

**An introduction to  
The College of Aquaculture & Fisheries (CAF)  
Can Tho University (CTU)**

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Present



Future

*Theme: Education, research and knowledge transfer for serving sustainable aquaculture development and exploitation of aquatic resources,....*

## CAF within CTU

1. College of Agriculture & Applied Biology
2. School of Education
3. College of Technology
4. College of Information Technology
5. College of Science
6. School of Economics & Business Administration
7. School of Law
8. **College of Aquaculture & Fisheries (CAF)**
9. School of Marxism-Leninism & HoChiMinh's thought

# Key number of CAF

## ■ Establishment

- 1976: Aquaculture program
- 1978: Faculty of Fisheries
- 1996: Depts. of College of Agriculture
- 2002: College of Aquaculture and Fisheries

## ■ Staffing: 119 in total

- Lecturer: 42 (12 senior lecturers + 2 A/Profs.)
- Researcher: 60
- Administrators + others: 17
- 16 Ph.D (2 Assoc. Prof.) and 18 PhD. students

## Key number of CAF

### Organization

1. Dept. of Freshwater Aquaculture
2. Dept. of Coastal Aquaculture
3. Dept. of Applied Hydrobiology
4. Dept. of Aquatic Biology and Pathology
5. Dept. of Aquatic Nutrition and Products Processing
6. Dept. of Fisheries Management and Economics
7. Center of Aquaculture Promotion ( CAP)
8. Administration Unit.

## CAF's activities

### Education

- Bsc. Programs (1,500 students)
  - Aquaculture
  - Fishing Technology
  - Fisheries Management
  - Aquatic Pathobiology
  - Aquatic Products Processing
  - Fisheries Economics
- Master of Aquaculture (80 students)
- Ph.D. in Coastal Aquaculture & in Inland Aquaculture (6)
- Regular and occasional short courses

*Have trained for ~1,500 engineers and 50 Masters*

# CAF's research achievements

## Seed production

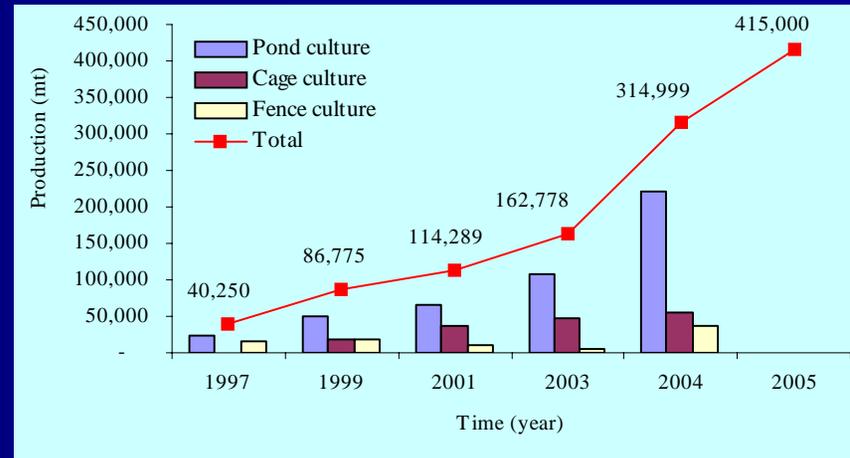
- FW fishes
  - Catfishes: *Pangasius bocourti* and *P. hypophthalmus*
  - Indigenous fishes
- Shellfishes
  - Marine shrimp (re-circulation technology)
  - Giant FW prawn (green-water technology)
  - Mud crab (open and re-circulation technologies)



*Pangasius bocourti*



*Pangasius hyphphthalmus*





**BIO-RE CIRCULATING SYSTEM FOR BLACK  
TIGER SHRIMP IN THE HATCHERY**



Shrimp hatchery



Giant FW prawn hatchery



# Key research achievements

## Farming systems

- Improved and developed technologies for:
  - Intensive culture of: catfishes, prawn, shrimp, indigenous fishes,...
  - Integrated/alternative culture of: rice-fish/prawn; mangrove-shrimp; shrimp-tilapia; shrimp-rice,...
- Successful introduction and development technology for *Artemia* cyst production in salt farms.



**Catfish culture**



# Key research achievements

## Diseases

- FW fishes (catfishes and indigenous fishes)
- Shellfishes: black tiger shrimp (WSSV, YHD/GAV,...), giant FW prawn, mollusk,...
- Study on antibiotic resistance in aquaculture environment

## Toxicology

- Effects of drugs, chemicals, pesticides,... on aquatic animal health.
- Kinetics of antibiotic accumulation and decontamination in shrimps/fishes
- Food safety,...

# Key research achievements

## Nutrition

- Nutritional requirement and feed development for catfishes and indigenous fishes.

## Environment

- Nutrient dynamics in catfish ponds and environment impacts of catfish cage culture.
- Water quality of mangrove-shrimp, rice-shrimp,...

## Fisheries resources and economics

- Population dynamic of aquatic organism population
- Fisheries economics (bio-economic models of shrimp/prawn hatcheries)

# International collaboration

- World-wide collaboration with universities and organizations for research and education:
  - USA: Auburn Uni., Uni. of Michigan
  - Europe:
    - Ghent Uni., Namur Uni., Liege,... (Belgium)
    - Wageningen Uni. (Netherlands)
    - Bangor Uni., Stirling (UK)
    - Aarhus Uni. (Denmark)
    - EU,...
  - Asia: AIT (Thailand), Malaysia, Cambodia, Japan,...
  - Australia: CSIRO, Queensland Uni.

## CAF's activities

- A system of well equipped laboratories for:
  - Aquatic environment
  - Aquatic Animal Nutrition
  - Aquatic Animal Diseases
  - Aquatic Animal Physiology and Toxicology
  - Aquatic Bio-technology,....



## CAF's activities

- A series of hatcheries
  - Fish hatchery
  - Shrimp hatchery
  - Prawn hatchery
  - Wet labs.,...



ING SYSTEM FOR BLACK  
IN THE HATCHERY

## Future plan: Education

- Offer new training programs at all levels (Bsc., Msc. and Ph.D): meeting labor markets
- Improve quality of graduates: improved facilities, educated teachers, improved curricula,...)
- Offer international Msc. and Ph.D programs at CTU visa collaborating with int'l universities;...

## Future plan: Research

- Follow-up 9 defined research themes
- Give higher priority to bio-technology field

# Future plan: Researches

## Follow-up 9 research themes

Theme 1: Application of bio-technology in health management of farmed aquatic organisms

- Fishes: catfishes, snakeheads and climbing perch
- Shellfish: shrimp, prawn and mollusk

Theme 2: Development of seed production technologies for indigenous species

- FW fishes: catfishes, ell,..
- Marine fishes: spotted cat, mugil, mudloach,...

Theme 3: Basic studies

- Physiology of aquatic organism (prawn, catfish,...
- Toxicity of drugs and chemicals on fish/shellfish

#### Theme 4: Nutritional requirements and feed development for indigenous species:

- Improvement of feeds/feeding for catfishes
- Nutritional requirements and feed development for climbing perch, snakeheads,...

#### Theme 5: Improvement of productivity, economic efficiency, sustainability and product safety of aquaculture systems

- Improvement of productivity and economic efficiency of catfish, prawn and shrimp production
- Use of drug and chemicals in shrimp & catfish production

## Theme 6: Aquatic environment monitoring/evaluation and aquaculture pond management.

- Evaluation and monitoring aquatic environment for aquaculture development and management
- Nutrient dynamics in shrimp and catfish production.

## Theme 7: Fisheries resource and fisheries database development

- Fisheries population of open waters
- Development of fisheries database for aquaculture development and resources management

## Theme 8: Socio-economics of aquaculture and fisheries

- Bio-economic models of aquaculture production systems
- Socio-economic analysis of aquaculture systems (shrimp, catfish, prawn) and capture fishery.

## Theme 9: Integrated zone management

- Interaction between shrimp production and coastal resource management.
- Interaction between of catfish production & environment.

Looking forward to receiving  
your collaborations

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Thank you