Department of Earth and Environmental Science

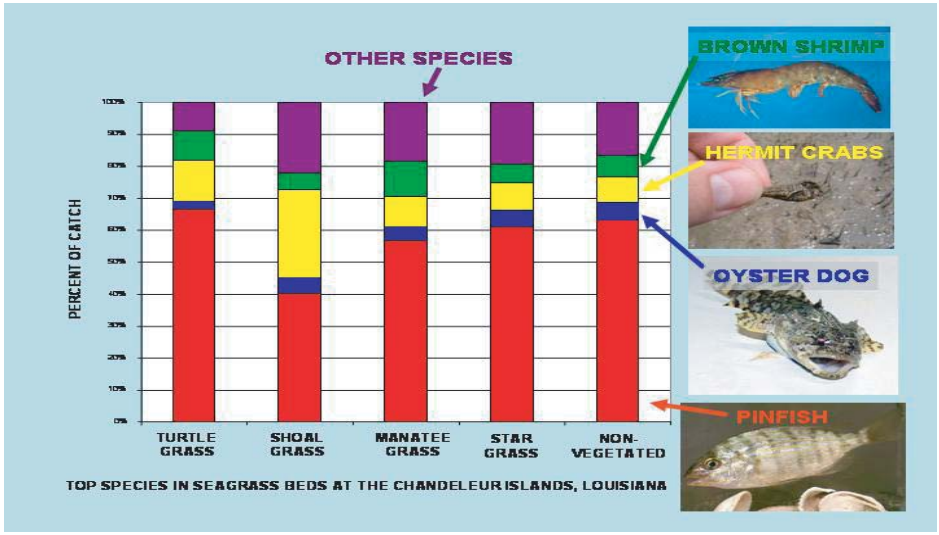
THE UNIVERSITY of NEW ORLEANS

Environmental Management and Research in Aquatic Ecology

One of the primary focuses of environmental management at the University of the New Orleans Department of Earth and Environmental Sciences is the study of fishes and other aquatic organisms of the Louisiana Coastal Zone. Departmental scientists also have experience working with aquatic ecosystems in diverse areas such as the Adirondack Mountains of New York, the tidal streams of coastal Virginia, the jungle rivulets of Trinidad, and mountain streams of the Ozark Mountains in southern Missouri. Data collected from Louisiana waters provide vital information to ongoing efforts to conserve the valuable commercial and recreational fisheries of the state and secure the longevity of species within sensitive and rapidly changing ecosystems. One of the main research accomplishments of the Nekton Research Laboratory since its creation is the execution of the longest and most complete survey of Lake Pontchartrain fishes in history. Since 1996, Nekton Research Laboratory scientists have not only collected aquatic organisms from the Lake Pontchartrain Basin, but have also studied the relevant environmental factors that influence the occurrence and general ecological health of these animals' populations. Local estuarine ecosystems and their organisms are strongly affected by natural disturbances like hurricanes and drought, but are also strongly affected by anthropogenic impacts such as openings of the Bonnet Carre Spillway, artificial saltwater input from the Mississippi River Gulf Outlet, and numerous sources of water-borne pollution. It is the goal of scientists in the Nekton Research Laboratory and the Department of Earth and Environmental Sciences to continue studying how natural and anthropogenic effects each influence the fishes and aquatic animals of the Louisiana Coastal Zone so that sound solutions can be developed to address the increasing ecological threats to these natural resources. Personnel conducting this work represent all levels of the University community including undergraduate workers, graduate research assistants, full-time technical associates, post doctoral researchers, and research professors.

Graduate students and research associates conducting fishery research. Environmental information and fishery data collected from Lake Pontchartrain are used to help state agencies better determine management policies for these natural resources.

Most research in aquatic ecology at the UNO Department of Earth and Environmental Sciences is conducted from the Research Vessel Cavalla, a custom-made boat designed for trawling, gillnetting, and conducting environmental assessments of aquatic habitats.



Example of data collected by scientists in the UNO Department of Earth and Environmental Sciences from the Chandeleur Islands, Louisiana's oldest barrier island system located approximately 100 km east of New Orleans. These data show the variation in nekton community composition among different species of seagrasses found in this remote environment.

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