Douglas Island Pink & Chum Inc. Juneau’s Salmon Hatchery

Southeast Conference Mid-Session Summit, February 12th

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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 15th
- 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

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

<table>
<thead>
<tr>
<th></th>
<th>Chinook</th>
<th>Chum</th>
<th>Coho</th>
<th>Pink</th>
<th>Sockeye</th>
<th>Total</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gillnet</td>
<td>$938</td>
<td>$25,577</td>
<td>$1,246</td>
<td>$616</td>
<td>$17,062</td>
<td>$45,439</td>
<td>38%</td>
</tr>
<tr>
<td>Seine</td>
<td>$466</td>
<td>$19,529</td>
<td>$843</td>
<td>$45,360</td>
<td>$2,280</td>
<td>$68,478</td>
<td>57%</td>
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<tr>
<td>Troll</td>
<td>$1,092</td>
<td>$2,044</td>
<td>$3,323</td>
<td>$33</td>
<td>$0</td>
<td>$6,492</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>$2 M</td>
<td>$47 M</td>
<td>$5 M</td>
<td>$46 M</td>
<td>$19 M</td>
<td>$120 M</td>
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</tbody>
</table>
## McDowell Group: Region-wide PNP Contributions (2012 – 2016)

<table>
<thead>
<tr>
<th>Annual Estimated Sport &amp; Subsistence Harvest</th>
<th>Chinook</th>
<th>Chum</th>
<th>Coho</th>
<th>Pink</th>
<th>Sockeye</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sport Harvest</td>
<td>10,000</td>
<td>5,000</td>
<td>100,000</td>
<td>19,000</td>
<td>138,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>P.U./Subsistence (Sockeye)</th>
<th>PWSAC</th>
<th>DIPAC</th>
<th>KRAA</th>
<th>CIAA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>102,500</td>
<td>3,725</td>
<td>2,900</td>
<td>1,355</td>
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</tbody>
</table>
## McDowell Group: Region-wide PNP Contributions (2012 – 2016)

### Total Annual Economic Impacts of Hatchery Production

<table>
<thead>
<tr>
<th></th>
<th>Statewide</th>
<th>Southeast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment</td>
<td>4,710</td>
<td>1,975</td>
</tr>
<tr>
<td>Labor Income (M)</td>
<td>$217.5</td>
<td>$90.7</td>
</tr>
<tr>
<td>Output (M)</td>
<td>$602.1</td>
<td>$237.3</td>
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</tbody>
</table>
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
  • 3rd 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 its 5th year

• Since 1992 our Visitor Center has hosted
  • Fall Field Trip program for pre-K through 5th grade
  • Spring Sea Week for 5th 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
Thank you.