



Veggie diets for cobia

Scientists at the University of Maryland, USA have developed a completely vegetarian diet for marine fish raised in aquaculture.

The findings led by Aaron Watson and Allen Place at the University of Maryland Center for Environmental Science's Institute for Marine and Environmental Technology, are published in the August issue of the journal *Lipids*.

"Aquaculture isn't sustainable because it takes more fish to feed fish than are being produced," said Dr Watson.

A new vegetarian diet might change everything

Supported by another paper published in the *Journal of Fisheries and Aquaculture*, the team has proven that a completely plant-based food com-

bination can support fast-growing marine carnivores like cobia and gilthead sea bream in reaching maturity just as well as - and sometimes better than - conventional diets containing fishmeal and fish oil.

"This makes aquaculture completely sustainable," said Dr Place.

"The pressure on natural fisheries in terms of food fish can be relieved. We can now sustain a good protein source without harvesting fish to feed fish."

The team's research centered on evaluating fishmeal-free, plant protein-based diets originally developed for rainbow trout by the USDA-Agricultural Research Service and modifying them



to replace the fish oil for cobia and potentially other high-value marine carnivores.

Fishmeal was replaced with a food made of corn, wheat, and soy. Fish oil was replaced with soybean or canola oil, supplemental lipids from algae sources, and amino acid supplements, such as taurine.

For the consumer, vegetarian fish have the added benefit of lower PCBs and mercury levels.

"Right now, you are only supposed to eat striped bass once every two weeks," said Dr Place. "You can eat aquaculture-raised fish twice a week because levels are so low."

AQUACULTURE UPDATES

Restaurant menus could hold the key to tracing Hawaii's wild fish history. Scientists at Duke University, USA are hoping to fill a 45-year gap in official wild fish population records by looking at what was served in restaurants. Almost 400 menus from 154 restaurants were collected from holidaymakers who took the menus as souvenirs.

Prawn and barramundi farmers in Australia have moved one step closer to merging their industry bodies. Talks in Cairns at the annual joint conference of the Australian Prawn and Barramundi Farmers Associations ended with an agreement to form a national alliance.

A public private-partnership in Florence, Columbia is attempting to steer the local economy away from coca and towards silver arowana aquaculture. Amazon International Trade, with support from the Columbian trade promotion office, has started a farm which is on course to ship 20,000 fish a year. The fish is highly prized in China where a single arowana can sell for as much as UD\$40.

The University of Maine at Machias, USA has received a US\$600,000 grant from the National Science Foundation to study the potential for new aquaculture markets for two shellfish in Maine. The research aims to improve the growth and survival of blue mussels and Arctic surfclams in an effort to create new economic opportunities.