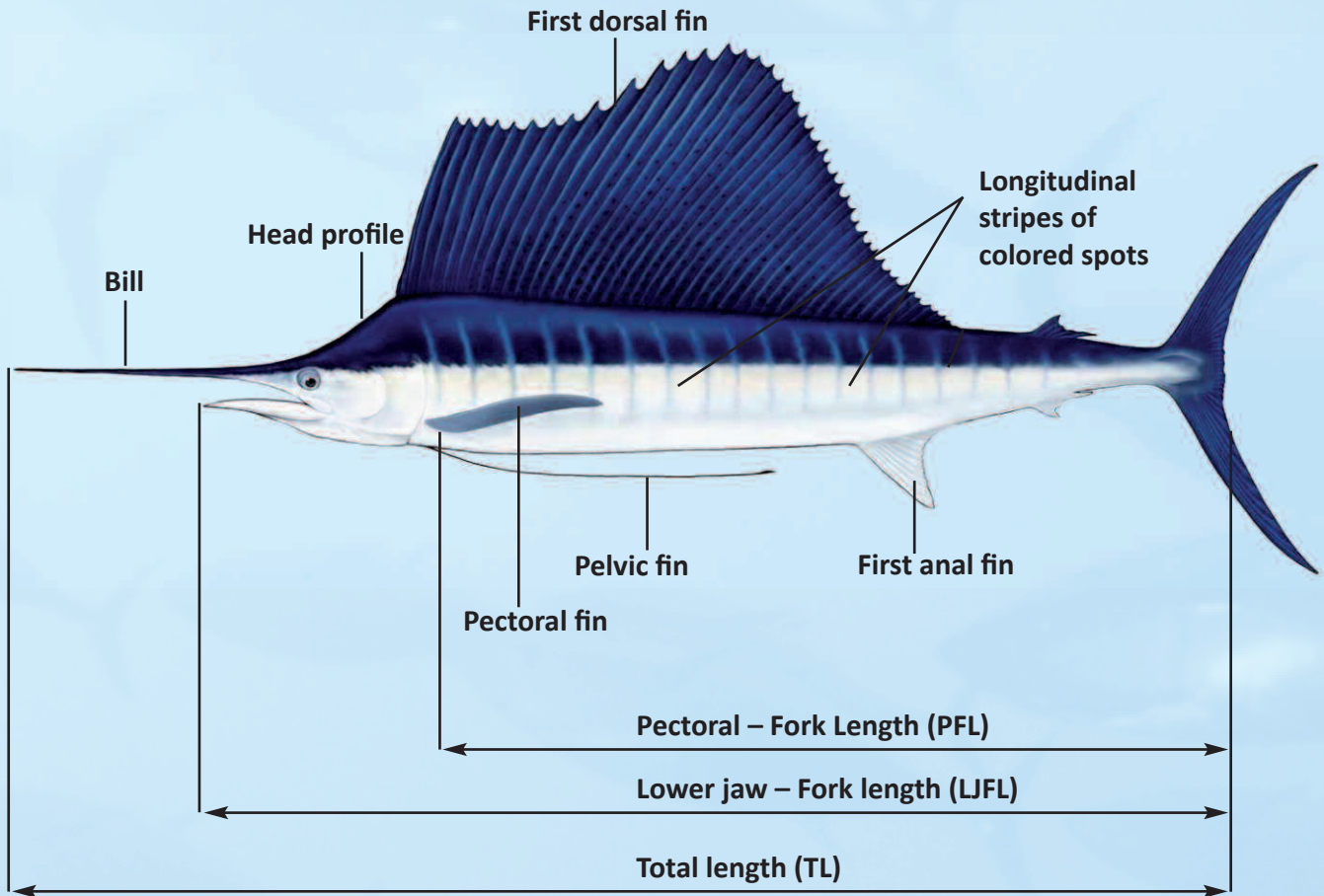
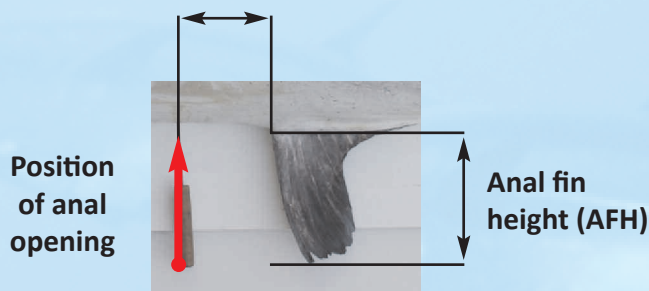


# GUIDE FOR THE IDENTIFICATION OF ATLANTIC ISTIOPHORIDS

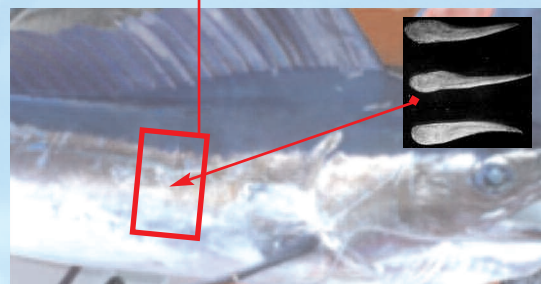
**BILL**    FAO-ICCAT Code



Anus to anal fin (AFA)



Location of lateral scale sampling (above or below lateral line)



Authors:

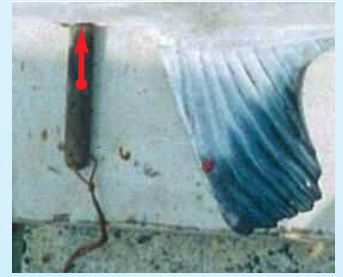
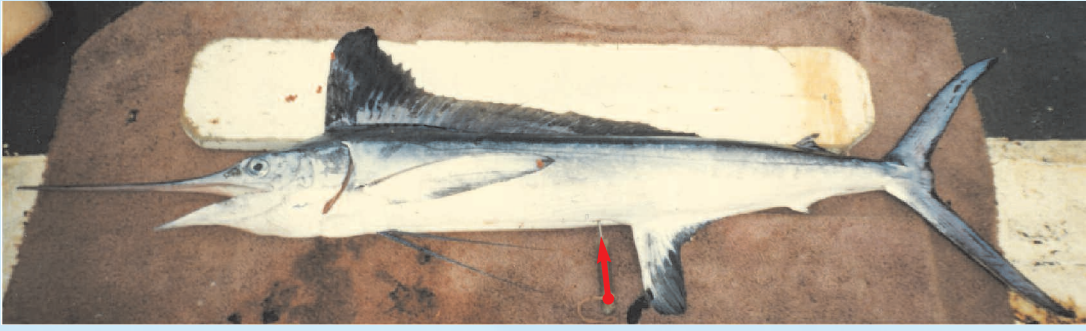
Freddy Arocha<sup>1</sup>, Lawrence Beerkircher<sup>2</sup>



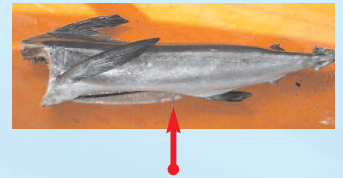
<sup>1</sup> Instituto Oceanográfico de Venezuela-Universidad de Oriente, Venezuela

<sup>2</sup> National Oceanic and Atmospheric Administration-National Marine Fisheries Service, USA

WHM

***Tetrapturus albidus***Common sizes reported in fisheries LJFL 77 - 280 cm;  
maximum length 280 cm TL

- First dorsal fin high at anterior but much lower for most of length; membrane covered with many small round dark spots. Anterior dorsal fin tip may be rounded or truncated.
- First anal fin tip round or truncated.
- Anal opening relatively close to anterior origin of first anal fin ( $AFA < \frac{1}{2}$  AFH).
- Several rows of longitudinal stripes on sides, usually fade after death.
- Lateral scales narrow, generally single points.
- Symmetrical gonads.



SPG

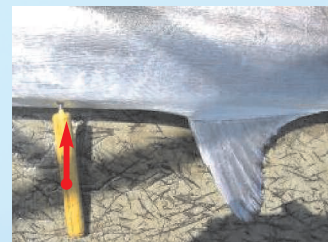
***Tetrapturus georgii***Common sizes reported in fisheries LJFL 131 - 192 cm;  
maximum length 192 cm TL

- First dorsal fin high at anterior but much lower for most of length; may have irregular dark spots. Anterior dorsal fin tip truncated.
- First anal fin tip truncated.
- Anal opening relatively far from anterior origin of first anal fin ( $AFA \sim \frac{1}{2}$  to  $\frac{3}{4}$  AFH).
- Several rows of longitudinal stripes on sides, usually fade after death.
- Lateral scales broad based, generally multiple points
- Asymmetrical gonads.

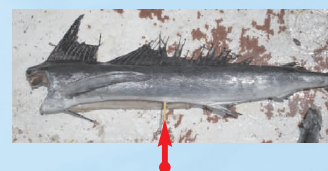




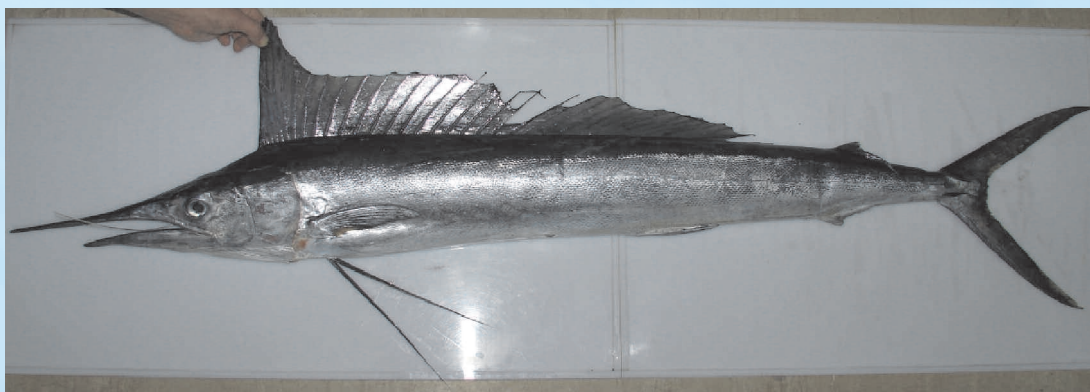
SPF

***Tetrapturus pfluegeri***Common sizes reported in fisheries LJFL 95 - 186 cm;  
maximum length 186 cm TL

- First dorsal fin long and pointed at anterior part, rather high throughout its length.
- First anal fin tip pointed.
- Anal opening far from anterior origin of first anal fin (AFA  $\sim \frac{3}{4}$  to  $\geq$  AFH).
- 'Head profile' nearly straight.
- Lateral scales narrow, generally multiple points.
- Generally not striped, but live specimens sometimes show rows of longitudinal stripes on sides.
- Asymmetrical gonads.



MSP

***Tetrapturus belone***Common sizes reported in fisheries LJFL 95 - 195 cm;  
maximum length 240 cm TL

- Short bill
- First dorsal fin long and rounded at anterior part, rather high throughout its length.
- Anal opening far from anterior origin of first anal fin (AFA  $\sim \frac{3}{4}$  to  $\geq$  AFH).
- First anal fin tip pointed.
- Pectoral fin short and narrow.
- 'Head profile' nearly straight.
- Asymmetrical gonads.





BUM

***Makaira nigricans***Common sizes reported in fisheries LJFL 95 - 350 cm;  
maximum length 450 cm LJFL

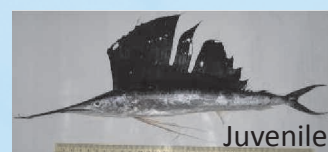
- Body robust and thick in cross section.
- 'Head profile' very steep.
- First dorsal fin long and pointed at anterior part, lower at posterior part.
- Lateral line forming a reticulated system in young fish; obscure in adults.
- Anal opening close to anterior origin of first anal fin.
- Several rows of longitudinal stripes on sides, each composed of pale blue round spots on body.
- Symmetrical gonads.



SAI

***Istiophorus albicans***Common sizes reported in fisheries LJFL 80 cm - 250 cm;  
maximum length 315 cm LJFL

- First dorsal fin large, sail-like, considerably higher than body depth throughout most of its length, highest at mid-fin; membrane covered with many small round dark spots.
- Pelvic fins very long with well developed membrane, almost reaching anal opening.
- Anal opening close to anterior origin of first anal fin.
- Several rows of longitudinal stripes on sides, each composed of many light round dots.
- Symmetrical gonads.



Acknowledgements, photo and drawing credits:

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