

"Method for Queen Conch Farming"

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Technology description

The process consists of isolating Queen conch ovigerous mass from sands near coral reefs. Subsequently hatching is induced and larvae are cultivated in a recirculation system with biological filtration in order to remove ammonia and nitrite. Between 24 and 48 hours after hatching, larvae are inoculated with Symbiodinium. The culture is daily fed with Isochrysis sp inocula up to the juvenile stage. This method allows increasing the survival rate of larvae from 40% to 90%.

The invention includes a closed circulation system constituted by an aquarium with a mesh for plankton at its base. The base of the aquarium also has several openings for facilitating water circulation, while the air required for the system is provided by a compressor.

Applications, usage and benefits of the technology

Queen conch (Lobatus gigas) is a species found in the Caribbean, including the Mexican Yucatan Peninsula. While in the past the Queen conch was one of the main marine resources exploited in the Mexican state of Quintana Roo, where capture reached 300 ton, over-exploitation led the government to impose a 5 years ban on its capture in order to allow the recovery of the species.



The technology related to this patent application allows overcoming the bottleneck in Queen conch farming by promoting a higher survival rate of larvae. This can support the repopulation and the fishery using seeding juveniles of this species.

Technology readiness Level

Experimental.

Market information

Queen conch is highly prized for its meat and its beautiful shell. Since the ban on its capture it is reported that the product consumed in Mexico is imported from Belize. However, the main market for the product is the United States, which buys virtually all the product exported from Central American countries.

