Spatial analyses of aragonite saturation between potential oyster reef building sites in the Basin Preserve, Phippsburg, Maine

Henry Zucco, Class of 2025

The shellfish industry in the Gulf of Maine (GoM) region has produced both economic benefits through the creation of jobs and marketable shellfish and environmental benefits. A new, collaborative research effortbetween Bowdoin College, Colby Collegene University of Maineand The Basin Oyster Projectaims to address questionsisted by community members, oyster farmers, and conservation groups in Phippsburg, Maintout the viability of building and sustaining oyster reefs in the Basin Preserve, a local preserve in coastal Maintout their shells from minerals contained in seawateand because the shells of calcifying organisms are sensitive to ocean acidityn theret of shell building minerals in water can be an important factor in determining the success tafining an oyster reefAragonite saturation state () of seawater is an indicator to shell building mineral, FDOFLXP F, Debdene Quad Stall Nevor precipitate at a given location D 1.5 is considered optimal for calcifying organism shell growth. As seawater absorbs atmospheric carbiolifies and lowers D \$ G G L W L R Q D O O \ FK D Q J H V W R V D O L Q L W \ W H P S H U D W X U D W K P y.± 67d P a"ë /4 @ Qm:-ÓÄÚ£à

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