Adult Chinook Salmon Trap and Haul Study

San Joaquin River Restoration Program

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Adult Chinook Salmon Trapping Locations

San Joaquin River upstream of the Hills Ferry Barrier
Adult Chinook Salmon Trapping Locations

Fyke Net above Hills Ferry Barrier on the San Joaquin River.

Reclamation biologists prepare to transfer salmon to the transport tank.
Adult Chinook Salmon Trapping Locations

San Joaquin River / Bear Creek
Adult Chinook Salmon Trapping Locations

Fyke trapping on the San Joaquin River / Bear Creek at the uppermost wetted location in Reach 5.
Adult Chinook Salmon Trapping Locations

Salt Slough at Wolfsen Road Bridge on the State Wildlife Area
Adult Chinook Salmon Trapping Locations

Fyke trap with wing walls spanning Salt Slough
Adult Chinook Salmon Trapping Locations

Mud Slough on North Grasslands State Wildlife Area
Fish Captured in Fyke Traps

<table>
<thead>
<tr>
<th>Fish Type</th>
<th>Number of Individuals</th>
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</thead>
<tbody>
<tr>
<td>Black Bullhead</td>
<td>5</td>
</tr>
<tr>
<td>Black Crappie</td>
<td>98</td>
</tr>
<tr>
<td>Brown Bullhead</td>
<td>74</td>
</tr>
<tr>
<td>Channel Catfish</td>
<td>108</td>
</tr>
<tr>
<td>Common Carp</td>
<td>24</td>
</tr>
<tr>
<td>Goldfish</td>
<td>3</td>
</tr>
<tr>
<td>Green Sunfish</td>
<td>4</td>
</tr>
<tr>
<td>Leopard Sunfish</td>
<td>2</td>
</tr>
<tr>
<td>Sacramento Blackfish</td>
<td>2</td>
</tr>
<tr>
<td>Sacramento Sucker</td>
<td>2</td>
</tr>
<tr>
<td>Spotted Bass</td>
<td>1</td>
</tr>
<tr>
<td>Striped Bass</td>
<td>18</td>
</tr>
<tr>
<td>Threadfinned Shad</td>
<td>3</td>
</tr>
<tr>
<td>White Catfish</td>
<td>34</td>
</tr>
<tr>
<td>Chinook Salmon</td>
<td>119</td>
</tr>
</tbody>
</table>
Adult Chinook Salmon Captured

Chinook Salmon by Location

- Hills Ferry: 68
- Mud Slough: 5
- Salt Slough: 6
- Van Clief: 36
- Other: 4
Adult Chinook Salmon Gender Ratio

Chinook Salmon by Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number of Individuals</th>
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<tbody>
<tr>
<td>Male</td>
<td>91</td>
</tr>
<tr>
<td>Female</td>
<td>28</td>
</tr>
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</table>
Adult Chinook Salmon Transport
Adult Chinook Salmon
Floy and Acoustic Tagging

Esophageal Insertion of Acoustic Transmitter

- Floy tag for external identification
- Acoustic transmitter inserted via a modified bovine piller with glycerin lubrication
Fish Release at Camp Pashayan
Manual tracking of an acoustically-tagged Chinook salmon using a VR100 receiver with a VH110 ultrasonic directional hydrophone.
Telemtry Locations
Survey Reach 2
Zoomed view of activity around Highway 41 Bridge

• Picture of redd created by female Chinook 7379
Movement of Female 7379

Movement of Fall-run Chinook Salmon Tag A69-1601-7379 Over Time
Movement of Male 3112

Movement of Fall-Run Chinook Salmon Tag Number A69-1601-3112 Over Time

River Mile
Streamside Spawning
Spawn Emergence Data

Fall-run Chinook Swim-up Emergence Fry Inventory From Two Artificial Redds (i.e. Deep Matrix Incubars); San Joaquin River Restoration Program

- November 14 Spawn
- November 28 Spawn

Date
- 1/15/2013
- 1/18/2013
- 1/21/2013
- 1/24/2013
- 1/27/2013
- 1/30/2013
- 2/2/2013
- 2/5/2013
- 2/8/2013
- 2/11/2013
- 2/14/2013

Fry Inventory
- 0
- 500
- 1000
- 1500
- 2000
- 2500

Graph showing fry inventory from two artificial reds on dates mentioned.
Cage rearing
The End

• Any Questions???