GASTROPODA FROM FISH PONDS ALOONG MANGROVE AREAS, BONE GULF, SOUTH SULAWESI, INDONESIA

By Edy Soekendar & Slamet Santosa
Department of Biology, Hasanuddin University, Indonesia

ABSTRACT

By use of a hand-held scraper, 16 species of Gastropoda in 6 families were collected: Potamididae (Rebecia spinosum, Erebalius nubilis, Cerithidea cingulata, C. obtusa), Naticidae (Nautilus larvatus, N. senua), Ellidae (Ellipora australis), Neritidae (Nerita amia and N. murex), Muricidae (Charonia variegata), Littorinidae (Littorina scabra). Measured ranges of shell length and width are shown for each species.

INTRODUCTION

Coastal species have been cultured for many years. Two main taxa are milkfish (Chanos sp.) and shrimp (Penaeus spp.). They are cultured in coastal lagoons or ponds with high primary productivity. The ponds are stocked by flooding with natural sea water containing the larval fish, shrimps and other planktonic species, including gastropods. The aim of this investigation is to describe gastropod taxa which are carried into fish ponds from the surrounding mangroves by the stocking procedure.

MATERIALS AND METHODS

The investigation was carried out in the Pompongan region, Luwu regency, Bone Gulf South Sulawesi, during 26-30 April 1994. Collections were carried out with a hand-held scraper. The material was examined on board the boat, or later in the laboratory. The specimens are deposited in the Department of Biology, Faculty of Mathematics and Sciences, Hasanuddin University, Ujung Pandang, Indonesia. Species identification is based on Dharma (1988). The substratum was muddy clay in the fish pond areas; water temperature ranged from 25-28°C; salinity from 1-23 ppt; the pH from 6-8; dissolved oxygen from 8.2-12.1 ppm.

TAXONOMIC ACCOUNT

A total of 10 gastropod species in 6 families were collected from the fish ponds. They are common in the surrounding mangroves.
Cerithiidae cingulata: length 22-32 mm; width 9-12 mm. Cerithiidae obesa: length 33-42 mm; width 12-19 mm in width during observation. Herbivorous, grazing on firm substrata in mangroves and fish ponds.

Order: Mesogastropoda
Family: Naticidae
Genus: Natica Scoleti
1. Species: Natica fronsiata Röding
2. Species: Natica lineata Röding
Remarks: Shell thick and rough, aperture wide. Operculum thin, transparent. N. fasciata: length 12-14 mm; width 17-20 mm. N. lineata: length 10-11 mm; width 14-15 mm. Carnivorous, burrowing in mangroves and fish ponds.

Order: Neogastropoda
Family: Muricidae
Genus: Chocoerus Montfort
1. Species: Chocoerus capensis Lamarck

Sub class: Pulmonata
Order: Bacmonotaphora
Family: Ebbidia
Genus: Ebbidia Röding
1. Species: Ebbidia auricularia Linné
Remarks: Shell short, oval. E. auricularia: length 40-55 mm; width 15 mm. Common in the intertidal zone.

ACKNOWLEDGMENTS

Thanks to Prof. Jørgen Hylleberg for reading the manuscript; to DANDA for supporting the project; to Prof. Dr. Sumati Wiriyowidagdo, Post Graduate director, Hasanuddin University; Mr. Abdul Muis Nur and Mr. Rahmatillah for their field work assistance.

REFERENCE