

Mini Review

Volume 16 Issue 2 - May 2023  
DOI: 10.19080/OFOAJ.2023.16.555934

Oceanogr Fish Open Access J

Copyright © All rights are reserved by N C Nandi

# Mud Crab Culture in the Coastal Brackish Water Wetlands of West Bengal – A Promising Enterprise

N C Nandi\*

Social Environmental and Biological Association, Kolkata, India

Submission: April 03, 2023; Published: May 05, 2023

Corresponding author: N C Nandi, Social Environmental and Biological Association, Kolkata, India

Email: nepalchandra.nandi@gmail.com

## Abstract

Mud crab culture or crab fattening in brackish water wetlands of coastal West Bengal locally known as Chamber chas was initiated in the Sundarban coast since 1990s. Two species, viz., *Scylla serrata* and *Scylla tranquebarica* are reared in small and medium sized brackish water ponds for a period of about 18 days, using undersized and discarded crabs, mainly with help of household manpower to earn their living in this region. This is briefly reviewed herein to highlight the crab fattening enterprise and to promote the mud crab aquaculture so that the dependency on capture fishing may be reduced especially from mangrove tigerland of Sundarban, West Bengal.

**Keywords:** Brackish water; Sundarban coast; Crab fishers; Mangrove

## Introduction

Aquaculture of mud crabs (*Scylla spp.*) in the brackish water wetlands of Sundarban coast, West Bengal, in India was practiced since 1990s. Such aquacultural practice or crab fattening is locally known as Chamber chas, which is carried out in small brackish water ponds. It was initiated under Canning Development Block to demonstrate possibility of farming practices with mud crabs (*Scylla serrata*, *S. tranquebarica*) so that crab fishers can earn their living without harvesting from the mangrove mudflats of Sundarban tigerlands. Crab fishers used to harvest mud crabs using hook (sik) and line (don), single baited line and multiple baited line. This new enterprise (Chamber chas) of 1990s, now gaining ground in the Indian part of Sundarban, being a profitable exercise, and for fast turnover, low operating cost, high survival rate, and high market demand. Moreover, it is usually done at the household level, mainly using domestic labour. However, aratdars (whole sellers) and crab traders (paikars) are also increasingly involved in the marketing channel [1-3].

## Observation

Shallow brackish water wetlands adjacent to estuarine rivers are used for crab fattening purpose (Figure 1).

These waterbodies are fenced with bamboo screens and nylon nets to prevent escape of mud crabs. Undersized, eggless and discarded crabs, unsuitable for export are used for crab fattening. On average 30-40 such crabs per cottah (720 sq. ft. of waterbody) are released to prevent overcrowding. They are provided with trash fish, fish offal, mollusks at the rate of 8% of the total body weight of crabs used for fattening. They are cultured for a period of about 18 days and harvested by handpicking, usually dewatering the ponds. However, it has been observed that a crab farmer can undergo crab culture eight times a year. They can earn Rs. 15,000 - 20,000/- per month, using their own brackish water pond and household man-powers undertaking chamber chas 8 times a year. Thus, it is apparent that chamber chas may prove to be a potential and promising enterprise [2]. The grade-wise price of crabs is

fixed by the exporters based on the prevailing export market. Aratdars (wholesalers), accordingly fix their purchase rate, and this runs down the suppliers, paikars and producers. Export trade

of fattened live mud crabs is controlled by exporters located in Kolkata.



**Figure 1:** Brackish water wetlands used for crab fattening in the Sundarban region (Photo courtesy: Dr. S. K. Pramanik).

### Conclusion

Crab catching, in the Sundarban coast though remains traditional even today, wild crab stock in the mangrove tiger land is increasingly over-exploited which enhances the need for farming. Mention is made that there is need to standardize the crab fattening technique using water quality monitoring, size, sex, and species related segregating of crabs [4]. There is need for pond management and provision of cost-effective feed supplement to augment the production potentials, reducing mortality rate and escape of crabs. However, it is highly vital to reduce the dependency on mangrove forest for crab fishing and preventing capture of undersize crabs as well as developing organized crab fattening enterprise and mud crab aquaculture in the coastal areas of Sundarban coast as well Digha coast of West Bengal.

### References

1. Nandi NC, Pramanik SK (1994) Crabs and Crab Fisheries of Sundarban. Hindusthan Publishing Corporation, Delhi, India, pp. 1-192.
2. Nandi NC, Pramanik SK (2015) Wetland economics. 2. Crab production in brackish water ponds of Sundarban, West Bengal. Nat. Sem. on Aquaresources: Care & Concerns, SEBA, Kolkata, India, p. 9.
3. Pramanik SK, Nandi NC (2012) Crab fattening (Chamber chas) - a promising enterprise in Indian part of Sundarban. J Environ & Sociobiol 9(1): 78.
4. Nandi NC, Pramanik SK, Dev RMK (2016) Mud Crab Culture: Relevance of Species Identity in Production Economics with Reference to Sundarban Coast. J Fisheries Sciences 10(4): 84-89.



This work is licensed under Creative Commons Attribution 4.0 License  
DOI: [10.19080/OFOAJ.2023.16.555934](https://doi.org/10.19080/OFOAJ.2023.16.555934)

**Your next submission with Juniper Publishers  
will reach you the below assets**

- Quality Editorial service
- Swift Peer Review
- Reprints availability
- E-prints Service
- Manuscript Podcast for convenient understanding
- Global attainment for your research
- Manuscript accessibility in different formats

**( Pdf, E-pub, Full Text, Audio)**

- Unceasing customer service

**Track the below URL for one-step submission**  
<https://juniperpublishers.com/online-submission.php>