

INTRODUCTION

Study Fleet is a partner under the NOAA Fisheries Service Cooperative Research program that works with commercial fisherman to provide quality, fishery-dependent data. At the core of the project lies the fishermen's responsibility to enter haul by haul catch information on as detailed a species level as possible. While fishermen are extremely familiar with species of commercial value, as well as those impacted by regulations, they may not be as familiar with some of the unregulated, or more cryptic discard species. In these situations, without the proper resources, identification and subsequent accurate recording can be troublesome. Although there are many fish guides available to fishermen, the nature of commercial fisheries (along with regulations requiring the immediate disposition of discard species) does not allow enough time to browse large reference documents in order to accurately match up live specimens to sketches. The Study Fleet received a request from participant commercial fisherman to produce a picture guide of selected species to facilitate faster, easier identification, and accurate recording. This guide is a result of that request.

A list of species was initially created by compiling Study Fleet and Northeast Observer Program catch records in order to identify species that were frequently encountered in Southern New England, Georges Bank, and the Gulf of Maine. The resulting list was then cross-referenced with a list of species encountered by the Ecosystems Survey Branch on their bottom trawl surveys. As document length was an important factor, cryptic species inclusion was based more on species size, and likelihood of retention in certain fisheries, rather than strict geographical abundance. For example, a stray triggerfish has a higher chance of being retained in a 6.5" codend than a locally abundant sand lance. Other species in this guide may not be encountered in large mesh otter trawls, yet were included since they may be more prevalent in certain deep water, small mesh, and longline fisheries in which our participant vessels operate. Factors such as water temperature and the northern seasonal migration of southern species also resulted in the inclusion of species that did not make the initial cut, as they may be encountered during the summer and fall fishing seasons. Although commonly retained species were originally omitted to minimize document length, the decision was made to include certain flatfish, skates, and gadids so that the guide may be used by groups that may not have as strong an understanding of retained species as commercial fishermen.

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In addition to the inclusion of resident knowledge and certain easily identifiable visible characteristics, it was necessary to source published material to supplement species descriptions. As all of the species in this guide have been previously described, their key characteristics were gathered from a number of sources. The Guide to Sharks, Tunas & Billfishes of the U.S. Atlantic & Gulf of Mexico (Schulze-Haugen et al, 2003) was particularly helpful in describing certain mackerel and shark species. Characteristics regarding commonly encountered species in the Gulf of Maine were gathered primarily from Fishes of the Gulf of Maine (Bigelow and Schroeder, 2002), while A Field Guide to Atlantic Coast Fishes of North America (Robins and Ray, 1986) and Fishbase (Edited by Froese and Pauly, 2010) proved valuable in identifying characteristics for the more obscure and less frequently encountered species. Common and Scientific Names of Fishes from the United States, Canada, and Mexico (Nelson et al, 2004) was used to provide the accepted and up to date common and scientific names.

SOURCES

- Bigelow H, Schroeder W. 2002. Fishes of the Gulf of Maine. Washington (DC): Smithsonian Institution Press.
- Froese R. and Pauly D, editors. 2010. FishBase. World Wide Web electronic publication. www.fishbase.org, version (07/2010)
- Nelson JS, Crossman EJ, Espinosa-Pérez H, Findley LT, Gilbert CR, Lea RN, and Williams JD. 2004. Common and Scientific Names of Fishes from the United States, Canada, and Mexico. American Fisheries Society, Special Publication 29. Bethesda (MD): American Fisheries Society.
- Robins R. 1986. A Field Guide to Atlantic Coast Fishes of North America. New York (NY): Houghton Mifflin Company.
- Schulze-Haugen M, Corey T, and Kohler N. 2003. Guide to Sharks, Tunas & Billfishes of the U.S. Atlantic & Gulf of Mexico. Jamestown (RI): Puffin Enterprises.

GLOSSARY OF TERMS

Adipose Fin: Soft, fleshy fin located behind the dorsal fin and in front of the caudal fin.

Anal Fin: Runs lengthwise on the underside of the fish; close to tail and anal opening.

Anterior: Front of a fish or crustacean; in front.

Caudal Fin: Rear most fin; tail.

Caudal Peduncle: Keel; area in front of the caudal fin.

Concave: Curving inwards.

Convex: Curving outwards.

Dorsal: Upper side of fish and crustaceans.

Gill Arch: Bony or cartilaginous support structure to which gill rakers are attached.

Gill Rakers: Bony or cartilaginous projections off the gill arch.

Lateral: Right (or left) side of fish and crustaceans.

Lateral Line: Sensory organ, visible as a faint line running down the lateral side of fish.

Opercle: Uppermost bone of the gill cover.

Operculum: Gill cover.

Pectoral Fin: Paired fins located on each side of the fish, typically immediately behind the operculum.

Pelvic Fin: Paired fins located on the underside of the fish; location may vary by species.

Posterior: Back of a fish or crustacean; behind.

Preopercular: Positioned in front of the operculum.

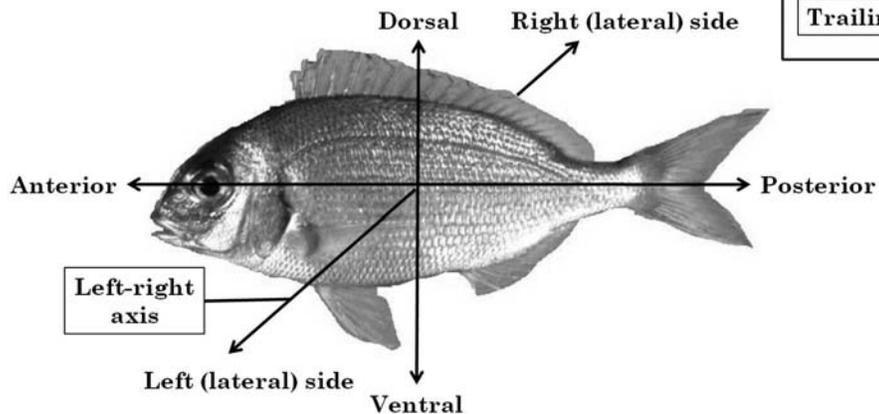
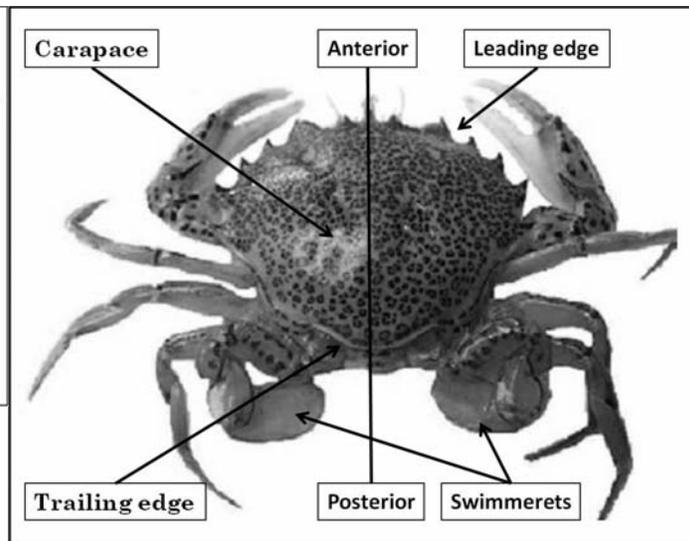
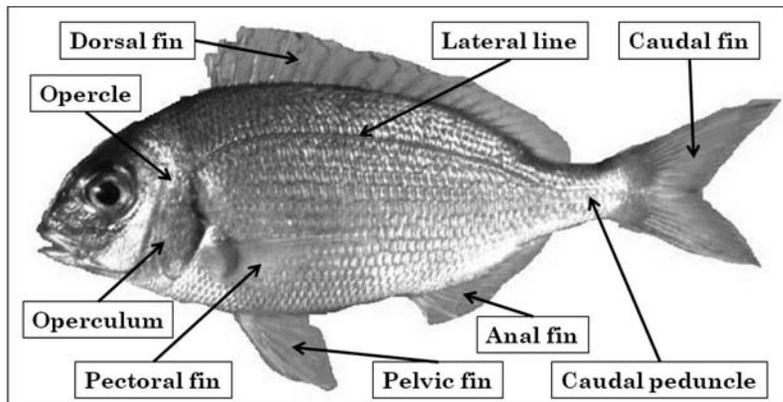
Scutes: Rough, protruding scales; typically on the caudal peduncle and/or along the lateral line.

Subterminal Mouth: Mouth located on the underside of the snout.

Superior Mouth: Uprturned mouth.

Terminal Mouth: Mouth located at the tip of the snout.

Ventral: Underside of fish and crustaceans.



Mouth Positions

