

4<sup>th</sup> Meeting of the Stock and Ecological Risks Assessment (SERAWG4)

28 February - 04 March 2022 (online)

**How to Photograph (Deep-sea) Sharks to Identify Species**

*Relate to agenda item: 9.1.1*

Working paper  Info paper  Restricted

**Delegation of SIODFA**

---

### **Abstract**

Correctly identifying many deep-sea sharks is difficult even for shark biologists as many species have similar shapes and colours. It is even more difficult if the identification is done from a photo. Hence, when photographing a shark for later identification it is important to capture the features that identify the species.

---



## How to Photograph (Deep-sea) Sharks to Identify Species

R. Shotton<sup>1</sup>, P. Clerkin<sup>2</sup> & K.Nakaya<sup>3</sup>

<sup>1</sup>Southern Indian Ocean Deepsea Fishers Association, CI

<sup>2</sup>Virginia Institute of Marine Science, USA

<sup>3</sup>Hokkaido University, Japan

Correctly identifying many deep-sea sharks is difficult even for shark biologists as many species have similar shapes and colours. It is even more difficult if the identification is done from a photo. Hence, when photographing a shark for later identification it is important to capture the features that identify the species.

The fish should be placed with the head to the left, i.e. the shark should be laid on its right side and be photographed to show a clear side image – see the image shown on the reverse side. To best assist identifying the species the image should *clearly* show:

- The position of the mouth
- Placement and relative size of dorsal fin(s)
- Any spines embedded in front of the dorsal fins – these can be difficult to see
- Placement of the pectoral and pelvic fins
- The structure of pelvic fins
- Presence or absence of anal fin

For some species it is necessary to see the teeth structure – they can look different for different species – the shape and the placement the mouth relative to the snout and gills, and the length of the folds of the mouth.

**Always place, e.g. a 30 cm rule, in the picture.** Align it with the tip of the nose.

Place the shark on a plain background that can be re-used and is contrasting in colour

Try to ensure there is good uniform lighting and/or that the camera uses a flash.

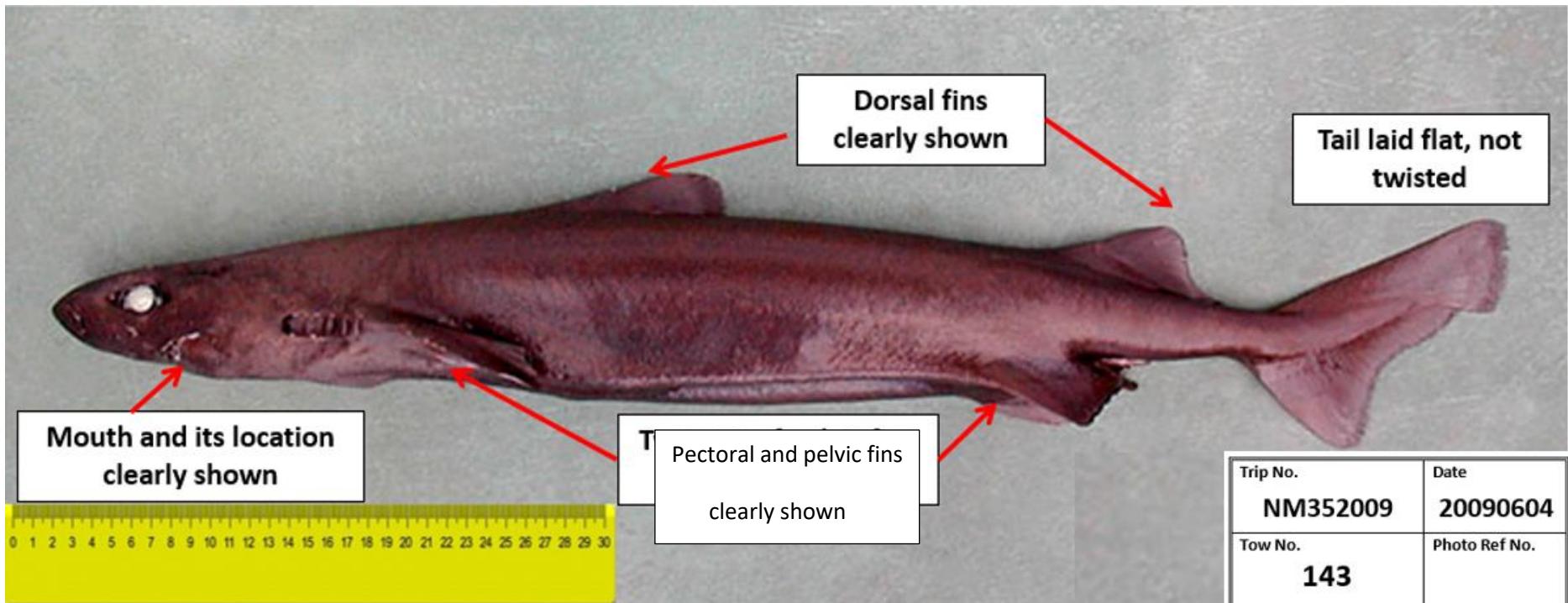
Include in each photograph information that identifies:

- MMR Trip number, i.e. NM352009 (*Nikko Maru*, trip 35, which was in 2009)
- Eight digit full date, i.e. *yyyymmdd*, e.g.  
*20090604* – 4<sup>th</sup> June 2009.
- Tow/shot number
- A reference number that links the photo to the image stored on the camera, etc.

**This photo shows:**

- ✓ Clear contrasting background
- ✓ Clear labeling.
- ✗ No vessel and trip number
- ✗ No ruler in image to indicate shark size
- ✗ Shark placed on its (ventral) underside so that origins of dorsal fins are not clear and no mouth/teeth details are visible. Dorsal fins and spine details are hard to see.





This photo shows:

- ✓ Clear contrast with background
- ✓ Clear labeling.
- ✓ Vessel-trip number
- ✓ Ruler in the image to indicate shark size
- ✓ Shark flat on its right side (head to left) viewed directly from the side
- ✓ Fins viewed straight on to indicate relative position

Other diagnostic features (teeth, denticles, etc.) would be documented in a separate photograph – use that reference number to link the information!