

Status of Milkfish Fry Industry in Roxas, Palawan

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ABSTRACT

The status of milkfish fry industry in Roxas, Palawan is documented through an interview of 35 respondents in barangays Rizal and Tumarbong, Roxas from June to July 2004. Highlighted in this paper are the socio-economic characteristics of fry gatherers, their fry catching practices, fry catching gears, period of operation, production and marketing. It likewise identifies the main problems encountered by the fry gatherers which include changing climatic condition, financial constraints, low price of catch, and illegal fishing practices in the area.

INTRODUCTION

Milkfish *Chanos chanos* (Forsskal 1775), known by different names in the Philippines as “bangles”, “bangus”, “bangrus”, “banglot”, “sabalo”, “awa” (Bagarinao 1999) is the sole species of family Chanidae. This species has certain desirable qualities such as omnivorous feeding habit, adaptability to crowding, resistance to disease, wide tolerance to environmental factors and fast growth rate. They are considered as a “perfect farmed fish” in Southeast Asia (Bagarinao 1999).

Successful milkfish farming was established in the Philippines for decades. Its popularity in the Philippine aquaculture can be attributed to its being a highly adaptable species. It can be grown in freshwater, brackishwater, and seawater using various farming systems. Statistical records showed milkfish as the main aquaculture commodity. It is being cultured in cages, pens and ponds. In 1998, about 74.71% of brackishwater pond production is attributed to milkfish as the farmed animal. Fish pen and fish cage farming in both freshwater and marine water have milkfish production of 69.59% and 8.17%, respectively.

The availability of milkfish fry from the wild is an important factor to assure sustainability of the milkfish farming industry. During the 1970s, shortage of milkfish fry supply from the wild was reported to have affected the aquaculture production. Fish growers turn to hatchery-bred milkfish fry during that period (Garcia 1996). Despite economic importance of milkfish culture correspondingly of milkfish fry industry, no comprehensive historical data are available on fry catches from wild sources. Bagarinao (1999) cited important fry grounds in the

Philippines based on 1969 surveys. She recommended new surveys to ascertain the condition of these fry grounds. Bangus Fry Resources Assessment study for the period 1996-1998 conducted by BFAR, SEAFDEC and PCAMRD was so far the latest study done on the status of milkfish fry industry.

Although Palawan was identified as one of the productive milkfish fry grounds in the country, an effort to assess the present condition of the fry grounds in the province was virtually none existent. Palawan is not spared from the reported depletion of fisheries resources which is now a critical national concern. For effective and rational management of these resources, the policy makers and managers need to be guided by solid data.

The Office of the "Sangguniang Bayan" of the municipality of Roxas had so far approved only two ordinances pertaining to the milkfish fry industry in the locality. These are Municipal Ordinance No. 11, s.1995, an ordinance regulating the catching of milkfish fry in Roxas, Palawan, and Municipal Ordinance No. 06, s.1999, the granting of preferential rights to marginal fishermen to catch milkfish fry in the municipal waters of Roxas.

The present study aimed to provide information on the socio-economic profile of the fry gatherers in two barangays in Roxas, Palawan; identify primary gears, methods and practices of milkfish fry operation in the area; and ascertain status and difficulty of milkfish fry industry in the locality.

Result of the study will establish better understanding of the status, common operation, and problems encountered by the stakeholders. The data will be made available to serve as guide to the policy makers in the province of Palawan in their formulation of appropriate policies that will address the problems of the milkfish fry industry and likewise improve the standard of living of the fry gatherers in Roxas and other municipalities in Palawan.

METHODOLOGY

The study started in June 2004 with the collection of data on the social and economic status of the fry gatherers in Roxas, Palawan, Philippines and ended in July 2004. The survey was particularly conducted in Bgy. Rizal and Bgy. Tumarbong in Roxas, Palawan. Identification of the two study sites depended largely on the popularity of the area as the productive fishing grounds of milkfish fry (Figure 1).

With the help of the barangay officials, 15 fry gatherers from Bgy. Rizal and 20 from Bgy. Tumarbong were interviewed using guide questionnaires that included queries on the following: a) household information and economic status, b) fry gathering practices and production, and c) problems encountered. Descriptive analyses of the data gathered were done.

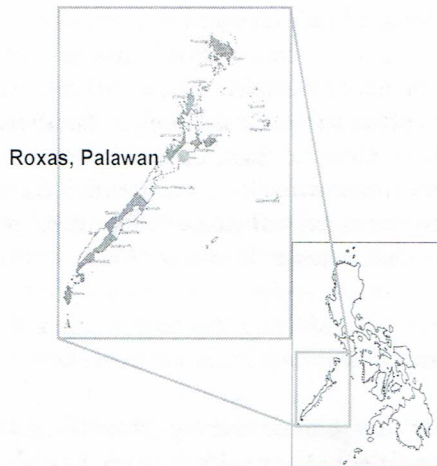


Figure 1. Map of Palawan. The dot indicates the survey site.

RESULTS AND DISCUSSION

Profile of Fry Gatherers

Majority of fry gatherers attained only elementary education. They claimed that they stopped schooling due to financial constraints. About 20% of them, however, were able to reached college. When compared with the educational attainment of the milkfish fry gatherers in Puerto Princesa City, an almost similar trend was noted.

Almost all are married with one to nine children per family. Majority of households for both barangays have three to four children.

No fry gatherers from Bgy. Rizal owned a residential land unlike those from Bgy. Tumarbong where 15% has land ownership. Most of the residents in both barangays rented the land they used.

The native Cuyuno, who are the majority (60% from Bgy. Rizal and 75% from Bgy. Tumarbong) of fry gatherers in the area were engaged in this livelihood for more than a decade. They said that they have learned the fry gathering skills from their parents and grandparents and that they have not availed of any technical assistance from the government. Those who are newly engaged in this activity, stated that they have acquired the skills from private individuals or from the fry buyers themselves.

Based on the resources available in the area, fishing (61.36%), farming (34.09%), and carpentry (4.55%) are other sources of income of the fry gatherers. The agricultural crops produced are corn, rice, and coconut.

The social and economic status of the fish gatherers in the study area substantiate the popular belief and studies about fisherfolks to be occupying the bottom of the economic ladder (Yap *et al.* 1995). They are those who generally exist on a day-to-day basis. Most of them cannot save enough money to buy the materials they need for the construction of their milkfish fry collecting gears. They are just fortunate to be provided with financial support by private individuals who are also their fry buyers. This scheme, however, forced them to sell their collected fry at a lower price.

Fry Collecting Operation

The two barangays are suitable site for fry collection. According to the fry gatherers, they are operating their gears 5-15 m from the shoreline at depth below 1 m and at a distance of 50 to 500 m to an extreme distance of 1.5 km along the shore during low tide.

The fry gatherers are generally males but during the peak season, their wives and children help in the fry gathering operation. They as well assist in the gear management and maintenance, and in the counting and selling of the collected fry.

The ample number of fry gatherers operating in the coastal waters of Bgy. Rizal and Bgy. Tumarbong only proved the sustainability of these fry grounds.

According to Bagarinao (1999), various fine-mesh seines and bag nets of indigenous designs have been used as fry collecting gears for hundred of years in the Philippines. Among these gears, three types were commonly used in the study area. These are fry sweeper, fry bulldozer, and tidal set net. The fry sweeper is the commonly used because it is the easiest to operate. The fry gathering operation lasted from 15 to 120 days for both barangays.

Accessories used during fry gathering operation include pail, white basin, and white scoop bowl. The use of white materials during the operation aids in the easy identification of the milkfish fry.

Despite years of fry gathering operation in the area, fry gatherers claimed that no technical support or training was initiated by any government agency to help them improve the efficiency of the gears they used and the method of operation they practiced. They still depend on the traditional fry gathering techniques they have learned from their ancestors.

As stated almost all of the milkfish fry gathering activities is being conducted in shallow areas of less than 1 m depth, however, an experiment conducted by Encina and Gatus (1977) proved that milkfish gathering should not only be limited to shallow areas. Milkfish fry can be caught in deeper waters using floating trawl towed by a motorized banca.

Collection of milkfish fry in the area is seasonal. Fry season only occurs from three to four months per year, however year round availability of fry has been observed in some areas in the country. Bagarinao (1999) reported fry gathering operation to occur only from March to November, with peaks in May and October for Antique; April to October with peak in June for Ilocos Norte; almost the whole year with peak in April and October for Cotabato. Based on this study, fry season in Palawan is from March to June with peak in May. To support this record, further monitoring of the fry grounds in other municipalities of Palawan needs to be done.

According to Bgy. Rizal fry gatherers, they start collecting fry in March but the peak season is observed in May. Basically fry gathering operation is carried out for 60 days. Days of operation however, is sometimes limited by heavy siltation coming from the river. On the other hand, fry gathering in Brgy. Tumarbong is from March to June and the operation lasted from 60 to 90 days.

Data on milkfish fry catch in Palawan in 1963 and 1973 were 32 and 10 million, respectively (Bagarinao 1997). No recent record is available for comparison of the recent fry catches. The claim of the fry gatherers on the decreasing trend is only based on their personal observations and opinions.

Production and Marketing

The average collected fry per day from both barangays ranged from 200 to 500. The fry gatherers either sell the fry in the locality right after collection or store it until sufficient number is attained for later transport to the city of Puerto Princesa where the market price is higher. Fry are transported using oxygenated plastic bags at the rate of 10 000 fry per 5 liter water. The prevailing price ranged from 12 to 40 cents/pc with the average price ranged from 20-25 cents/pc. Fry commands higher price during the early month of fry collection when production is still low. A typical marketing scheme in the study site is illustrated in Figure 4.

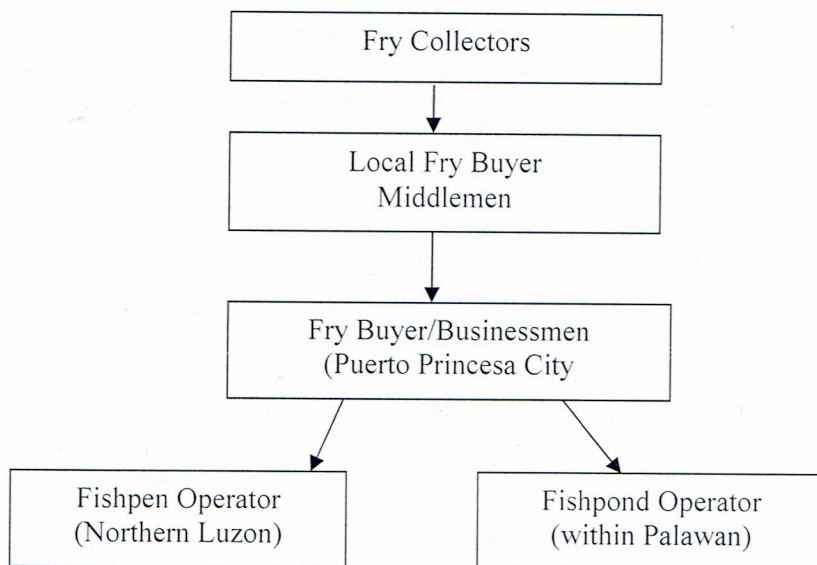


Figure 2. Milkfish fry industry marketing scheme in Roxas, Palawan.

Problems Encountered

There are four major problems encountered by the fry gatherers in the study site. These are: changing climatic condition (38.64%), financial or lack of capital (34.09%), low price of fry (15.91%), and the illegal fishing practices that are rampant in the waters of Roxas, Palawan (11.36%).

Bad weather does not only affect the fry gathering operation but also their other fishing activities. For subsistence, they do carpentry and farming as an alternative source of income. However, such work is seasonal and does not guarantee enough income to support their families. Fry gatherers also do not have enough money to transport their catch to areas where it will command higher price. They are dependent on the wholesalers and traders for capital who consequently demands for low price of their catch. This aggravates further the poor condition of these coastal residents.

Although bad weather condition and the absence of capital are the two main problems of the fry gatherers in the locality, they believed that illegal fishing practices such as the use of cyanide, the application of derris roots, dynamite fishing, and trawl fishing have contributed a lot in the low catch experienced during the recent years. In addition, reported accidental catching of "mother bangus" or "sabalo" by drift net operators and the unsustainable fishing operations specifically the use of illegal means in capture fisheries in the waters of Roxas, Palawan further aggravated the situation because of the destruction of the vital coastal ecosystems.

The fry gatherers are asking support from the local government and line agencies of the national government to support them technically and financially by providing trainings and capital in setting up coastal livelihood activities to include grouper culture, seaweed farming, crab fattening, fish processing, and other sustainable fishing method in order to increase their income.

CONCLUSION AND RECOMMENDATIONS

The low income, lack of ownership of land and fry gears, and dependency on wholesaler and trader for capital indicate that the fish gatherers in Barangays Rizal and Tumarbong in the municipality of Roxas, Palawan are poor. The presence of natural calamity, unsustainable use of natural resources and illegal fishing practices makes their life more miserable.

Fry gathering is the major source of livelihood in locality, hence milkfish fry industry must also be given focus the same way as the milkfish grow-out sector.

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Acknowledgment

This study is an output of WPU and the Kabang Kalikasan ng Pilipinas/World Wildlife Fund (WWF), based in Roxas, Palawan. Special thanks to Mr. Victor Reyes, WWF-Roxas Project Manager for the generous logistic support during the conduct of the study.

The authors would like to acknowledge the active cooperation of the Barangay officials and the people of Bgy. Rizal and Tumarbong, Roxas, Palawan during the interview. The Aquaculture OJT students of Summer 2004 and Lufel Himpolaran were a great help during the interview.

The support of WPU administration is also acknowledged.