Aquatic Animal Health Research Center

- Established in 1995

- Supported by the University and Private Sectors

- Objectives of Establishment are:
  - To provide teaching and learning, research activity and technical services in the fields related to aquaculture and environment, with an emphasis on aquatic animal health, particularly black tiger shrimp culture
Mission

- **Research** on aquaculture and environment
- **Technical Services** on disease diagnosis for aquatic animals, aquatic animal nutrition and related fields
- **Teaching and Research** provision for both undergraduate and graduate students
Researchers

• Aquaculture  7
• Ecology       3
• Genetic       5
• Biotechnology 3
• Microbiology  2
Research

Fish and Shrimp Diseases

- Trypanosomiasis in hybrid catfish
- Pathogenesis and virulence of *V. harveyi* in Black tiger prawn
- Bacterial disease in abalone (*Haliotis asinina*)
- Effect of fucoidan in black tiger prawn
- Effects of Thai medicinal plants in black tiger prawn
- Streptococcosis in Sea bass and application of vaccine against the disease
Research

Fish and Shrimp Diseases

• Quasi immune response of black tiger shrimp to IHHNV and WSSV

• Effects of the potential strain of *Bacillus subtilis* on shrimp pathogenic bacteria (*V. harveyi*)
Research

Fish and Shrimp Nutrition

- Effect of fat soluble vitamin on growth performance, feed consumption, histological changes and electron microscopy in green catfish (*Mystus nemurus*)
- Amino acid requirement in green catfish
- Effect of palm kernel cake levels on growth performance of sex reversed Nile tilapia
- Effect of carbohydrate from five plant sources on digestibility and growth of sex reversed tilapia
Research

Fish and Shrimp Nutrition

- Effects of defatted soybean protein levels on growth performance and nitrogen and phosphorus excretion in seabass
- Effects of Phytase and inorganic phosphorus on enhancement of phosphorus utilization from plant material in hybrid catfish and sex-reversed tilapia
- Effects of fishmeal quality on growth of black tiger shrimp
- Effects of Mycotoxins in black tiger shrimp
Research

Molecular genetic

- Molecular cloning and expression of white spot syndrome virus induced proteins of black tiger shrimp
- Gene involved in stress and immune system of Black tiger prawn (P. monodon)
- Banana prawn gonad inhibiting hormone (GIH)
- Characterization of lectin from hemolymph of banana prawn (P. merguiensis)
Viral diseases in black tiger shrimp and preventive strategies
Viral Diseases in Marine Fishes
Immune system in black tiger shrimp
Fish and shrimp nutrition
Cell and Tissue Culture of Marine Animals
Research Fund

- TRF
- Budget of Bureau
- BIOTEC
- NSTDA

- Dept of Fisheries
- National Research Council of Thailand
- Office of Industrial Standard
Technical Services and Training Courses

- Diseases diagnosis (approx. 2,000-3,000 cases/year)
- Short course training (8 courses/year)
- Production of probiotics for farmers
- Organizing seminars in related topics (3 times/year)
Technical Services and Technology Transfer

Workshop

- Basic examination for shrimp health
- Diagnostic Method on Bacterial and Viral Diseases in Black Tiger Shrimp
- Water quality and plankton: suitable management for black tiger shrimp culture
- Shrimp feed and biotechnology in black tiger shrimp culture
- Roles of Microorganisms in black tiger shrimp culture
- Shrimp health management for quality shrimp production
- Molecular biological approaches to digestion and feeding in larval marine fish and shrimp
Technical Services and Technology Transfer

Shrimp farming demonstration

• Sustainable black tiger culture technology for export quality products
• Probiotics production and provision for farmers

Seminar

• “Ornamental fish and abalone” The economically important species in the year 2000
• “Organic Farming” for sustainable balck tiger shrimp cultures
Private sector determination on shrimp culture production

• Food safety
• Continuous supply of high quality shrimp post larvae
• Efficient disease prevention and control
• Low production cost
• Environmental friendly farming system