

# Shellfish aquaculture in New Brunswick: A green industry

## What is shellfish aquaculture?

Shellfish aquaculture refers to all of the techniques used to rear edible shellfish. Even though it is the oldest aquaculture activity and is widely practised around the world, shellfish aquaculture is still a relatively recent and little-known activity in Canada. On New Brunswick's east coast, the main shellfish species that are reared commercially are the American oyster and the blue mussel.

## A green industry

Like all shellfish, oysters and mussels are filter feeders whose principal food source is the microscopic algae found naturally in their environment. Shellfish are actually purifiers that filter out and assimilate the organic compounds in solution in the water. Through their filtering action, shellfish help to improve the quality of coastal marine ecosystems.

Reproduction occurs during the summer. The larvae that result from the fertilization of male and female gametes remain in the water column for a few weeks before settling to the substrate. The newly settled larvae are called spat.

## Shellfish aquaculturists: true farmers of the sea

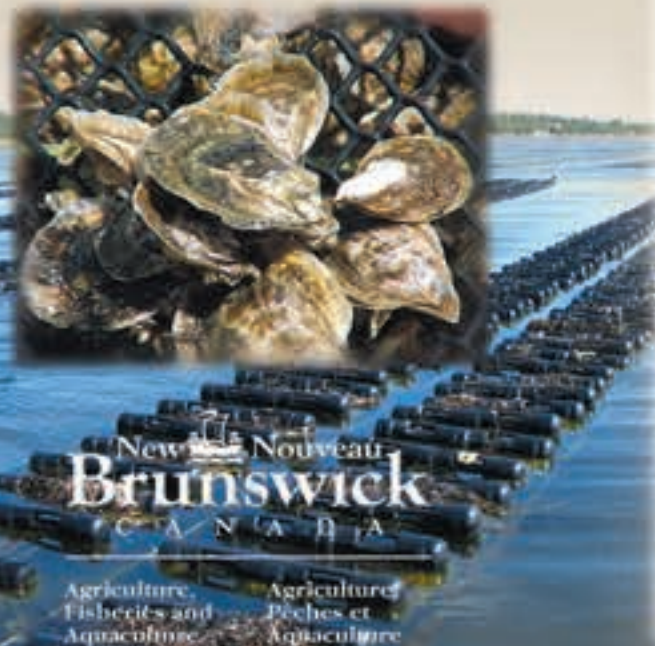
The technique used by shellfish aquaculturists consists in harvesting and growing spat for human consumption. They obtain spat in the natural environment through an activity called spat collection. Various types of collectors are used to catch spat. Structures coated in a mixture of lime, cement, and sand are recommended for oyster larvae. Ordinary submerged ropes are used to collect mussel larvae.

It is important to synchronize the setting of the collectors with the presence of larvae in the water to maximize the harvest and avoid the collecting of undesirable organisms on the rearing structures. The next fall or spring, the shellfish aquaculturist removes the spat from the collectors. The spat are then sorted and transferred to rearing systems.



Winter mussel harvest

To promote growth, mussel spat are placed in tubular nets called socks, which are attached to floating longlines. Young oysters are generally placed in fine-meshed oyster bags. In New Brunswick, mussels are harvested 18 to 24 months after production begins. Depending on the rearing method and conditions, four to seven years are required for oysters to reach maturity. Throughout the rearing cycle, shellfish aquaculturists, true farmers of the sea, tend carefully and constantly to their stock and their sites to produce shellfish that is making a name for New Brunswick in the best restaurants of North America.



Setting of spat collectors



Tubular nets



Oyster processing plant

## An opportunity to revitalize rural economies

In addition to being a green and environmentally friendly industry, shellfish aquaculture represents an economic development opportunity for New Brunswick's rural and coastal areas. According to recent socio-economic studies, the shellfish aquaculture sector could create many new jobs in the short term. Most of that workforce would consist of young people who would contribute to establishing and maintaining families in rural communities.

Because it combines environmental friendliness with job creation, while supplying a renowned product, shellfish aquaculture has all of the required characteristics to become a key engine of the New Brunswick economy.



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