MARINE FINFISH AQUACULTURE RESOURCES IN SOUTHERN CALIFORNIA

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Hubbs-SeaWorld Research Institute (HSWRI) is a 501-(c)(3) nonprofit research organization that was established in 1963 to “Return to the sea some measure of the benefits derived from it”. Marine fish aquaculture has been a core area of research at HSWRI since the late ‘70s. We operate a Marine Research Laboratory in San Diego that has a flow-through seawater capacity of 350 gpm and a Fish Hatchery in Carlsbad that has a seawater capacity of 1200 gpm. Within each facility are specialized systems (flow through and reuse) from experimental to commercial-production scale. Currently, we are spawning white seabass (*Atractoscion nobilis*), California yellowtail (*Seriola dorsalis*), and California halibut (*Paralichthys californicus*). Reliable protocols for commercial-scale production of seabass and yellowtail have been developed and halibut are close behind. In addition to land-based facilities, HSWRI owns and operates three coastal cage systems that are permitted for rearing (and releasing) white seabass. The cages are located in San Diego Bay, Agua Hedionda Lagoon, and Catalina Harbor. Collectively, these land and sea-based facilities are very unique and would be very difficult and expensive to permit in California today.

The core of our aquaculture staff have decades of experience and are expert in the production of marine fish and the live feeds required to support production. Additionally, we currently have in-house expertise in fish health and systems design. Expertise in other required disciplines (e.g. nutrition, genetics, and physiology) is filled with postdoctoral positions when funding is available but more often we collaborate with others given the challenges of funding these positions on soft money. These collaborations have been highly fruitful and include working with NOAA and USDA, as well as universities in the United States and Mexico. We have developed an excellent working relationship with state and federal agencies, ocean user groups, and the aquaculture industry through decades of interaction and participation on various boards and advisory panels.