



CONSERVATION NOTES

Is There Really a Hatchet Marlin? New Research Confirms the Existence of Roundscale Spearfish

Spearfish are probably the rarest of the world's billfish and are not especially common anywhere. Historically, four species were recognized by scientists: longbill spearfish (*Tetrapturus pfluegeri*), shortbill spearfish (*Tetrapturus angustirostris*), Mediterranean spearfish (*Tetrapturus belone*) and roundscale spearfish (*Tetrapturus georgii*). However, when roundscale spearfish were first described in 1840, it was based on just a single specimen and a later re-examination in 1974 was based on only four specimens. Thus, for some time, many in the scientific community doubted the existence of roundscale spearfish as a distinct species.

Recently however, Mahmood Shivji of the Guy Harvey Research Institute and colleagues conducted a study that confirmed the identity and existence of roundscale spearfish. Based on morphological measurements from 16 specimens as well as genetic analysis, the study not only showed that roundscale are a distinct species, but that they also closely resemble white marlin. The distinguishing features of roundscale spearfish include noticeably rounded

scales and a higher ratio in the distance of the anus from the first anal fin to the height of the first anal fin.

For some time, many anglers believed that there was another species of marlin inhabiting the western Atlantic that looked very much like white marlin, but with slightly different shaped dorsal and anal fins. Anglers called this fish the "hatchet marlin", but until now there was no scientific evidence to support its existence. Results of Shivji's study indicate that anglers reporting seeing hatchet marlin were most likely encountering roundscale spearfish.

This study may also have direct implications for billfish management in the Atlantic. White marlin stocks have been in bad shape for some time, with their biomass only at 12% of the level required to produce maximum sustainable yield. This has caused at least one organization to petition the National Marine Fisheries Service to list it as either threatened or endangered. Shivji believes that since white marlin and roundscale spearfish look so similar to the untrained eye, some of the recorded observations of white marlin in the recreational and commercial fishery may have actually been misidentified as roundscale spearfish. This means that white marlin abundance could be potentially less than previously thought.

Shivji, M.S., J.E. Magnussen, L.R. Beerkircher, G. Hinteregger, D.W. Lee, J.E. Serafy and E.D. Prince. 2006. Validity, identification and distribution of the roundscale spearfish, *Tetrapturus georgii* (Teleostei: Istiophoridae): morphological and molecular evidence. *Bulletin of Marine Science*. 79: 483-491.

Good News for Australian Longtail Tuna Anglers!

Effective January 1, 2007, the Australian Fisheries Management Authority tightened commercial harvest of longtail tuna. New regulations include restricting both the Eastern and Western Tuna and Billfish Fishery to 35 tonnes each. If either fishery reaches the 35 tonne cap, additional regulations further restrict harvest to 10 fish per trip. These new regulations will undoubtedly improve the recreational longtail fishery in Northern Australia.

What is the longtail tuna?



(*Thunnus tonggol*)

Other common names:
Northern Bluefin (Australia).

IDENTIFICATION:
Long slender body
Upper body dark blue and black
Lower body silvery white
Finlets yellow with gray edges
Dark caudal keel

TEMPERATURE RANGE:
20 - 30 Celsius (66 - 86 Fahrenheit)

TYPICAL LOCATION:
An inshore tuna that rarely is caught in open water
Around bait fish and flotsam

FISHING METHODS:
Trolling small lures, feathers, plastic squid or minnows
Casting shiny metal lures
Fly-casting often in combination with chum

FIGHTING CHARACTERISTICS:
A very fast fighter that often surprises with an extra run

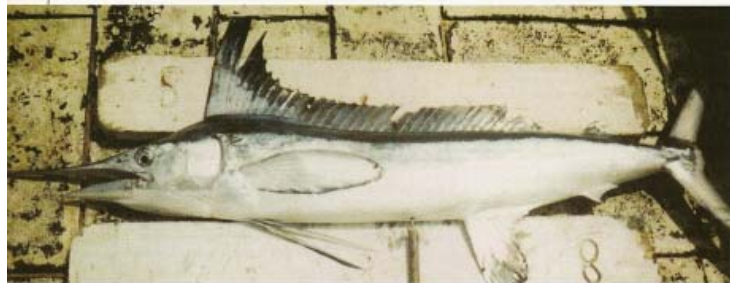


Photo credit: George Hinteregger, NMFS.