

# NJ Shellfish

# 1996

# Culturists Roundup

## 1996 NJ Shellfish Culturists Roundup Meeting

February 11, 1997  
Atlantic County Library  
Galloway Township, NJ

Compiled by Gef Flimlin, Marine Agent  
NJ Sea Grant Marine Advisory Service

The evening began with self-introductions all around. Those present numbered around 25, and represented four hatcheries and one nursery system as well as several growers and a few "just interested in seeing what's going on."

The actual program began with some comments submitted by Dr. John Kraeuter of the Haskin Shellfish Research Lab.

### Status of Aquaculture Facility

The administrative office is to be located on the harbor in Cape May (near Coast Guard Base). It is hoped that renovation will be complete by July 1997. The plans for the Multi-Species Aquaculture Demonstration Facility have been developed. They have met with DEP on the permits and are also being viewed by their engineers.

### Status of Aquaculture Plan

Legislation has been drafted for both the Assembly and Senate. Initial plans called for \$250,000 for NJ Department of Agriculture to coordinate program and develop committees to look at various laws etc. It was put into the State Budget but reduced to \$200,000 and passed. We presume this means that the legislation should follow along in the "near" future.

### Status of the National Aquaculture Plan

The Plan did not pass last year. There is an effort being made to redefine the plan to separate private production for food from that which is used for restocking etc. This may alleviate the current blockage of all legislation

by NOAA. The private production (marine or fresh) would be placed in Agriculture and NOAA, and the Department of Interior would be responsible for stocking programs. This would make biological sense because if the animals are to be used for food there are somewhat less concerns with genetics. If the goal is restocking an area to increase or supplement wild stocks, then genetics of the brood stocks used becomes a much more significant factor.

### Status of Various Initiatives on Clams

a) **Use of Nursery Bags** - A paper is being prepared for submission to the Journal of Shellfish Research. In summary, the ADPI bags used on-bottom proved to be economical provided that the 5mm seed are purchased at a low enough price (the primary factor) and the bags are tended properly so that growth and survival to planting size is "adequate". A fact sheet being prepared by Gef Flimlin will be available soon.

b) **Shelling to rehabilitate hard clam habitat.** A paper to summarize results to date is being developed to be put in the Barnegat Estuary Proceedings. In general, recruitment for the past 6 years has been very low at that site. Shelling has enhanced survival of clams relative to the areas that did not have shell. There is a trend toward better survival in heavy shelling, but it is not statistically different from light shelling. We hope to have additional samples this spring.

c) **Salinities of Little Egg Harbor Bay.** A paper on the salinity study done by Gef Flimlin in 1993 is being prepared for the Barnegat Estuary Proceedings. In general, the 1993 summer salinity was shown to be lower in the Little Egg Harbor Bay than in 1948-1951. This could not be explained by freshwater input (it was dryer in '93). Comparison of data from the Marine Station at Tuckerton with the 48-51 data, data from Biosphere and the '93 survey data suggest that less high salinity water is entering LEHB than in the past.

d) **Black Clams**- We developed a method to quantify the color by comparison with some color charts, but experiments that were discussed were never initiated. Apparently everyone just ran out of time and/or energy. We would like to get back to this.

e) **Pesticide Impact on Shellfish Hatcheries-** The studies Kraeuter conducted with Abate, and the tests done by DEP at the Brigantine site all indicate that this pesticide (or other potential pesticides) are not the cause of the problem. Histology on some of the clams did not find significant numbers of bacteria or other potential pathogens. This suggest that some operational changes may help to alleviate the problem.

f) **Seed Overwintering Mortality.** This study, practically complete, started with 4 seed sizes - 4, 6, 8, 10 mm. Groups were either starved, held at ambient flow, or held at ambient flow and supplementally fed at the Crema Hatchery. They were planted in Dry Bay in the fall of 1995. Within these field plots size is the primary determinant of survival; as expected, larger seed survive better than small seed. Different field plots have yielded significantly different survival. The differences in survival cannot be ascribed to 1. Disease, 2. Dry weigh condition, 3. Glycogen content- or any other parameter we were watching. Clams are still being analyzed for lipids. The most interesting finding to date is that supplemental feeding did NOT cause glycogen to accumulate in the clams as the literature suggests. The supplemental feeding was apparently just converted into increased growth. Thus the initial hypothesis that some of the winter mortality of seed could be attributed to lack of "condition" was not confirmed. In the New York experiments, 4 sizes of clams were planted in boxes of sand and mud. Again size was the most important determinant of survival. The experiment also clearly showed that late plantings in sand did not survive as well as those in mud.

g) **QPX-** There is little to report aside from information previously sent to the industry from NRAC. It is highly likely some funding will come through NRAC to follow QPX. We are using the clams in the above NRAC/ NSF study as a basis for following a group in Dry Bay. PLEASE NOTE - We do NOT have any evidence of QPX in Dry Bay. If the study is funded we intend to set up an experimental group of clams (nearly market size) at very high density in the intertidal zone in Cape May Harbor area. This is to see if we can induce QPX by emulating conditions that seem to cause this disease in MA.

## Weather

There was a big snow in January with 6" dropped, then snow again every two weeks. The second storm was with 16" landing in Galloway Township. There were snowstorms for two consecutive weekends in February and the temperatures were very cold. The coastal bays were very iced up numerous times, but it seemed that there was not an extraordinary amount of damage to the predator screens as the ice melted.

There were a lot of Northeast Tides which filled up the bay with a large quantities of water during the winter. There was also a lot of meadow grass trash in the bays.

The summer had a lot of rain and cloud cover and cool temperatures. Jerry Zodl mentioned that salinities were lower in the spring, due probably to the increased runoff from the large winter snows. All blamed poor growth in spring and summer to the low temps and heavy cloud cover which reduced algal photosynthesis in the bays. Mathis says that Hurricane Bertha on July 13 cleaned the screens in Dry Bay very well, but Hurricane Josephine in October put Ulva all over the screens in Jenny's Creek making it very difficult to clean and remove. Several growers reported 3 weeks of good growth near the end of September, probably related to a bit of Indian Summer weather.

## Hatchery Production

Reports were mixed. For the third year, there have been significant mortalities at the Great Bay Hatchery in Brigantine. Originally believed to be caused by mosquito spraying, the NJ Department of Environmental Protection (NJDEP) performed an exhaustive study of the herbicides, fungicides and pesticides used by both the County Mosquito Commission and the Brigantine Golf Course which is almost adjacent to the Hatchery. Their work showed that there was absolutely no connection between the spraying and mortalities since none of the pesticides were found in the raceways at the hatcheries.

Specifics about the mortalities were recorded by Gef Filmlin and forwarded to the Haskin Lab. Dr. Kraeuter responded with some management options for the hatchery operators to examine for next year. This was reported in Kraeuter's notes above.

George Mathis found a *sessile peritrichous ciliate*, identified by Walt Canzonier, which was in the 30 to 75 micron size. They remained on the post set for about 3 weeks. They have cysts which can be transmitted by air. They didn't do anything but delay setting. Unfortunately they feed on micro-algae and are voracious eaters.

Other hatcheries felt it was a good year. Jerry Zodl at Biosphere in Tuckerton who had suffered with brown tides in 1995 felt that it was a consistently good year at his site.

Rit Crema summed it up as being a good survival year, but a lousy growing year.

## Nursery

John Maxwell felt that his nursery raceways in Atlantic City suffered with a down year with not much growth until mid-August. Great Bay Hatchery took longer to catch up following unexplained mortalities in late June, but seed growth started back in August. George Mathis reported very poor field nursery, probably the worst they had ever had.

Biosphere's field nursery in Dry Bay was lackluster because of the aforementioned low temps and clouds. Zodi felt they should have let the seed remain in raceways on Little Egg Harbor Bay instead of transferring them to a field nursery in Dry Bay.

## Field Growth

The late June and July weather delayed planting until at least mid-August. Planting occurred through late September when water temperatures dropped to 57°F according to Steve Mastro. All planting was done well before Thanksgiving.

As mentioned last year, Absecon Bay and Dry Bay performed completely opposite to one another. Clams planted in Absecon Bay grew better than Dry Bay during the summer months.

Mathis reports more crabs of all types than usual, and large amounts of macroalgae which might be linked to poor growth since they might compete for nutrients in the water.

## Markets

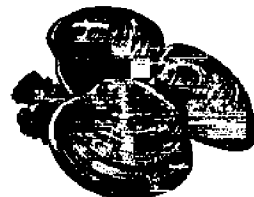


Most felt the market for the year was slightly above average. Lowest price paid for wild littleneck clam was \$.15, cultured littlenecks ranged from a usual price of \$.16 to \$.18 during the high demand times of holiday weekends.

## Regulatory or Legislative Changes

The Sunday Clamming Bill is still in the committee stage and has not been back out to the Assembly floor. It passed on the Senate floor but probably will not pass completely this year.

The "Right to Sell" license, aimed at commercial fishermen and designed by NJDEP found great disfavor in the hard clam industry, since they felt that the commercial clamming license gives them the inherent right to sell their harvest. DEP tried to push the license so as to get a better handle on the seafood landings in the state. The Marine Fisheries Council met about it several times, but Fran Puskas, a Council member, and also member of the NJ Aquaculture Association Board of Directors, said that the recreational sector doesn't want it either.



Senator Steven Cordemus (R., Monmouth County) introduced a bill with the blessing of the State to institute a \$2 per bushel fee on all the clams harvested in the Northern Monmouth County Special Shellfish Harvesting Programs (relay and depuration) to be used for Enforcement, Department of Health monitoring and DEP Division of Water Monitoring and Classification. After some serious concerns were raised by the clambers in that part of the state, and nasty things about the Senator were painted on the tailgates of one clammer's pickup, (and since he was in an election campaign for US Congress against a heavy favorite), he introduced a second bill to rescind the first one. Some funds were already collected, and they remain in an escrow account awaiting determination on their use or return.

## Other Items

Walt Canzonier, the President of NJ Aquaculture Association and member of the Northeastern Regional Aquaculture Center (NRAC) discussed current happenings there, including the need of industry participation in the entire process, the appointment of Chris Scales of BayFarm and NJSA, and Gef Flimlin, the Marine Extension Agent to the Technical/ Industrial Advisory Council.

Canzonier reported that Dr. John Kraeuter of the Haskin Shellfish Research lab had drawn together an inter-regional project proposal between NRAC and the Southern Regional Aquaculture Center (SRAC) on reduction of predation in the Hard Clam Aquaculture industry but it met serious opposition from the South, where the catfish farmers carry significant power in the RAC process, and basically want most of the regional research to focus on catfish issues to the detriment of other potential species.

Gef Flimlin discussed several activities with which he is involved:

a) **ClamFarm Software**, the Shellfish Management Program for Clam Production is ready and will be available this spring.

b) **Hard Clam Task Force**, a multi-regional group of researchers who have been loosely discussing the problem with hard clam stocks in the wilds throughout its range. He has convened several special sessions at the National Shellfisheries Association Annual Meetings and the International Shellfish Rehabilitation Conference in Hilton Head last November on the subject. USEPA has been very supportive of this effort and may provide funds to examine the problem. They feel the hard clam could be used as an indicator of estuarine health in areas where the blue mussel does not occur.

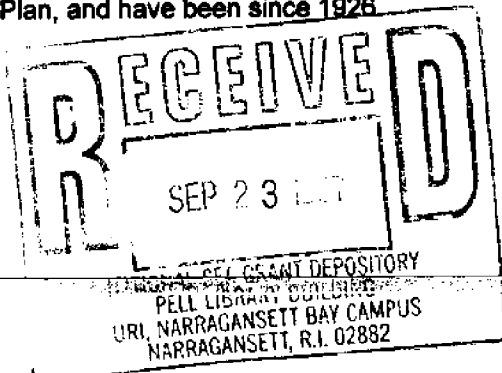
c) **The grant from NJ Department of Commerce and Economic Development for Aquaculture Projects.**

The grant is broken into four smaller projects including Crab Scare, the high frequency device which is supposed to scare crabs away from clam beds while planting is a Screen Cleaner which is being developed by an engineer from Stevens Institute in Hoboken, a Cultured Seed Counter, and Water Monitoring Equipment for the hatcheries in Brigantine and Atlantic City.



Canzonier reported that a Task Force had been appointed to review Title 50 of the State Statutes. These are the regulations which address shellfish. Industry people have been picked. Clam aspects will probably be addressed under the aquaculture plan, but this mentioned committee would allow the oyster industry to try some new things, before they lose interest.

He also mentioned that Gary Wolf of NJ Department of Health has decided to put together a shellfish specific Hazard Analysis Critical Control Point (HACCP) course in this area for the dealers and growers. Dealers are already covered under the National Shellfish Sanitation Program Plan, and have been since 1926.



John Maxwell, outgoing President of the New Jersey Shellfisheries Association (NJSA), announced the new slate of officers:

**NJSA Officers for 1997**

**President**  
Ray Crema

**Vice-Presidents**  
Joe Rizzo  
Bob Fenton

**Secretary**  
Chris Scales

**Treasurer**  
Dale Parsons

**New Jersey Aquaculture Association Officers for 1997**

**President**  
Walt Canzonier

**Vice-President**  
John McQueen

**Secretary**  
Jerry Zodi

**Treasurer**  
Gef Flimlin

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