The Southeast Asian Fisheries Development Center (SEAFDEC) is an autonomous intergovernmental body established as a regional treaty organization in December 1967 to promote fisheries development in the region through research, training and information services. Its member countries include Brunei Darussalam, Cambodia, Indonesia, Japan, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam.

The Aquaculture Department (AQD), one of SEAFDEC’s five departments, is mandated to implement programs in research, technology verification and demonstration, and training and information dissemination in order to promote responsible aquaculture in Southeast Asia.
The Dumangas Brackishwater Station (DBS) of SEAFDEC Aquaculture Department is about 20 km northeast of Iloilo City, Philippines. DBS has a 16-ha pond area intended to verify research and demonstrate developed aquaculture technologies. It houses a staff field office, dormitory for trainees, and a field laboratory for routine water and soil quality analyses.

**History**

The research ponds were donated by the Philippine’s Department of Agriculture to SEAFDEC/AQD in 1998 and has since hosted various research, technology verification and demonstration studies.

**Research and verification studies**

**Tiger shrimp and white shrimp**

The technology for the farming of tiger shrimp (*Penaeus monodon*) using environment-friendly schemes was developed and verified in DBS. Studies on nutrient dynamics of shrimp culture systems and bioremediation strategies were also conducted. White shrimp, *Penaeus indicus*, are also being grown to marketable size for verification study.

**Mangrove crab (mud crab) and blue swimming crab**

Research activities on mangrove crab (*Scylla serrata*) include polyculture with milkfish and monoculture in ponds. Likewise, demonstration and verification of mangrove-friendly aquaculture in pens for crab fattening were conducted. Current research focuses on determining the feasibility of mangrove crab and blue swimming crab (*Portunus pelagicus*) nursery in net cages inside ponds. Likewise, soft-shell crab production using hatchery-produced seedstocks is being demonstrated.

**Marine fishes**

The activities conducted in the station include the following: verification and demonstration of nursery and grow-out of snapper (*Lutjanus argentimaculatus*), grouper (*Epinephalus coioides* and *E. fuscoguttatus*), rabbitfish (*Siganus guttatus*), pompano (*Trachinotus blochii*) and sea bass (*Lates calcarifer*). Production runs are currently being done to demonstrate the feasibility of nursery and grow-out culture in ponds.

**Oyster**

Nursery and grow-out of hatchery-produced oyster (*Crassostrea irradia*) in pond are currently being demonstrated.

**Seaweeds**

A study on the pond production of *Gracilaria heteroclada* using short term nitrogen-enriched plant materials is being demonstrated at the station.

**Biosecurity measures**

To prevent the occurrence and spread of diseases, proper biosecurity measures are implemented. There are quarantine and laboratory facilities to support the biosecurity measures at DBS. The station’s stocks are also monitored routinely by AQD’s disease-diagnostic laboratory in SEAFDEC’s Tigbauan Main Station.

**Sea bass**

**Snapper**

**Rabbitfish**

**Grouper**

**Sea bass**

**Snapper**

**Rabbitfish**

**Oyster**

**Nursery and grow-out of hatchery-produced oyster**

**Quarantine tanks**

**Filtration system**

DBS has laboratory facilities to support biosecurity measures.