Position of the Virginia Intstitute of Marine Science on the Use of Hydraulic Dredding for the Taking of Hard Clams

Virginia Institute of Marine Science

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POSITION OF THE VIRGINIA INSTITUTE OF MARINE SCIENCE
ON THE USE OF HYDRAULIC DREDGING FOR THE TAKING
OF HARD CLAMS

It is VIMS policy to support the development and operation of efficient harvest methods. Where such mechanisms, by their efficiency threaten either the viability of the stock, of the market, we support conservation measures such as closed seasons, quotas, and even limited entry.

We have reviewed the studies on hydraulic dredging conducted by the states of Maryland, Florida, and those of our own staff and we find that it is less disruptive of the bottom ecology than the currently used standard oyster dredge. (Appendix I).

In 1978 we prepared a statement of "Alternative Management Schemes" (Appendix ( ) for the VMRC to consider in rewriting Regulation X, (Pertaining to the Catching and Taking of Clams). Our recommendations are contained therein, but as written Draft Regulation X holds only for the Seaside of the Eastern Shore, and with modifications related to escalator length it could be applicable state wide.

We feel that the proper way to provide a consistent management regime of our living marine resources is to support the development of regulations by state regulatory agencies, not the promulgation of new laws to cover each contingency.

Virginia Marine Resources Report #78-3
<table>
<thead>
<tr>
<th>STANDARD OYSTER DREDGE</th>
<th>HYDRAULIC DREDGE</th>
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<tbody>
<tr>
<td><strong>+</strong></td>
<td><strong>-</strong></td>
</tr>
<tr>
<td>High mortality to juveniles, and adults</td>
<td>Low mortality to young clams and adults</td>
</tr>
<tr>
<td>Destroys eelgrass beds</td>
<td>Easier on bottom and benthos (150'/min x 24&quot;)</td>
</tr>
<tr>
<td>Destroys bottom and benthos (150'/min x 24&quot;)</td>
<td>Modifies or removes 5 to 6&quot; of bottom - shell or small organisms may be swept from the area</td>
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<tr>
<td>Less energy efficient</td>
<td>More energy efficient</td>
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<td>Worse CPUE</td>
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<tr>
<td>Inexpensive</td>
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<tr>
<td>Less down time</td>
<td></td>
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<tr>
<td>Few parts</td>
<td></td>
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<tr>
<td>Small boat</td>
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<td>Labor intensive</td>
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ALTERNATIVE MANAGEMENT SCHEMES FOR THE DREDGING
OF HARD CLAMS ON SEASIDE OF EASTERN SHORE

1. No dredging for clams
   a. On any Baylor Bottom
   b. In any eel grass bed

2. Phase out standard oyster dredging for clams

3. Advocate hydraulic dredging for clams
   a. Limit pump intake to 6" and discharge to 4"
   b. Limit cutting bar to 24"
   c. Limit length of escalator to 30'
   d. Limit size of grating behind cutting bar to 3/4" opening
      (saves "nicks" and reduces sediment plume)
   e. Limit activity to >150' for lease boundary

4. Restrict harvest by:
   a. Monday - Friday only
   b. Limit catch by Bu./man, Bu./boat, Bu./Acre, No. of boats/
      Acre, etc.

5. Season
   Close season after 4 July - economics
   No biological reason to limit season