

## 1. SPA's and ROA's

Sanctuary Preservation Areas (SPA's) and Research Only Areas (ROA's) are designed to protect shallow, heavily used reefs from degradation. The actual size and location of these zones have been determined by the examination of user patterns, aerial photography, and ground-truthing of specific habitats.

#### 5. Banks and Flats

The Florida Keys offer huge expanses of flats, sandbars, and grass banks. These areas are prime feeding grounds for schools of bonefish, permit, tarpon, barracuda, and several species of sharks. Invertebrates such as echinoderms, urchins, sea stars; and bivalves are commonly found here as well.

# 2. Coral Reefs

The coral reefs in the Florida Keys make up the most extensive living coral reef system in North America, most of which can be accessed from KML, either directly by boat or by trailering. Experienced KML staff can help you locate the specific coral species or type of reef necessary for your research.

## 6. Mangroves

Mangroves and their root systems represent the basis for one of the most important and extensive marine communities in southern Florida. The structurally-complex environment provided by their proproots is substrate on which algae, sponges, tunicates, bivalves, crustaceans and others can grow while fish and motile invertebrates inhabit the protected spaces within.

## 3. Seagrass Beds

Seven species of seagrass make up Florida's nearly 2 million acres of seagrass habitat. These forests of seagrass help maintain water clarity, stabilize the bottom, and provide food and shelter from predators to the numerous species of animals that live there.

#### 7. Shipwrecks

The shallow reefs of the Florida Keys and the sudden changes of weather posed a threat to the safe passage of ships through the Straits of Florida on their return voyage to Europe from the Caribbean. There are nine sites on the Shipwreck Trail which represent three broad periods of Keys maritime history. Two of these wrecks lie in the vicinity of KML.

## 4. Hard Bottom

Hard bottom habitat is made up of sessile organisms attached directly to limestone rock covered with a few centimeters of sediment. In the Florida Keys, large, crevice-laden loggerhead sponges, numerous octocorals and thick mats of red macroalgae dominate hardbottom communities. These marine plants and large invertebrates provide shelter for countless small animals.

## 8. Artificial Reefs

In addition to the natural reefs, the Florida Keys are also home to a number of artificial reefs. Formed by dumping man-made structures into the water, these artificial habitats provide shelter for marine fish and invertebrates as well as open areas for hard and soft corals to colonize. Many of these reefs have been underwater for years and are now well-colonized by marine life.