Tropical Aquaculture Research and Development at Harbor Branch Foundation

R. LeROY CRESWELL
Harbor Branch Foundation, Inc.
Division of Applied Biology
RR 1, Box 196
Fort Pierce, Florida 33450

The Division of Applied Biology at the Harbor Branch Foundation was created for research and development in the field of applied aquatic biology directed toward products and technology with commercial application. The Division's scope includes cultivation of tropical aquatic plants, molluscs, crustacea and finfishes. Candidate species for aquaculture development are selected based on their potential value for food crops, biomedical research and commercially valuable natural products.

Cultivation of seaweeds includes the production and screening of mutant clones of the red seaweed Gracilaria as a source of complex polysaccharides and agar for gelling and emulsifying agents in the food, drug and cosmetic industries. The Division supplies laboratories with several species of seaweeds as feed ingredients for herbivorous marine fishes and invertebrates as well as ornamentals for aquarium fish retailers.

In cooperation with industry, staff scientists are participating in programs to develop and improve rearing methods for tropical bivalve and gastropod molluscs. Shellfish research currently is focused upon the hatchery methodology for the angel wing clam, Cyrtopleura costata and the tropical green mussel, Perna viridis. Preliminary results from grow-out studies indicate that the angel wing clam may reach marketable size within six months. The harvested clams are being evaluated by seafood processors and restaurants. In addition, technical and material assistance are provided to government agencies and private hatcheries culturing the queen conch, Strombus gigas, an important gastropod fishery in the Caribbean region.

Fish culture at Harbor Branch Foundation centers on the development of spawning and rearing methods for the common snook, a popular game and food fish in Florida and the Caribbean, and exotic ornamental fishes. Approximately 20 species are currently being grown to sexual maturity and subjected to preliminary spawning efforts through use of hormone injection and environmental manipulation.