

Socioeconomic Study of Reefs in Southeast Florida



Final Report
October 19, 2001 as
revised April 18, 2003 for

Broward County

Palm Beach County

Miami-Dade County

Monroe County

Florida Fish and Wildlife
Conservation Commission

National Oceanic and
Atmospheric Administration

Principal Investigators:

Grace M. Johns, Ph.D., Project Manager

Vernon R. Leeworthy, Ph.D.

Frederick W. Bell, Ph.D.

Mark A. Bonn, Ph.D.

HAZEN AND SAWYER
Environmental Engineers & Scientists

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April 18, 2003

Ms. Pamela Fletcher
Natural Resource Specialist II
**BROWARD COUNTY DEPARTMENT OF PLANNING AND
ENVIRONMENTAL PROTECTION**
218 Southwest 1st Avenue
Fort Lauderdale, Florida 33301

Socioeconomic Study of Reefs in
Southeast Florida – Final Report

Dear Ms. Fletcher:

We are pleased to submit ten bound and one unbound copies of the final report for the Socioeconomic Study of Reefs in Southeast Florida, dated October 19, 2001, as revised April 18, 2003. This report is the product of a significant survey research effort and analysis of the uses and values of the artificial and natural reefs in southeast Florida. This project's success was directly attributable to the assistance and support of many individuals involved in this 20-month long effort.

The study provides estimates of the following values that represent the time period June 2000 to May 2001:

- Total reef use of residents and visitors in each of the four counties as measured in terms of person-days.
- Economic contribution of the natural and artificial 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 and 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, and employment generated within each county from residents and visitors who use the reefs. 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.

We thank you, Pamela Fletcher, for your consistent support and guidance during this project. We know you spent significant effort in making sure this project was a success. We have enjoyed working with the funding agencies and you and your staff at Broward County.

Very truly yours,

HAZEN AND SAWYER, P.C.

Grace M. Johns, Ph.D.
Senior Associate
Economist and Project Manager

Enclosures
c: File 40289

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Ms. Pamela Fletcher
April 18, 2003

NOTE: This document is revised from the original October 19, 2001 report. The number of person-days that residents in Monroe County used the Monroe County reefs was increased by 11.5 percent or 0.35 million person-days to correct an error found in the model files. As a result, the following percent increases in values occurred and are included in this revised report. Resident economic contribution and user values in Monroe County increased by 11.5 percent. Total reef use in Monroe County and the corresponding the economic contribution and user values increased by 7 percent. Total reef use in all four counties and the corresponding economic contribution and user values increased by 1.2 percent.

Acknowledgements

Socioeconomic Study of Reefs in Southeast Florida, 2000-2001

This project's success was directly attributable to the assistance and support of all those individuals involved in this 20-month long effort.

Funding for this project was provided by the four counties; the Florida Fish and Wildlife Conservation Commission; and the National Oceanic and Atmospheric Administration. The representatives of these agencies were key to the success of this project. They solicited the funding for this project and assisted in obtaining site permissions for the visitor intercept surveys. They are Jon Dodrill, Florida Fish and Wildlife Conservation Commission; Vernon (Bob) Leeworthy, Ph.D., NOAA; Julie Bishop, Palm Beach County; Pamela Fletcher and Ken Banks, Broward County; Brian Flynn, Miami-Dade County; and George Garrett and Julie Malko, Monroe County. Danah Kozma and Linda MacMinn of the Monroe County Tourist Development Council obtained the site permissions to conduct the visitor intercept interviews in the Florida Keys.

The principal investigators and their responsibilities included Grace Johns, Ph.D. of Hazen and Sawyer who served as project manager; Professors Fred Bell and Mark Bonn of Florida State University who were responsible for the resident surveys and resident data analysis; Vernon (Bob) Leeworthy, Ph.D. of NOAA who designed the draft surveys, conducted the statistical analysis of reef user values and assisted with report writing; and J. Walter Milon, Ph.D. who reviewed and edited the draft surveys and provided valuable guidance.

We wish to thank our survey researchers who worked with energy and in earnest, often in the hot sun, to conduct the visitor intercept interviews in southeast Florida. Without these organizations and individuals, the study of visitor reef users to southeast Florida would not have been possible. The survey researchers included members of the Bicentennial Volunteers – E.P. and Rosa Kirk; Jay and Linda Parsons; John and Martha Autry; Jon and Kathy Sweet; Bennie and Becky Miller; Robert and Betty Shirley; Peter and Betty Germann; George and Maxine Haynes; J.W. & Bobbie Thomasson; Wendell and Margaret Thomasson; and Glenn and Delores Tankersley. We also thank Rife Market Research and their survey researchers who provided valuable survey research assistance at short notice during the summer survey.

Dave Sayers of Hazen and Sawyer assisted in managing the survey researchers, the completed surveys, and the data entry for the visitor surveys. Carole Blood of Hazen and Sawyer produced the thousands of mailings to site owners and charter boat operators, with assistance from Danielle Monziona, and formatted this report. William Taylor, Chris Julien and Jeff Jones of Hazen and Sawyer produced the thousands of visuals and documents for this study. Hazen and Sawyer's data entry staff diligently entered the responses to over 6,000 visitor surveys: Abe Kuruvilla; Andrea Stonom; Jabrina Howard; and Jesse Van Eyk.

With respect to the resident survey, Patricia Fountain of Florida State University supervised the telephone and mail survey data collection. She spent countless hours training and supervising numerous employees needed for this task. Monique Jenkins and Jamie White also deserve

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Of special note, Pamela Fletcher of Broward County provided consistent support and guidance during this project. She spent significant effort in making sure this project was a success.

Socioeconomic Study of Reefs in Southeast Florida

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