# SUPPORTING THE MARINE RESERVE NETWORK: What can you do?

*We need your help and support if the system is to succeed!* We are very lucky that our system has great advocates, Government support, and help from the international scientific community. Still, in the end, the long-term success of the program will mostly depend on strong community support at the local level, throughout our islands.

#### How can you help?

1. Help to build support in your local community for initiatives to develop a local Marine Reserve.

2. At community workshops that will be held nearby in conjunction with any proposed marine reserve in your area, provide the department of fisheries with as much knowledge about the local marine life and local uses of the marine environment as possible. This information will be critical to proper design and management of marine reserves.

3. Encourage local fishermen to support this effort; in the near future, they will be the prime benefactors of the expected fisheries "overflow" resulting from greater fisheries production within the marine reserve.





# MARINE RESERVES NETWORK



The Commonwealth of The Bahamas

Conserving our resources for future generations!

## Map showing existing Marine Parks & Marine Reserve Areas.



## **Marine Reserves Network**

The Department of Fisheries, working in close consultation with the Bahamas Reef Environmental Education Foundation (BREEF), The Bahamas National Trust (BNT), local government representatives and a number of scientists, has proposed the establishment of a nation-wide network of Marine reserves for The Bahamas.

This informational brochure is designed to answer some of the most common questions regarding this effort.

#### What is a Marine Reserve?

Throughout the world, properly designed and managed marine protected areas (MPAs) are increasingly regarded by scientists, conservationists, and resource managers as perhaps THE best available tool to provide long-term protection to fisheries and other marine resources. What is an "MPA"? The World Conservation Union (IUCN) defines A MARINE PROTECTED AREA (MPA) as, "Any area of inter-tidal or sub-tidal terrain, together with its overlying waters and associated fauna, flora, historical and cultural features, which has been reserved by legislation or other effective means to protect part or all of the enclosed environment".

In practice there are several different basic types of MPAs, each of which is designed and managed for somewhat different primary purposes. For example, some MPAs are created for the primary purpose of enhancing recreational use of coastal waters, and benefits to tourism. Today, these are most often called "*Marine Parks*". In contrast, others (typically called *Marine Reserves*) are often created with a primary goal of maintaining marine life and habitats in a wholly undisturbed state, for conservation, research, education, and/or fisheries enhancement purposes.

#### **The Bahamian Experience**

The Bahamas already has some experience with Marine Protected Areas through the work of the Bahamas National Trust within the Exuma Land and Sea Park. This pioneering effort began in 1958, allowed limited fishing within the boundaries of the park until 1986. At that time it was determined that a complete ban on fishing was necessary. Today the Exuma Cays Land and Sea Park provides testimony of the wisdom of that decision. Scientific research and casual observations demonstrate that the fish are larger and more abundant within the Park when compared to areas immediately outside. The spillover effect is apparent in adjacent areas. Also, there are more different kinds of fish inside, as compared to areas iust outside the Park.

As successful as the Exuma Cays Land and Sea Park has been, it alone cannot do what is needed to maintain the sustainability of the marine ecosystems and lucrative commercial fishing industry of the Bahamas. Long-term protection of our valuable marine resources absolutely requires the development of a network of fully protected Marine Reserves. This network must be large enough to adequately represent all the many different kinds of habitats found in our islands, and distributed so as to maintain vital linkages for all life-stages of marine animal and plant life as they move through their full life cycles. Reserves must also be numerous enough and sufficiently dispersed so as to provide adequate replication as insurance against damage from local environmental catastrophes, such as hurricanes.

## Contributing to OVR Environmental Trust Fund!

#### **Objectives & Benefits of Marine Reserve Networks**

There are a wide range of expected benefits from the proposed network of selfsustaining no take marine reserves. These include:

A. Enhanced support for fisheries production and fisheries management efforts, through:

 Direct benefits to fish populations by allowing longer survival of greater numbers of larger fish, which contribute greater numbers of offspring
Protection of the habitats and processes upon which all fish populations depend for growth and survival

- B. Long-term protection of natural marine biodiversity of The Bahamas
- C. Protection of healthy examples of natural marine ecosystem structure and functioning
- D. Enhancement of non-intrusive human activities, such as properly managed underwater exploration and nature tours (snorkeling, scuba diving)
- E. Enhanced opportunities for scientific research that may directly benefit The Bahamas



#### Basic Principles of Marine Reserve Network Design

**REPRESENTATION** - the network must include all of the many different types of habitat found in Bahamas ocean waters, for example shallow and deep reefs, sea grass meadows, sand flats, mangroves, channels, blue holes, and live bottom.

**REPLICATION** - duplicate reserves must be scattered far enough apart to ensure survival of all species and habitats in case of localized natural or man made disasters (e.g. hurricanes, oil spills, etc.).

*SIZE* - each reserve must be big enough for most of the creatures who live in it to conduct most or all of their activities within its boundaries.

**DISTRIBUTION** - the reserves must be sited to work as a mutually supporting network, each reserve reinforcing and being reinforced by others.

#### **Initial Selections**

Having reviewed a large number of possible locations throughout the nation, the government has agreed to the immediate establishment of the first five Marine Reserves in the following areas:

- 1. North Bimini
- 2. Berry Islands
- 3. South Eleuthera
- 4. Exuma Cays
- 5. Northern Abaco Cays