



# Douglas Island Pink & Chum Inc. Juneau's Salmon Hatchery

Southeast Conference Mid-Session Summit, February 12<sup>th</sup>

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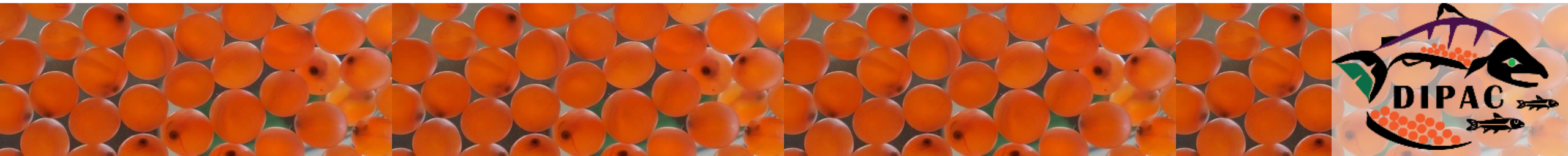
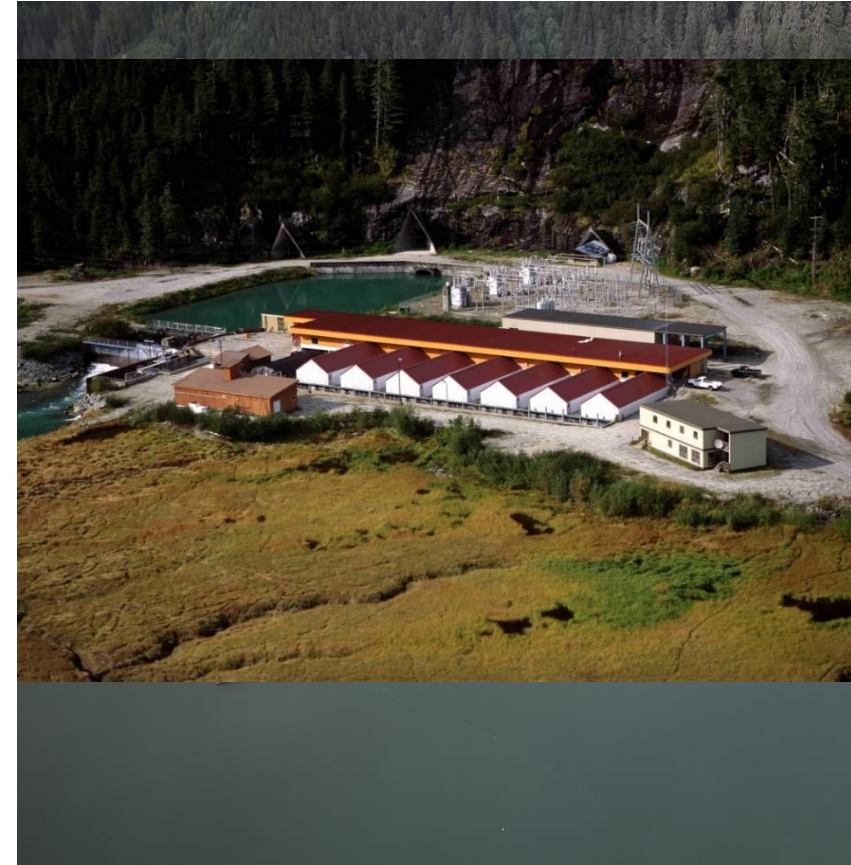
## *Mission Statement:*

*...to sustain and enhance valuable salmon resources of the State of Alaska for the economic, social, and cultural benefit of all citizens, and to promote public understanding of Alaska's salmon resources and salmon fisheries through research, education, and tourism.*



# Historical Background

- 1976: Ladd Macaulay starts Kowee Creek hatchery
- 1980: Sheep Creek Hatchery constructed
- 1989: Macaulay Hatchery construction finishes
- 1996: Assume the state operational contract for Snettisham Hatchery



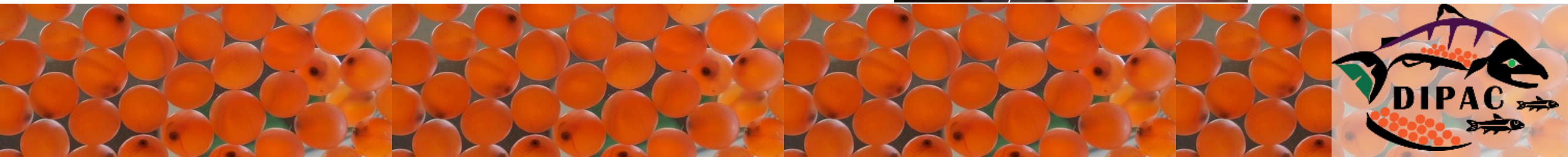
# Salmon Species Reared

## DIPAC's Macaulay Hatchery

- Chum
  - 135 M eggtake goal (115 M release goal)
  - 100% thermal marked since 1989
- Chinook
  - 1.25 M eggtake goal (900 k release goal)
  - 10 – 20% tagged since 1984
- Coho
  - 1.5 M eggtake goal (1.2 M release goal)
  - 7% tagged since 1985



credit: Pat Barry

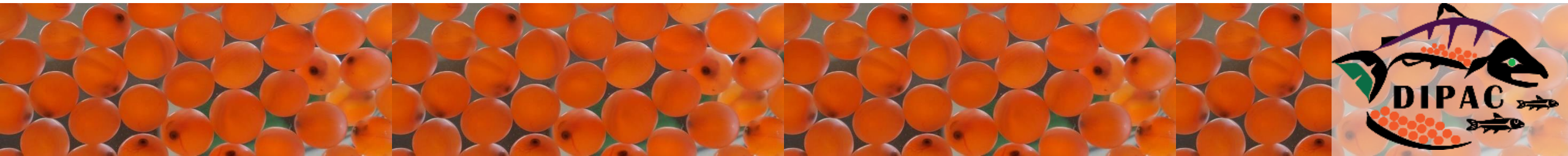


# Salmon Species Reared



## DIPAC's Snettisham Hatchery

- Sockeye
  - 1996 operational contract taken over from state
  - 12.5 M eggtake goal (9 M release goal)
  - 500k for Sweetheart Lake
  - Up to 11 M fry for Transboundary River supplementation
  - 100% thermal marked since 1996



# Fisheries Contributions (1979 – 2018)

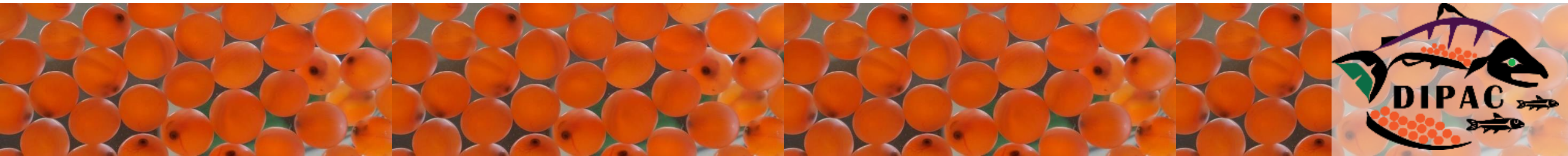
- Commercial harvest = 40 M salmon
- Exvessel value = \$185 M
- Sport harvest = 530k salmon
- 5 years of Juneau sportfishing
  - 44,000 Coho
  - 17,000 Sockeye
  - 9,000 King
- 2018 King sport opener June 15<sup>th</sup>
- 2018 Coho bag limit increase to 12/day



# McDowell Group DIPAC Contributions (2008 – 2012)



- From **2008 – 2012** an annual average of:
- **1,235** workers employed
- **\$25.7 M** in labor income
  - **\$10.8 M** for commercial fishing industry
  - **\$9.4 M** for seafood processing industries
  - **\$1.6 M** for sportfishing

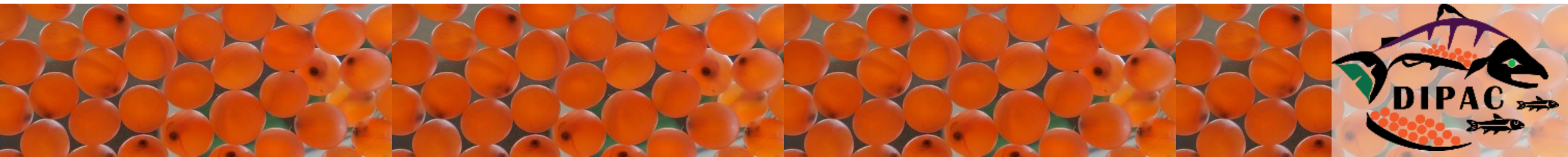


# McDowell Group: Region-wide PNP Contributions (2012 – 2017)



- Common Property Commercial Harvests
  - Average of **222,000,000** lbs of hatchery salmon harvested
  - Average of **\$120,000,000**

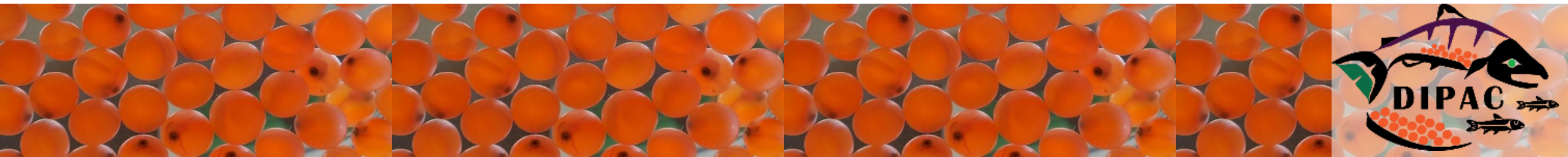
	Chinook	Chum	Coho	Pink	Sockeye	Total	% of Total
<b>Gillnet</b>	\$938	\$25,577	\$1,246	\$616	\$17,062	\$45,439	<b>38%</b>
<b>Seine</b>	\$466	\$19,529	\$843	\$45,360	\$2,280	\$68,478	<b>57%</b>
<b>Troll</b>	\$1,092	\$2,044	\$3,323	\$33	\$0	\$6,492	<b>5%</b>
<b>Total</b>	<b>\$2 M</b>	<b>\$47 M</b>	<b>\$5 M</b>	<b>\$46 M</b>	<b>\$19 M</b>	<b>\$120 M</b>	



# McDowell Group: Region-wide PNP Contributions (2012 – 2016)



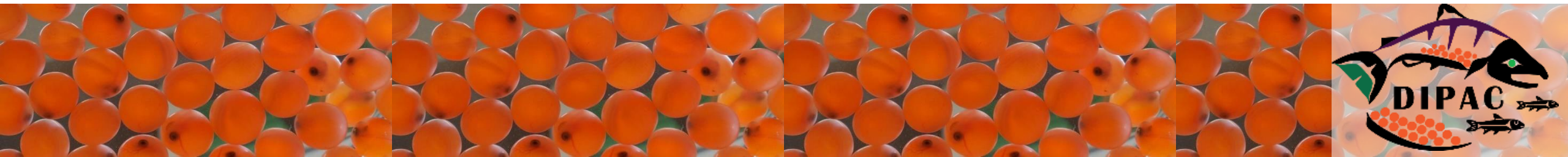
Annual Estimated Sport & Subsistence Harvest					
	Chinook	Chum	Coho	Pink	Sockeye
<b>Sport Harvest</b>	<b>10,000</b>	<b>5,000</b>	<b>100,000</b>	<b>19,000</b>	<b>138,000</b>
<b>P.U./Subsistence (Sockeye)</b>	<b>PWSAC</b>	<b>DIPAC</b>	<b>KRAA</b>	<b>CIAA</b>	
	<b>102,500</b>	<b>3,725</b>	<b>2,900</b>	<b>1,355</b>	



# McDowell Group: Region-wide PNP Contributions (2012 – 2016)

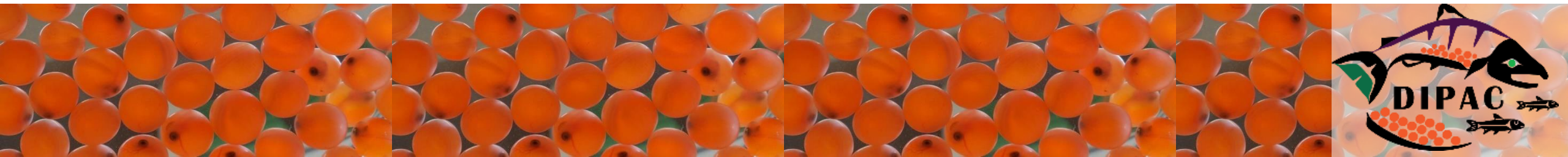


Total Annual Economic Impacts of Hatchery Production		
	<u>Statewide</u>	<u>Southeast</u>
Employment	4,710	1,975
Labor Income (M)	\$217.5	\$90.7
Output (M)	\$602.1	\$237.3



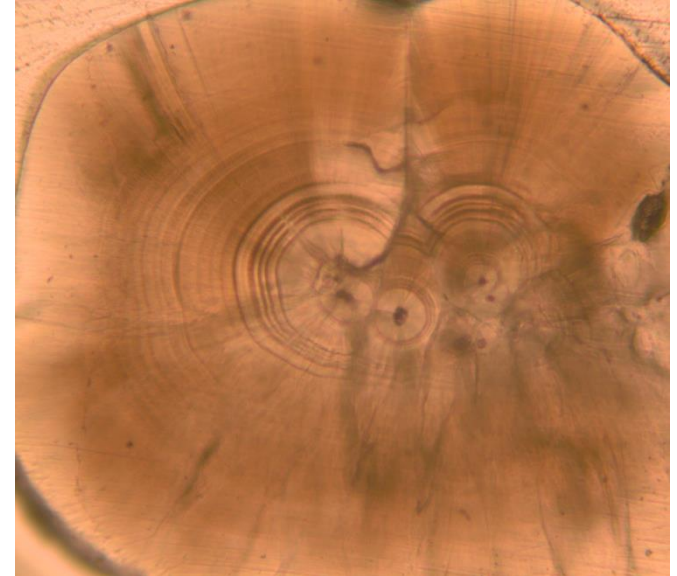
# Educational Initiatives

- Scholarship program since 2011
  - 44 baccalaureate and vocational scholarships have been awarded (total \$447k), ~\$60k annually.
- Fellowship program
  - 2 Masters Students at UAF CFOS have been funded through a \$1.5 M endowment fund
  - 3<sup>rd</sup> Masters just awarded to study factors affecting stream attractiveness to hatchery strays
- Yearly funding to the Marine Studies Program at Thunder Mountain High School
- Juneau Douglas High School Fish Tech Program is in it's 5<sup>th</sup> year
- Since 1992 our Visitor Center has hosted
  - Fall Field Trip program for pre-K through 5<sup>th</sup> grade
  - Spring Sea Week for 5<sup>th</sup> graders
- 2018, Visitor Center provided educational tours to over 4k students and welcomed 77k tourists



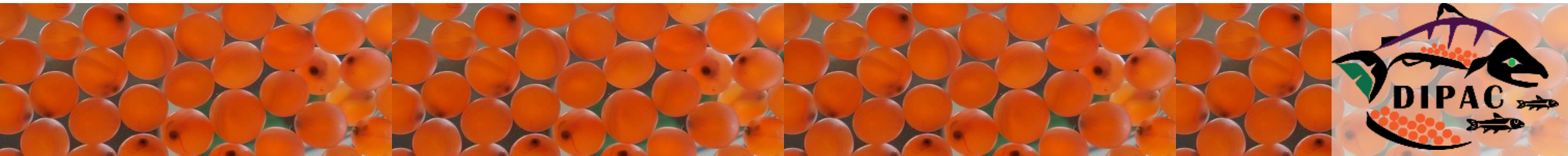
# In-Season Run Analysis & Data Sharing

- In-season analyses aid ADF&G management in prosecuting fisheries in a way that best protects wild stocks.
- DIPAC conducts catch sampling of commercial and cost recovery vessels.
- We perform our own in-season analysis of otolith data to determine hatchery contribution to catch, as well as sex and age composition, which we share with other organizations for a better understanding of run size and marine survival.



# Hatchery Wild Research Project

- ADF&G organized and implemented study addressing key knowledge gaps
  - What is the genetic stock structure of pink and chum salmon in each region?
  - What is the extent and annual variability in straying of hatchery pink salmon in Prince William Sound (PWS) and chum salmon in PWS and Southeast Alaska (SEAK)?
  - What is the impact on fitness (productivity) of wild pink and chum salmon stocks due to straying of hatchery pink and chum salmon?
- Harvest rate of hatchery and natural pinks in PWS, 2013 – 2015
  - Hatchery harvest rates range from 95 – 99%
  - Natural origin harvest rates range from 26 – 53%
- Hatchery Proportion spawners in streams, 2013 – 2015
  - PWS: pink 4 – 15% and chum 3%
  - SE: chum 7 – 9%
- Updates found: [http://www.adfg.alaska.gov/index.cfm?adfg=fishingHatcheriesResearch.findings\\_updates](http://www.adfg.alaska.gov/index.cfm?adfg=fishingHatcheriesResearch.findings_updates)





Thank you.

