

Center for Community-Based Resource Management (CBRM)

Natural Resources Institute, University of Manitoba

CBRM Database

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Case Study Name:	Making a case for community-based oyster restoration: An example from Hampton Roads, Virginia, U.S.A.		
Author:	Brumbaugh, R.D., Sorabella, L.A., Garcia, C.O., Goldsborough, W.J. and Wesson, J.A.		
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Region:	North America		
Country:	USA		
Ecosystem Type:	Aquatic		
Social Characteristics:	Water-based community		
Scale of Study:	Provincial		
Resource Type:	Fisheries		
Type of Initiative:	Research driven project		
Community Based	Resource management		

Work:	
Keywords:	Oyster broodstock,
Summary:	<p>The eastern oyster (<i>Crassostrea virginica</i>) remains at historically low levels throughout the Chesapeake Bay. Recent efforts to restore oysters in the bay have focused on establishing a series of sanctuaries, or no-take zones, to increase oyster broodstock in selected tributaries. Oyster parasites continue to affect the rate of recovery in these tributaries; however, innovative management strategies, advances in aquaculture technology, and the availability of disease-tolerant broodstock from the lower Chesapeake Bay are providing ways to involve the public directly in restoration of this resource. A 1996 management decision to transplant large wild-caught oysters onto an oyster broodstock sanctuary reef in the Great Wicomico River, Virginia, was followed by greatly increased abundance of juvenile oysters throughout that river in 1997. Using that result as a model for strategic oyster reef restoration, citizens and school students have been enlisted to grow large numbers of hatchery-produced native oysters for restocking other sanctuary reefs throughout Chesapeake Bay. Efforts to supplement natural oyster populations in Hampton Roads, Virginia, began in May 1998, with the transplanting of 65,000 hatchery-produced oysters grown by school students. The oysters were transplanted onto strategically located sanctuary reefs constructed in the Lynnhaven and Elizabeth rivers. Surveys of these reefs following the oysters' spawning season have revealed order-of-magnitude increases in the abundance of juvenile oysters on both reefs, and correspondingly high spat settlement rates on oyster grounds surrounding the reefs. These results demonstrate that stocking strategically located broodstock reefs with hatchery-produced oysters grown by citizens can be an effective strategy for oyster restoration in the Chesapeake Bay.</p>