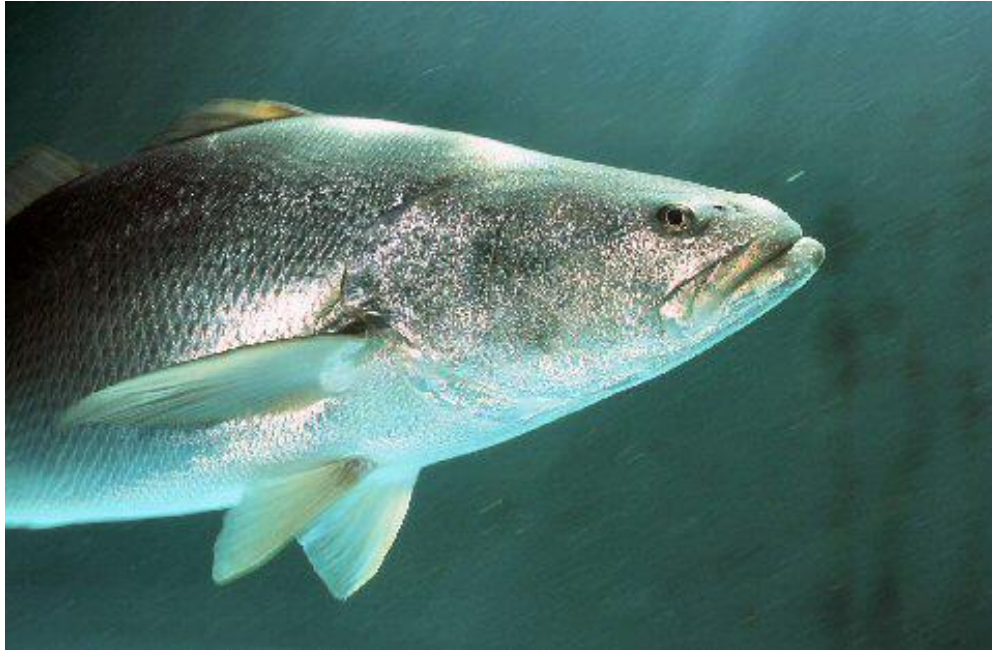


Identification Guide: Totoaba (*Totoaba macdonaldi*)

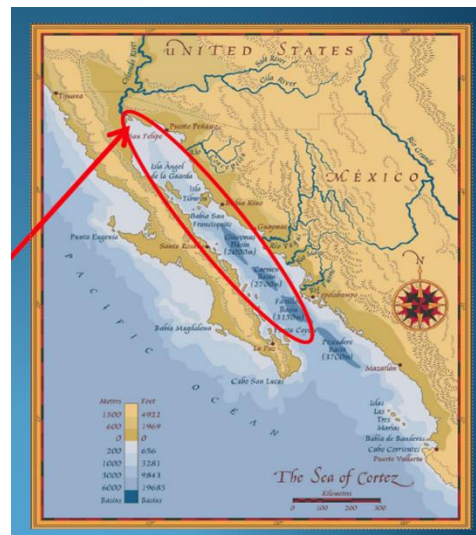


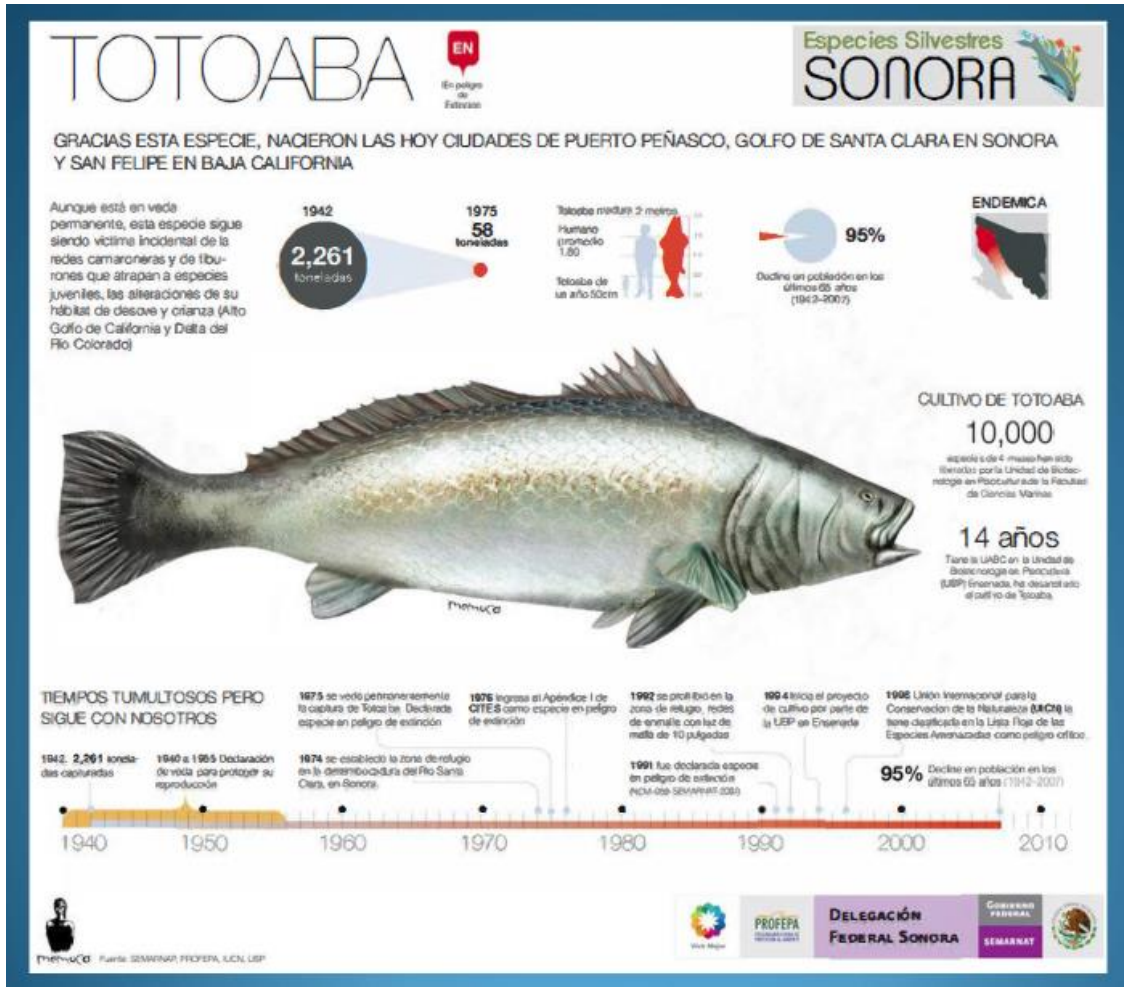
This guide has been compiled to support the identification of totoaba (*Totoaba macdonaldi*) specimens. Information and images contained in this guide has kindly been provided by United States Fish and Wildlife Service and the National Oceanic and Atmospheric Administration Fisheries Office of Law Enforcement.

Species information

Totoaba (*Totoaba macdonaldi*) is one of over 250 species in the family Sciaenidae and is listed in Appendix I of the [Convention on International Trade in Endangered Species of Wild Fauna and Flora \(CITES\)](#). Totoaba can be as large as six and a half feet (approximately 2 meters) in length and weigh up to 200 pounds (approximately 90 kilograms). It has a lifespan of about 25 years.

Its only habitat is the Sea of Cortez / Gulf of California in Mexico, where it spawns annually each spring in the Colorado River Delta.

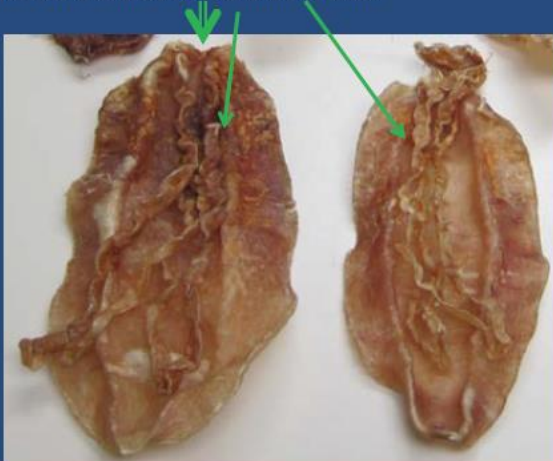




Totoaba swim bladder identification

Totoaba swim bladders are highly prized in the commercial fish maw industry and found in illegal trade.

Morphology: long tubules that emerge from the center of the anterior of the bladder



The morphology of the totoaba swim bladder is unique among the Sciaenid fishes.

Totoaba bladders are easily identified, and rarely altered to hide their unique shape.

Some closely related species may be mistaken for totoaba, but rapid DNA tests easily discriminate totoaba from other species in the fish maw trade.

Identification - Bladder

- Elongated, pointed at one end.
- Fresh – slight pearly sheen.
- Dry- hard plastic.
 - Often cut open for drying.
- “Wavy” Gas tubes longer than bladder.
 - Tubes are an indicator of authenticity and will be included even if detached.



Fresh



Tubes



Dry



Commonly seen fish bladders that are NOT totoaba



The bladder of the white snook, *Centropomus viridis*, resembles the totoaba bladder in having long tubules.

The tubules of the white snook, however, emerge from either side of the midline of the anterior end of the bladder and do not emerge from a single midpoint.



Another common bladder seen in the commercial trade is common snook, *Centropomus undecimalis*.

This species has a long slender bladder with appendages that come off of the anterior of the bladder like "ears"

All of these species can be discriminated from Totoaba by morphology and DNA testing.