

## DOCTORAL DISSERTATION INFORMATION

**Thesis title:** Research on scientific basis for artificial reproduction of mudskipper [*Boleophthalmus pectinirostris* (Linnaeus, 1758)]”

**Major:** Aquatic Biology

**Code:** 9420108

**Full name of PhD candidate:** Dang Minh Dung

**Supervisors:** Assoc.Prof.Dr. Do Van Khuong

**Training institution:** Research Institute For Marine Fisheries (RIMF)

### 1. Summary of thesis content

- Research on some reproductive biological characteristics of mudskipper.
- Research on scientific basis for artificial reproduction of mudskipper.
- Proposing some of technical solutions for artificial hatchery production of mudskipper.

### 2. New findings of this thesis:

For the first time, this thesis has fully researched and detailed the reproductive biological characteristics, early development stages (embryos, larvae) and fingerlings of mudskipper.

This thesis has provided the data that are the important scientific basis for writing the technical process of artificial hatchery production of mudskipper such as: determining the type of hormone and the right dose for stimulation spawning mudskipper, determining the basic environmental conditions (temperature, salinity) suitable for embryo development and larval stages of the mudskipper; determining the density of rearing, suitable food for rearing the larval stages of mudskipper.

From the research results, the thesis has proposed eight technical solutions, from which to write a draft down the process of hatchery production of mudskipper.

### 3. Applicability, recommendation for further study

The research results of this thesis have provided very important data as a premise to research and perfect the artificial hatchery production technology of mudskipper, proactively provide seed for culture mudkipper, create a profession that produces of high value. At the same time, the research results of this thesis have also given the scientific basis for the conservation and development of wild mudskipper resources that are in risk of being depleted.

Mudskipper is a new object of interest to research in Vietnam, in order to

effectively apply this object in practice, it is necessary to continue to implement the following studies:

Research to improve nutritional quality, add trace elements to feed, environmental management of broodstock culturing and rearing of larval stages to improve reproductive efficiency, rate survival, fish seed quality. At the same time, research on culture techniques of mudskipper.

The study uses mudskipper as an indicator organism to assess environmental quality in estuaries and coastal areas.

**Supervisor**

**PhD candidate**

**Assoc.Prof.Dr. Do Van Khuong**

**Dang Minh Dung**

**CERTIFIED BY INSTITUTION**