

MUD CRAB HATCHERY AND FARMING:

Hatching, Larval Rearing, Grow-out, and Soft-Shell Crab Production



18 – 24 October 2026



Asian Institute (AIT), Thailand



PROGRAM BACKGROUND

Mud crabs (*Scylla serrata*, *S. olivacea*, *S. tranquebarica*) are among the most commercially valuable brackish-water aquaculture species across the mangrove belts of South and Southeast Asia. They command premium market prices, grow well in mangrove-associated ponds, and can be integrated into existing shrimp or fish farming operations making them an attractive diversification option for coastal and pond-based producers.

Despite their commercial promise, the mud crab industry has long depended on the collection of wild juveniles, placing pressure on natural mangrove ecosystems and creating unreliable seed supply chains. Advances in mangrove-based natural hatchery techniques using well-prepared brackish-water ponds enriched by the productivity of the mangrove ecosystem now offer producers a pathway to controlled seed production with minimal high-cost infrastructure. Alongside hatchery development, grow-out, fattening, and soft-shell crab production present significant income-generating opportunities that remain underexploited at commercial scale.

This professional training program, organised by AIT Extension in partnership with AARM and FutureFish, equips participants with the knowledge and practical skills to establish and manage integrated mud crab aquaculture operations from hatchery and larval rearing through to grow-out, fattening, and soft-shell crab production drawing on leading practices in Thailand and the broader region.



PROGRAM OBJECTIVES AND LEARNING OUTCOMES

This training program aims to build participants' technical and managerial capacity across the full production cycle of mud crab aquaculture. By the end of the program, participants will be able to:

- Identify mud crab species and describe their biology, life cycle, and habitat requirements relevant to aquaculture.
- Design, prepare, and manage mangrove-based ponds for natural hatchery and larval rearing operations.
- Select, condition, and manage broodstock, and oversee spawning, egg incubation, and larval development.
- Apply nursery rearing techniques for crablets, including live-feed management, water quality control, and grading.
- Operate grow-out, crab fattening, and soft-shell crab production systems in pond and tank environments.
- Manage feed programmes, disease risks, biosecurity protocols, and harvesting and post-harvest handling.
- Evaluate farm economics and develop practical farm-level action plans for implementation.



PROGRAM CONTENTS

The training combines classroom lectures, hands-on laboratory and pond sessions, and field visits to commercial mud crab operations in Thailand. Participants will work with live specimens, water-testing equipment, and hatchery infrastructure throughout the program. Key thematic areas include:

- Mud crab species identification, biology, moulting, reproduction, and complete life cycle
- The mangrove ecosystem and its role in crab productivity; site selection principles for pond-based hatcheries
- Pond design, preparation, and management for mangrove-based natural hatchery systems
- Broodstock selection, transportation, conditioning, and management of berried females for spawning
- Natural larval production in mangrove ponds: larval stage identification, live-feed culture (microalgae, rotifers, Artemia), and feeding schedules
- Water quality management: salinity, temperature, dissolved oxygen, pH, ammonia, and alkalinity monitoring and correction
- Nursery rearing of crablets: stocking density, shelter and substrate management, feeding, grading, and cannibalism reduction
- Grow-out systems: pond management, stocking strategies, feeding regimes, and growth monitoring
- Crab fattening and soft-shell crab production: moult induction, timing, harvesting, and market preparation
- Disease management, biosecurity protocols, and predator control
- Harvesting, post-harvest handling, marketing channels, and farm economics
- Group Action Plan (GAP): participants develop and present farm-level implementation plans for peer review and discussion

Training Design: 3 days of expert-led classroom and hands-on sessions; 1.5 days of field visits to commercial mud crab farms and mangrove sites; half-day of Group Action Plan (GAP) development and experience-sharing workshop.

Medium of Instruction: English (Thai interpretation available during field visits)

Training Fee: Please register or contact us to receive the information on the training fee and other related expenses.



TARGET PARTICIPANTS

This program is designed for professionals and organisations working across the aquaculture, fisheries, and coastal resource management value chain, including:

- Coastal aquaculture farmers, pond owners, and aquaculture practitioners
- Officers from fisheries, environment, and coastal resource management departments
- Researchers, academicians, and extension workers
- Private sector investors and agribusiness entrepreneurs in aquaculture
- NGO and development professionals working in food security, coastal livelihoods, and blue economy initiatives



PROGRAM DETAILS

Duration	18 – 24 October 2026 (7 days, including arrival and departure)
Venue	Asian Institute of Technology (AIT), Pathum Thani, Thailand
Program Fee	Please register or contact us to receive the information on the training fee and other related expenses.
Language	English (Thai interpretation during field visits)
Certificate	Certificate of Completion awarded by AIT Extension
Registration Deadline	20 September 2026 (International) 10 October 2026 (Thai and Visa on Arrival)



ORGANISED BY

Organised by AIT Extension in collaboration with the Aquaculture & Aquatic Resources Management (AARM) Programme at AIT, and FutureFish.



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CONTACT INFORMATION



Dr. Md. Zakir Hossain

AIT Extension, Tel: +66816940759, Email: zakir@ait.ac.th / extension@ait.ac.th



Dr. Krishna R. Salin

AIT-Aquaculture, Tel: +66 (0)2 524 5489, Email: salinkr@ait.ac.th / aarm@ait.ac.th



Dr. Michael Phillips

FutureFish, Tel: +66 95 027 1969, Email: michael@futurefish.org



Register Now:

<https://forms.gle/puUdW6DRzLjpZ4rT6>

