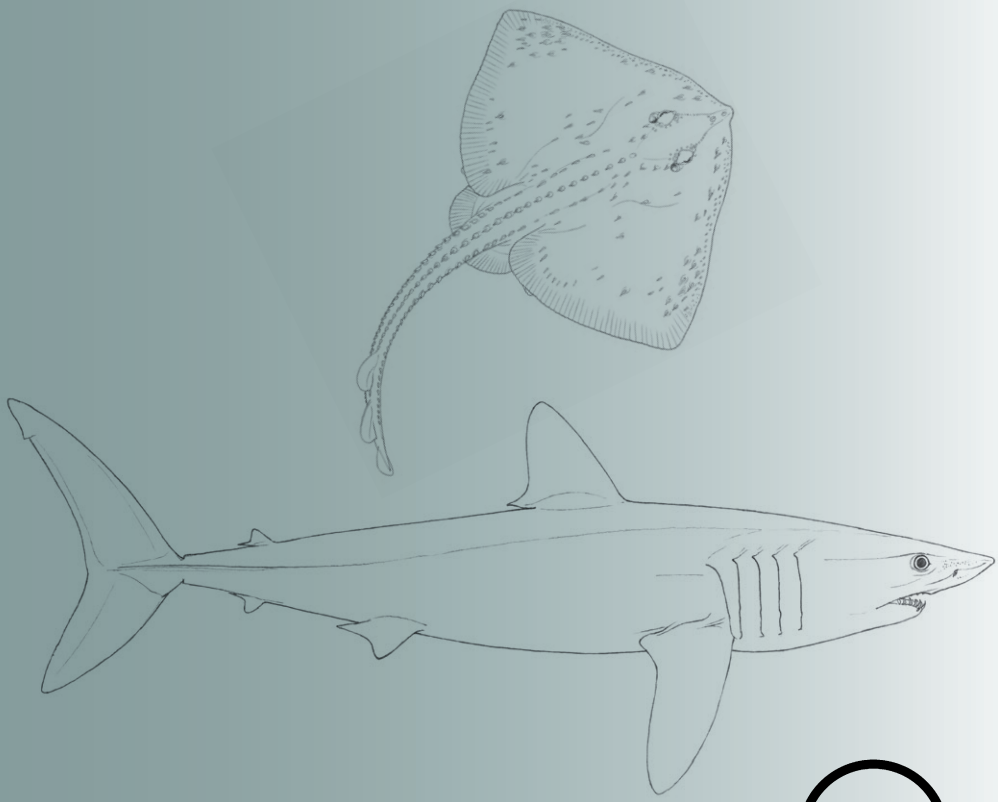
SHARK TRUST ID GUIDE

Sharks, Skates and Rays

Anglers Recording our Natural Heritage



heritage lottery fund

INTRODUCTION

As apex predators, sharks, skates and rays play a key part in maintaining the health of our oceans. However, due to their slow growth rate, the late age at which they start breeding and the few offspring they produce each year, they rank amongst the most endangered groups of species on the planet.

In the southwest, there are around 20 species of shark, skate and ray that are encountered, some more regularly than others. This is possibly the greatest diversity found anywhere in the UK, making the region extremely appealing to sea anglers. It is also an important area for commercial fisheries and attempting to balance the needs of these two groups is a great challenge. The Shark Trust has cooperated with both parties in the past and has worked to improve management for the benefit of all.

Historically sharks, whilst supporting some commercial fisheries (target and mixed), have not received as much attention from fisheries managers and scientists as the more commercially important species such as Cod or Bass. Sharks have been poorly recorded in commercial fisheries and all of the different species of skate and ray were historically landed as one group. Using the best data available for the past hundred years it can be seen that many stocks have crashed, with species such as the Porbeagle and Spiny Dogfish reduced to critical levels.

Understanding the distribution and abundance of a species is vital to making fisheries sustainable, without this information it is very difficult to work out the impact of commercial fishing. For this project, the Shark Trust is asking anglers to record their catches of sharks, skates and rays to help understand their abundance and distribution. This handbook is designed to help with this, aiding identification and recording while promoting best angling practice.

Anglers are uniquely placed to record this information, having both the knowledge and the desire to see our seas protected. They have witnessed the changes that have occurred over the last 50 years and are involved in marine management around much of the country. The data recorded for this study will feed into the development and improvement of this management; it will also contribute to public awareness and understanding of the importance of our seas and coasts

How to Record

1. Fill in a recording form supplied with this booklet and send it to: **The Shark Trust, 4 Creykes Court, 5 Craigie Drive, the Millfields, Plymouth, Devon, PL1 3JB.**
2. Call the Shark Trust office with the details of your catches on (01752) 672020.
3. Visit www.sharktrust.org/HLF and click on the 'Record Your Catch' link to use our new online recording form.

Your records will be shared only with local biodiversity recording centres and will not be used in a way that reveals sensitive marks,

Blue Shark.
© Fiona Ayerst.

This project is funded by the :

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Heritage Lottery Fund

Valuing our heritage, investing in our future.

Using money raised through the National Lottery, the Heritage Lottery Fund gives grants to sustain and transform our heritage. From museums, parks and historic places to archaeology, natural environment and cultural traditions they invest in every part of our diverse heritage

www.hlf.org.uk

The Shark Trust

Established in 1997, the Shark Trust is the UK registered charity which works to advance the worldwide conservation of sharks through science, education, influence and action.

www.sharktrust.org.uk

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NATURAL ENGLAND

COUNTDOWN 2010 SAVE BIODIVERSITY

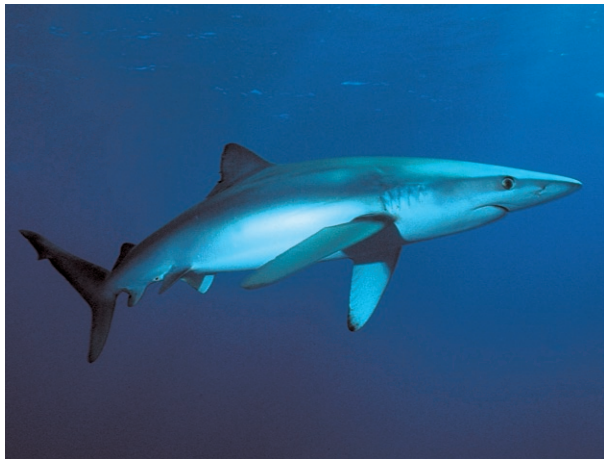
ANGLING STATEMENT

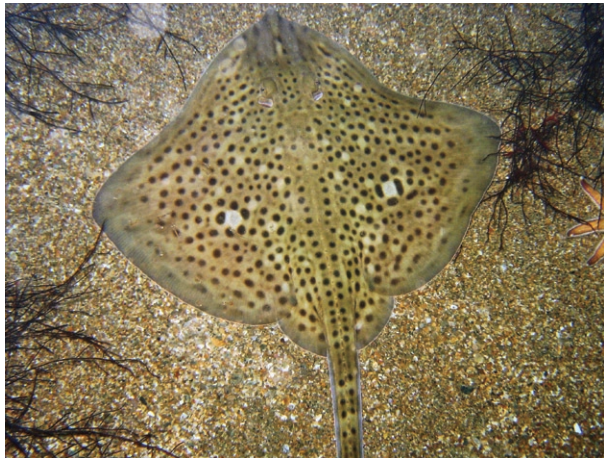
The Shark Trust has long supported recreational sea angling provided the activity is carried out by experienced operators working to high handling standards to ensure the maximum chance of survival for released animals. This collaboration has included producing best practice handling guides for sharks and rays, tagging projects, and the recording of catches from around the UK. The Trust recognises that UK shark anglers have a long tradition and culture of catch and release, and that they acknowledge the need for conservation of this endangered group of animals.

When a species has been declared 'Critically Endangered' (according to the IUCN Redlist) the Trust believes it should not be targeted by any group, either commercial or angling, as any catching of these animals can result in mortality and thus exert further pressure on the population. Currently listed as 'Critically Endangered' in the Northeast Atlantic are the Porbeagle, Spurdog, Common Skate, Angelshark and White Skate.

However the Trust recognises the need for population monitoring, and believes that if angling is carried out in a responsible manner, it can provide a valuable mechanism in this respect. Anglers targeting 'Critically Endangered' species should be experienced, or be under the supervision of an experienced skipper, and best practice catch and release procedures should be followed including accurate recording of catches to provide a valuable dataset. The appropriateness of these activities must be judged on their own merits.

This statement is intended to be used in its entirety; as such any part taken out of context is not necessarily representative of the views of the Shark Trust.





Photographs top to bottom:

Thornback Ray. © David Cook.

Blue Shark. © Paul Naylor.

Spotted Ray. © Richard Deam.

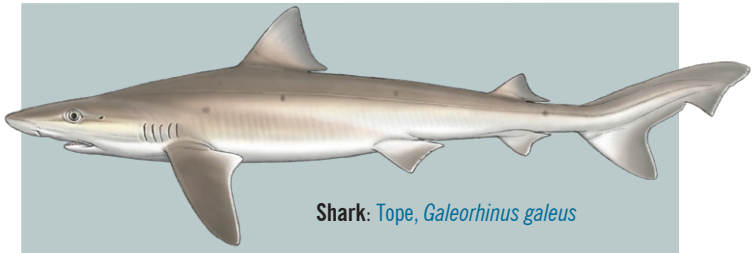
SHARKS, SKATES AND RAYS

The sharks, skates, rays and chimaeras are collectively know as Chondrichthyans, or cartilaginous fish. They are different from the majority of fish as their skeleton is made of cartilage instead of bone. Another difference is that they have more than one pair of gills. The majority have five but there are species with six or seven. They also lack scales, instead having rough, sand papery skin that can be felt when holding the animal.

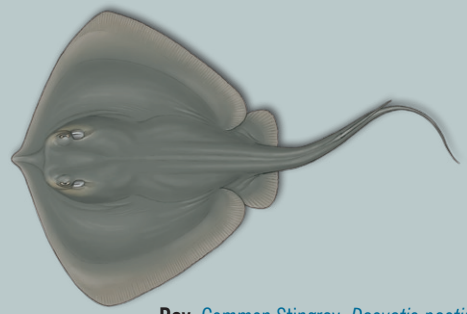
Sharks are distinguished from skates and rays by the position of the five, six or seven gills on the sides of the head, rather than on the underside of the body, and the pectoral fins being separate from the head. In skates and rays the gills are underneath the body and the pectoral fins are fused to the head (see page iv).

Skates and rays can be distinguished from one another by the pelvic fins, which have two lobes in skates but just one in rays. The tail is also different, stocky with dorsal fins towards the tip in skates, thin and whip like with a stinging spine in most rays. To confuse matters, most small species of skate around the UK are commonly referred to as rays, such as the Thornback, Blonde and Small-eyed Ray.

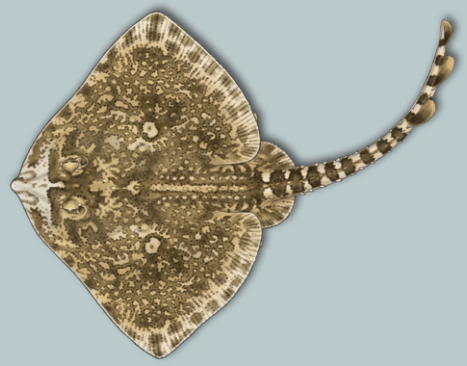
It is easy to tell the difference between mature males and females as only males have a pair of elongated claspers beneath their pelvic fins (see below). These are still present but may be difficult to see in juvenile males..



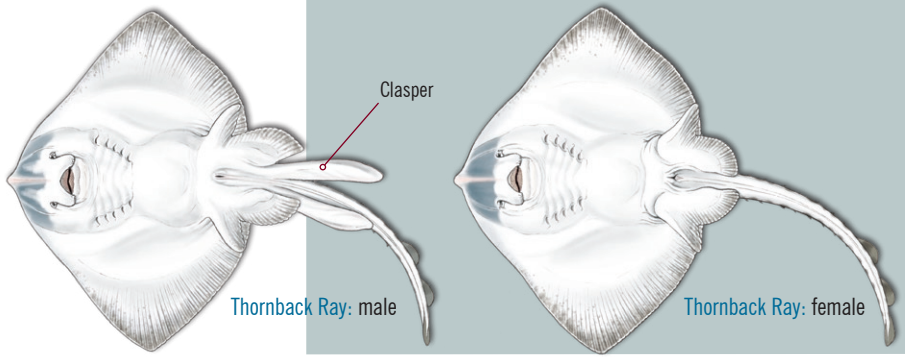
Shark: Tope, *Galeorhinus galeus*



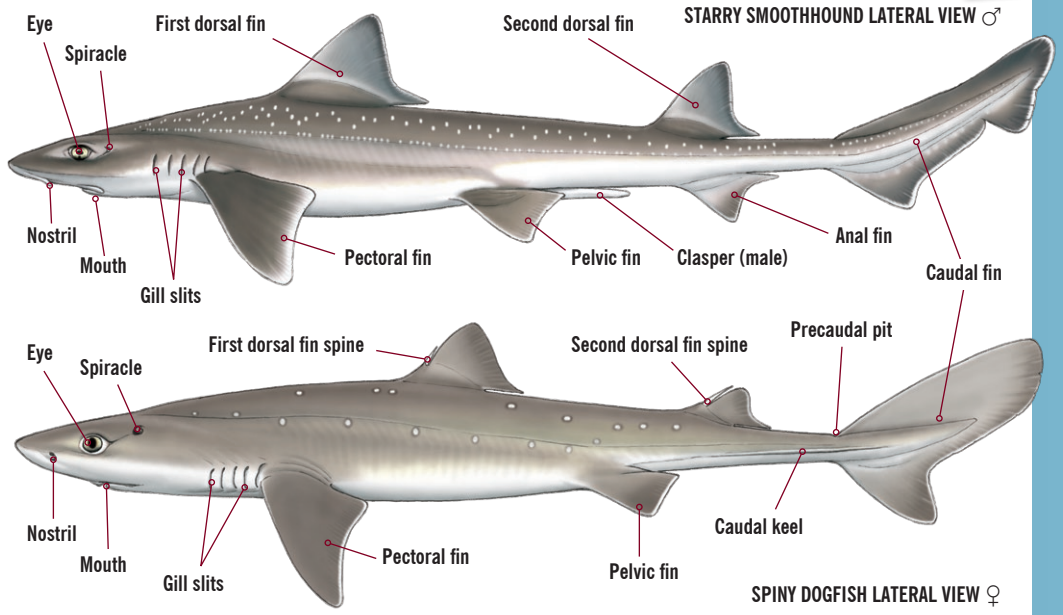
Ray: Common Stingray, *Dasyatis pastinaca*

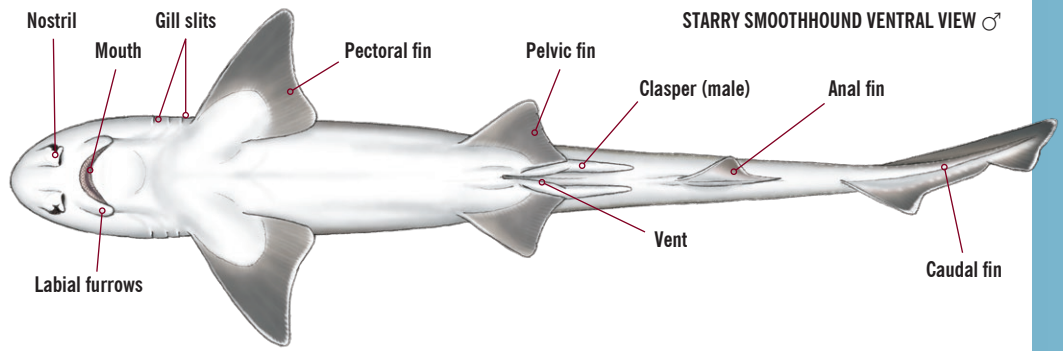


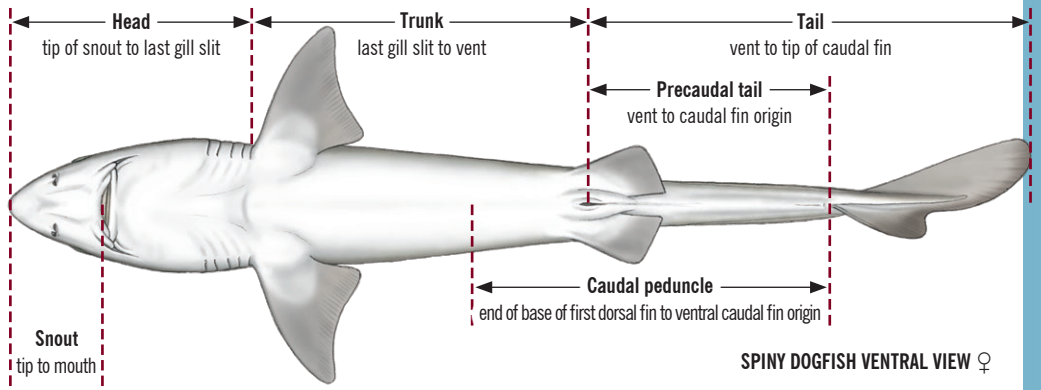
Skate: Thornback Ray, *Raja clavata*



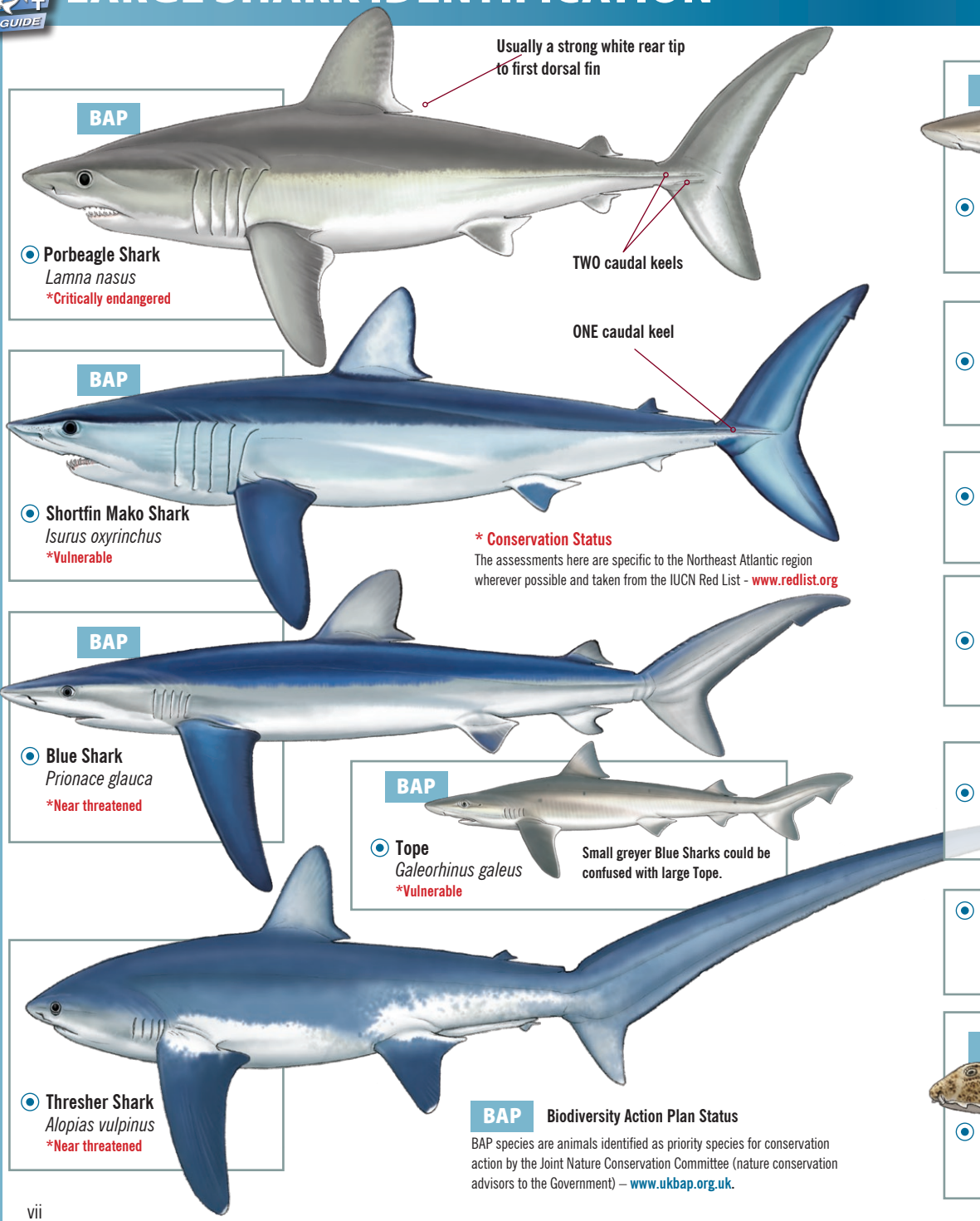
SHARK MORPHOLOGY







LARGE SHARK IDENTIFICATION



BAP

Porbeagle Shark
Lamna nasus
*Critically endangered

BAP

Shortfin Mako Shark
Isurus oxyrinchus
*Vulnerable

BAP

Blue Shark
Prionace glauca
*Near threatened

BAP

Tope
Galeorhinus galeus
*Vulnerable

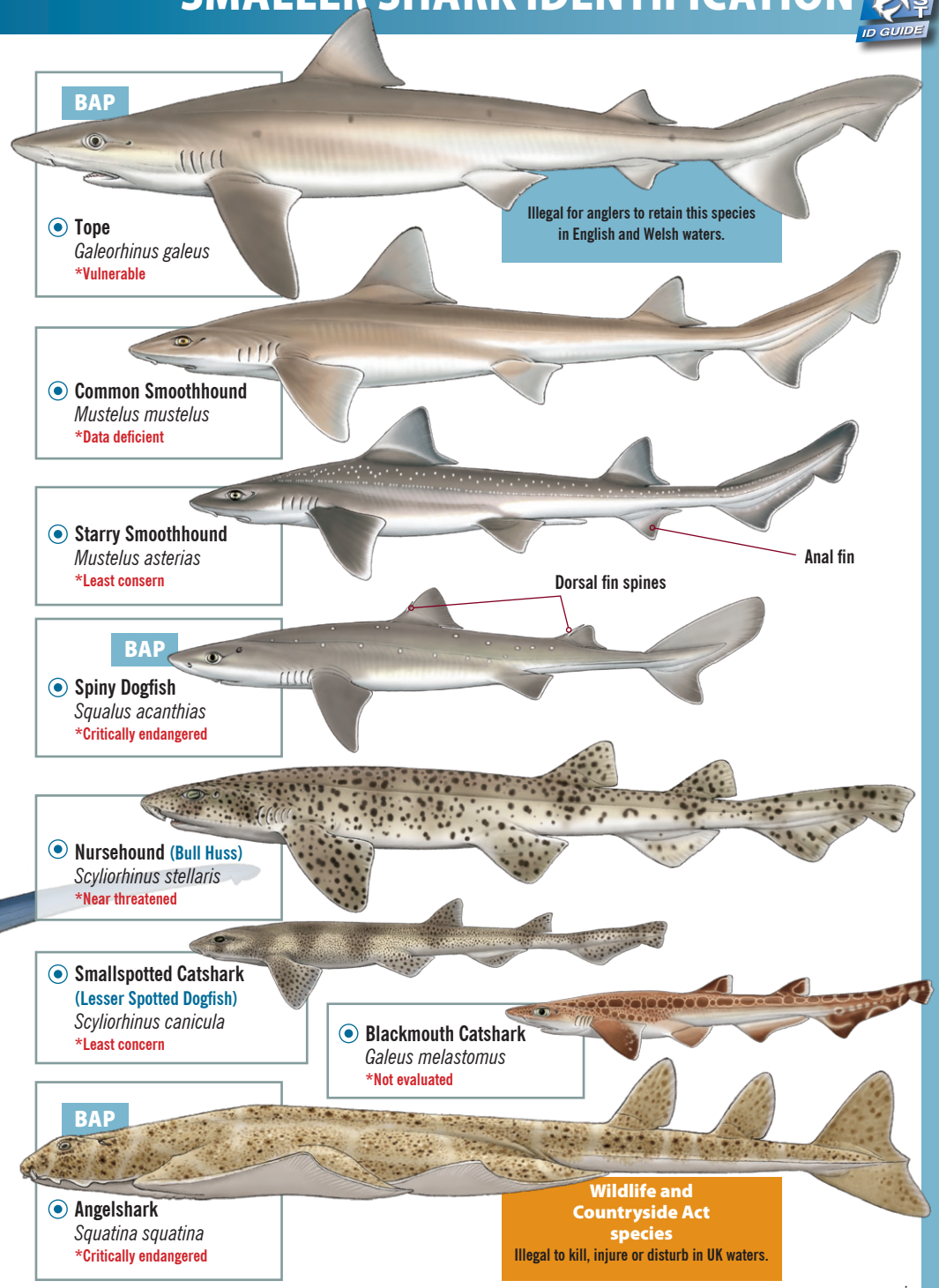
Small greyer Blue Sharks could be confused with large Tope.

Thresher Shark
Alopias vulpinus
*Near threatened

*** Conservation Status**
The assessments here are specific to the Northeast Atlantic region wherever possible and taken from the IUCN Red List - www.redlist.org

BAP Biodiversity Action Plan Status
BAP species are animals identified as priority species for conservation action by the Joint Nature Conservation Committee (nature conservation advisors to the Government) – www.ukbap.org.uk.

SMALLER SHARK IDENTIFICATION



BAP

Tope
Galeorhinus galeus
*Vulnerable

Illegal for anglers to retain this species in English and Welsh waters.

Common Smoothhound
Mustelus mustelus
*Data deficient

Starry Smoothhound
Mustelus asterias
*Least consern

BAP

Spiny Dogfish
Squalus acanthias
*Critically endangered

Nursehound (Bull Huss)
Scyliorhinus stellaris
*Near threatened

Smallspotted Catshark (Lesser Spotted Dogfish)
Scyliorhinus canicula
*Least concern

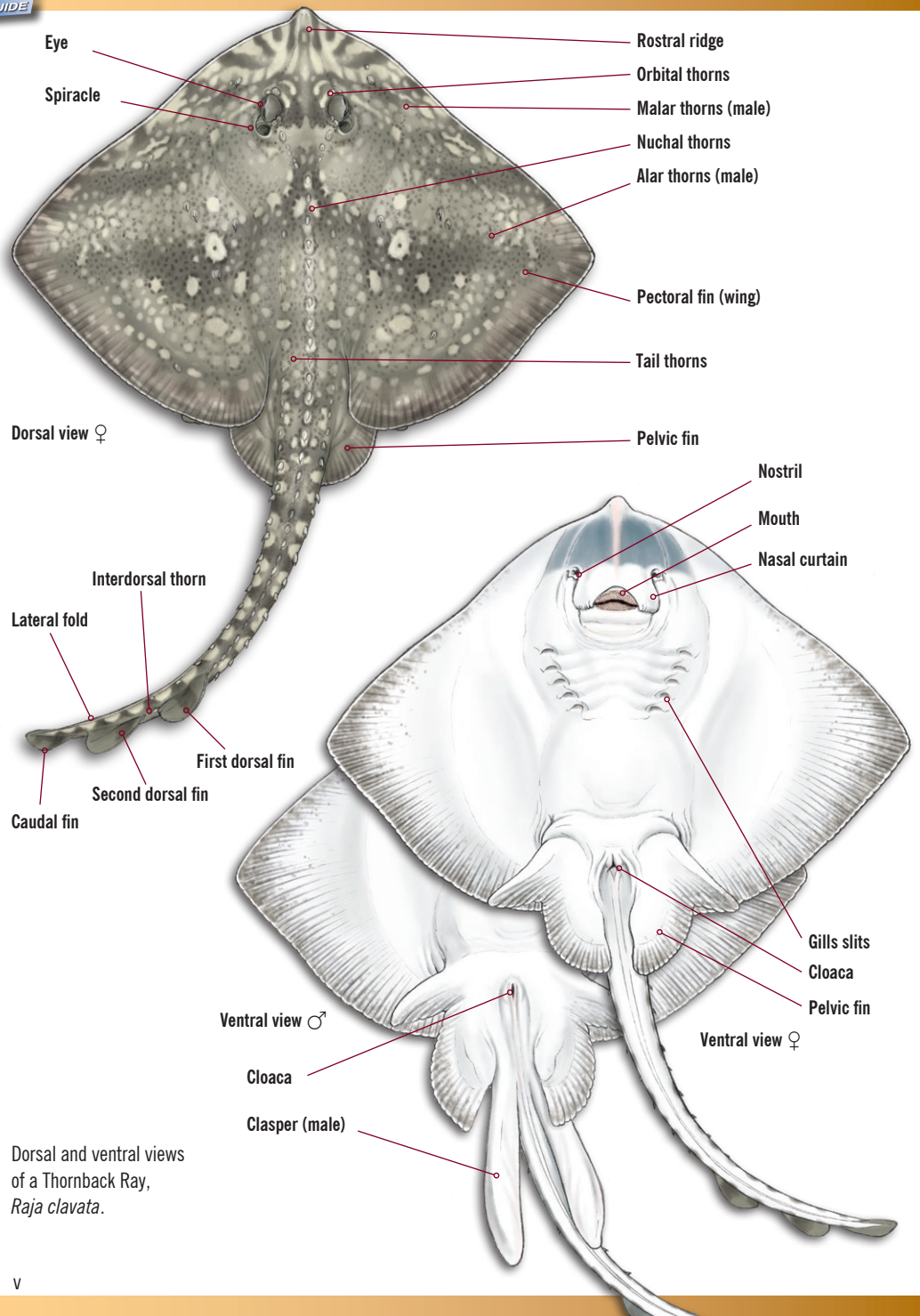
Blackmouth Catshark
Galeus melastomus
*Not evaluated

BAP

Angelshark
Squatina squatina
*Critically endangered

Wildlife and Countryside Act species
Illegal to kill, injure or disturb in UK waters.

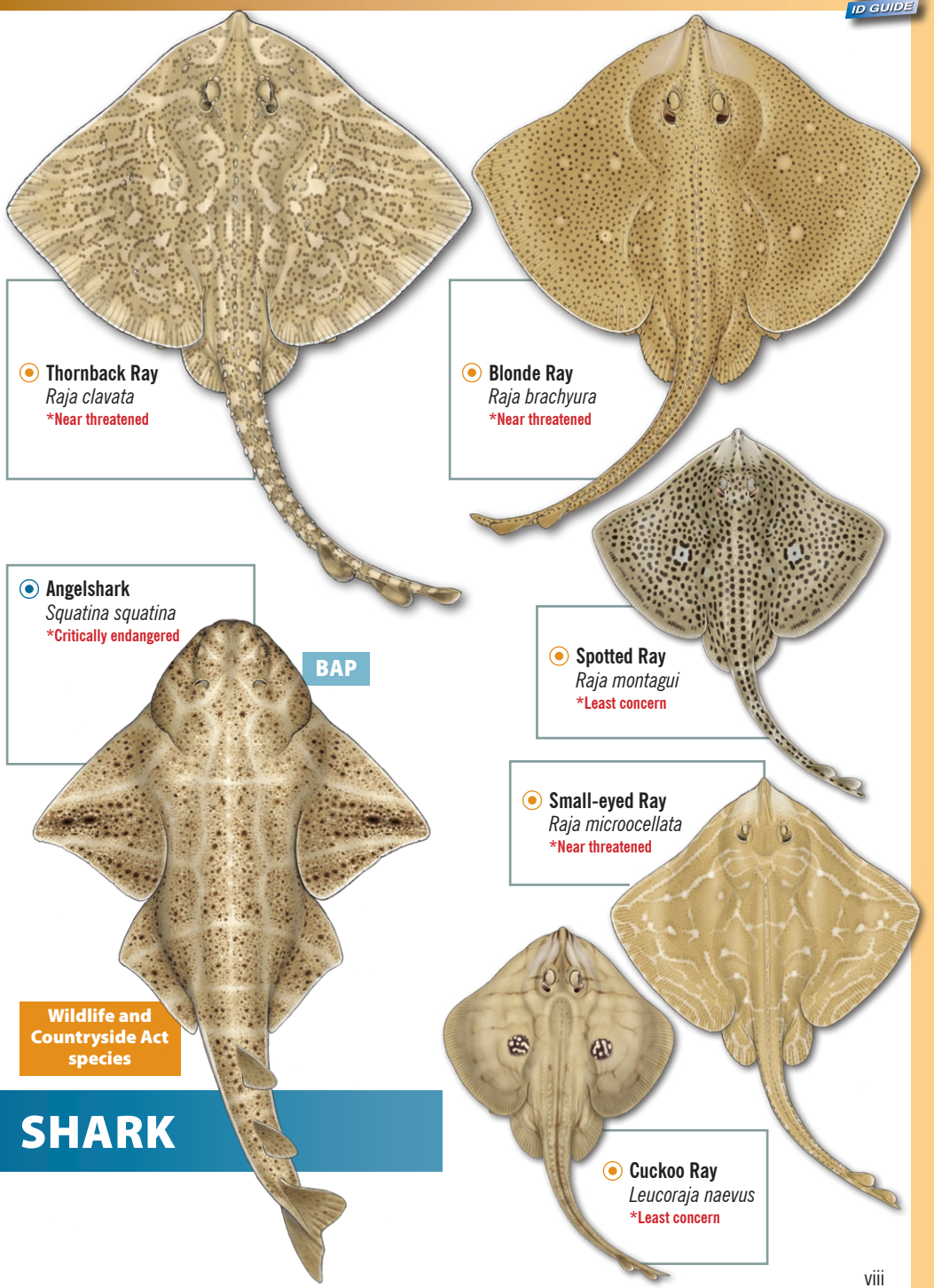
SKATE AND RAY MORPHOLOGY



Dorsal and ventral views of a Thornback Ray, *Raja clavata*.

SKATE AND RAY IDENTIFICATION

SHARK TRUST ID GUIDE



Thornback Ray
Raja clavata
*Near threatened

Blonde Ray
Raja brachyura
*Near threatened

Angelshark
Squatina squatina
*Critically endangered

BAP

Spotted Ray
Raja montagui
*Least concern

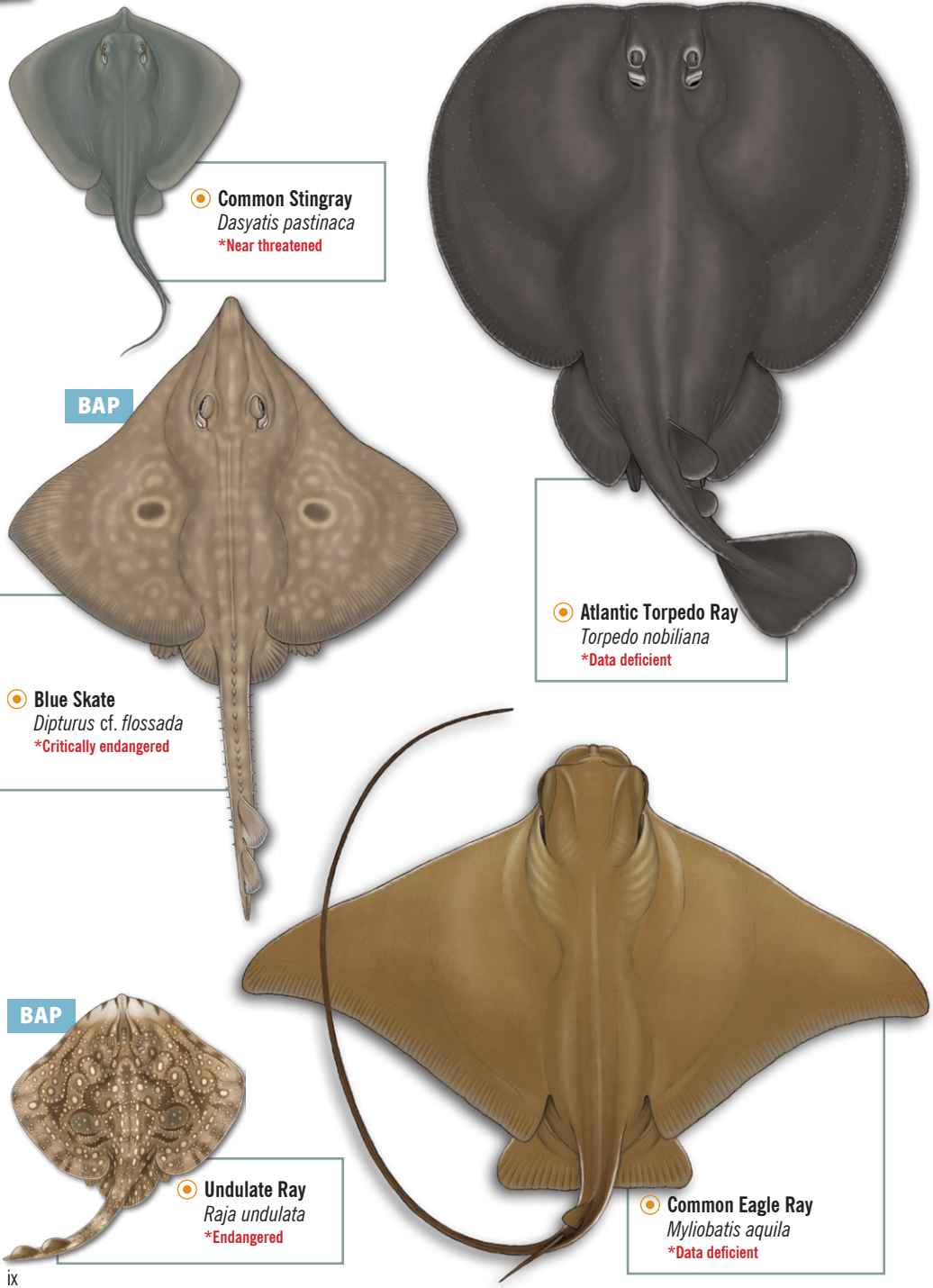
Small-eyed Ray
Raja microocellata
*Near threatened

Wildlife and Countryside Act species

Cuckoo Ray
Leucoraja naevus
*Least concern

SHARK

SKATE AND RAY IDENTIFICATION



Common Stingray
Dasyatis pastinaca
*Near threatened

Atlantic Torpedo Ray
Torpedo nobiliana
*Data deficient

BAP

Blue Skate
Dipturus cf. *flossada*
*Critically endangered

BAP

Undulate Ray
Raja undulata
*Endangered

Common Eagle Ray
Myliobatis aquila
*Data deficient

HANDLING GUIDE

This guide focuses on boat angling but can be applied to all commercial and recreational fishing activity.

- When catch-and-release angling, the welfare of the shark is the primary concern.
- Have all the necessary equipment to hand before you start angling.
- If possible, release the shark from the side of the boat, only inboard a fish when absolutely necessary.
- If a shark is deep-hooked, cut the line as close as possible to the hook and release it immediately. Bronze finished hooks will rust out, and there are various tools available to assist with deep hook removal.
- If removing the shark from the water, lift it horizontally while supporting as much of the abdomen as possible. As sharks have no ribcage, abdominal support to protect soft organs is vital.
- Never lift a shark, skate or ray only by its tail. Take care not to squeeze the gills as these delicate structures can easily be damaged.
- Never use a gaff. If the fish cannot be reached, a landing net can be used, and if this is not possible, try to lean out over the side of the boat and release the shark.
- A large cloth or wet towel soaked in seawater and placed over the head and eyes can often help keep a shark calm. If sharks have had to be inboarded, don't put them on warm or dry surfaces.
- If the fish is to be weighed, lay out the sling before landing. Try to restrict any unsupported movement while weighing.
- If photographs are necessary, have cameras ready before landing and take the photographs as quickly as possible.
- Take the time to resuscitate an obviously tired shark by running water across its gills. This can be sometimes done by experienced operators using salt water deck washes, but is best done when the shark is still in the water by moving the shark slowly forwards. Release the shark as soon as it shows strong signs of recovery.

CODE OF CONDUCT

General

- Respect other water and seashore users.
- Take any litter home.
- Take care not to disturb any wildlife.
- Keep noise to a minimum early in the morning and late at night.
- Park considerately, particularly on farmland.
- Report any illegal activity to the Environment Agency.

Fishing

- Make sure you know local size limits and non-retention species.
- Only take fish you intend to eat.
- Use suitable equipment for the area and species you are targeting.
- Use barbless or circle hooks for easier release of unwanted fish.
- Never gaff a fish. It is unnecessary and extremely damaging.
- Strike early to avoid deep hooking fish.
- If a hook cannot be removed, cut the line as far down as possible.
- Prepare everything necessary to photograph/weigh/release a fish before landing it.
- Handle fish as little as possible using wet gloves or cloth.
- Take the time to resuscitate a tired fish by running water across its gills.

For more resources visit the Shark Trust website,
www.sharktrust.org

FURTHER INFORMATION

If you would like any more information on the sharks, skates and rays found around the UK, the Shark Trust has produced identification guides and detailed factsheets for each British species. These can be downloaded, along with resources for some important and interesting Northeast Atlantic species, from the identification section of the Shark Trust website:
www.sharktrust.org/ID.

THE SHARK TRUST

Established in 1997, the Shark Trust is the UK registered charity which works to advance the worldwide conservation of sharks through science, education, influence and action. The Trust is led by a board of Trustees who oversee a small dedicated team, who are further supported by a voluntary Scientific Committee and a growing number of supporters and volunteers.

The Trust is: an effective and well respected advocate for sound shark management and protection; a founder member of the Shark Alliance; the Secretariat of the European Elasmobranch Association; and a membership organisation which provides a link between the public and the science community. The Trust works through cross-sectoral collaboration including, where possible, with governments and industry to attain sustainable goals.

4 Creykes Court, The Millfields
Stonehouse, Plymouth PL1 3JB

Tel: 01752 672020

Website: www.sharktrust.org

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