

12-1-1978

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Virginia Institute of Marine Science

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Recommended Citation

Virginia Institute of Marine Science. (1978) Position of the Virginia Institute of Marine Science on the Use of Hydraulic Dredging for the Taking of Hard Clams. Marine Resource Report No. 78-3. Virginia Institute of Marine Science, College of William and Mary. <http://dx.doi.org/doi:10.21220/m2-zy2h-0881>

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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 (I) 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.

STANDARD OYSTER DREDGE

HYDRAULIC DREDGE

+	-	+	-
<p>Inexpensive</p> <p>Less down time</p> <p>Few parts</p> <p>Small boat</p>	<p>High mortality to juveniles, and adults</p> <p>Destroys eelgrass beds</p> <p>Destroys bottom and benthos (150'/min X 24")</p> <p>Modifies or removes 5 to 6" of bottom - shell or small organisms may be swept from the area</p> <p>Less energy efficient</p> <p>Worse CPUE</p> <p>Labor intensive</p>	<p>Low mortality to young clams and adults</p> <p>Easier on bottom and benthos (8-12'/min X 24")</p> <p>Shell or small organisms are returned to same area as where harvested</p> <p>More energy efficient</p> <p>CPUE better</p> <p>Less labor intensive</p>	<p>Destroys eelgrass beds</p> <p>Leaves a trench which gradually fills</p> <p>Expensive</p> <p>More down time</p> <p>Many moving parts</p> <p>Requires large boat</p>

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