

COMPARISONS AMONG UNIQUE CONTINENTAL SLOPE AND SHELF HABITATS OFF OF NORTH CAROLINA

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Beginning in 1991 we have investigated several unique and difficult to sample deep water habitats off North Carolina. Studies have concentrated in the following areas: a canyon system just north of Cape Hatteras, known as “the Point” (200-1200 m), from 1991-2001; deep coral banks (mostly Lophelia) between Cape Lookout and Cape Fear (400-500 m) from 1993-present; and outer shelf hardgrounds, also between Cape Lookout and Cape Fear, in 80-200 m from 2001-present. The first thrust of these studies is to describe community structure and distributions, followed by trophodynamics work. Most sampling was during summer to early fall, and in each area we sampled the full water column using a variety of nets (plus other gear) and research submersibles. Either because of unique oceanography and/or habitats these areas harbor fish communities that were both poorly known and that displayed characteristics apparently controlled by the habitats. Data analysis is still in progress and field work also continues at the coral banks and outer shelf reefs. I will present results of analyses to date from the two slope areas (> 200 m), comparing their fish communities throughout the water column, and will present our hypotheses concerning the controls on community structure.