

Knowledge Exchange - Project 3

Oyster Hatchery: a training workshop

Unlike western world, oyster aquaculture in China is almost entirely depending on wild seed. However, the projected increase in raining (precipitation), global warming and ocean acidification are severely decreasing both quality and quantity of wild seeds and this oyster aquaculture production. So sustainable production of oysters in Hong Kong (and South China in general) is a pressing issue for oyster growers, government, and politicians. Obviously, those economically poor and uneducated oyster growers still love Hong Kong's native oysters and strongly believe that the scientists could tell teach them suitable technology to alleviate seed shortage issue. Therefore, we have had a hands-on training workshop about “oyster seed production through hatchery technology”. Indeed, hatchery protocols and technologies have been optimized for Hong Kong's oysters in our laboratory. But before transfer of this knowledge, we must introduce hatchery technology and its economic value to local growers. Therefore, we conducted a training course cum workshop and achieved the following objectives:

- (1) trained Hong Kong oyster growers for oyster seed production and farming,
- (2) engaged Hong Kong's public, oyster meat eaters, students (both research and school) who are interested in promoting local shellfish production through sustainable ways

South China Morning Post

The scientists helping Hong Kong's oyster farmers get over hard times

For 700 years, the oyster beds of Lau Fau Shan have been producing the prized shellfish, but they've lost their lustre amid contamination fears linked to climate change. A four-part plan aims to revive the industry

PUBLISHED: Sunday, 17 January 2016, 4:00pm
UPDATED: Sunday, 17 January 2016, 4:00pm

COMMENTS



An effect of climate change, ocean acidification affects oyster growers worldwide. And if Chinese spat suppliers are hit, the impact on Lau Fau Shan cultivation will be just as tough.

The solution is straightforward: breed baby oysters in the controlled environment of a hatchery.

"If we have a hatchery, we will have a steady supply of baby oysters regardless of the season and climate, and free of heavy metal," says Chan.

The process is routine for HKU scientists who have been hatching baby oysters – up to a million per month – for their experiments. But they will have to scale up operations considerably to help the Lau Fau Shan cultivators. For a commercially viable hatchery, they will need to set up a facility covering about 4,000 square metres that can produce 10 times the amount of baby oysters.

That will allow them to select baby oysters for shell depth, flesh content, growth rate and disease resistance so that only the meatiest and healthiest individuals make it to dining tables.



After hands-on-training workshop on oyster hatchery technology, field trips to various oyster hatcheries and aquaculture industries, organized by our laboratory in close collaboration with AFCD officers, oyster growers in the region now suggest that an oyster hatchery can revive their small-scale business in Hong Kong.

Due to this training workshop, all stakeholders are convinced that Hong Kong need an oyster hatchery for technology transfer – as result, our lab has secured >5.3 million HKD from Sustainable Fishery Development Grant in 2020