Greener fish to fry

The founders of a Massachusetts aquaculture company believe they've found the ideal species to raise.

Tue, Mar 03 2009 at 11:05 AM EST

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We can thank Australia for Russell Crowe, Kylie Minogue, fun phrases like “G’day mate,” our fascination with crocodiles and poisonous snakes, and most recently, barramundi, the Land Down Under’s most popular fish.

Barramundi have white bellies, silvery sides and a tasty white flesh high in omega-3's. In the U.S. they are known mostly among seafood chefs and foodies. But Australis Aquaculture, a western Massachusetts-based company that has been farming the fish in indoor tanks since March of 2005, aims to change that. Initially the company shipped 3,000 pounds of fish a week, mostly to select seafood restaurants. But currently, 20,000 pounds of Australis' barramundi make their way weekly to restaurants and grocery stores, including Whole Foods.

Aquaculture, the practice of growing marine animals in ponds and pens, is more than 3,000 years old. Today it’s the fastest growing sector of the world’s food economy. With global fish stocks declining (a recent study predicted that the world’s wild fish will disappear by 2048 if overfishing continues at the current rate) and global populations increasing, fish farming is likely to become even more common in the coming years.

"Aquaculture is the wave of the future," says Dr. John Volpe, a fisheries scientist at the University of Victoria, “we just have to come to some conclusion about how we’re going to execute it.”

(This article originally appeared in "Plenty" in March 2007.)

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Volpe points out that by raising fish in tanks, farms like Australis avoid environmental problems that plague coastal fish farms—when these farmed fish escape they expose wild fish to disease, compete with them for resources, and mate with them, which reduces genetic diversity. Since barramundi are used to the tropical waters of the South Pacific, even if they somehow escape Australis’ regulated, slightly salty, 82°F tanks they won’t last long in New England’s chilly waters.

Australis Aquaculture is the result of a partnership between Stewart Graham, an Aussie businessman and Josh Goldman, a New England fish farmer. The two believe they’ve developed an ideal way to farm fish—and the ideal fish to farm. Barramundi are docile, not picky eaters, and reproduce easily in captivity. By adjusting salinity, temperature, and light Australis induces breeding year-round (fish spend about a year in Australis’ tanks, until they weigh one to two pounds).

In the wild, barramundi spawn in the salty waters of estuaries but spend much of their lives prowling shady freshwater streams for shrimp, crab, and small fish. Some fishery scientists believe that carnivorous fish such as barramundi and salmon are ill-suited for farming because most of their feed comes from wild fish species. Critics say that fishing the ocean to provide food for farmed fish makes little sense—they point to vegetarian fish like catfish and tilapia as more sustainable alternatives.

Goldman argues that barramundi are more sustainable than other carnivorous fish because their diverse palate means their diet can be supplemented with canola and soy-based feeds. But some say feeding a mostly carnivorous fish a more vegetarian diet may have its drawbacks.

"If you use soy meal the fish tastes like soy," says Dr. Daniel Pauly, director of the Fisheries Centre at the University of British Columbia. Some epicureans are more forgiving.

"They’re not as flavorful as wild fish, but it’s a version of the wild," says Jeremy Marshall, owner and head chef at Aquagrill, a New York City seafood restaurant that serves both farmed and wild barramundi.

Aquagrill’s barramundi, typically pan seared and served with soft mascarpone polenta, herb braised short ribs, sautéed artichokes, and roasted garlic cloves in a red wine demi-glace, goes for $26.50.

More than one billion people worldwide rely on fish as a major source of protein, and most of them aren’t likely to cough up $26.50 for a piece of farmed barramundi. But in the future, Graham and Goldman hope to bring the fish to a wider variety of grocery stores where its price will inevitably be lower. Even then, though, Australis will likely cater to more well-to-do consumers, according to Corey Peet, a fisheries expert at Seafood Watch, a group that evaluates the ecological sustainability of seafood (the group considers barramundi a “best choice,” their highest rating).

“If aquaculture is going to feed the world it’s not going to be with carnivorous fish,” says Peet, “but Australis’ model represents a great innovation.”

(Story by Justin Nobel)

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