

Kapuscinski-Sarker Lab

Ecological Aquaculture Research Internship

Winter 2020

Contact:

Lab co-director, Professor **Anne Kapuscinski** akapusci@ucsc.edu

Lab manager, **Devin Fitzgerald** dfitzge1@ucsc.edu

Aquaculture is the world's fastest growing food sector and essential for the food security of over 1 billion resource-poor people. Conventional aquaculture diets use fishmeal and fish oil extracted from ocean-caught fish, like sardines and herring, but most of these 'forage fish' are edible by people and important prey for higher-trophic marine fish like tuna. About 20% of world fish catches in 2017 were used to manufacture fishmeal and fish oil and this scale of production undermines marine biodiversity, threatens food security of coastal peoples who traditionally eat these forage fish. Rising demand for fishmeal and fish oil and competition for higher value uses such as human fish oil capsules has caused price volatility problems.

The [Kapuscinski - Sarker lab](#) in the ENVS dept is working to replace fishmeal and fish oil in conventional feeds with microalgae. We have exciting progress and a new aquaculture greenhouse at the CASFS farm. Interns will assist the team to set-up and carry out experiments to assess suitability of novel feed ingredients for potential inclusion into diets (nutritionally complete pellets) for farmed fish. We are also interested to use water from our recirculating aquaculture systems to provide nutrient-beneficial water for crop irrigation on the CASFS farm.

Tasks may include but are not limited to maintaining recirculating water aquaculture systems, fecal collection, feed making, daily fish care, water chemistry testing and the maintenance of the greenhouse that contains our research systems. Interns will be expected to contribute to accurate record keeping, data collection, data entry and organization, and report writing. Successful applicants should have a proven track record of detail oriented work, hold a personal interest in the work to be carried out and be willing to learn on the fly. We thoroughly train interns in our methods.