### a tunnel view

## THE EMERGING RED SNAPPER CULTURE



Red snapper is a favorite food fish in many Asian countries. In the Philippines, most table-sized snappers are from wild catch while a limited amount is cultured in floating net cages offshore or in ponds. A new trend is starting to emerge where red snapper are grown in ponds for game fishing.

Most fry are wild caught; a diminishing seed supply having already been experienced by snapper farmers. Be that as it may, snapper continues to be raised either for domestic or provincial consumption and has been so practiced through the years.

For years, red snapper had been stocked in cages and ponds only when fry from the wild are available. But this is slowly changing with the recent introduction of hatchery-produced fry.

The road marker at the boundary entrance to Roxas City says that it is the seafood capital of the Philippines



A look into some farms might give an indication of whether or not cultured red snapper in the Philippines can be considered promising given that it is relatively unknown to most fish users as a favorable kind of fish suitable for the live markets to restaurants and for value added products. In 1999, *Infofish International* predicted an increase in the live markets for other species that are not so expensive. Hong Kong is the main Asian market for the live fish trade but demand from southern China has also increased resulting in Hong Kong's reshipping of about 50% of its import. Further, the report states that "a large proportion of live fish (mostly Malabar grouper and snapper) enters China through Hong Kong via legal and illegal means. Fish farmers with farms on the China/Hong Kong border are permitted to land their product in China at a minimal cost." Thus, cages belonging to Hong Kong fishfarmers serve as holding facilities for live fish from foreign suppliers.

### Red snapper culture in west central Philippines

The province of Capiz has been conferred the seafood capital of the Philippines perhaps because of the variety of fish that is being cultured in commercial quantity within the province - shrimp, mudcrab, grouper, milkfish, snapper, seabass, tilapia. Even the minuscule *agiis*, a shellfish suitable as live whole feed for shrimp and mudcrab, are gathered and restocked in muddy substrates until harvestable, and sold on a per ganta basis.

In Barangay Dayao in the Bara River, Mr. Panaguiton raises red snapper in cages and pens (above photos). Five months earlier, Panaguiton, manager-owner of several cages and pens, stocked red snapper fry which he bought from Alson's Aqua Technologies, Inc, a firm based in General Santos City. He stocked them in cages and pens. He first stocked the fry (0.75 in) in cages with a "mongo-

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# Support sustainable aquaculture

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mongo"-sized net (about 1 cm mesh). After 1.5 months, he transferred them in cages (he has 17 units of 3 x 3 x 2 m) which he provided with styropore shelters. Mr. Panaguiton says that when he has available pens, he transfers some from the cages because they grow better in wider spaces.

He tranfers 200-150 fry per cage from his nursery. In the nursery, he uses bangus or milkfish floater feed with 30% protein. He feeds three times a day. In the cages, he uses trash fish or fry mash but he says that trash fish is better and fry mash is only used when trash fish is hard to come by during the typhoon season. He feeds twice a day. Trash fish is P10-20 per ganta and fry is P4.50 per 3 or 4 in.

Mr. Panaguiton says that red snapper is easier to culture than grouper because "it is not choosy with feed." And so far, he hasn't had disease problems; his biggest problem is "where can he sell his market-sized red snapper"? For now he hasn't dwelt on that because he is five months away from harvesting. "I'll think of a way," he said.

Mr. Rolando Unasin, Punong Barangay of Basiao, owns about 100 floating cages (8 x 10 x 4 m) in the coast of Basiao, Ivisan, Capiz. He has a steady supply of trash fish because his main occu-





pation is fishing. He thus doesn't buy trash fish; when supply runs low, other fishers can supply his need. He explains, "most red snapper raisers here supply their own trash fish. It is an advantage for us because we don't need to buy formulated feed." They have been raising red snapper with grouper and seabass for so long, he couldn't remember when he started. Lately, he bought his fry stock from a fry dealer (P12-14 per fry). For him, fry supply is not much of a problem because he has enough to supply weekly orders and not deplete his smaller-sized stocks. In fact, he buys small quantities of fry to replace what have been sold.

He stocks 200 fish per cage. He grows the fry in the nursery until 2 in long when he feeds chopped small shrimp *Acetes* (he has steady supply too at P40 per ganta) and transfers them to grow out cages. His culture period is 0.5-1.5 yr. He does selective harvesting every week (250-400 kg) on orders from Iloilo City. He sells at P170 per kg.

In Manjuyod, Bais City, Negros Oriental, Mr. Charles Fortaleza oversees 7 ha snapper, seabass, and grouper ponds devoted to game fishing, the FJE Game Fishing. The ponds used to be shrimp ponds until diseases forced them to stop production. The ponds were then converted to bangus, seabass and grouper, and in the last couple of years, converted to game fishing.

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Charlie Fortaleza's sportsfishing operation; he stocks Lutjanus johnii from the wild

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Mr. Fortaleza keeps a variety of fish and charges game-fishing visitors at P10 (children) and P20 (adults). For his red snapper stock, he bought 2,000 fry from SEAFDEC/AQD and from Bacolod at P7 per in. But this is the first time that he has stocked red snapper that has not grown to market size.

He stocks the fry in nets for 45 days and feeds mosquito larvae (3x aday). "The growth is very good," he says of the fry. After that he stocks them in ponds (feeding 2x a day, trash fish) until they are fished. He also uses small shrimp, Acetes, occasionally. For his grouper stock, he gets orders from nearby restaurants from 2 to 11 kg per order. "Orders are not that frequent," he says. "Perhaps if we advertise regular supply to local restaurants, we may get orders for most of our stocks because we intend to commercially produce," he says further. In the mean time, he has to keep his ponds stocked for his game fishing patrons.

### **Multi-species hatchery solution**

Sometimes, aquaculture can be blessed with so much profit. Take shrimp for example. Farmers became instant millionaires, only to go bankrupt in the later years when they were just starting to enjoy the perks. Laden with problems, few have managed to hang on to their enterprise.

Red snapper culture in Capiz, in its fledgeling state, is not without problems. The first is fry supply, second is uncertainly of market for emerging aquaculture species, and nonexistent local government (LGU) regulation on the number of cages.

Fry supply is not readily available when needed for most species. Mr. Elmer Blasurca of Capiz has a solution. He proposes to construct a multispecies hatchery of all high value species in every province in coastal areas funded by the national government in coordination with local government units. His justification: to provide the impetus for aquaculture growth in the Philippines. Initially, he wants to showcase Capiz, a coastal province and already an established aquaculture "boom town." Short of formally presenting the proposal to the provincial board, he has done



Elmer Blasurca. His suggested solution to the perennial fry supply problem is establishment of multi-species hatchery all over the country

groundworking for the acceptance and endorsement on the local government units of his province.

Mr. Blasurca proposes that the multispecies hatchery should initially be financed by the congressional district's Countryside Development Fund through the various LGUs organized as a cooperative. Operations would be maintained by the LGUs. Government banking institutions (DBP or LDP) would then provide loans to small-scale grow-out farmers that would get their fry stock (2,000 - 5,000) from the government-run hatchery. Again the grow-out farmers would be formed into cooperatives.

Loans, however, would have specific requirements. Applicants would first have to undergo training from reputable aquaculture institutions such as SEAFDEC/AQD for technical know-how, among others. The loans would also have a collateral.

As a fishfarmer himself, Mr. Blasurca knows Capiz aquaculture well. He mentioned that the booming grouper grow-out farms have been greatly reduced (from 1,000 cages three years ago to 300) due to scarcity of fry. He adds mudcrab to the struggling grow out industry because, again, fry is not readily available.

Mr. Blasurca is nothing but emotional when he talks about Capiz aquaculture. Orders are plentiful but they are unable to sustain production. "For as long as the fry problem is not addressed, our aquaculture industry would remain in limbo," he says.

With Mr. Blasurca's proposal, perhaps the problems would be lessened, if not entirely solved. Barring usual personal interests and partisan politics, Capiz aquaculture is perfect for the proverbial "shot in the arm."

Mr. Blasurca is representative to the Provincial Small and Medium-Scale Enterprise Development Council of Capiz.

### The SEAFDEC/AQD part

The AQD answer to fry availability more or less dovetails with Mr. Blasurca's proposal. In the past years, AQD has established multi-species hatcheries at the Bureau of Fishries and Aquatic Resources (BFAR) in Puerto Princesa, Palawan, and in Western Samar through the Philippine Business for Social Progress. Through PBSP, the AQD multi-species hatchery technology is duplicated in other coastal towns where PBSP implements coastal resource development programs. The following species will now be duplicated following successful testing and verification in the local environment: green grouper, mangrove red snapper, trevally ("talakitok"), the staking method of mussel culture, mudcrab in sea pen and in mangrove, freshwater tilapia, and the hanging method of seaweed. One hundred eighty-eight beneficiaries are expected to adopt the technology in Samar alone.

In Palawan, the leopard coral trout (P2,390/kg live fish, year 2000), locally known as *suno* was successfully induced to spawn at the Inland Searanching Station of BFAR where a multi-species hatchery is being maintained. This is significant to the government of Palawan's campaign against cyanide fishing. The station would eventually supply the fry needs for the culture of high value marine fish and perhaps even achieve reseeding activities.

AQD first spawned wild-caught mangrove red snapper in captivity in 1992. In 1997, AQD reported the survival of snapper larvae using natural food (*Brachionus*, *Artemia*). Since then, hatchery techniques have been developed. AQD now sells red snapper fry to interested fishfarmers on a limited basis (excess fry from research activities). In most ways, the technology has benefitted the growing popularity of red snapper culture in cages.