TRANSPLANTING AS A TEST PROCEDURE FOR DETERMINING HABITAT QUALITY FOR JUVENILE QUEEN CONCH

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Small-scale transplants of one-year old queen conch (*Strombus gigas*) (85 - 100 mm shell length) at eight sites in the Exuma Cays, Bahamas, indicated that seagrass meadows with similar sediments, detrital loads, and macrophyte biomass and composition can have vastly different qualities as habitat for the gastropod. Mortality was site specific and independent of seagrass biomass. Growth rates, used as an indicator of food and habitat quality, were highest in seagrass beds with intermediate biomass (40 - 70 g dry wt/m^2) and detrital loads (83 - 112 d dry wt/m^2), but were also highly variable and site specific. Highest growth rates and lowest mortality occurred in locations where large juvenile conch populations have been present historically. It is suggested that simple transplant experiments be conducted prior to major outplanting of hatchery-reared stocks.