Atlantic Bumper

Chloroscombrus chrysurus

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DESCRIPTION

Taxonomy and Basic Description

The Atlantic bumper is a member of the family Carangidae, which includes well known groups such as jacks, pompano, lookdown, moonfish, and scad, and lesser known fish like leatherjackets, rudderfish, and pilotfish. It is a smaller member of this family, with a reported maximum size of about 26 cm (10 in.) fork length (Smith-Vaniz 2002). However, in trawl catches of the Southeast Area Monitoring and Assessment Program – South Atlantic (SEAMAP-SA) Coastal Survey along the coast of the Southeastern US, they are rarely encountered larger than half this size. This is a deep-bodied, roughly ovate species whose body is highly laterally compressed, tapering from thickest along the dorsal portion of the body to very thin along the ventral edge. Individuals possess two dorsal fins, the second of which extends almost half the body; mirroring its long, but narrow, anal fin. The caudal fin is strongly forked and preceded by 6 to 12 weak scutes on the caudal peduncle. Coloration is dark, generally blueish, along the dorsal surface, quickly transitioning to a golden band, which transitions to a silvery white for the lower two thirds of the body. There is a black patch on the dorsal half of the caudal peduncle, and the caudal fin often has a strong yellow hue.

Status

There has been insufficient analysis to render a formal verdict regarding this species' status. This is not a targeted commercial or recreational species in the Southeastern US. It is not a managed species, and thus has not undergone any stock assessments. It has not been evaluated by the International Union for Conservation of Nature (IUCN). While it is vulnerable to incidental take in the southern shrimp trawl fishery and is sometimes targeted by recreational fishermen as live bait for sportfish, there does not appear to be any indication in catch data from SEAMAP-SA Coastal Survey trawl data 1990-2013 (Fig. 1) that would suggest that this species is currently experiencing difficulty in the Southeastern US (SEAMAP-SA unpublished data).

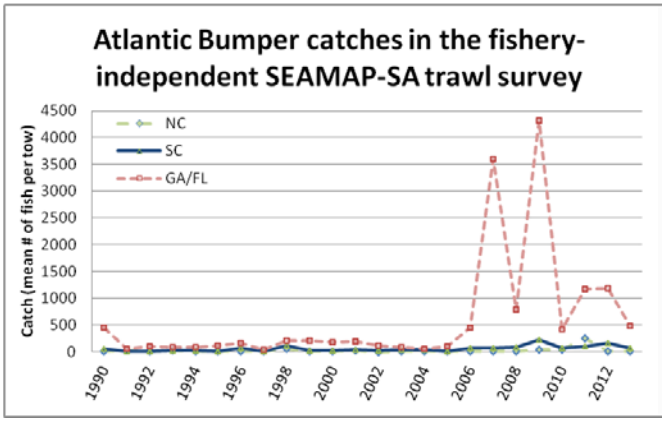

Fig. 1: Catch (in average number of fish per tow) of Atlantic Bumper in the SCDNR-SEAMAP-SA Coastal Survey conducted from Cape Hatteras, North Carolina to Cape Canaveral, Florida. Data plotted for waters north of SC (NC), off SC (SC), and south of SC (GA/FL). (SEAMAP-SA unpublished data).

POPULATION SIZE AND DISTRIBUTION

Atlantic bumper is distributed on both sides of the Atlantic. In the western Atlantic they range from Massachusetts through the Caribbean Sea and into the Gulf of Mexico as well as south to Uruguay (Smith-Vaniz 2002). Population size in the western north Atlantic is unknown. However, this has become one of the most abundant species encountered by the SEAMAP-SA Coastal Survey in the coastal waters of the Southeastern US. Within the Coastal Survey's sampling range, areas south of SC have yielded larger catches, particularly in the last decade. Average percent occurrence in trawl catches further suggests a southern center of distribution, with NC catches yielding bumper 33% of the time, SC at 58%, and catches south of SC producing bumper 85% of the time. Although abundance offshore is substantially higher, SCDNR's Inshore Fisheries Section has caught small numbers in trammel nets along the banks of SC estuaries and even caught small numbers while electro-fishing in low salinity headwaters of our estuaries. In both cases, total numbers for the periods 1990-2007 and 2008-2013 appear reasonably consistent (SCDNR Inshore Fisheries unpublished data).

HABITAT AND NATURAL COMMUNITY REQUIREMENTS

This is a schooling species that is common in shallow marine and estuarine waters, including mangrove lagoons. Spawning is believed to take place in spring and summer in the SE US (Smith-Vaniz 2002). Copepods, crustacean larvae, and amphipods appear to be the primary prey items of larval bumper in the southern Gulf of Mexico (Sanchez-Ramirez 2003). Bumper have been observed in the stomach contents of managed species such as Spanish and king mackerels (SEAMAP- SA unpublished data). Saloman and Naughton (1983) found Atlantic bumper to constitute up to 2.2% of the volume of stomach contents of Spanish mackerel off NC and SC.

CHALLENGES

Despite their likely important role in the food web, Atlantic bumper populations, like many unmanaged species, have received little attention, particularly in the western North Atlantic. Lack of detailed information regarding their ecology and life history from each of the segments of their range leaves Atlantic bumper vulnerable, as it makes recognizing current and future threats challenging.

CONSERVATION ACCOMPLISHMENTS

Use of certified by-catch reduction devices (BRDs) has been required in shrimp trawls fished in the EEZ of the Southeastern US since 1996 (SAFMC 1996). Utilization of some by-catch reduction devices (BRDs) has been shown to significantly increase escapement of Atlantic bumper from shrimp trawls (Watson et al. 1993).

CONSERVATION RECOMMENDATIONS

- Investigate the importance of this species as forage for other species in order to establish its trophic importance.
- Continue efforts to develop and implement effective by-catch reduction devices (BRDs).
- Continue long-term monitoring of abundance, to confirm that population numbers remain high.

- While this species appears to be doing well, it would likely benefit from any actions which serve to protect and/or improve water quality.

MEASURES OF SUCCESS

Catch rates in the SEAMAP-SA Coastal Survey might serve as a functional index of abundance for this species, though appropriate thresholds may be debatable. However, if annual CPUE off SC and GA/FL remain above 30 and 80 individuals per tow, respectively, it seems likely that the stock is in reasonable shape.

LITERATURE CITED

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