



Correspondence

beche-de-mer

CONICYT Project: Development of the cultivation technology of the sea cucumber *Athyonidium chilensis*, in the Chilean South Central Region.

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Sea cucumbers have been used as food for centuries, particularly in eastern countries. They are commercialized in dry form, generally referred to as beche-de-mer, or trepang. According to data from Conand (1996), the international trade in beche-de-mer increased dramatically in the 1980s, reaching a global volume of 10,000 t a year.

The main countries importing of dry sea cucumber are China (Hong Kong), Singapore, Taiwan, Malaysia, South Korea and China.

These markets have been an opportunity for countries with natural stocks, including Chile, to develop fisheries, which in many cases have led to an overexploitation of the natural banks. For instance, in Chile, sea cucumber landings have increased from none in 1990 to 1510 t in 2000 (Sernapesca 2001).

The working group that will undertake the CONICYT Project has considerable experience in echinoderm cultivation, having actively participated in sea urchin cultivation projects in Chile. As Director of the project, I have been working in the development of the reproductive cycle, maintenance of adult specimens in a controlled system (i.e. a hatchery), feeding captive individuals, reproduction, fecundation and larval cultivation of the species *Athyonidium chilensis*.

Because this fishery is declining around the world and because there is a basic knowledge that can be used in the culture of the resource, the main objective of this project is to develop cultivation technology of the sea cucumber *Athyonidium chilensis* in central southern Chile. For this purpose, 100 repro-

ducers were collected from natural banks. These will be subjected to conditioning techniques in order to induce spawning and to obtain ova. Larval culture will be carried out under a controlled system; after nine days, the larvae will be taken to an intermediate culture system for their growth. Afterwards, the sea cucumbers will be transferred to the sea. After 24 months of cultivation, 1000 specimens of about 15 cm in length are expected to be cultivated.

Due to the biological cycle of this species, the project is limited to 24 months. The Universidad de Valparaíso and the Universidad Arturo Prat, and some centres of the IV and X Regions will be participating in this project.

Because this is an inter-institutional project, it will have an impact on the scientific community. It will generate new knowledge about the biology, nutrition and ecology of these holothurians. In the entrepreneurial sector, it will assure the supply of a resource with a known market. It will allow artisanal fishermen, to diversify their activities.

References

- Conand, C. 1996. The fishery resources of Pacific island countries. Part. 2 Holothurians. FAO Fisheries Technical Paper 272.2, Rome. 143 p.
- Sernapesca. 2001. Anuario estadístico de pesca 2001. Servicio Nacional de Pesca. Ministerio de economía, Fomento y Reconstrucción. Chile. 307 p.