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# Southeast Drum and Croaker Fisheries

## INTRODUCTION

Important recreational and commercial species in the family Sciaenidae include the Atlantic croaker, spot, red drum, black drum, kingfishes (whiting), weakfish, spotted seatrout, and other seatrouts. These have constituted an important fishery resource since the late 1800's, although significant increases in commercial landings did not occur until the 1950's when the pet food industry began harvesting them in the northern Gulf of Mexico. In recent years the recreational harvest of sciaenids has roughly paralleled and almost equaled commercial landings by weight (Figure 9-1). However, since most recreational fishing occurs within state jurisdiction, it is managed primarily through state authorities. Some states have established regulations heavily favoring recreational uses of Sciaenidae resources: in particular the prohibition of commercial fishing for red drum and spotted seatrout. The recent average annual yield of sciaenids is estimated at 33,500 metric tons (t) (Table 9-1).

Large numbers of sciaenids are also caught and killed as an incidental catch in the shrimp fishery. The small mesh used in shrimp trawls can catch nontarget species such as sea turtles, red snappers, croakers, seatrouts, and other species. Sciaenids constitute the bulk of the finfish bycatch biomass, and since many are harvested as juveniles, their mortality may slow recovery of overfished stocks or otherwise prevent full use of the adult resource.

## SPECIES AND STATUS

Commercial landings of drum and croaker in the northern Gulf of Mexico peaked in 1956 at over 32,000 t, more than 20,000 t above that of 1953. This increase for the most part resulted from a demand for sciaenids as raw material in the production of canned pet foods, of which about 76% were Atlantic croaker and sand and silver seatrout.

Commercial landings of red drum increased rapidly in the mid 1980's when public popularity and demand suddenly grew for a new seafood preparation called blackened redfish. To supply this demand, a red drum purse-seine fishery evolved in the Gulf of Mexico, primarily targeting the offshore adult spawning stock. Prior to this, most red drum were harvested in nearshore state waters as juveniles. But as the offshore purse-seine fishery developed, it became clear that the schooling adults were extremely vulnerable to overexploitation, thus jeopardizing recruitment in subsequent years. Fishery analyses showed that the sustainability of the long-term potential yield depended in a large part upon limiting the harvest of larger adult red drum in the offshore waters as well as limiting the take of smaller individuals in inshore waters both by recreational and commercial fishermen (Goodyear 1989, 1996).

These conservation measures were established by a fishery management plan developed and implemented first in the Gulf of Mexico and later in the U.S. Atlantic. The first plan is the Fishery Management Plan for the Red Drum Fishery of the Gulf of Mexico (administered by the Gulf of Mexico Fishery Management Council), and the second is the Atlantic Coast Red Drum Fishery

# Unit 9

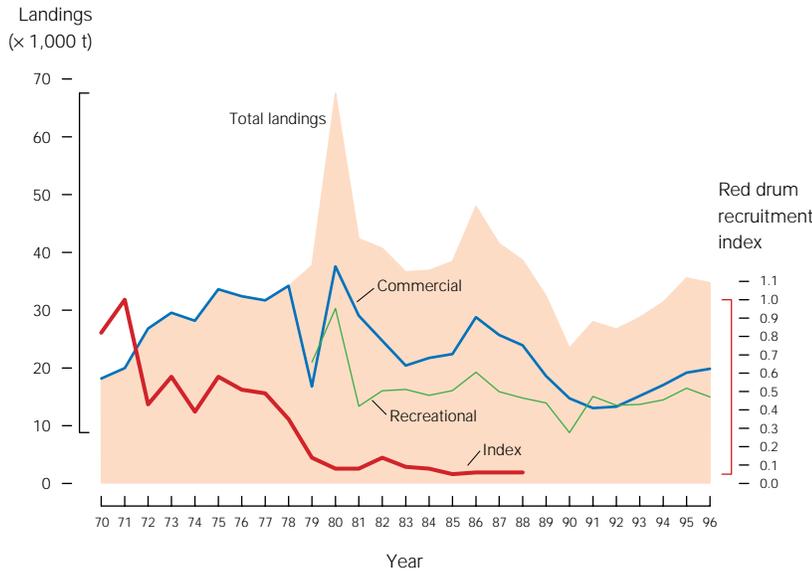
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**Figure 9-1**  
Southeast Atlantic and Gulf of Mexico groundfish and red drum landings, 1970–96, in metric tons (t).

Management Plan (South Atlantic Fishery Management Council). Both plans ban red drum fishing within Federal jurisdiction until the adult population has increased in size. And since state management actions have preserved inshore harvests and allocated much of the catch to recreational uses, they in effect bar the development of another adult red drum fishery in Federal waters.

The absence of an offshore fishery, size limits, limiting the daily take of red drum by recreational fishermen, and an increased incidence of fish released by conservation-oriented anglers are all expected to help rebuild the red drum spawning

stock and reduce overall mortality. Current statistics indicate that such conservation measures are having this desired effect, and fishery-independent sampling in Texas, Louisiana, and Mississippi indicate an increased survival rate for juvenile red drum in inshore waters. These findings are supplemented by those from mark-recapture programs that also indicate a decreasing fishing mortality from Texas to Florida since the implementation of red drum conservation actions by the states. In addition, the abundance of newly recruited adults has increased in the offshore stock. Thus, taken together, these results suggest that state and Federal conservation measures have substantially increased the escapement of juveniles from inshore capture and thus will help replenish the adult offshore stock for the good of the resource and its users.

**ISSUES**

**Bycatch**

Bycatch of these resources in the shrimp fishery has a significant impact on their status. Large numbers of Atlantic croaker, spot, and seatrout are caught and discarded dead from shrimp trawls. Estimates of as many as 500,000,000 spot, 1 billion seatrout, and 7.5 billion croaker are discarded. These species constitute the bulk of the finfish bycatch that averaged about 175,000 t during the 1980's. The National Marine Fisheries Service and

**Table 9-1**  
Productivity in metric tons and status of Southeast Region drum and croaker fisheries resources.

| Species and area         | Recent average yield (RAY) <sup>2</sup> | Current potential yield (CPY) <sup>1</sup> | Long-term potential yield (LTPY) <sup>1</sup> | Fishery utilization level | Stock level relative to LTPY |
|--------------------------|---|--|---|---------------------------|------------------------------|
| Black drum               | 3,712                                   | Unknown                                    | Unknown                                       | Unknown                   | Unknown                      |
| Atlantic croaker         | 7,657                                   | Unknown                                    | 50,000  | Over                      | Below                        |
| Spot                     | 4,145                                   | Unknown                                    | Unknown                                       | Unknown                   | Unknown                      |
| Red drum, Gulf of Mexico | 5,031                                   | 2,828                                      | 7,900   | Over                      | Below                        |
| Red drum, Atlantic       | 800                                     | Unknown                                    | Unknown                                       | Over                      | Below                        |
| Seatrouts                | 10,820                                  | Unknown                                    | Unknown                                       | Unknown                   | Variable <sup>3</sup>        |
| Kingfishes (whiting)     | 1,458                                   | Unknown                                    | Unknown                                       | Unknown                   | Unknown                      |
| <b>Total</b>             | <b>33,623</b>                           | <b>31,420</b>                              | <b>78,835</b>                                 |                           |                              |

<sup>1</sup>LTPY is probably underestimated and CPY overestimated: although potential production estimates are not available for some species groups, it is expected that they may be overexploited.

<sup>2</sup>1994–96 average.

<sup>3</sup>Grey seatrout, *Cynoscion regalis*, is overexploited, but the status of other species in this group is unknown.

the fishing industry have been working together to develop gear designs which will reduce the bycatch. Several promising solutions are under development.

#### LITERATURE CITED

Goodyear, C. P. 1989. Status of the red drum stocks of the Gulf of Mexico Report for 1989. Southeast Fisheries Science Center, Miami, Florida, CRD 88/89-14.

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