



Escambia County Concrete Tetrahedron Patch Reefs: Opportunities for Artificial Reef Research



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BACKGROUND One of the challenges for evaluating artificial reef performance is the lack of replicated reefs available for rigorous statistical analysis. With a few notable exceptions (Bortone, Lindberg, et al, and others), artificial reef research budgets typically do not include sufficient funding to construct replicate reefs of identical dimensions within a given area.

APPROACH In response to this challenge, Escambia County Marine Resources Division (MRD) standardized deployment of **132 “patch reefs” within the Escambia Southeast permit area**, located in the Gulf of Mexico, 10mi southeast of Pensacola Pass, in 80-100ft water depths. Spaced approximately 500ft apart, each patch reef consists of three concrete tetrahedrons (one large tetrahedron and two small tetrahedrons) spaced approximately 25ft apart along a north-south axis. Large tetrahedrons are 16ft along each base dimension and 15-18ft tall; small tetrahedrons are 10ft along each base and 8 ft tall.

RESEARCH OPPORTUNITIES These 132 “patch reefs” of almost identical design and spacing provide a variety of artificial reef ecology, fisheries and other research opportunities. Escambia MRD and FWC welcome collaborators to conduct artificial reef research.

Escambia Southeast Artificial Reef Permit Area

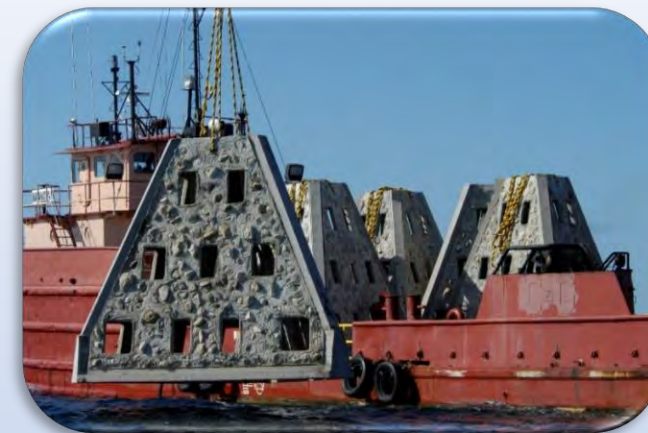
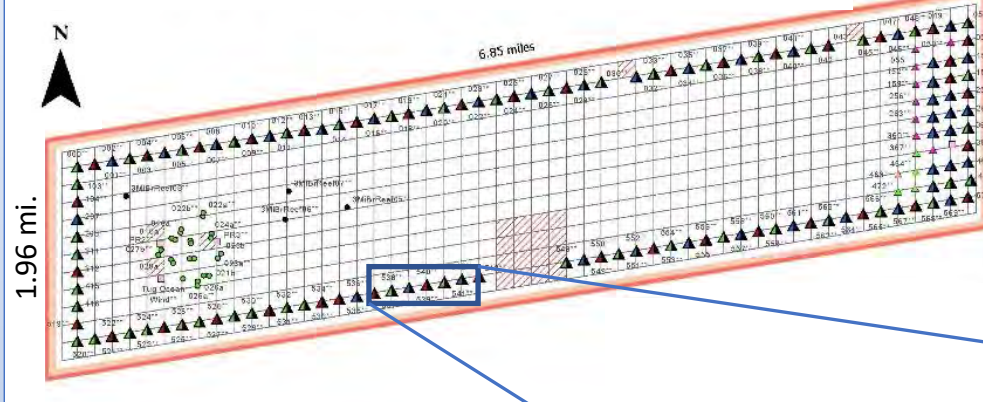


Photo 1. Deployment of large tetrahedron, 15ft tall and 16ft base width.



Photo 2. Diver inspects small tetrahedron, 8ft tall and 10ft base width.



- ▲ Lg conc tetrahedron+ 2sm tetrahedrons
- ▲ Lg concr tetrahedron w/EcoReef at top+ 2sm tetrahedrons
- ▲ Lg concr tetrahedron w/IntEcoReef+ 2 sm tetrahedrons

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