

# C R M C

COASTAL **RESOURCES** MANAGEMENT COUNCIL

## Aquaculture in Rhode Island

2015 Annual Status Report



*Photograph courtesy of Kyle Hess*

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## **Rhode Island Aquaculture Industry - 2015**

*At a Glance*

- The number of farms in Rhode Island increased from 55 to 61
- The total area now under cultivation is 241.38 acres
- Oysters remained the number one aquaculture product with 8,272,172 sold for consumption, an increase of 725,040 oysters from last year
- The farm gate value of aquaculture products for consumption was \$5,433,948
- Oyster seed sales from RI aquaculturists was valued at \$162,500
- Combined value of aquaculture products for consumption and seed sales was \$5.59 million
- The number of aquaculture farm workers increased 20 percent from 142 to 171

## **Introduction**

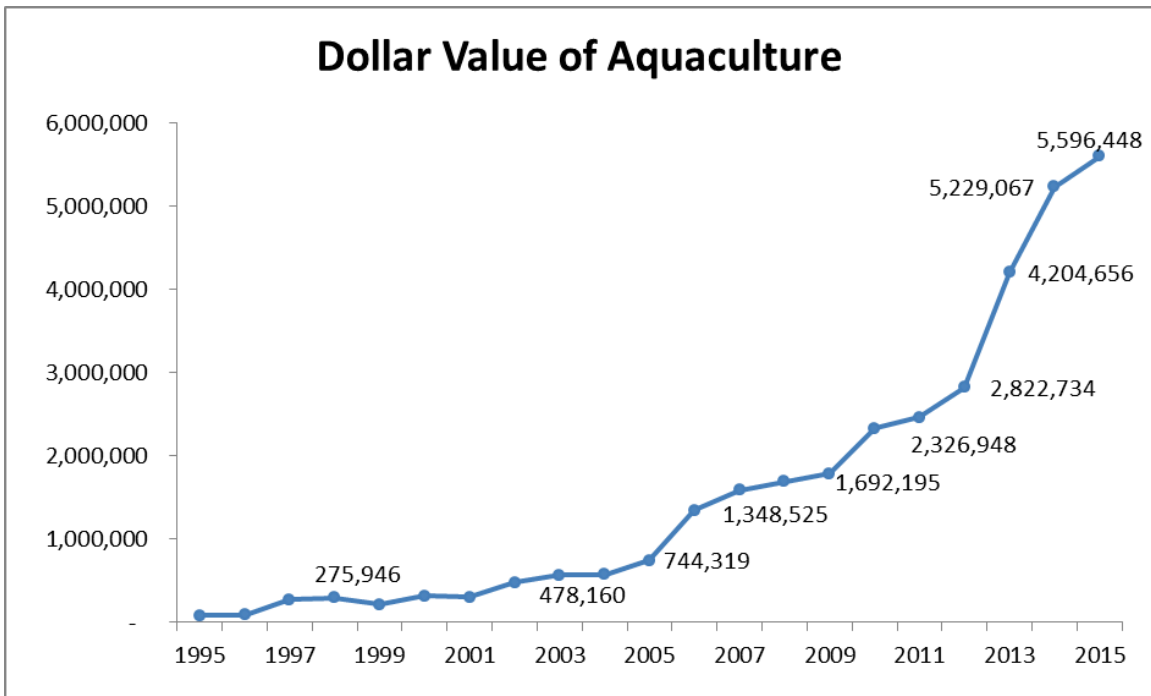
The year 2015 was a challenging year for the aquaculture industry in Rhode Island. The difficult winter and cold water temperatures slowed production throughout the state. The growth in value for shellfish for consumption was seven percent. The growth in total acreage was 35.18 acres, a 17 percent increase for the year. Six new farms were permitted and their first harvests should be noted in 2016 and 2017. The growth of the aquaculture industry in Rhode Island reflects awareness of the health benefits of eating seafood, the consumer trend of purchasing local products, and efficient farm practices of local aquaculturists.

## **How the figures were derived**

Harvest figures came from the yearly CRMC aquaculture questionnaire distributed to all leaseholders. All reports are taken as an accurate value. Monetary figures for this report were calculated by averaging an estimated yearly average wholesale price from multiple sources. This figure was then multiplied by the numbers reported by growers in the yearly CRMC report to arrive at the figures used in this report. Figures from the aquaculture-associated industries came from the principals involved in these privately held companies. Five farms sold oyster seed in 2015 which is two less farms than the previous year. The figures cited are for gross sales of aquaculture-related products including seed sales. A number of shellfish growers are also shellfish dealers. The sales that are direct to end users are at a higher value than wholesale price used in the averaging. Using a wholesale price results in a lower value determined for the aquaculture products but also results in a consistency of format over the years of reporting.

## **Farm Production**

The 2015 farm gate value of Rhode Island grown shellfish was \$5,596,448 which is an increase of seven percent from the 2014 farm gate value of \$5,229,067. Oyster seed sales for 2015 were \$162,250. Farmed hard clam and blue mussels are harvested in small amounts.



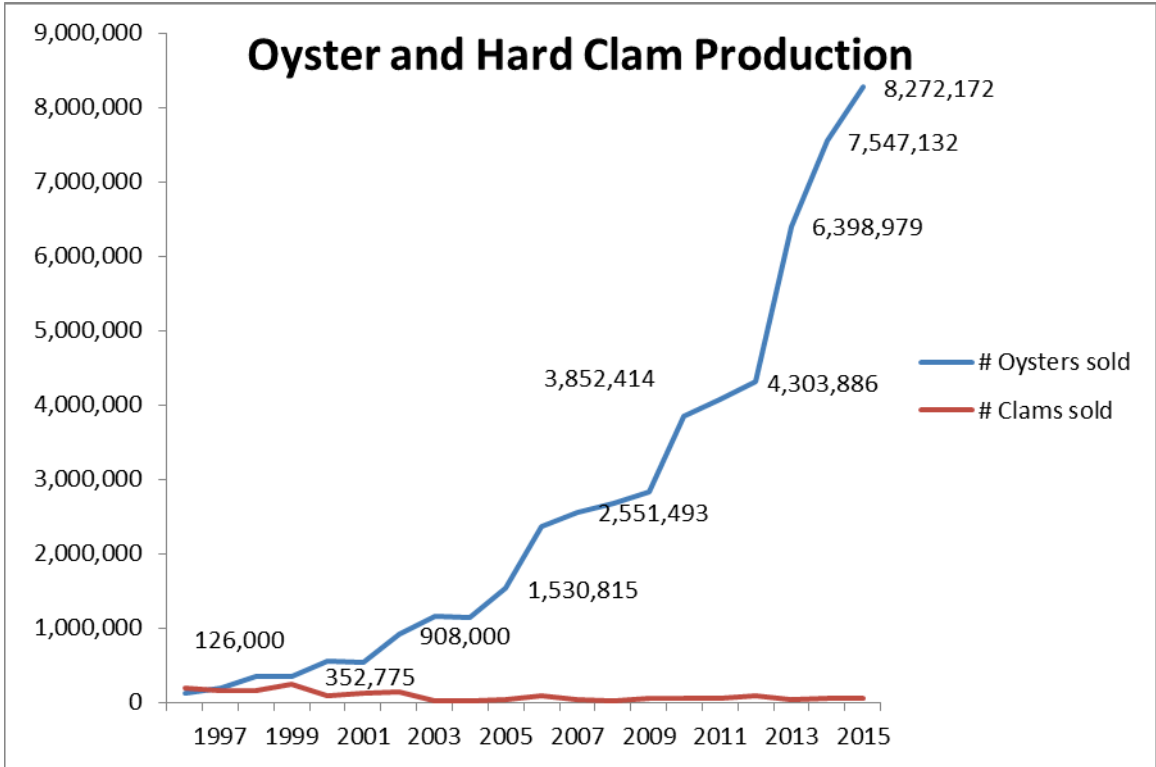
**Figure 1.**  
Total value of aquaculture.

The shellfish figures presented in this report are comprehensive representations. The dominant species in the RI aquaculture industry continues to be the Eastern oyster, with 7,547,132 pieces sold this year which is an eighteen percent increase from 2013. Hard clam production was a distant second with 47,325 pieces sold. Blue mussel production increased to a harvest of 15,827 pounds. The number of farms active in Rhode Island aquaculture at the end of 2015 was 61, with cultivation of 241.38 acres.

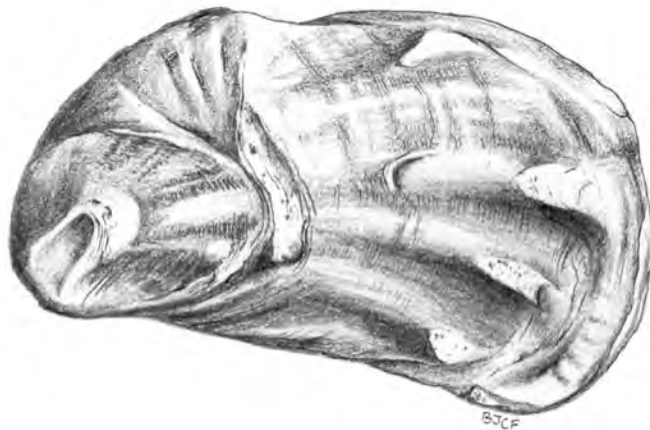
### Aquaculture Employment

Year	Full time Year	Full time Seasonal	Part time Year	Part time Seasonal	Total
2006	17	8	17	15	57
2007	14	2	28	17	61
2008	12	1	25	24	62
2009	14	3	25	20	62
2010	17	4	30	28	79
2011	23	3	26	32	84
2012	32	9	32	32	105
2013	35	13	37	42	127
2014	47	17	35	43	142
2015	47	26	39	59	171

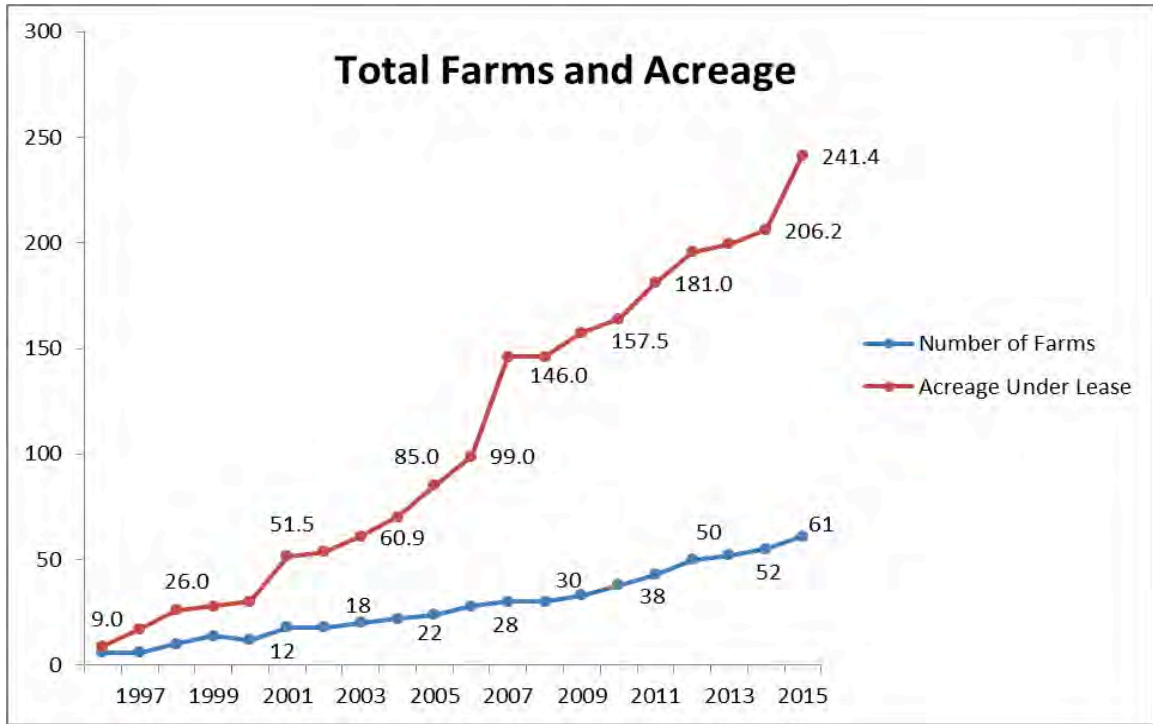
**Figure 2.**  
Aquaculture farm related employment numbers show a 20 percent increase for 2015.



**Figure 3.**  
The American oyster remains Rhode Island's dominant aquaculture product.



## How much aquaculture was there in RI through 2014?



**Figure 4.**  
Acreage for the 61 farms is 241.38



*Photograph: Ayla Fox*

**Figure 5.**  
Working in Point Judith Pond on a foggy November day.

**Aquaculture acreage for RI south coastal ponds**

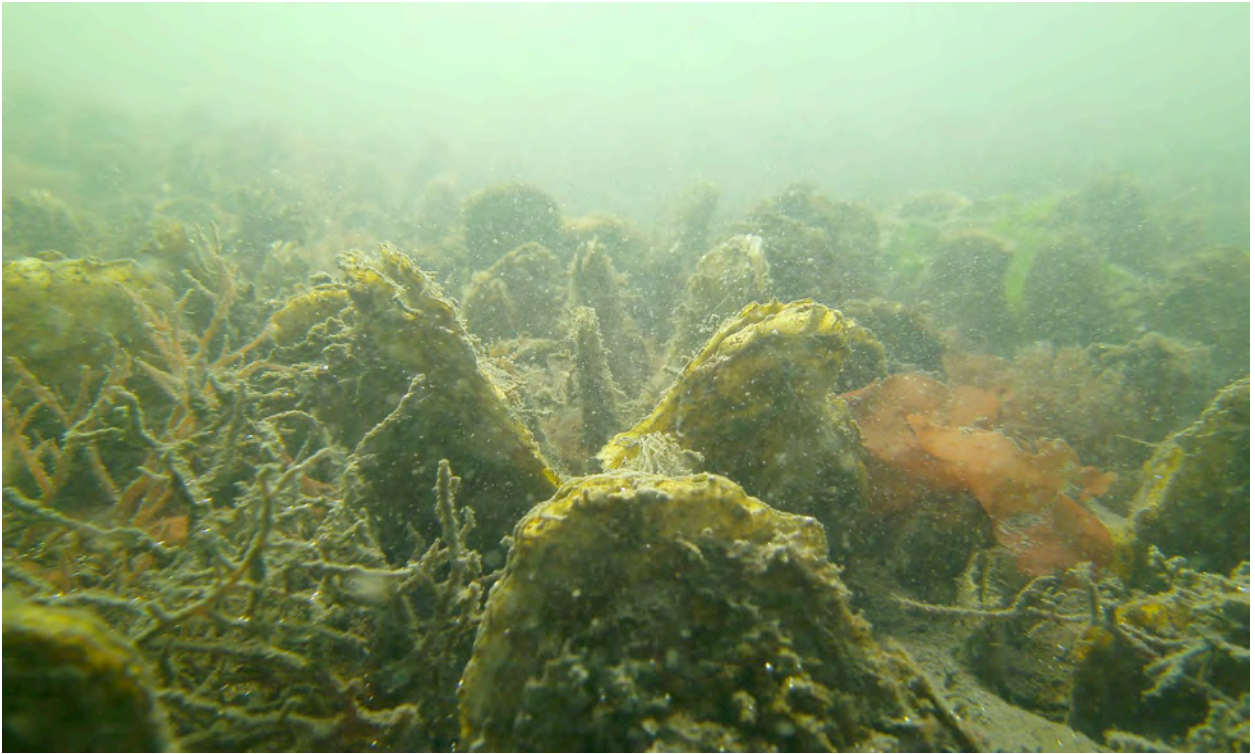
Year	Winnapaug	Quonochontaug	Ninigret	Potter	Point Judith
2000	5	0	1	0	2.5
2001	5	0	1	0	2.5
2002	5	0	1	6.9	2.5
2003	5	0	1	6.9	21.5
2004	5	0	1	6.9	21.5
2005	6	0	2	6.9	38.5
2006	6	0	2	6.9	38.5
2007	8	0	4	6.9	38.5
2008	8	0	4	6.9	38.5
2009	8	0	10	6.9	38.5
2010	8	0	16	6.9	38.5
2011	8	0	16	6.9	44.25
2012	8	0	19.5	6.9	47.3
2013	8	0	22	6.9	47.3
2014	8	0.75	22	6.9	49.7
2015	8	4.3	42.14	6.9	56.71

**Figure 6.** Aquaculture acreage for RI south coastal ponds

**Universities and Environmental Organizations**

Two educational institutions conduct aquaculture research activities, extension programs, and academic programs in Rhode Island. Both Roger Williams University (RWU) and the University of Rhode Island (URI) are centers of excellence in the field of aquaculture. Both universities have pathology testing capabilities and are assets to the shellfish aquaculture and wild harvest industries. Extension projects at RWU include the oyster gardening program (OGRE), oyster restoration, the practical shellfish farming course, and a public enhancement project for quahogs and oysters partnering with the RI Shellfishermen’s Association. The Nature Conservancy and Save The Bay are both active in restoration activities in Rhode Island. They each partner with RI Department of Environmental Management Division of Fish and Wildlife to accomplish their projects for the benefit of the public. Oyster reef restoration projects use oysters grown by aquaculturists but not counted in the production numbers.





*Photograph: Matt Griffin*

**Figure 7.** Bissel Cove oyster restoration site.



*Photograph: Wally Fulweiler*

**Figure 8.** New oyster growth.



*Photograph: Russell Blank*

**Figure 9.**

Winter 2015: Navigating ice in Wickford.

## **Outlook for 2016**

Aquaculture will continue as a growth opportunity for providing jobs and seafood for Rhode Island. CRMC has a memorandum of understanding with the Town of Charlestown to coordinate aquaculture siting and monitoring. This cooperation facilitates the process of monitoring and oversight for aquaculture operations in Charlestown. Additional memoranda of understanding may be created for other parts of RI.

In 2013 Rhode Island Sea Grant began to facilitate the development of a Rhode Island Shellfish Management Plan with Rhode Island Department of Environmental Management (RIDEM), CRMC, Rhode Island aquaculturists, Rhode Island shellfish harvesters, non-governmental organizations, and interested public. The written plan was completed in November 2014 and has guided RIDEM and CRMC in making coordinated decisions about shellfish harvesting, shellfish restoration, and shellfish aquaculture in our state. The plan implementation continues and is valuable in regulatory reform, guiding research projects, and for outreach and education.

The USDA Natural Resources Conservation Service works with RIDEM and CRMC on oyster restoration projects through the Environmental Quality Incentives Program (EQIP). This program uses the aquaculture industry to grow oysters for restoration and to provide a cultch substrate to enhance oyster growth and settlement. RI Sea Grant research continues on the multiple uses of the coastal ponds, and the effects of shellfish aquaculture on nitrogen levels of the surrounding water body. The continued unbiased support from RI Sea Grant helps to assure a healthy aquaculture industry and expand the knowledge for decision making. The state Local Agriculture and Seafood Act grant program has funded research concerning food levels for shellfish aquaculture in Ninigret Pond.

Seafood is an important component of the economy and the foundation for many communities in Rhode Island. According to recent a United Nations Food and Agriculture Report, aquaculture will fill the increasing world demand for seafood. The Rhode Island Seafood Marketing Collaborative has developed and implemented a plan that facilitates the marketing of local seafood products and has increased the demand for local seafood. RI aquaculture is a major part of the local seafood movement and in fulfilling the increasing demand for all seafood. The steady growth of aquaculture and the diversification of species and methods illustrate the industry's response to consumer demands. Aquaculture in RI uses public trust submerged lands to supply seafood to the consumer and businesses to the state. Please enjoy all fresh Rhode Island seafood.