
HSWRI Aquaculture Program Research Newsletter

**** Volume 84 - 2017 ****



Scientist Visits HSWRI's Sustainable Seafood Program

Since 2011 HSWRI researchers have been closely documenting the developmental variability of marine fish cultured in our sustainable seafood program. As part of this process we have developed a Quality Assessment and Quality Control (QA/QC) manual that summarizes our approach to monitoring and addressing developmental malformations in various species under culture.

In October 2016, we invited Dr. Jennifer Cobcroft, an Associate Professor at James Cook University in Singapore, to visit our laboratories and review our culture processes. Dr. Cobcroft has over 20 years' experience in aquaculture, largely focusing on solving challenges in the hatchery production of marine finfish species. Her research has spanned larval visual development, tank environmental conditions to optimize feeding, water treatment systems to reduce parasites and pathogens in the hatchery, and finding solutions to skeletal malformations that impact commercially cultured fish. Dr. Cobcroft spent several days at our facilities during which time she was able to examine juvenile WSB at several developmental stages.



Figure 1. Dr. Jennifer Cobcroft (left) examines 80 day old white seabass with HSWRI veterinarian, Dr. Connie Silbernagel.

At the conclusion of her visit, Dr. Cobcroft provided recommendations regarding our culture operations and ideas for research experiments focused on malformations. We are currently incorporating those ideas

into our existing research plans. We intend to continue our collaboration with Dr. Cobcroft as we strive to improve our culture operations and reduce developmental malformations in finfish produced in our sustainable seafood program.

Marina del Rey Anglers Supporting Ocean Conservation

Marina del Rey (MDR) Anglers, a prominent, well-organized fishing club, operates a white seabass growout facility as part of the Ocean Resources Enhancement and Hatchery Program (OREHP). The facility is located alongside the guest boating slips in Burton Chace Park, which provides ample opportunity for public outreach and education. Keith Moret has been the lead manager for the three years and like his 12 active volunteers, he has been happy to donate his time and effort to assist in the replenishment of a historically depleted local species. A typical day for a volunteer involves cage cleaning, hand feeding the fish, and recording daily observations and culture data in the log book.



The MDR facility was constructed in 1995 and received its first batch of seabass from HSWRI shortly thereafter. It contains two submerged fiberglass raceways with a total seawater volume of 35m³ that can be used to raise thousands of fish at one time. The 2,000 fish that are currently being raised at the facility will push their total release numbers above 100K, a great accomplishment highlighting years of hard work and dedication. In addition to operating a growout facility, MDR Anglers have also assisted with OREHP tag recovery efforts and have participated in broodstock collection trips for California Halibut, another local game fish currently being studied by



Figure 2. MDR submerged raceway system (top); volunteers helping to count fish (bottom)

HSWRI. A total of 157 White Seabass released from this facility have been recaptured in the wild with the oldest fish being at liberty for 14 years and weighing in at 28 pounds! This fish was collected 89 nautical miles from Marina del Rey, highlighting the ability of white seabass to travel great distances in the open ocean.

Acknowledgements

This document reports on aquaculture research projects supported by numerous grants, contracts and private contributions. It also represents the hard work of many dedicated staff and volunteers throughout southern California, as well as collaborators around the country. This information was contributed by HSWRI staff and compiled by Senior Research Scientist and HSWRI Aquaculture Program Director Mark Drawbridge.

The aquaculture research program has been active for more than 35 years at HSWRI. The primary objective of this program is to evaluate the feasibility of culturing marine organisms to replenish ocean resources through stocking, and to supply consumers with a direct source of high quality seafood through aquatic farming. Please direct any questions to Mark Drawbridge at mdrawbridge@hswri.org.

Aquaculture research at HSWRI is currently supported by these major contributors:

- Avalon Tuna Club Foundation
- Cabrillo Power/NRG
- Chevron Corporation
- Coastal Conservation Association of California
- Der Fruchtbaum Family Trust
- Dorothea Laub; Dick Laub Fisheries Replenishment Program
- Edison International
- Fisherman's Landing
- H & M Landing
- Los Angeles Rod & Reel Club Foundation
- Frank and Kathy LoPreste
- NOAA's Saltonstall-Kennedy Program
- Point Loma Sportfishing
- San Diego County Fish and Wildlife Advisory Commission

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- Santa Monica Seafood
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 - Sempra Energy Foundation
 - Joseph S. and Diane H. Steinberg 1992 Charitable Trust
 - The California Department of Fish and Wildlife's Ocean Resources Enhancement and Hatchery Program
 - The Catalina Seabass Fund
 - The Fletcher Foundation
 - The Shedd Family
 - The U.S. Fish and Wildlife Service's Sport Fish Restoration Account
 - USC Sea Grant
 - USDA National Institute of Food and Agriculture
 - Western Regional Aquaculture Center (WRAC)

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