

SUPPLY AND VALUE CHAIN ANALYSIS OF IMBAO (*ANODONTIA EDENTULA*) IN BASILAN PROVINCE, WESTERN MINDANAO, PHILIPPINES

¹*Rea Joei B. Cruz and ²Roldan T. Echem

¹Basilan National High School, Tugung Street Isabela City, Basilan Province.

²Department of Biological Sciences, College of Science and Mathematics, Western Mindanao State University, Zamboanga City, 7000, Philippines.

*Corresponding Author: Rea Joei B. Cruz

Basilan National High School, Tugung Street Isabela City, Basilan Province.

Article Received on 07/05/2018

Article Revised on 03/06/2018

Article Accepted on 24/06/2018

ABSTRACT

A study of *Anodontia edentula* in Malamawi Isabela City and Maluso Basilan focused on its supply and value chain analysis from 2015 to 2017. A total of 30 fishermen were interviewed from Isabela City Public Market, Basilan Province from May 08 to May 19, 2018. Results revealed that Maluso has more supply and lower price of *Anodontia edentula* compared to Malamawi since 2015 to 2017. The more abundant the “*imbao*” the lesser the price is.

KEYWORDS: Abundance, food security, gleaning, *Lucinid* bivalve, mangrove clam.

INTRODUCTION

The mangrove clam “*imbao*” (*Anodontia edentula*) is highly priced in the Philippines for its flavor and large size. “*Imbao*” is a shell type sea delicacy that is very rampant in the Philippines. It has its own distinctive sweet taste that even without any seasoning, it sure tastes yummy. The “*imbao*” meat may taste a little bit gooey especially if it is a little bit large. This is very rich in iodine. Aside from the flesh that is being utilized as food, the shell is also being converted into handicraft products. “*Imbao*” is one of the sources of livelihood in Basilan Province. Most of the people in the coastal areas of Basilan depend on it for food and income. They are the ones who harvest the “*imbao*” and sell it directly in the markets of Basilan. Some businessmen buy the “*imbao*” from the fishermen per kilogram and resell it in the

market. As to its price, it is not stable because there are factors that are needed to be considered in selling it, just like the season, the quality of “*imbao*”, and the demand in the market.

MATERIALS AND METHOD

Description of the study sites: The study was conducted at the market of Isabela City, Basilan, Philippines, where the “*imbao*” (*Anodontia edentula*) is sold from the fishermen down to the consumers. The location of the study site is 1.7 km from the wharf of Isabela. The site can easily be accessed by fast craft or ferry boat either to Isabela or Lamitan City in Basilan. It takes about 45 minutes to 1 hour and 15 minutes to reach these places. The island is just small and places there are easy to locate (Figure 1).



Figure 1: The location of Malamawi and Maluso in Basilan, Philippines.

Based on the climate and sea quality, Malamawi and Maluso are known as the quality producers of “Imbao” (*Anodontia edentula*). Considering this quality, the said places were chosen as study sites of the supply and value chain analysis of “imbao” (*Anodontia edentula*). The key informants and actors in the study were the fishermen and vendors. The fishermen harvest the “imbao” from the sea. They may either sell it directly to the consumers or to the vendors of “imbao” in the markets of Basilan.

Survey questionnaire: The survey questionnaires were prepared according to the objectives of the study with active consultation with the key informants, expert from the relevant fields and secondary information. The questionnaire consists of the personal data of the respondents, the data of the “imbao” (size, amount in kg) and its price from 2015 to 2017. A permit was secured from the barangay chairman of the select sites. A total of 30 respondents were selected, composed of fisherman, wholesalers and retailers (Table 1). Only the fisherman of the “imbao” was interviewed and the rest of the

respondents were provided with questionnaires (Figure 2).

Statistical analysis: This study is a descriptive and quantitative analysis using survey method. All data were tested to tract and compare the supply and value of *Anodontia edentula* from 2015 to 2017. Results were compared using frequency count and presented by table and graph.

RESULTS

Table 1 shows the overall profile of the fishermen interviewed. There were 20 respondents aged 21-30 years old. There was 1 fisherman age 10-20 years old. There were a total of 18 males and 12 female collectors of *Anodontia edentula*. There were 20 individuals collecting *Anodontia edentula* for 15 years. There were 10 individuals collecting for 10 years. Fishermen prefer collecting during sunny days at 2pm to 5pm daily.

Table 1: Socio economic profile of *Anodontia edentula* collector.

| Profile of Respondents | | Malamawi, Basilan | Maluso, Basilan |
|---|-----------------------|-------------------|-----------------|
| Age | 10-20 | 1 | 0 |
| | 21-30 | 13 | 7 |
| | 31-40 | 1 | 8 |
| Ethnicity | Tausug | 10 | 7 |
| | Sinama | 5 | 8 |
| Gender | Male | 10 | 8 |
| | Female | 5 | 7 |
| Years of collecting <i>Anodontia edentula</i> | 6-10 | 5 | 5 |
| | 11-15 | 10 | 10 |
| Preferred catching weather | Sunny | 15 | 15 |
| | Rainy | 0 | 0 |
| Preferred catching day | Once a week | 15 | 15 |
| Preferred catching time | 2PM-5PM | 15 | 15 |
| Means of collecting <i>Anodontia edentula</i> | Traditional (picking) | 15 | 15 |

Figure 2 shows that there were 15 vendors interviewed from Malamawi and 15 vendors from Maluso Basilan.



Figure 2: Vendors of *Anodontia edentula* in Isabela City Market.

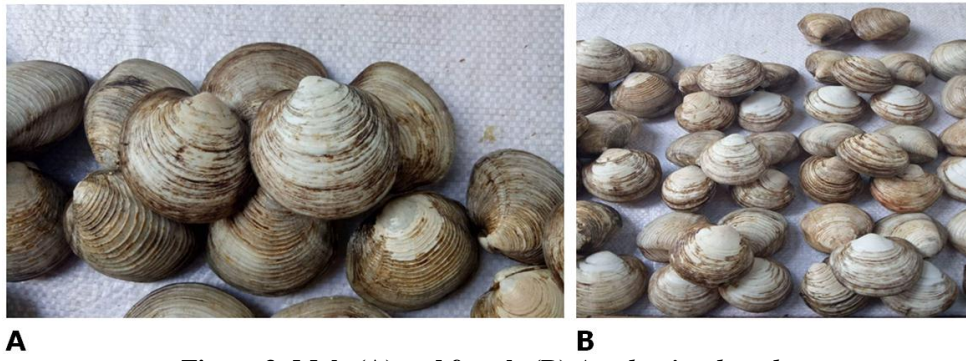


Figure 3: Male (A) and female (B) *Anodontia edentula*.

Figure 4 shows that there was a difference of the prices of *Anodontia edentula* coming from Malamawi and Maluso, Basilan Province. In Malamawi, the price was Php. 4.50 for the large *Anodontia edentula* in 2015. In Maluso the price was Php. 3.00 for the large *Anodontia edentula* in 2015. In Malamawi, the price was Php. 5.50

for the large *Anodontia edentula* in 2016. In Maluso the price was Php. 4.50 for the large *Anodontia edentula* in 2016. In Malamawi, the price was Php. 6.00 for the large *Anodontia edentula* in 2017. In Maluso the price was Php. 4.50 for the large *Anodontia edentula* in 2017.

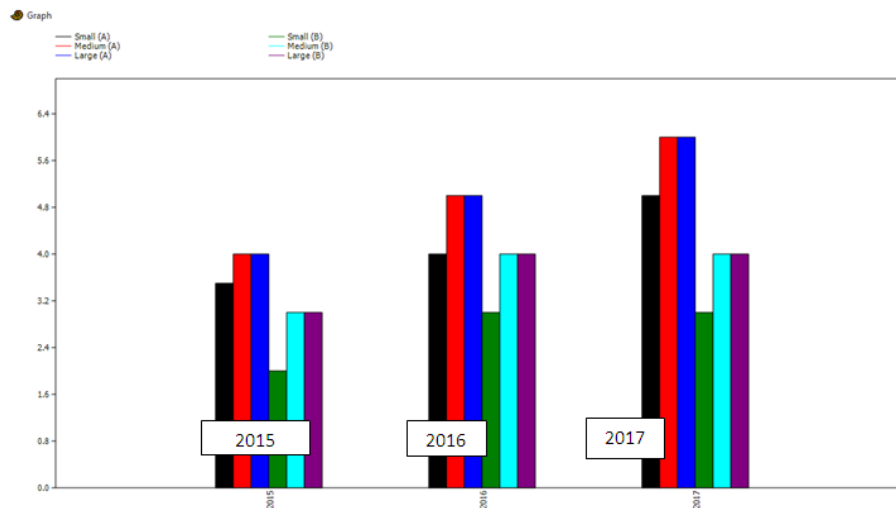


Figure 4: Three-year comparison of price of *Anodontia edentula* from 2015-2017.

Figure 5 shows the comparison of abundance of *Anodontia edentula* from 2015 to 2017. In 2015, the abundance of *Anodontia edentula* was 38 sacks. In 2016,

the abundance of *Anodontia edentula* was 34 sacks. In 2017, the abundance of *Anodontia edentula* was 28 sacks.

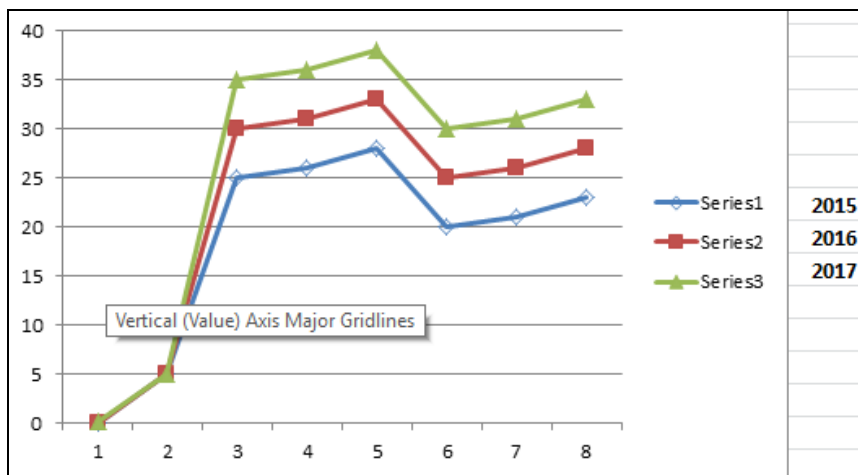


Figure 5: Three-year comparison of abundance of *Anodontia edentula*.

CONCLUSION

In this study, the supply and value chain analysis of *Anodontia edentula* in Maluso and Malamawi Basilan Province was determined. A total of 30 respondents were interviewed. Results revealed that in 2015 fishermen collected an average of 38 sacks of *Anodontia edentula*, 34 sacks in 2016 and 28 sacks in 2017. It has been proven that from year 2015 to year 2017 Maluso has lesser price value of *Anodontia edentula* than Malamawi. The reason behind this difference in price has something to do with the abundance of *Anodontia edentula* in Maluso.

ACKNOWLEDGEMENT

The study was completed through the close collaboration of the researchers with the Department of Biological Sciences of the College of Science and Mathematics, Western Mindanao State University. We are grateful to the Mayor of Isabela City Basilan Al-qaid Akbar for the permit granted to this study. Special thanks to Ferusa Tandih and Walda Wahab for the assistance extended to the researchers during the conduct of the survey. This study is partly supported by the National Consortium of Graduate Science and Mathematics Education of the Department of Science and Technology of the Philippines.

REFERENCES

1. Cruz L. P., Domingo M. A. (n.d.). Seeds of Hope. 151-165.
2. Distel D. L., Felbeck, H. (n.d.). Endosymbiosis in the lucinid Ecosystems. Research Digest, 3: 63-75.
3. Garcia R. Gastropods and Pelecypods, 1986; 33-42.
4. Leбата M. J., Gill structure, anatomy regulate overexploitation by limiting the number and habitat of *Anodontia edentula*: evidence of symbiosis. J. Shellfish Res., 2001; 20: 1273-1278.
5. Natividad F., Palpal-latoc V. S., Guide to Philippine Walters B.B. 1995. People policies and resources: mangrove restoration and conservation in the Bais Bay Basin Negros Oriental Ministry of Natural Resources and the University of the Philippines. Flora and Fauna, 1995; 6.
6. Tura C. M., Melana E. E., Attitude and perception of bakuan planters in Bohol towards mangrove reforestation, 1993.
7. Vetter R. D. Elemental sulfur in the gills of three species of *floridana*: a reexamination of the functional morphology of the clams containing chemoautotrophic symbiotic bacteria: a posgills as bacteria-bearing organs. Marine Biology, 1985; 96: 79-86.