

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

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ABSTRACT

By use of a hand-held scraper, 10 species of Gastropoda in 6 families were collected: Potamididae (*Telescopium telescopium*, *Terebralia sulcata*, *Cerithidea cingulata*, *C. obtusa*); Naticidae (*Natica fasciata*, *N. lineata*), Ellobiidae (*Ellobium aurisjudae*), Neritidae (*Nerita chamaelon*), Muricidae (*Chicoreus capucinus*), 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 investigations 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 Pompengan 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.

Sub class Prosobranchia

Order: Archaeogastropoda

Family: Neritidae

Genus: *Nerita* Linnaeus

1. Species: *Nerita chamaelon* Linné

Remarks: Spire low, body whorl wide, outer lip finely dentate, columella thick. Without umbilicus. Operculum calcareous and thick. Herbivorous, grazing on firm substrata in mangroves and fish ponds.

Order: Mesogastropoda

Family: Littorinidae

Genus: *Littorina* Férussac

1. Species: *Littorina scabra* Linné

Remarks: Without umbilicus. operculum is thin and transparent. Shells of *L. scabra* from fish ponds: length 18-24 mm; width 10-14 mm. Herbivorous, grazing on firm substrata in mangroves and fish ponds.

Order: Mesogastropoda

Family: Potamididae

Genus: *Telescopium* Montfort

1. Species: *Telescopium telescopium* Linne

Genus: *Terebralia* Swainson

1. Species: *Terebralia sulcata* Born

Genus: *Cerithidea* Swainson

1. Species: *Cerithidea cingulata* Gmelin

2. Species: *Cerithidea obtusa* Lamarck

Remarks: Shell thick and rough; columella lip adherent; siphonal canal short. *Telescopium telescopium*: length 62-76 mm; width 29-37 mm. *Terebralia sulcata*: length 49-58 mm; width 18-25 mm.

Cerithidea cingulata: length 22-32 mm; width 9-12 mm. *Cerithidea obtusa*: 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* Scopoli

1. Species: *Natica fasciata* 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: *Chicoreus* Montfort

1. Species: *Chicoreus capucinus* Lamarck

Remarks: Shell with siphonal canal; often with ribs or

other outgrowths. Operculum with terminal nucleus. *C. capucinus*: length 42-47 mm; width 20-25 mm. Carnivorous. Hiding in crevices and among roots of mangroves.

Sub class: Pulmonata

Order: Basommatophora

Family: Ellobiidae

Genus: *Ellobium* Röding

1. Species: *Ellobium aurisjudae* Linné

Remarks: Shell short, oval. *E. aurisjudae*: length 40-55 mm; width 8-15 mm. Common in the intertidal zone.

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