

## Species and Distribution

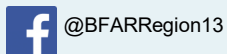
- Edible Species in the Philippines
  - Green mussels – *Perna viridis*  
(widely cultured)
  - Brown mussels – *Modiolus metcalfie*  
*Modiolus philippinarum*
- Found to exist in bays and inlets along:  
Northern coast of Panay, from Pres. Roxas,  
Capiz to Makato, Aklan
- Banate Bay, Iloilo
- Banago Port, Bacolod to Himamaylan, in  
Negros Occidental
- Maqueda Bay and Jiabong in Samar

## Economic Importance

- Cheap source of protein
- Shells used for ornamental handicrafts
- Means of livelihood for fisherfolk
- Source of foreign exchange

**BUREAU OF FISHERIES AND AQUATIC RESOURCES**  
CARAGA REGION  
Peñaranda St, Taft, Surigao City  
Email us: [caragabfar@gmail.com](mailto:caragabfar@gmail.com)  
Website: <http://caraga.bfar.da.gov.ph>

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Carlos C. Baylon, Ph.D. UP Visayas



## Historical Background

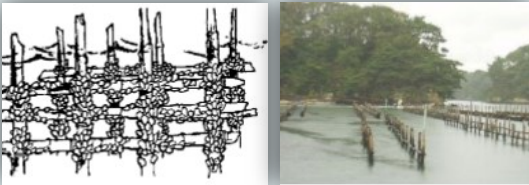
- Originally regarded as pests in oyster farms
- In the 1950s, BFAR recognized its potential as primary crop
- Mussel demonstration farm was established in 1955 by BFAR in Binakayan, Cavite
- In the early 1960's, mussel farming proliferated and gradually spread to other provinces

## Suitable Site

- Sufficient breeding stock and spatfall
- Water in the site must not be polluted
- Must have high primary production
- Moderate water current for transport of food and oxygen and elimination of waste
- Must not be subjected to prolonged flooding, strong waves or currents
- Bottom is preferably muddy, stable and non-shifting

## Culture Methods

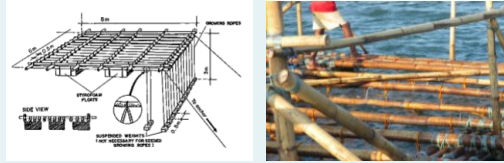
Stake method – bamboos, used as spat collectors, are staked in muddy bottom one meter apart. Found to contribute to siltation and shallowing of mussel culture site



Rope-web method – Polypropylene ropes (12 mm) are used as spat collectors and made into webs and tied to bamboo poles



Raft method – A 6 x 8 raft made of bamboos where spat collectors or grow-out ropes are attached



## Advantages of Mussel Culture

- High production volumes per unit area (raft)
- Minimal capital investment (in terms of infrastructure & inputs)
- Low environmental impact (since there are no nutritional inputs)
- Large coastal areas suitable and available for mussel farming.

## Issues and Problems of the Mussel Industry

- Low/unpredictable supply of mussels
- Poor product quality (unsafe, low meat quality)
- Low market demand/low price □ Inadequate/unpredictable supply of seeds/spats
- Occurrence of red tides in culture sites
- Stake method of culture is not environment-friendly

## Recommendations

### Low/unpredictable supply of mussels

- Expansion of culture areas for mussel farming
- Replace stake method with more productive and environment-friendly methods like raft and longline
- Training of mussel farmers with appropriate stock management practices and improved culture methods for mussels

### Poor product quality

- BFAR to designate uncontaminated culture sites for mussel farming
- Depuration and relaying procedures for cleansing harvested mussels
- Low market demand/low price
- Improve product quality (safety and meat quality)
- Development of more product forms to attract consumers

### Inadequate supply of spats

- More accurate prediction of spatfall
- More efficient spat collectors
- Development of hatchery technology for mussels

### Occurrence of red tides in culture sites

- Development of prediction model for occurrence of red tides
- More effective monitoring and early warning system for red tide outbreak
- Government support for mussel farmers affected by the ban on collection of shellfish in culture areas affected by red tide

## Opportunities

- Large areas are still available for mussel culture
- Increased domestic demand if product quality is improved
- Suitable species for the implementation of livelihood and poverty alleviation programs of the government
- Export market not fully tapped by the mussel industry