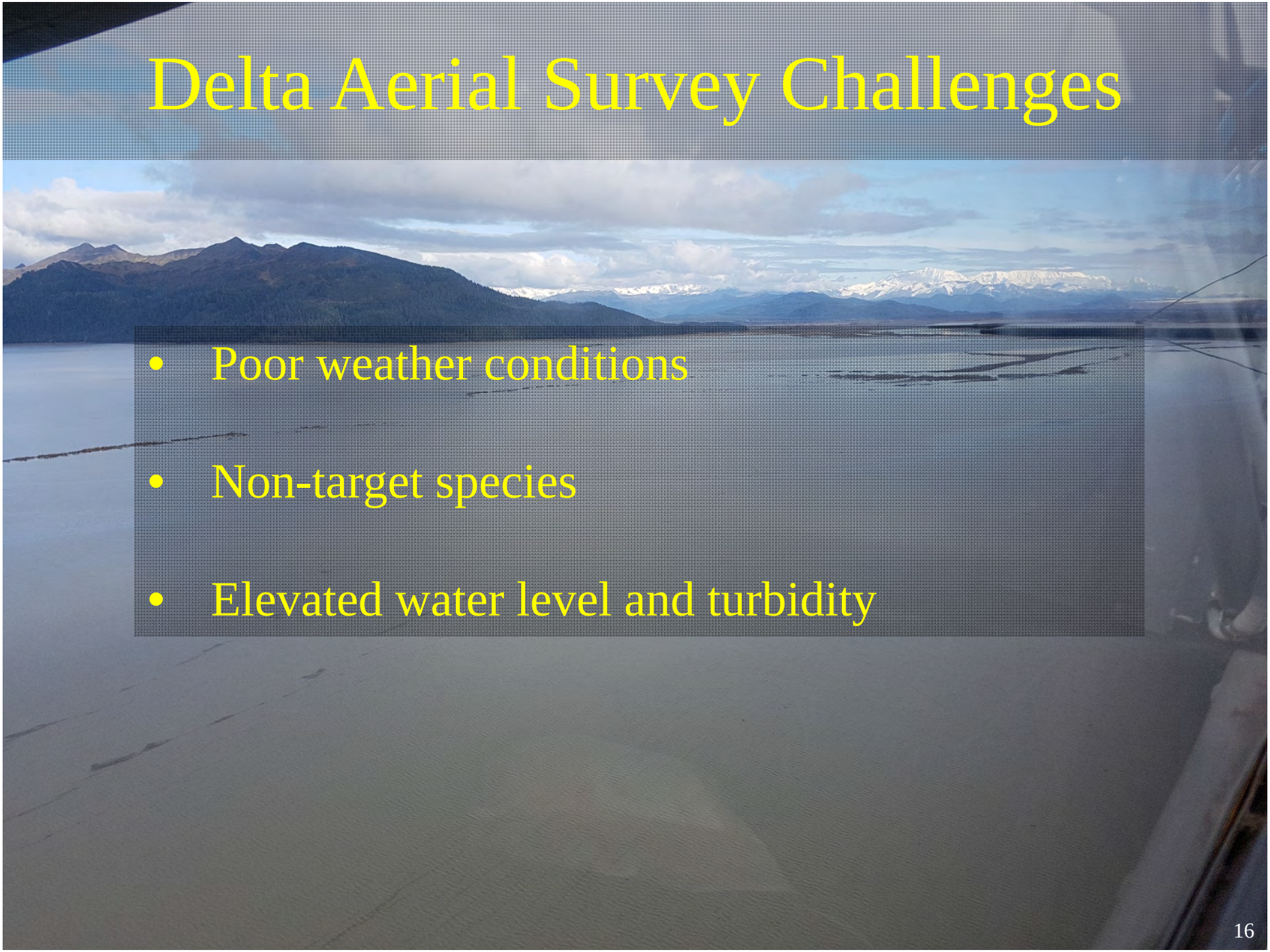


Aerial Surveys

Delta Escapement Goals

- **Sockeye salmon: SEG of 55,000-130,000 (17 index systems)**
- **Coho salmon: SEG of 32,000-67,000 (21 index systems)**

Delta Aerial Survey Challenges

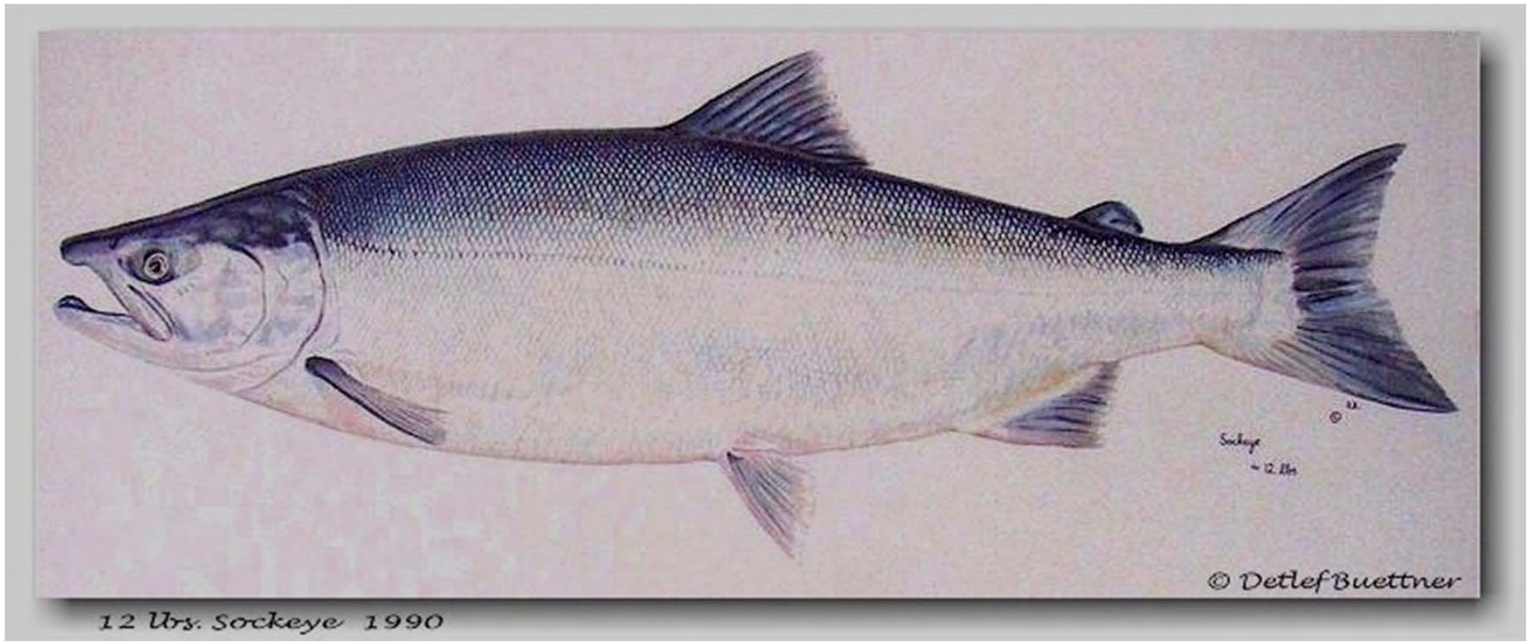


- Poor weather conditions
- Non-target species
- Elevated water level and turbidity

Copper River Escapement and Harvest

- Sockeye Salmon
- King Salmon
- Coho Salmon

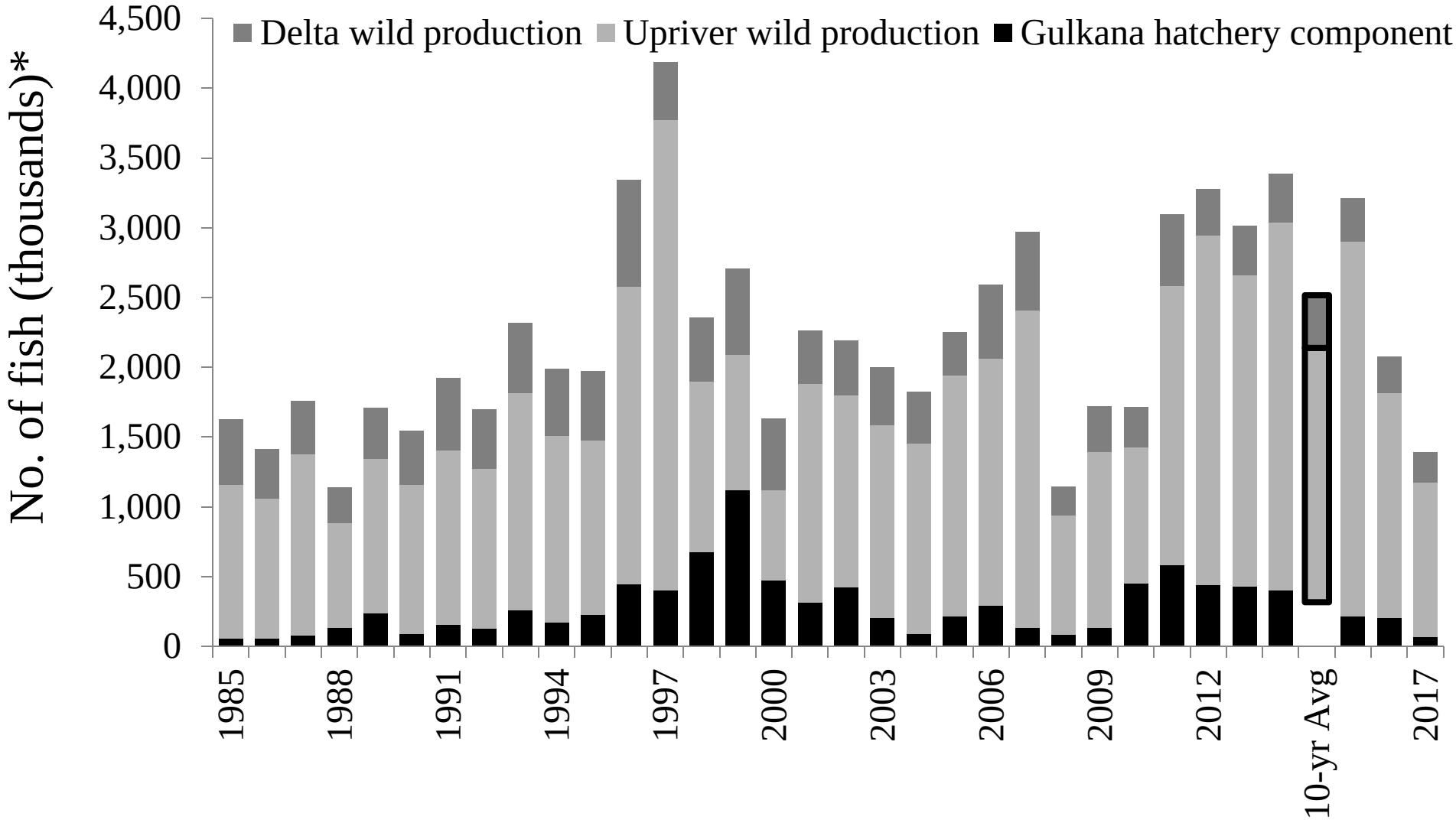
Copper River Escapement and Harvest



Sockeye Salmon

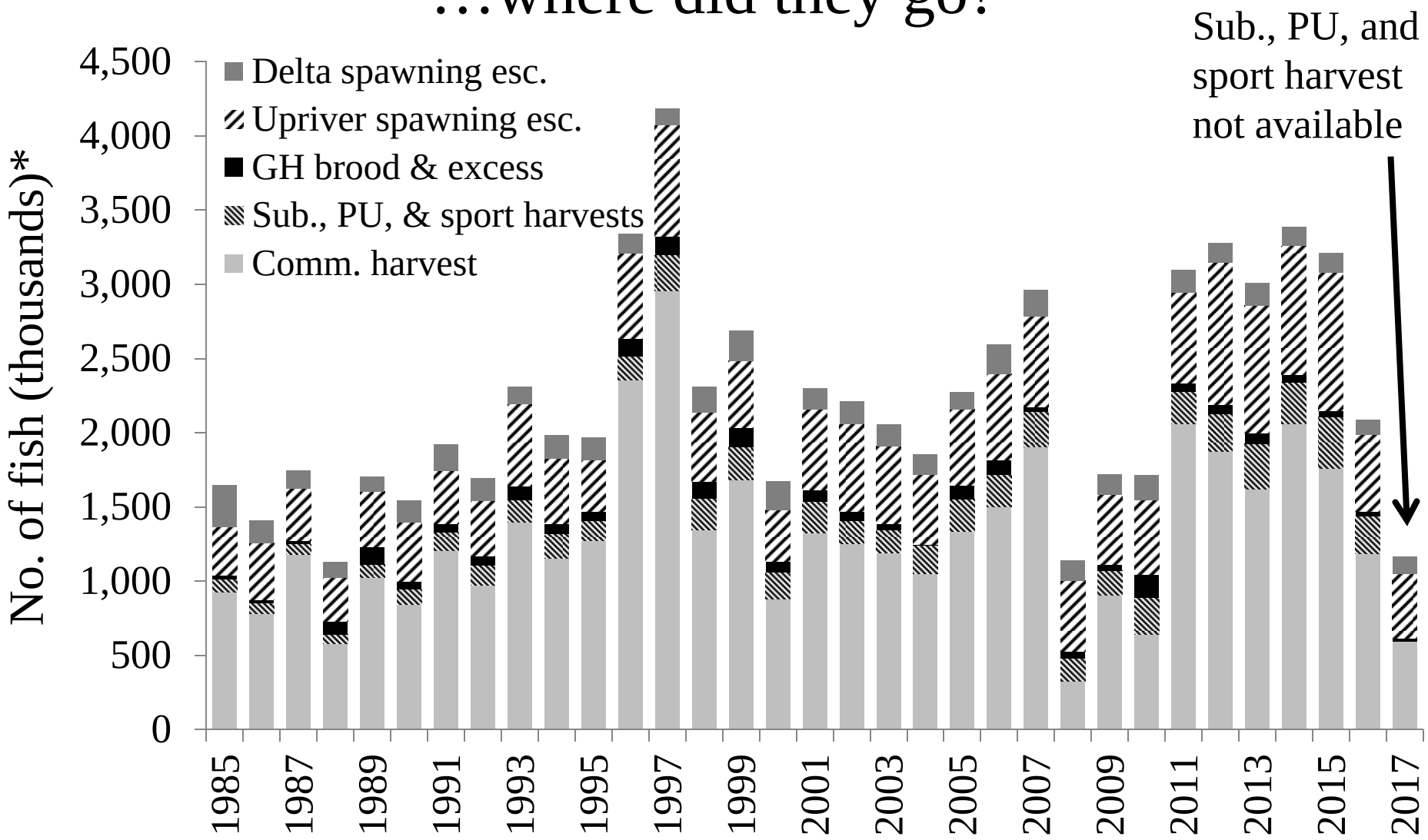
- Run origin
- Run destination
- Historical run comparison

Copper River Sockeye Salmon
…where do they come from?



* 2017 data are PRELIMINARY

Copper River Sockeye Salmon
…where did they go?



* 2017 data are PRELIMINARY

Copper River Sockeye Salmon: 2015–2017

	Harvest and esc. (thousands of fish)			
	2015	2016	2017*	10–year avg. (2005–2014)
Comm. harvest	1,761	1,184	594	1,422
Sub. harvest	113	85	NA	86
PU harvest	223	149	NA	127
Sport harvest	10	8	NA	17
Delta spawning esc.	132	103	114	150
Upriver spawning esc.	930	514	437	645
GH brood & excess	40	32	20	71
Total run	3,209	2,075	1,393	2,518

* 2017 data are PRELIMINARY

Copper River Sockeye Salmon: Meeting Escapement Goals

	No. of fish (thousands)*			
	2015	2016	2017	10–year avg. (2005–2014)
Delta spawning escapement	132	103	114	150
Upriver spawning escapement	930	514	460	645

Copper River Delta adjusted SEG is 110,000-260,000*.

Upriver SEG is 360,000-750,000.

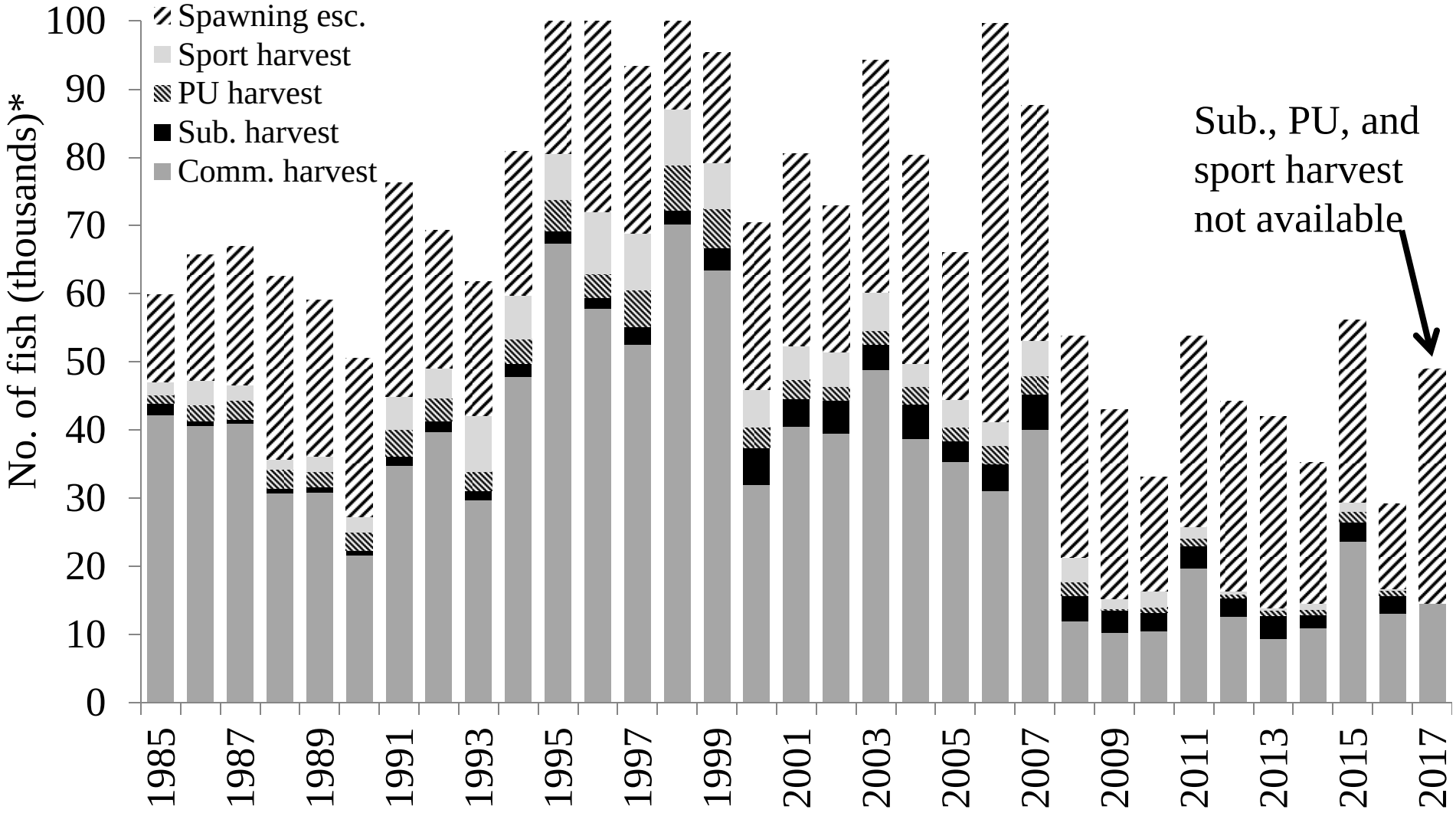
*2017 data are PRELIMINARY and delta esc. and goals were adjusted for observer efficiency

Copper River Escapement and Harvest

King Salmon

- Run size and user group harvest
- Historical run comparison

Copper River King Salmon
…where did they go?



* 2017 data are PRELIMINARY

Copper River King Salmon: 2015–2017

	Harvest and esc. (nearest hundred fish)*			
	2015	2016	2017	10–year avg. (2005–2014)
Comm. harvest	23,700 *(23%)*	13,100 *(-32%)*	14,600 *(-24%)*	19,200
Sub. harvest	2,800 *(-15%)*	2,600 *(-21%)*	NA	3,400
PU harvest	1,600 *(17%)*	700 *(-47%)*	NA	1,300
Sport harvest	1,300 *(-43%)*	300 *(-86%)*	NA	2,300
Spawning esc.	26,800 *(-10%)*	12,500 *(-58%)*	34,400 *(16%)*	29,700
Total run	56,200 *(0%)*	29,200 *(-48%)*	55,500 *(-1%)*	55,900

*2017 data are PRELIMINARY; *italicized* percentages represent percent below/above 10-year average.

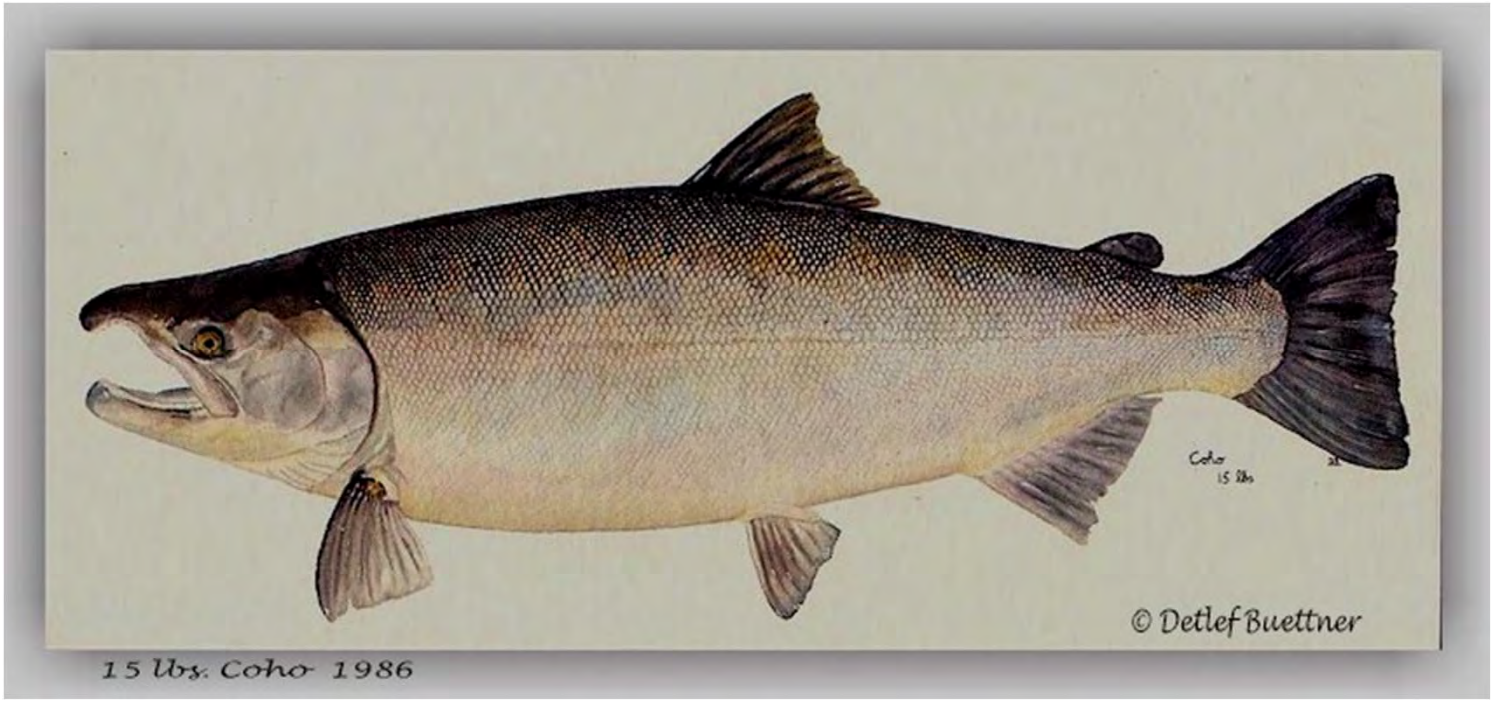
Copper River King Salmon: Meeting the Escapement Goal

	No. of fish (nearest hundred)			
	2015	2016	2017*	10–year avg. (2005–2014)
Spawning esc.	26,800	12,500	34,400	29,700

Copper River King salmon SEG is 24,000 or more

* 2017 data are PRELIMINARY

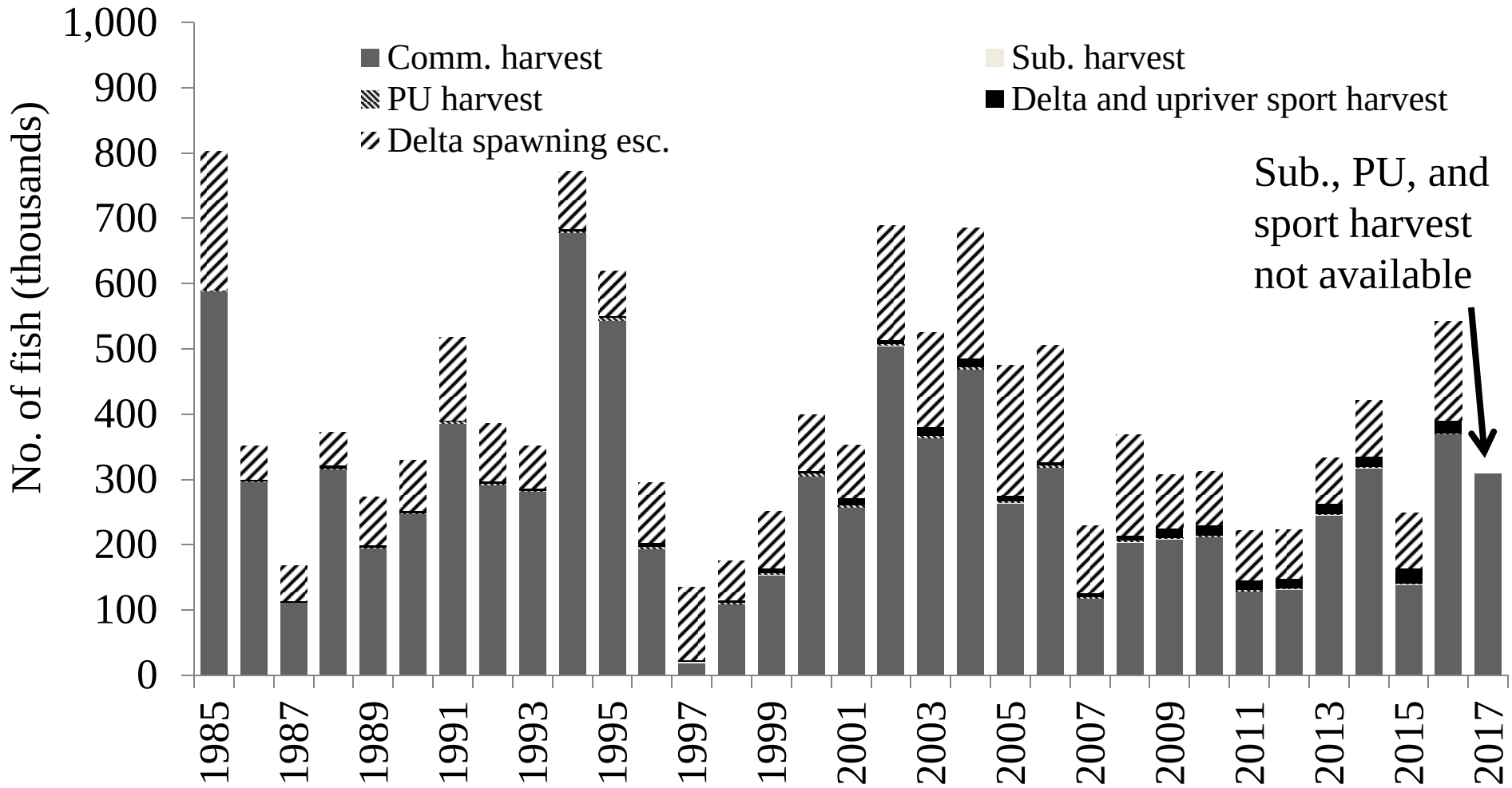
Copper River Escapement and Harvest



Coho Salmon

- Run size and user group harvest
- Historical run comparison

Copper River Coho Salmon…where did they go?



* 2017 data are PRELIMINARY

Copper River Coho Salmon: 2015–2017 compared with the 10–year average

	Harvest and esc. (thousands of fish)*			
	2015	2016	2017	10–year avg. (2005–2014)
Comm. harvest	138	369	308	214
Sub. harvest	1	1	NA	1
PU harvest	1	1	NA	1
Sport harvest	25	19	NA	12
Spawning esc.	83	152	88	110
Total run	248	543	396	339

* 2017 data are PRELIMINARY

Copper River Coho Salmon: Meeting the Escapement Goal

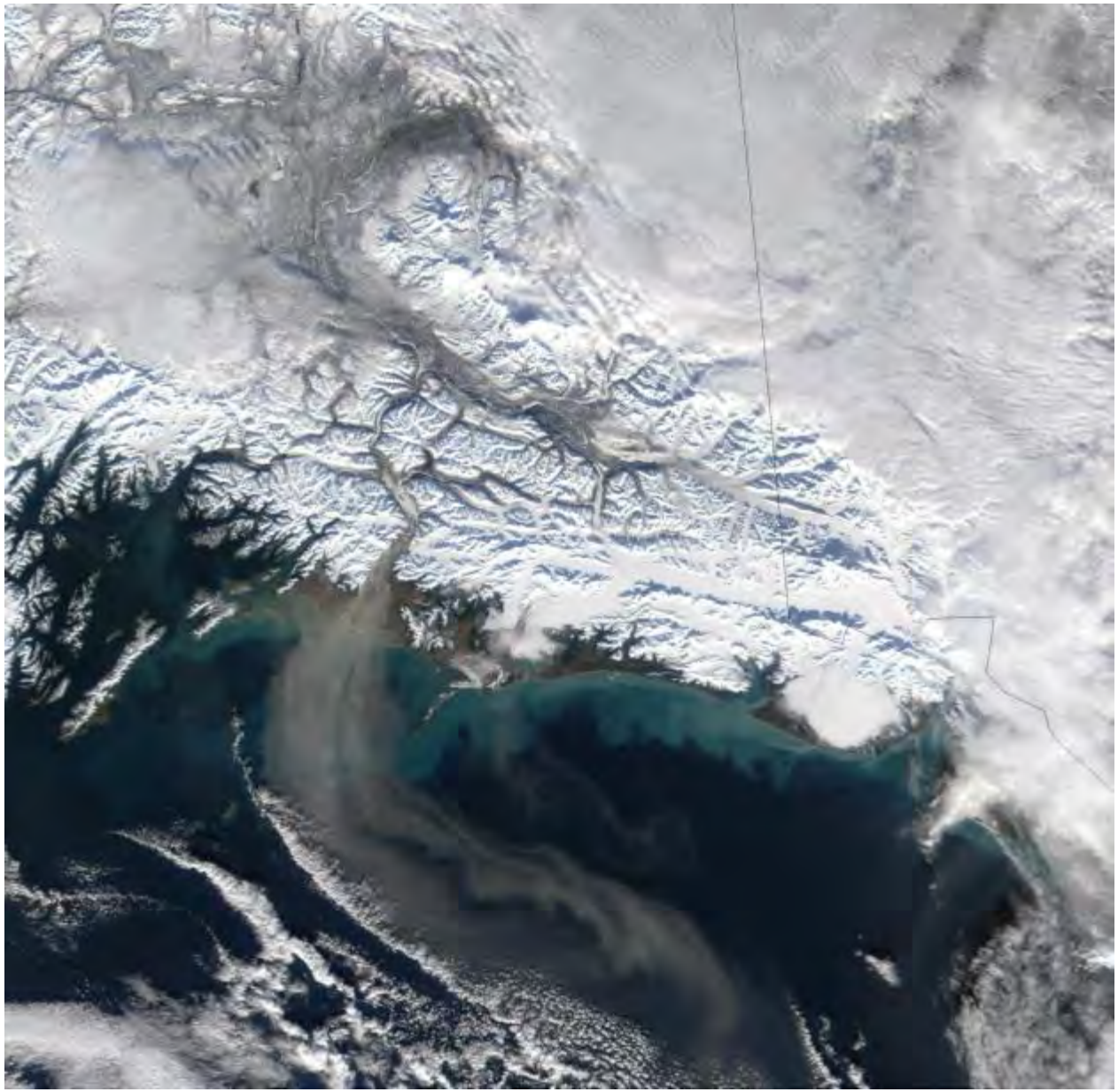
	No. of fish (thousands)*			
	2015	2016	2017	10–yr. avg. (2005–2014)
Spawning escapement	83	152	88	110

Copper River delta adjusted SEG for coho salmon is 64,000-134,000*

*2017 data are PRELIMINARY
and esc. and goal range were adjusted for observer efficiency

PROPOSALS

- Subsistence - Proposals 19 and 20
- Management and Allocation Plans - Proposals 10, 28, 32, 33, and 47
- Commercial Gear Specifications - Proposal 31
- Fishing Seasons - Proposals 34 and 35
- Weekly Fishing Periods - Proposal 36
- Closed Waters - Proposals 29, 30, and 37
- District Boundaries - Proposals 50, 51, and 52



Questions or Comments?