



## SEAFOODSOURCE

# Julien Stevens spearheading “next generation” of aquaculture research for Kampachi Farms

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*Julien Stevens is a research technician at Kampachi Farms, which is dedicated to expanding the environmentally sound production of sashimi-grade kampachi (*Seriola rivoliana*). Stevens work with the company's Hawaii-based research and development facility in Kailua-Kona. Kampachi is also developing a commercial grow-out operation in La Paz, Mexico.*

**SeafoodSource:** What do you do in your role as a research technician for Kampachi Farms?

**Stevens:** As a member of our research team, my work focuses on a range of research projects. On any given day, I could be working in the farm, in the lab, or in the office, on some or all of the following areas: building broodstock, larval rearing or grow-out systems; monitoring and maintaining broodstock of the various fish species; tracking fish health and nutrition; working with feed trials or spawning trials; and analyzing data and report writing. I also manage our online presence and our internship program, lead our public tours and manage our community service projects. I love working with our fish species, and likewise find the public engagement parts of my work really rewarding.

**SeafoodSource:** What are some of the specific focuses for the Kampachi Farms research team?

**Stevens:** The primary goal of our research team is to develop the tools for “next generation” offshore aquaculture. We are committed to doing this in the most environmentally responsible manner. We are pursuing three different research avenues: first, using feed trials to identify which feed ingredients can be used to replace wild marine resources, while optimizing growth rates and health of the fish and the quality of our product. Second, we test equipment and technology needed to take aquaculture “over-the-horizon.” Through our Vellela research trials, we have demonstrated how offshore aquaculture, in deep water further offshore, can produce fish with virtually no detectable impacts. And third, we also are working with other species, looking for the “next big thing” (i.e. fish) for marine aquaculture. Currently we’re working with herbivorous rudderfish, mahi and giant Pacific grouper.

**SeafoodSource:** What characteristics or traits are needed to be successful in your job?

**Stevens:** My job requires keen observation, a willingness to approach hurdles in a creative and collaborative way, and the development of a jack-of-all-trades skillset.

**SeafoodSource:** What do you see as the top issue or issues facing the kampachi industry and its ultimate success and what are some of the strategies being deployed to address these issues?

**Stevens:** It seems the [top] issue facing aquaculture startups in the United States are regulatory hurdles to put farms in the water. As it stands, it's often too costly and time consuming for a farming startup to wade through the application process. To move forward commercially, with the potential to scale up our kampachi business, we are developing our commercial operations in Mexico's Sea of Cortez. The Mexican government recognizes the importance of aquaculture and we will be working closely with them and our commercial neighbors to develop an environmentally and socially responsible management plan for our operations in the area.

**SeafoodSource:** What do you count as your greatest business-related achievement thus far?

**Stevens:** I'm very proud to be working with such a dedicated team at Kampachi Farms. I'm also thrilled to be able to contribute to the sustainability dialogue with new data on aquaculture by-products, which I recently presented at the 2017 SeaWeb Seafood Summit. We have a paper currently in review for publication, based on work continued from my master's degree in sustainable aquaculture at the University of Stirling, Scotland.

I hope my research, which highlights the ability to increase food and value from the same amount of raw materials, will have an important impact in advancing the sustainability of aquaculture businesses. I am keen to stimulate further discussion and collaboration on this topic going forward.

**SeafoodSource:** Talk a bit about the work you're doing on seafood by-product research. And how does this intersect with your work at Kampachi?

**Stevens:** I'm a big believer in sustainability throughout the value chain. My research on Scottish Atlantic salmon by-products (heads, skin, viscera, etc.) highlighted the economic, food security and environmental benefits of strategically managing by-products as valuable marine resources, first by maximizing edible yield, and then through using by-products to create feed for animals. It was fascinating to think that Scotland could increase food production from fish farming by more than 60 percent, increase by-product revenue by 787 percent and increase the industry bottom-line by more than five percent, all without having to put any new cages in the water, or use any more marine resources.

Strategic management of our resources is vital to sustainable growth. In both my by-product research and my work at Kampachi Farms on aquafeed formulation, I'm really interested in how we use the resources we have in the best possible way, making sure we are responsible in our upstream inputs as well as our downstream outputs.

**SeafoodSource:** What is the best piece of business or life advice you've been given, and from whom did it come?

**Stevens:** A number of years ago, I heard a story that provided some words of wisdom for me professionally. It's about a Midwestern corn farmer. Each year, this particular farmer would bring his corn to the regional fair and each year his corn would win the blue ribbon. After winning the prize for five years in a row, he was interviewed for the local news. They asked him, how is your corn continually the best? He said it was simple: once he produced a really great crop, the next year he had to share his seed stock with all of his neighbors. The farmer knew if he didn't share his great seed with his neighbors, when the wind carried their inferior pollen into his field, his corn would become second rate.

For me, the story speaks volumes on the aquaculture industry, because we are reliant on sharing the same marine resources and are perceived by the same public, we are only as good as our worst neighbor. Competitive edge is important in business, but there are also many opportunities for win-win approaches that will allow for the industry

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as a whole to achieve important sustainability goals. It's part of our vision at Kampachi Farms for the aquaculture industry to develop a reputation as stewards of the environment and our communities. This is a lofty goal that will only be possible through industrywide collaboration.



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