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Florida Aquaculture Project - 2008-2009  
Quarterly Report  
September 30<sup>th</sup> 2008

Name and Address of Submitting Organization:

Bay Shellfish Company  
P.O. Box 289  
Terra Ceia, FL 34250  
(941) 721-3887

Principal Investigator(s) (name and title):

Curt Hemmel  
Managing Director – Bay Shellfish Co.

Dr. Ryan Gandy  
Director of Research & Development – Bay Shellfish Co.

Title of Proposed Project:

Commercial Farm Production of the Florida Bay Scallop (*Argopecten irradians*, Lamarck 1819), an Alternative Molluscan Aquaculture Species

Cooperating Investigators (name, title and organization)

Jay Leverone, Ph.D  
Senior Staff Biologist  
Mote Marine Laboratory  
1600 Ken Thompson Pkwy  
Sarasota, Fl. 304236

Total Project Cost: \$140,000  
State of Florida Cost: \$70,000

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The investigation into the production of the bay scallop *Argopecten irradians* is proceeding well. The time line of this project was originally constructed to maximize the time available for research. Under the original timeline it was the intent of Bay Shellfish Co. to begin collecting and conditioning broodstock when the project was approved by the Aquaculture Review Council (ARC). Under this scenario there would have been a six week lead time of broodstock conditioning before the project was to officially begin. However, with the uncertainty of the funding of the 2008 budget, we as a commercial entity could not afford to fill the space in the broodstock conditioning system with scallops without a firm financial commitment. Additionally, the economic turbulence in the clam industry during this period caused us to utilize this space for commercial clam production and prevent a production gap during these uncertain economic times. Once the 2008 budget was approved and the project was funded, bay scallop broodstock were collected and the project was underway. Attached is an adjusted time line.

Wild broodstock collection was undertaken in late July. The broodstock conditioning system was fully stocked with scallops by August 1<sup>st</sup>. The conditioning of these scallops was slow due to the time of year these brood were collected. Most were fully spawned out and would need four to six weeks for conditioning in the flow-through systems. Unexpected, heavy rain events of this summer further lengthened the conditioning and spawning period of the scallops as hatchery salinity rapidly dropped to 22 ‰. The larvae from the first five spawning and larval rearing events in early September yielded unacceptable larvae. As the salinity returned to normal >30 ‰ egg quality and spawn volumes normalized and the larval rearing process was successful. As of this report sufficient numbers of scallop larvae have been “set” in the nursery to satisfy the needs of this research. Therefore, the time line for stocking the grow-out cages was pushed back one month to November. This change is not anticipated to negatively affect the completion of this project.

The site selection process has been ongoing since early July. Three trips to the region have been undertaken to survey the area and determine the most appropriate bottom type and current flow location for this project. Two sites have been determined to meet our criterion for grow-out cage location. Concurrently, the cage materials were acquired and cage construction is proceeding on schedule. The progress of this project is 10% complete and rapidly accelerating.

Over the next quarter an additional 50% of the projected work will be completed: Scallops will have completed the nursery phase of growth, cage construction will be finished and secured to the offshore site, cages will have been stocked with scallops and 15% of the grow-out period and data collection will be completed over this next quarter.

The current expenditures for reimbursement are limited to labor for site selection/ diving survey and cage construction by the PI's (\$3,000) and transportation and boat fuel expense (\$646.77).

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**Adjusted Work Schedule**

Task	Month													
	J	A	S	O	N	D	J	F	M	A	M	J	J	
<b>Scallop in Nursery</b>			X	X	X									
<b>Grow-Out Units Construction</b>		X	X	X										
<b>Grow-Out Units Stocked</b>					X									
<b>Grow-out Period</b>					X	X	X	X	X	X	X	X		
<b>Harvest of Grow-out Units</b>													X	
<b>Data Analysis</b>													X	
<b>Quarterly Reports</b>			X			X			X					
<b>Final Report</b>													X	

Quarterly reports and a final report are required submissions