

The Economic Value of Florida's Ocean Resources

Florida's economic health depends on functioning and resilient ocean and coastal ecosystems. But our marine resources must be protected and rebuilt so that they can continue to provide the services we depend on well into the future.

Overview of the Value of Florida's Ocean

- In 2004, Florida's coastal counties had 17,714 ocean sector establishments, such as seafood markets, which contributed to more than 500,300 jobs and \$12.7 billion in wages.¹ Florida's ocean sector industries contributed more than \$27.4 billion to the state's gross domestic product (GDP). (See Table 1).²
- The largest single ocean sector business contributing to Florida's GDP is tourism and recreation. In 2004, tourism and recreation alone contributed almost \$18.6 billion to the state's GDP, nearly 68 percent of the total ocean sector industries' contribution.³

Table 1: GDP Contribution by Ocean Sector	
Ocean Sector Industry	GDP Contribution
Minerals <ul style="list-style-type: none">• Limestone• Sand and Gravel• Oil & Gas Exploration & Production	\$115,409,477
Construction	\$681,568,362
Living Resources <ul style="list-style-type: none">• Fish Hatcheries & Aquaculture• Fishing• Seafood Markets• Seafood Processing	\$1,023,792,361
Ship & Boat Building & Repair	\$1,205,684,875
Transportation	\$5,813,682,020
Tourism & Recreation	\$18,571,204,092
All Ocean Sectors	\$27,411,341,187

- In 2008, VISIT FLORIDA documented 84.2 million visitors who spent over \$65 billion and supported more than 1 million persons directly employed by Florida's tourism industry.⁴

- A 2008 report by the National Marine Fisheries Service found that the commercial fishing industry in Florida (defined as the commercial harvest sector, seafood wholesalers and distributors, seafood processors and dealers, and seafood retailers) generated nearly \$5.7 billion in sales and more than \$3.1 billion in income.⁵

- In 2008, western Florida experienced the greatest economic boost from recreational fishing of the Gulf states (Alabama, West Florida, Louisiana, Mississippi, and Texas): expenditures from recreational anglers in western Florida generated \$5.65 billion in total sales to the regional economy and added approximately 54,600 jobs.⁶ On the East Coast of Florida, expenditures from recreational anglers generated more than \$4 billion in total sales to the regional economy and added more than 35,000 jobs.⁷

The Value of Florida's Ecosystems

While some ocean ecosystem benefits, such as the market value of commercially harvested fish, are regularly calculated, many values that result from healthy, functioning ocean ecosystems are rarely tallied, but provide a large pool of extended benefits. Such ecosystem services include "... *provisioning services* such as food, water, timber, and fiber; *regulating services* that affect climate, floods, disease, wastes, and water quality; *cultural services* that provide recreational, aesthetic, and spiritual benefits; and *supporting services* such as soil formation, photosynthesis, and nutrient cycling."⁸

Provisioning services

- In 2008, more than 86.3 million pounds of fish and shellfish worth more than \$170 million were commercially caught in Florida.⁹ It should also be noted that the landed value is simply the immediate offloaded "ex-vessel" market value of the catch; the value of the fish increases as it moves up through the value chain and is processed and sold at retail.¹⁰
- Florida contains two of the top twenty-five fishing ports in the nation by dollar value of landings: Key West and Apalachicola.¹¹

- The combined value of Florida's top ten most valuable commercially caught fish and shellfish in 2008 was more than \$112 million. (See Table 2.)¹²

Table 2: Florida's Top 10 Most Valuable Commercially Caught Fish & Shellfish (2008)

Species Name	Pounds of Fish	Value (\$)
Caribbean Spiny Lobster	3,480,114	22,452,340
Florida Stone Crab	6,160,831	19,131,761
Red Grouper	5,590,585	13,494,374
Pink Shrimp	7,185,038	13,237,664
White Shrimp	4,288,082	9,907,401
King and Cero Mackerel	4,746,643	7,870,531
Dendrobranchiata Shrimp	1,763,665	7,795,590
Blue Crab	5,932,554	7,111,011
Eastern Oyster	2,554,897	5,666,850
Gag	1,635,680	5,488,116
Total	43,338,089	112,155,668

Regulating services

- Ocean resources help protect the shore against storms and floods.¹³ For example, Florida's coastal resources are estimated to provide more than \$11 billion annually in storm protection services.¹⁴
- Florida has two of just ten national seashores within the National Park Service – the Gulf Islands National Seashore and Canaveral National Seashore – and has four of only twenty-eight estuaries of national significance in the federal government's National Estuary Program – Charlotte Harbor, Sarasota Bay, Tampa Bay, and Indian River Lagoon.¹⁵ The Gulf Islands National Seashore, which includes western Florida and Mississippi coastline, has important nesting beaches for four species of sea turtles: loggerheads, green, Kemp's Ridley, and leatherback.¹⁶ All six species of marine turtles found in U.S. waters are threatened with extinction.¹⁷

Cultural services

- In 2006, more than 3 million people participated in bird watching in Florida; Florida wildlife watchers in general spent more than \$3 billion on expenditures (*e.g.*, equipment purchases like binoculars and cameras).¹⁸
- At least two studies have estimated the economic value of a single beach day enjoyed on Florida's shores to be between \$19 and \$74 per beach day.¹⁹

Supporting services

- Our oceans provide important supporting services, such as cycling carbon dioxide through the water where it is used by phytoplankton to grow and phytoplankton, in turn, supports the food web.²⁰
- Healthy ocean habitats are critical to ensuring that ocean life flourishes. More than 75 percent of the nation's commercial fish and 80 to 90 percent of its recreational fish spend part of their lives in estuary habitats.²¹ Florida contains roughly 25 percent of the country's wetlands – these wetlands help support its robust fishing industry.²²

Healthy Ocean Ecosystems Are Good for the Economy

Fishing, wildlife watching, tourism, and so many other ocean uses depend on healthy ocean and coastal ecosystems. When those systems are degraded because of water pollution, habitat loss, destructive fishing practices and other human impacts, the economy suffers.²³ The sooner we protect and restore our ecosystems, the sooner we will see the benefits.

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- ¹ National Ocean Economics Program. Market Data: Ocean Economy Data 2004. Accessed 5 May 2010. <http://www.oceaneconomics.org/>. Data from 2004 is the latest data available. Please note employment and wages amounts include multipliers. Note that this data does not include the self-employed, such as many fishermen, or the job number would be higher. The data also does not include the harvesting industry of commercial fisheries. Please note that the ocean data used provides a conservative estimate of the businesses and jobs that rely on ocean uses – it does not account for other industries or jobs that may rely on the industries created by these uses.
- ² National Ocean Economics Program. Market Data: Ocean Economy Data 2004. Accessed 5 May 2010. <http://www.oceaneconomics.org/>. Data from 2004 is the latest data available. Please note that these numbers include multipliers. The data does not include the harvesting industry of commercial fisheries. Please note that the ocean data used provides a conservative estimate of the businesses and jobs that rely on ocean uses – it does not account for other industries or jobs that may rely on the industries created by these uses.
- ³ National Ocean Economics Program. Market Data: Ocean Economy Data 2004. Accessed 5 May 2010. <http://www.oceaneconomics.org/>. Data from 2004 is the latest data available. Please note that these numbers include multipliers. Please note that the ocean data used provides a conservative estimate of the businesses and jobs that rely on ocean uses – it does not account for other industries or jobs that may rely on the industries created by these uses.
- ⁴ VISIT FLORIDA. VISIT FLORIDA Research. Accessed 6 May 2010. <http://media.visitflorida.org/research.php>.
- ⁵ NMFS. Fisheries Economics of the United States 2008: Economics and Sociocultural Trends Series. (pp. 11, 121). http://www.st.nmfs.noaa.gov/st5/publication/fisheries_economics_2008.html. Please note that the results from this study cannot be directly compared to the work of the National Ocean Economics Program; the analyses use different data and models.
- ⁶ NMFS. Fisheries Economics of the United States 2008: Economics and Sociocultural Trends Series. (pp. 118, 133, 136). http://www.st.nmfs.noaa.gov/st5/publication/fisheries_economics_2008.html. Please note that the results from this study cannot be directly compared to the work of the National Ocean Economics Program; the analyses use different data and models. Also, note that the Marine Recreational Information Program does not collect participation (number of anglers) or effort (number of trips) data for Texas; this data was not available in the report. To calculate trip and equipment expenditures and impacts, effort and participation was estimated based on 2008 data provided by the Texas Parks and Wildlife Department.
- ⁷ NMFS. Fisheries Economics of the United States 2008: Economics and Sociocultural Trends Series. (p. 104). http://www.st.nmfs.noaa.gov/st5/publication/fisheries_economics_2008.html. Please note that the results from this study cannot be directly compared to the work of the National Ocean Economics Program; the analyses use different data and models.
- ⁸ Millennium Ecosystem Assessment. 2005. Ecosystems and Human Well-being: Synthesis. Island Press: Washington, DC. (Preface, p. 5). <http://www.millenniumassessment.org/en/Synthesis.aspx>.
- ⁹ NMFS. Fisheries Statistics. 2008. Accessed 5 May 2010. www.st.nmfs.noaa.gov.
- ¹⁰ Getner, Brad. April, 2009. PowerPoint Presentation: Economics of Fishing. http://www.gentnergroup.com/?page_id=8.
- ¹¹ NMFS. Fisheries Statistics. 2008. Accessed 30 Apr. 2010. www.st.nmfs.noaa.gov.
- ¹² NMFS. Fisheries Statistics. 2008. Accessed 6 May 2010. www.st.nmfs.noaa.gov.
- ¹³ UNEP. 2006. Marine and coastal ecosystems and human well-being: A synthesis report based on the findings of the Millennium Ecosystem Assessment. UNEP. (p. 1). http://www.unep.org/pdf/Completev6_LR.pdf.
- ¹⁴ The Nature Conservancy. 2009. Economic Benefits of Land Conservation: A Case for Florida Forever. (p. 10). http://www.nature.org/wherewework/northamerica/states/florida/files/economic_benefits_of_land_conservation.pdf.
- ¹⁵ National Park Service Public Use Statistics Office. “National Park Service Park Type Report for: 2009.” Accessed 6 May 2010. <http://www.nature.nps.gov/stats/>; EPA. “NEP Profiles.” Accessed 3 May 2010. www.epa.gov/owow/estuaries/profiles.html.
- ¹⁶ National Park Service. “Gulf Islands: Sea Turtles.” Accessed 6 May 2010. <http://www.nps.gov/guis/naturescience/sea-turtles.htm>.
- ¹⁷ NOAA. “Marine Turtles.” Accessed 6 May 2010. www.nmfs.noaa.gov/pr/species/turtles.
- ¹⁸ U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation: Florida. (pp. 37, 39); Please note that birdwatcher numbers only include the population that is 16 years or older. These numbers reflect the total number of birdwatchers, both state residents and non-residents.
- ¹⁹ Kildow, J., Colgan, C. and L. Pendleton. 2008. “The Coastal and Ocean Economies of the US Side of the Gulf of Mexico” in The Changing Coastal and Ocean Economies of the Gulf of Mexico, University of Texas Press. (p. 7). Please note that data is based on NOAA’s 2000-2001 National Survey on Recreation and the Environment.
- ²⁰ Nellemann, C., Corcoran, E., Duarte, C.M., Valdes, L., DeYoung, C., Fonesca, L., Grimsditch, G. (Eds.) 2009. Blue Carbon. A Rapid Response Assessment. UNEP. (p. 27). <http://www.grida.no/publications/rr/blue-carbon/ebook.aspx>.
- ²¹ Restore America’s Estuaries. “Why Restore Estuaries?” 2009. Accessed 6 May 2010. www.estuaries.org/why-restore-estuaries/.
- ²² Florida Department of Environmental Protection. Florida Geological Survey – Coastal Research Program. Accessed 6 May 2010. <http://www.dep.state.fl.us/geology/programs/coastal/coastal.htm>.
- ²³ Pendleton, Linwood H., 2009. “The Economic Value of Coastal and Estuary Recreation” in The Economic and Market Value of America’s Coasts and Estuaries. Edited by Linwood Pendleton, Coastal Ocean Values Press, Washington, DC (p. 137).