

KAMPACHI FARMS – COLLABORATIVE OFFSHORE AQUACULTURE R&D AT  
THE NEXUS OF ECONOMIC OPPORTUNITY AND ECOLOGICAL IMPERATIVE

Neil Anthony Sims\*, Lisa Vollbrecht, Helen Meigs, Keelee Martin and Joseph Nakoa

\* Kampachi Farms, LLC  
neil@kampachifarm.com

Kampachi Farms, LLC, is an offshore aquaculture research and development company based in Kona, Hawaii, that recognizes and embraces the power of collaboration. We see development of offshore aquaculture as a pressing ecological imperative, and a tremendous economic opportunity. Each of our innovative breakthroughs in offshore aquaculture has only been possible through partnering with other agencies, companies, colleagues or institutions.

The Vellella Beta-test (the world's first unanchored net pen, recognized as one of TIME Magazine's 25 Best Inventions of the Year in 2012) was funded by NSF SBIR, with matching support from Illinois Soybean Association; International Copper Association; Ocean Farm Technologies (now part of InnovaSea), Lockheed Martin, researchers from University of Hawaii at Hilo, with an Experimental Fishing Permit from NOAA. Our Vellella Epsilon demonstration net pen, to be sited 40 miles offshore of Sarasota, Florida, in US Federal waters, is supported by National SeaGrant funding, and University of Florida SeaGrant, together with a range of private industry partners. The primary goal of Vellella Epsilon is to help fishermen and other ocean users understand the minimal impacts and the abundant benefits of offshore aquaculture. In the Gulf – as in Kona - actual experience with offshore net pens should render fishermen our most vocal supporters.

In ongoing feeds research, we have grown kampachi (*Seriola rivoliana*) on zero-fishmeal diets, and tested diets including soy protein concentrate, duckweed, microalgae byproducts, and Single-Celled Proteins from ag-waste biodigestors. This work has been supported by Nebraska Soybean Board, NOAA Saltonstall-Kennedy, and USDA SBIR funding, and has partnered with University of Nebraska Lincoln, the F3 Network, USDA ARS feed mill in Montana, and companies and individuals producing a range of innovative feedstuffs.

Our offshore macroalgal and seaweed biodigestion research is supported by US Department of Energy's ARPA-E program, and has involved partnering with Makai Ocean Engineering, The Climate Foundation, University of Hawaii Hilo and UH Manoa; UC Irvine; UC San Diego; San Diego State U; Lawrence Berkeley Laboratory and the National Renewable Energy Laboratory.

We also provide tours of our Kona-based research facility, with the express goal of increasing public understanding of the need for offshore aquaculture, and the benefits that can accrue from a well-planned and -managed offshore industry. We welcome interns and other volunteers. We would be pleased to engage with other innovators to help bring offshore aquaculture to its fullest potential, as a salve for the seas and a partial panacea for the planet.

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