The Importance of Aquaculture to Virginia's Economy: A Preliminary Assessment

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A Preliminary Assessment

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and

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Virginia Institute of Marine Science
College of William and Mary
Gloucester Point, VA 23062

January 1997

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**Economic Impacts Generated from Virginia Aquaculture Production and Sales**

<table>
<thead>
<tr>
<th>Species/Group</th>
<th>Sales Dollars</th>
<th>Output Dollars</th>
<th>Income Dollars</th>
<th>Employment Person-years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hard Clams</td>
<td>8,032,000</td>
<td>21,648,200</td>
<td>10,615,400</td>
<td>360</td>
</tr>
<tr>
<td>Soft-shell crabs</td>
<td>4,840,142</td>
<td>23,544,500</td>
<td>16,112,000</td>
<td>540</td>
</tr>
<tr>
<td>Oysters</td>
<td>62,160</td>
<td>161,069</td>
<td>75,972</td>
<td>3</td>
</tr>
<tr>
<td>All other saltwater</td>
<td>1,502,000</td>
<td>9,958,220</td>
<td>7,575,020</td>
<td>252</td>
</tr>
<tr>
<td>Total Saltwater</td>
<td>14,436,302</td>
<td>55,311,989</td>
<td>34,378,392</td>
<td>1,155</td>
</tr>
<tr>
<td>Trout</td>
<td>2,255,044</td>
<td>12,146,000</td>
<td>8,962,100</td>
<td>295</td>
</tr>
<tr>
<td>Catfish</td>
<td>28,329</td>
<td>152,586</td>
<td>112,677</td>
<td>4</td>
</tr>
<tr>
<td>Hybrid striped bass</td>
<td>41,986</td>
<td>226,143</td>
<td>166,995</td>
<td>5</td>
</tr>
<tr>
<td>All other freshwater</td>
<td>2,897,944</td>
<td>15,608,800</td>
<td>11,526,300</td>
<td>380</td>
</tr>
<tr>
<td>Total Freshwater</td>
<td>5,223,303</td>
<td>28,133,529</td>
<td>20,768,072</td>
<td>684</td>
</tr>
<tr>
<td>All Aquaculture</td>
<td>19,659,605</td>
<td>83,445,518</td>
<td>55,146,464</td>
<td>1,839</td>
</tr>
</tbody>
</table>

*aSince it is not possible to compare different physical types of outputs, output is measured in dollar terms. Formally, output is defined as the gross sales by aquaculture producers, aquaculture support industries, and sales generated from personal consumer expenditures by individuals employed in aquaculture or support businesses. Income equals personal income, proprietors’ income, and property-type income; total income thus equals wages and salaries, bonuses, income from self-employment, corporate income, rental income, and interest.*
AQUACULTURE

Historical elements of the VIMS/SMS aquaculture program have embraced research in hatchery technology and grow-out strategies for the successful commercialization of hard clams and oysters. Similarly, research and advisory activities in blue crab shedding technology have led to the expansion and economic viability of the soft crab industry. The long-term goal of aquaculture development is successful commercialization followed by industry expansion, improvements in economic efficiency, and product diversification. Current and future efforts are focused on the biology of candidate species for industry diversification, improved grow-out strategies for shellfish and marine fish, economics, disease and pathogen control and a well-defined advisory and technology transfer program. Included within this program is research into the feasibility of introducing non-native species of oysters in the Chesapeake Bay as called for by House Joint Resolution 450 and the resulting Strategic Plan for Molluscan Shellfish Research.

Program elements

- Genetics and Breeding Technology
- Biology (target species)
- Nutritional research
- Non-native research
- Disease processes
- Microbial biology (human pathogens)
- Coastal management and policy
- Resource economics and business
- Industry development
- Outreach
- Aquaculture engineering
- Ecosystem modeling for stock enhancement
- Broodstock domestication