



CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

2017 Sea Grant Fellowship Opportunity

1. Host location and contact information

Aquaculture Program
CA Department of Fish & Wildlife
830 S Street, Sacramento CA 95811

2. Supervisor & Point of Contact for CA Sea Grant, prospective fellows, and finalists

Randy Lovell
State Aquaculture Coordinator
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3. Position Description

Aquaculture is the fastest-growing sector in global food-production, and now accounts for over half of the world's supply of seafood. Over 90% of the US demand for seafood is met by imports. California's aquaculture industry, which values its economic impact at some \$170M+, is still at a very modest level of output, and is noted for its niche character and diversity: in where it's done, in what is produced, and its response to the many market demands or applications for its products (which go far beyond seafood alone). The opportunity to expand aquaculture in California is immense, but the challenge of matching the state's many complex interests and resources to the promise of aquaculture's future opportunities demands a thoughtful and creative approach.

In conjunction with the CA Fish & Game Commission, the CA Department of Fish & Wildlife administers, regulates, and supports aquaculture activities throughout the state in both fresh- and marine waters, starting with Fish & Game Code §1700 (f), which declares that it is "...the policy of the state to encourage the conservation, maintenance, and utilization of the living resources of the ocean and other waters under the jurisdiction and influence of the state for the benefit of all the citizens of the state and to promote ... the development of commercial aquaculture."

In fulfillment of his statutorily-described duties (F&G Code §15100), the State Aquaculture Coordinator:

- a) promotes understanding of aquaculture among public agencies and the general public,
- b) proposes methods of reducing the negative impact of public regulation at all levels of government on the aquaculture industry,
- c) provides information on all aspects of regulatory compliance to the various sectors of the aquaculture industry, and
- d) provides such advice to aquaculturists on project siting and facility design that may be needed to comply with regulatory requirements.

A Sea Grant fellow within the CDFW Aquaculture Program will assist the Coordinator in fulfilling these duties, employing a range of creative input and administrative contributions, from policy level to direct interaction with producers and other constituents. A variety of projects and activities are in motion within the California aquaculture industry that call for an expanded team approach among the Aquaculture Program and CDFW's many regional and functional organizational units, in addition to the many federal, state, and local agencies with whom the Program and industry interact.

A sample of the Aquaculture Program's current issues and projects, and the fellow's ideal complementing skills includes:

- **The California Aquaculture Permit Guide and Virtual Permit Counter** – an interactive online guidance tool to help constituents and agency personnel navigate the aquaculture permitting process will be undergoing revision and updating from its previous printed form; contributions from the fellow may come in many forms depending on skillsets.
- **Marine Aquaculture Programmatic Environmental Impact Report** - review and coordination of agency and public comments, and the further refinement of the management and regulatory framework for marine aquaculture activities in intertidal, near-shore, and offshore environments.
- **Aquaculture Development Committee** – the multi-agency/academic/industry body employed to help provide vision and guidance to the development (or the obstacles to the development) of commercial aquaculture in California. Participation in and assistance in organizing meetings and documentation of its proceedings will be an important activity and mechanism to learn about current aquaculture activities and the molding of visions for its future development.
- **Aquaculture Program Communications & Outreach (AquacultureMatters.ca.gov)** – online tools (including website, blog, and social media) are in the process of upgrades. Communicating information that is of importance to industry constituents, state and federal agencies, legislative, and many other targeted audiences will need effective execution under close collaboration and management with other program team members.
- **California Shellfish Initiative** – a collaborative effort to expand shellfish culture resources (both commercial and native restoration activities) in the state, taking into account the many stakeholder interests involved. A broad, statewide discussion that started in mid-2013 will evolve into localized, regional planning and policy efforts continuing into the future. Communication, collaboration, and planning skills are key to the Initiative's success.
- **Humboldt Bay Pre-Permitting Project** – wherein additional shellfish leases are being considered under an innovative, umbrella or pre-permitting effort. Interagency and public coordination through the CEQA review and planning provide a showcase of the challenges of this effort.
- **Ventura Shellfish Enterprise** – following a similar model (as Humboldt) of pre-permitting lease areas for sublease to individual shellfish growers, the Ventura Port District will be assembling lease and permit applications, and environmental impact analyses, in cooperation with this office and other partnering entities, as it seeks approvals to establish a cooperative base for mussel farming, landing, and marketing. Skills in interagency and grower coordination will be strengthened through this experience.
- **Sacramento Perch Applied Genetics** – collaborative work with other Department fisheries managers, private aquaculturists, and genetics researchers aimed at restoring Sacramento Perch (a species of special concern in CA). Opportunity to contribute to proactive conservation effort that will build on foundation of genetics work starting now.

Activities may include: site visits; participation in meetings and discussions on policy and planning; expanding program communications to agencies and constituents; developing and revising guidance documents and informational leaflets; assisting, commenting, and planning within the CEQA process; assisting with the planning, administration, and expansion of state water bottom leases; and assistance with spatial data sharing, planning, and the integration of GIS tools & techniques for managing aquaculture activities within existing and newly-developing statewide database resources.

Successful candidates must be able to work independently, but in a coordinated, engaged, and communicative fashion with the Department and its counterparts in other agencies and the industry. The work is focused heavy on communication, interaction, and policy, with little emphasis on direct scientific research. However, the ability and desire to conduct bibliographic, legal, and administrative research is a vital contribution to the Program's efforts. Superior listening and writing skills, and a desire to interact with constituents across a broad spectrum of experience will make the fellowship more rewarding for everyone.