Air, Water, and Corals: Integrated Research at Dry Tortugas National Park

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Ten groundwater-monitoring wells were installed in and around Fort Jefferson, 65 miles west of Key West, Florida. The wells were continuously cored to depths between 6 to 18 m below sea level. The screened wells encountered pre-Holocene coralline limestone beneath overlying Holocene coral and carbonate sand at 16 m below sea level. Ground water, surface water, air, and coral mucous are sampled quarterly to determine bacterial and viral content and to compare with coral vitality and human influence. Salinity and nutrient analyses of well and surface water monitors determine efficiency of sewage treatment and fluctuations of the fresh water lens under the island.