# Sea of Sustainability

interview by Joshua Stecker

## Q&A WITH PHIL CRUVER
## CEO, CATALINA SEA RANCH

Catalina Sea Ranch, one of the most active tenants currently at AltaSea, is an aquaculture farming company that manages a 100-acre sea ranch six-miles off the Southern California coast. The company, which is the first offshore aquaculture facility to be granted a federal permit to operate in U.S. waters, currently cultivates Mediterranean mussels, giant kelp, giant rock scallops, Pacific oysters, macro algae and abalone. *San Pedro Today* spoke to founder and CEO, Phil Cruver, to discuss his company, the future of aquafarming, and how it will affect the future of San Pedro.

For those just learning about Catalina Sea Ranch, can you explain what your company is all about? Catalina Sea Ranch, LLC, has developed the first offshore aquaculture facility in federally regulated waters of the United States. Our strategic plan anticipates the continued cultivation of mussels on our initial 100-acre site during 2019 to improve the technologies, validate the economics, and monitor and document any environmental impact and the positive ecosystem services of mussel crops. We are now expanding our aquaculture facility to 3,000 acres with the cultivation of additional sustainable and regenerative marine species including California's giant kelp.

What types of sustainable seafood is CSR currently cultivating? We intend to develop a "Catalina" sustainable brand appealing to the growing "green" market of environmentally conscious consumers seeking to eat locally produced food. By promoting a fresh and "open ocean" product, we anticipate charging a premium for cultivating a diverse crop of native mussels, scallops, oysters, abalone, and seaweed. The Catalina brand will reach a market that appreciates locally harvested food and is acutely aware of the carbon footprint associated with imported shellfish, resulting in a competitive advantage.

In your opinion, why is it so important for humans to focus on aquafarming as a next generation source of food? About 70 percent of the world's fisheries are threatened by overfishing, and we hit "peak fish" two decades ago. Therefore, if we can't take more wild fish out of the ocean, aquaculture must meet the seafood demands of a growing, global population. Terrestrial crops consume precious fresh water resources and require harmful fertilizers; livestock produce an enormous carbon footprint that is unsustainable. That is why aquaculture is the fastest growing form of food production on the planet.

According to NOAA Fisheries, they estimate that the United States imports more than 80 percent of the seafood we eat (half of this imported seafood is from aquaculture), resulting in an annual seafood trade deficit of more than $10.4 billion. How does domestic aquafarming and CSR hope to change that? NOAA's data shows the seafood trade deficit is now about $15 billion – in 2017 it grew another $1.1 billion. With the current regulatory environment, the deficit will grow exponentially. Over the past few years, we have been documenting science-driven data, based upon evidence rather than conjecture, for showing that sustainable and regenerative shellfish and seaweed crops actually have a positive impact for feeding the future.

Phil Cruver, founder and CEO of Catalina Sea Ranch (photo: John Mattera Photography)

The San Pedro shelf is the largest underwater platform on the West Coast. Can you explain why it's perfect for offshore aquaculture? Catalina Sea Ranch's aquaculture facility's location, six miles offshore on the San Pedro Shelf, is one of its greatest competitive advantages, as it is located on the periphery of about 26,000 acres (40 square miles) of U.S. Federal waters. The San Pedro Shelf is the largest underwater plateau offshore of California, and is close to major seafood markets and fishery infrastructure. It has favorable oceanographic conditions, infrequent major storms, and deep clean water with good exchange close to shore. Mussels grow rapidly as a result of the high productivity of phytoplankton present in the warmer and pristine offshore waters. Most importantly, the enormous upwelling phenomenon from adjacent 3,000-foot depths produces phytoplankton flowing onto the shallow San Pedro Shelf serving as rich feed for rapid growth of shellfish. The consistent 150-foot depth of this massive underwater plateau is optimal for deployment and maintenance of aquaculture cultivation gear. Being located six miles offshore eliminates visual blight from operations and minimizes potential conflict with recreational sports such as sailing, jet skiing, and surfing. The further offshore, the better for minimizing shellfish exposure to inland storm water runoff, contaminated with bacteria and other pollutants. Moreover, the ocean flushing characteristics in offshore waters provide a cleaner environment for preventing disease that is a prevalent problem with inshore aquaculture. The San Pedro Shelf is exemplary for developing a sustainable aquaculture industry to help meet growing consumer demand, reduce U.S. dependency on imports, create jobs in coastal communities, and maintain working waterfronts. Its proximity to San Pedro, having a sea-savvy skilled workforce and seafood industry infrastructure, is ideal for economical processing and distribution logistics.

You are currently based at AltaSea, why did CSR decide to partner with AltaSea? What benefits does CSR have by working with them? AltaSea has such a unique campus with a deep-water channel and expansive warehouse space for expansion. Located in the massive Port of L.A., there is skilled workforce and infrastructure supporting both our R&D and offshore operations. It is ideally located in the gateway of a major seafood market for Catalina Sea Ranch becoming the "Aquaculture Capital of America."

You've said you want to make San Pedro the capital of aquafarming for the 21st century. What's it going to take to get there? Eat more mussels! We are promoting our brand to the California market as local and traceable for increasing America's per capita consumption of mussels from .15 pounds to that of Europe, which is five pounds per capita. Consider 40 million Californian's annual consumption equaling Europe's, which would amount to 200 million pounds. A conservative local and traceable premium of $2.50 farm gate price per pound would create a half billion dollar company. **spt**