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Fish Mix-Up Complicates Conservation Efforts

By John Simpson
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A case of mistaken identity may be bad news for a prized game fish. A new study that describes a striking resemblance between the roundscale spearfish and the white marlin could mean that the marlin--already a threatened species--might be closer to extinction than previously estimated.

Once ubiquitous in the Atlantic Ocean, the white marlin has been overfished by recreational fishers to the point at which the U.S. National Marine Fisheries Service allows individuals to catch no more than 250 Atlantic blue and white marlin per year. Despite these measures, the population is at only 12% of the level necessary to maintain maximum sustainable harvests, according to a 2002 assessment by the International

Two of a kind.

The white marlin (*top*) is easily confused with the roundscale spearfish (*bottom*).

Credit: George Hinteregger (roundscale spearfish); Guy Harvey (white marlin)

Commission for the Conservation of Atlantic Tunas.

Now there's reason to think even that worrying statistic may be overly optimistic. When a team of oceanographers set out to classify the roundscale spearfish, they noticed that it bore more than a passing resemblance to the white marlin. The roundscale spearfish was first identified 170 years ago, but oceanographer Mahmood Shivji of the Guy Harvey Research Institute in Fort Lauderdale, Florida, and colleagues were the first to attempt a comprehensive analysis. DNA tests pegged the fish as a unique species of billfish--a group that includes the Mediterranean spearfish and the sailfish, as well as the white and blue marlin. Based on looks alone, however, the roundscale spearfish was nearly identical to the white marlin, save for scales that were more rounded.

That trait is easy to miss, both for fishers and conservationists, says Shivji, whose team reported its results in the November issue of the *Bulletin of Marine Science*. And that could mean many of the fish believed to be white marlin are in fact roundscale spearfish. "Whatever stocks were on record [are likely] lower than what was assessed," says Shivji.

Still, John Graves, a marine scientist at the Virginia Institute of Marine Science in Gloucester Point, doesn't see a reason to panic just yet. His own analysis of white marlin in the Atlantic indicates that fewer than 5% of the fish have been mischaracterized. Nevertheless, he says, until scientists have a better estimate of the population of roundscale spearfish, they will continue to wonder whether more stringent rules are needed to protect white marlin.

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