

Introduction

This is the Technical Appendix to the Final Report titled, “Socioeconomic Study of Reefs in Southeast Florida”, dated October 2001. The Final Report was written with the intent to inform the reader of the methodology used while not overwhelming the reader with excessive detail. This appendix describes in more detail those methods used to estimate the economic contribution and use values of the reefs.

Project Purpose

This study estimated the net economic value of the natural and artificial reef resources of southeast Florida to the local economies and the reef users. Southeast Florida is defined as the counties of Palm Beach, Broward, Miami-Dade and Monroe. Monroe County includes the Florida Keys. This study employed extensive survey research to measure the economic contribution and the use values of artificial and natural reefs over the twelve-month period of June 2000 to May 2001. The reef users surveyed were boaters who are recreational fishers (commercial fishers were not included), reef divers, reef snorkelers, and/or visitors viewing the reefs on glass-bottom boats.

The primary goals of this study were to estimate the following values:

- Total reef use of residents and visitors in each of the four counties over a twelve-month period as measured in terms of person-days
- Economic contribution of the artificial reefs as residents and visitors spend money in each of the four counties to participate in reef-related recreation
- Economic contribution of the natural reefs as residents and visitors spend money in each of the four counties to participate in reef-related recreation
- Willingness of reef users to pay to maintain the natural reefs of southeast Florida in their existing conditions
- Willingness of reef users to pay to maintain the artificial reefs of southeast Florida in their existing conditions
- Willingness of reef users to pay for additional artificial reefs in southeast Florida
- Socioeconomic characteristics of reef users

Economic contribution is measured by total sales, income, employment and tax revenues generated within each county. In addition, the opinions of residents regarding the existence or establishment of “no-take” zones as a tool to protect existing artificial and natural reefs are presented.

This study was funded by each of the four counties – Palm Beach, Broward, Miami-Dade and Monroe; the Florida Fish and Wildlife Conservation Commission through the use of Federal Aid in Sport Fish Restoration funds; and the National Oceanic and Atmospheric Administration

(NOAA) through the Socioeconomic Monitoring Program for the Florida Keys National Marine Sanctuary.

Project Objectives

For each of the four counties, the population of reef users was divided into two groups – (1) visitors to the county and (2) residents of the county. Visitors are defined as nonresidents of the county that they are visiting. For example, a person from Broward County visiting the Florida Keys in Monroe County is considered a visitor to Monroe County. Likewise, a person from New York visiting the Florida Keys is considered a visitor. For each county, residents are defined as persons living in the county who used the county’s reefs on a private boat registered in that county. For example, a person who lives in Broward County and fishes for recreation on the reefs off the shores of Broward County using a private boat registered in Broward County is a resident of Broward County.

This study conducted four surveys as follows:

- Resident boater survey – conducted in the Fall of 2000
- General visitor survey – conducted in the Summer of 2000 and the Winter of 2001
- Visitor boater survey – conducted in the Summer of 2000 and the Winter of 2001
- Charter / Party boat survey – conducted in the Spring of 2001

The purpose of the resident boater survey and the visitor boater survey was to collect information to estimate the following characteristics:

- Percentage of boaters who fish, dive and / or snorkel on the reefs;
- Total of itemized expenditures related to using the reefs (lodging, food, gas, equipment, etc.);
- Number of person-visits and person-days of reef use by type of reef and activity;
- Willingness-to-pay to protect southeast Florida reefs in their existing condition; and,
- Willingness-to-pay for additional reefs in southeast Florida.

In addition, at the request of the counties, the resident survey also includes questions regarding “no-take” zones in their counties of residence.

The purpose of the general visitor survey was to obtain estimates of the total number of visitors to each county and the percentage of visitors who boat.

The charter/party boat survey was a survey of for-hire operations that take out passengers for recreational fishing, snorkeling, scuba diving and glass-bottom boat rides in saltwater off the

coasts of the four counties. The primary purpose of this survey was to estimate the proportion of charter / party service activity that takes place on the artificial versus the natural reefs in each county.

Report Organization

This Technical Appendix begins with the Introduction. Chapter 1 provides the methods used to estimate resident and visitor use of artificial and natural reefs. These methods were also described in the Final Report. Chapter 2 provides the methods used to estimate the economic contribution of the reefs as residents and visitors spend money using the reefs. Chapter 3 provides the methods used to estimate the use values of the reefs to residents and visitors. This Technical Appendix concludes with the Bibliography reprinted from the Final Report. The survey instruments are provided in the Final Report.