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International Agricultural Trade and Policy Center

**VALUES ASSOCIATED WITH THE APALACHICOLA BAY MARINE
ECONOMY**

By

Alan W. Hodges and Charles Adams

PBTC 03-3

March 2003

POLICY BRIEF SERIES



**UNIVERSITY OF
FLORIDA**

Institute of Food and Agricultural Sciences

INTERNATIONAL AGRICULTURAL TRADE AND POLICY CENTER

MISSION AND SCOPE: The International Agricultural Trade and Policy Center (IATPC) was established in 1990 in the Food and Resource Economics Department (FRED) of the Institute of Food and Agricultural Sciences (IFAS) at the University of Florida. Its mission is to provide information, education, and research directed to immediate and long-term enhancement and sustainability of international trade and natural resource use. Its scope includes not only trade and related policy issues, but also agricultural, rural, resource, environmental, food, state, national and international policies, regulations, and issues that influence trade and development.

OBJECTIVES:

The Center's objectives are to:

- Serve as a university-wide focal point and resource base for research on international agricultural trade and trade policy issues
- Facilitate dissemination of agricultural trade related research results and publications
- Encourage interaction between researchers, business and industry groups, state and federal agencies, and policymakers in the examination and discussion of agricultural trade policy questions
- Provide support to initiatives that enable a better understanding of trade and policy issues that impact the competitiveness of Florida and southeastern agriculture specialty crops and livestock in the U.S. and international markets

VALUES ASSOCIATED WITH THE APALACHICOLA BAY MARINE ECONOMY

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March 24, 2003

Economic Characteristics of the Apalachicola Bay Region

The table below characterizes the economic structure and value of the Apalachicola Bay region, including Gulf, Franklin, Liberty and Wakulla Counties. Total economic output in 1999 (expressed in year 2002 dollars), was \$1.40 billion, with total employment of 17,336 jobs, and total value-added personal and business net income of \$859 million. The largest economic sectors were manufacturing, services, finance/insurance/real estate, government, and construction, as is typical of the Florida economy in general.

Output, Value Added and Employment of the Four County Area of Apalachicola Bay, Florida, by Major Industry Group, 1999*							
Industry Group	Industry Output	Employment (jobs)	Employee Compensation	Proprietor Income	Other Property Income	Indirect Business Tax	Total Value Added
Agriculture	40.3	1,244.4	5.7	9.4	12.2	2.0	29.4
Mining	0.3	7.5	0.1	0.0	0.1	0.0	0.2
Construction	179.4	1,668.2	36.8	10.1	4.5	1.0	52.3
Manufacturing	155.2	963.1	46.1	6.3	7.8	1.3	61.6
Trans., Com., Public Utilities	124.6	638.0	19.9	4.8	39.1	10.1	73.9
Trade	135.4	3,320.7	57.3	3.0	20.0	18.3	98.6
Finance, Insurance, Real Estate	364.0	1,175.4	82.8	7.4	135.5	27.9	253.6
Services	230.9	4,197.6	100.6	22.7	14.0	4.0	141.4
Government	167.9	3,936.5	130.9	0.0	15.7	0.0	146.6
Other	1.7	184.1	1.9	0.0	(0.2)	0.0	1.7
Totals	1,399.5	17,335.5	482.0	63.8	248.7	64.6	859.2

*Millions of dollars (deflated 2002) except employment.

Source: Implan data for Florida counties, MIG, Inc., Stillwater, MN

Value and Economic Impact of Commercial Fisheries in the Apalachicola Bay Region

As an indication of the value of economic activity at risk due to disruption freshwater flows to the Apalachicola Bay estuary, below are tables and charts showing the volume and value of commercial fisheries landings at Apalachicola reported by National Marine Fisheries Service for 1980-2001. As is evident in the chart, landing volumes and values fluctuate considerably from year to year. The average annual landings over the last past ten years were 7.3 million pounds, valued at \$12.2 million. The key commercial species harvested in the region during 2001 were oysters (2.5 million pounds) and shrimp (2 million pounds). The majority of oyster production in Florida (96%) occurs in the Apalachicola Bay region. The economic activity generated by harvesting, processing, and wholesale distribution of oysters and shrimp is an important source of economic activity in the

region.

The total economic impact of the seafood industry in the Apalachicola Bay region was estimated based on the annual dockside value of seafood landings averaged over the past 10 years, together with a regional economic model (Implan Pro) and base economic data for Florida counties (MIG, Inc.). This model enables estimation of the indirect effects of input purchased from other businesses, and induced consumer spending by industry employees, as well as the direct effect of raw seafood sales. The total output impact was \$22.7 million, the total value added impact was \$17.4 million, and the total employment impact was 707 jobs.

Economic Impacts of Seafood Landings in the Apalachicola Bay Region*				
Impact Measure	Direct	Indirect	Induced	Total
Output (\$1000*)	13,695	1,203	7,833	22,731
Value Added (\$1000*)	11,829	628	4,957	17,415
Employment (jobs)	575	16	117	707
*Direct effect based on average value of landings during period 1991-2001, expressed in year 2002 dollars.				

Impact of Wildlife-Related Recreation in the Apalachicola Bay Region of Florida, 2000

As an indication of the recreational value of marine and other natural resources in the Apalachicola Bay region, the following table summarizes the jobs, retail sales, total economic output, and number of permits or visitors in the four counties of Franklin, Gulf, Liberty, and Wakulla for year 2000, by type of recreational activity (hunting, freshwater fishing, saltwater fishing, wildlife viewing). The total economic impacts of all activities in the region include 3,361 jobs, \$140 million in retail sales, \$236 million in economic output, and 154 thousand visitors or permitted users. Saltwater fishing was by far the most important activity, representing about 86 percent of the output impacts, and Franklin County had the highest share of output impacts (40%).

Impact of Wildlife-Related Recreation in the Apalachicola Bay Region of Florida, 2000, by Activity and County, 2000						
	Activity	Franklin	Gulf	Liberty	Wakulla	Total Four Counties
Jobs	Hunting	69	83	62	101	315
	Freshwater Fishing	47	121	50	111	329
	Saltwater Fishing	1,116	709	24	687	2,536
	Wildlife Viewing	36	52	26	67	181
	All Activities	1,268	965	162	966	3,361
Retail Sales (\$1000)	Hunting	1,929	2,331	1,744	2,849	8,853
	Freshwater Fishing	2,325	6,074	2,481	5,567	16,447
	Saltwater Fishing	47,543	30,223	1,014	29,250	108,031
	Wildlife Viewing	1,254	1,792	896	2,331	6,272
	All Activities	53,052	40,421	6,134	39,997	139,604
Economic	Hunting	2,076	2,509	1,876	3,066	9,528

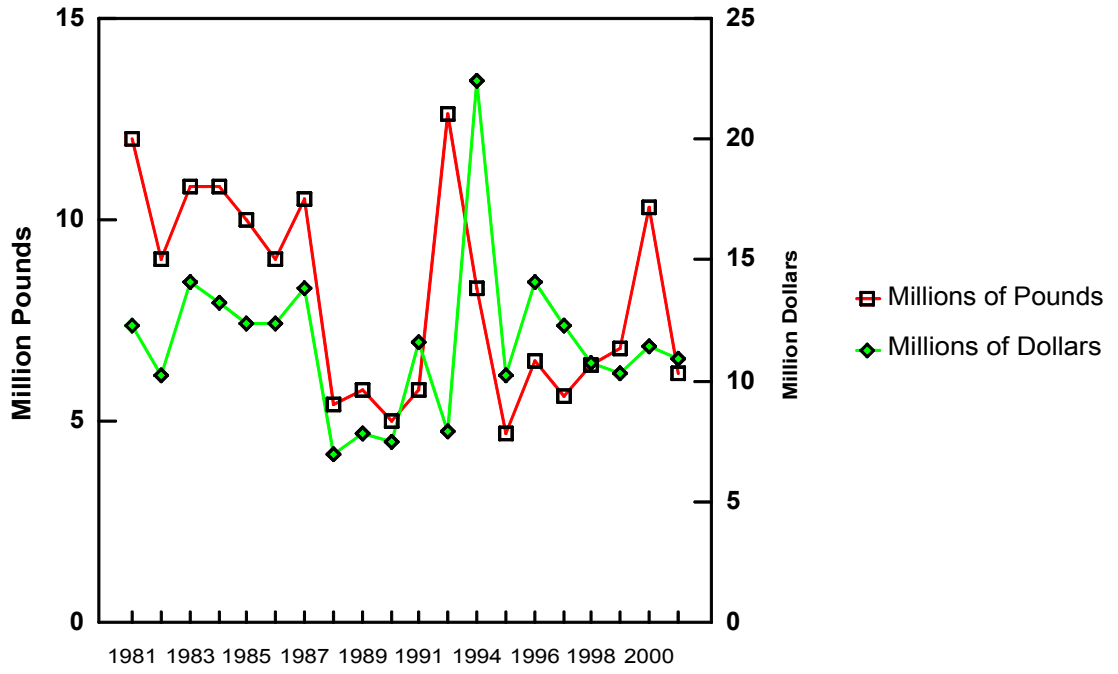
Impact of Wildlife-Related Recreation in the Apalachicola Bay Region of Florida, 2000, by Activity and County, 2000						
	Activity	Franklin	Gulf	Liberty	Wakulla	Total Four Counties
Number Permits or Visitors (1000)	Freshwater Fishing	2,498	6,526	2,665	5,981	17,670
	Saltwater Fishing	88,783	56,440	1,894	54,622	201,739
	Wildlife Viewing	1,324	1,892	946	2,461	6,623
	All Activities	94,682	67,367	7,381	66,131	235,561
	Hunting	1	2	1	2	6
	Freshwater Fishing	3	7	4	7	22
	Saltwater Fishing	49	31	1	30	112
	Wildlife Viewing	3	4	2	6	14
	All Activities	57	44	8	45	154

Source: David Harding (Fla. FWCC), Southwick & Associates, USFWS.
Note: County level data were estimated from 1996 USFWS survey of hunting, fishing and wildlife watching, restated in year 2000 dollars using the consumer price index, and adjusted for growth in county population and number of permits. County data may have low reliability because the survey sampling was designed to provide statistical estimates at the state level.

Commercial Fisheries Landings at Apalachicola, FL, 1981-2001		
Year	Volume (Millions Pounds)	Value (Millions Dollars)
1981	12.0	12.3
1982	9.0	10.2
1983	10.8	14.1
1984	10.8	13.2
1985	10.0	12.4
1986	9.0	12.4
1987	10.5	13.8
1988	5.4	7.0
1989	5.8	7.8
1990	5.0	7.5
1991	5.8	11.6
1993	12.6	7.9
1994	8.3	22.4
1995	4.7	10.2
1996	6.5	14.1
1997	5.6	12.3
1998	6.4	10.7
1999	6.8	10.3
2000	10.3	11.4
2001	6.2	10.9

Source: National Marine Fisheries Service

Commercial Fisheries Landings at Apalachicola, FL, 1981-2001



Source: National Marine Fisheries Service