



# Characterization of nekton assemblages associated with seagrasses within the newly-established Research Natural Area and adjacent open-use zones at Dry Tortugas National Park

## Introduction:

The newly-established Research Natural Area (RNA) is one of several marine protected areas within and adjacent to the Dry Tortugas National Park (DRTO) located 70 miles west of Key West. The ecosystems within the RNA are unique in terms of the variety and complexity of available habitat, including extensive seagrass beds in addition to a diverse range of coral reef habitats. Seagrass beds are known to support numerous resident and transient fishes; however, the relative contribution of these protected seagrass areas related to recruitment of reef-associated fishes is currently understudied.

## Objectives:

The primary objective of our study is to characterize community structure of seagrass-associated fish and macroinvertebrates within the DRTO RNA and adjacent open-use areas, especially in terms of habitat use by species of greatest conservation need.

## Approach:

Seasonal (spring and fall) stratified-random surveys of fish and macroinvertebrate assemblages associated with seagrass habitat will be conducted using wire-mesh Z-traps in shallow (<30 ft.), seagrass areas. Within each sample all fishes and selected macroinvertebrates are identified, measured and counted.

## Benefits:

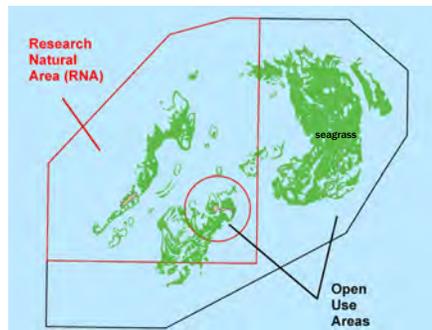
The proposed study will take a community-level, habitat-based approach to provide data on community structure of seagrass-associated fish and macroinvertebrates within the DRTO RNA and adjacent open-use areas. This project represents the first comprehensive assessment of seagrass-associated nekton assemblages within DRTO and will augment a concurrent study designed to examine patterns of habitat use and movement of exploited reef fishes, especially snappers and groupers.

## Location:

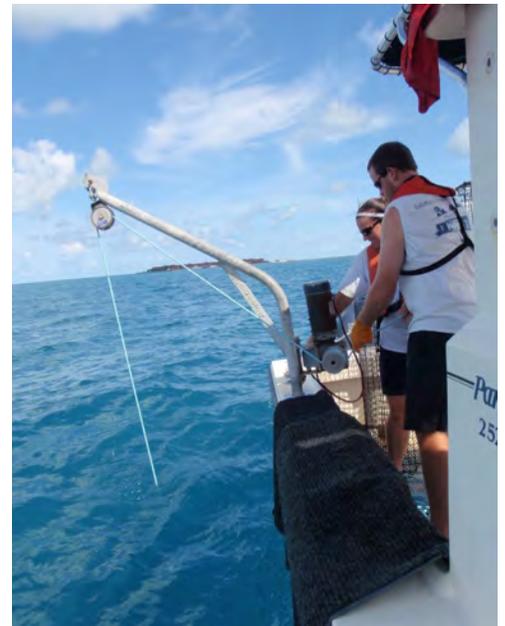
Dry Tortugas National Park

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Black grouper (above) and red grouper.



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