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SEDAR5-DW-1

Estimating Catches and Fishing Effort of the Southeast United States Headboat  
Fleet, 1972-1982

by

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ABSTRACT

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Catches and headboat fleet fishing effort were estimated of for the southeast United North Carolina and states South Carolina, 1972-1975; North Carolina to Ponce Inlet, Florida, 1976- 1977: and North Carolina to Key West, Florida, 1978-1982. For 224 species reported in estimated from daily the catches, catch logs numbers of kept by individuals were Estimated total vessel personnel. weight by species was calculated from estimated catches and average weights obtained from dockside samples. 1979-1982, an average of 367,000 angler days/year applied From from approximately 95 vessels resulted in an average catch of 1,928 mt per year. Importance of species to the headboat fishery varied by area. By weight, red porgy and black sea bass were most important in North Carolina and South Carolina: vermilion snapper and black sea bass in Georgia, northeast Florida and Cape Canaveral, Florida; king mackerel and yellowtail snapper in southeast Florida: yellowtail snapper and white grunt in the Florida Keys.

and

## INTRODUCTION

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Estimates of catch and effort expended by anglers fishing from headboats operating along the southeast coast of the u.s. since 1972 are presented as an update and expansion of data reported earlier by Huntsman (1976 a,b). collected in the southeast These estimates resulted from data headboat survey conducted by Beaufort Laboratory, Southeast Fisheries Science Center, National Marine Fisheries Service. The survey was designed to provide indices of the quality of reef fishing based on annual catch, catch unit of Additionally, effort, length survey personnel frequencies, and mean weight. collected biological materials to support studies on growth, species of reef fishes.

Headboats are vessels diet and reproduction of for hire which transport 15 important or more anglers. Operators of these vessels primarily pursued reef fishes, although some vessels in southeast Florida and the Florida focused on king mackerel. Included in our study were headboats that primarily operated in than in sounds and inlets.

## METHODS

### Acquisition of Data

Survey coverage varied with time and geographical location. From 1972 through 1975 we estimated catches only for vessels operating from ports in North Carolina and South Carolina. From 1976 through 1977 the study included ava Inlet, Florida. In 1978, geographic coverage was expanded to include all vessels from Cape Hatteras to Key West, Florida (Table 1). Sampling intensity in southeast Florida and the Florida Keys was low in 1978 (0.5 man-year/55 vessels), somewhat higher in 1970 and 1980 (1 man-years/55 vessels).

Estimates of headboat catches were based on: (1) weights of individual fishes, and (2) recors of the number of each species taken each trip. Survey samplers, who were on duty throughout the local fishing season, collected with data directly from catches made in an assigned region of responsibility (Table 2) (Fig. 1).

The regions were:

1. North Carolina - An average of 11 vessels operated principally from Morehead City to Southport, NC. A headboat operated at Hatteras Village, NC from 1973 through 1976 and catches there were samples by a cooperative crew member.
2. South Carolina - An average of 18 vessels operated principally from Little River to Charleston, SC although vessels at Calabash, NC operated through Little River Inlet and were included as vessels from South Carolina.
3. Georgia, northeast Florida and Cape Canaveral - An Average of 12 vessels operated principally from Jacksonville to Sebastain, FL although there was sporadic headboat at Savannah and Brunswick, GA.
4. Southeast Florida - An average of 34 vessels operated from numerous ports along the coast from Fort Pierce to Miami, FL.
5. Florida Keys - An Average of 20 vessels operated from Key Largo to Key West, FL.

Because of unpredictable sailing schedules resulting from weather conditions, mechanical breakdowns and insufficient passenger bookings, a predesigned sampling schedule was never used in the survey and would not have been optimal for obtaining the required data. Sampling efficiency increased when the sampler adjusted the daily schedule to maximize sampling opportunities. Guidelines from sampling were that each vessel be visited one more times in 10









































