# Welcome to the Great Eggcase Hunt

## Introduction

Why does the Shark Trust want you to record eggcases? In recent decades several species of skate and ray around the British coast have dramatically declined in numbers. The empty eggcases that wash up on to our beaches all year round are an easily accessible source of information on the whereabouts of skate and ray nursery grounds. The identification of these critical areas will enable the Shark Trust to propose conservation measures, in order to reverse the decline of these charismatic animals.

So now's your chance to contribute to skate and ray conservation, and take part in Britain's first ever eggcase hunt …


**Your eggcase expedition**


**Bucket Science**


**Identify your eggcase**


**Eggcase troubleshooter**


**Record your eggcase**


**Organise an eggcase event**

## Going on an eggcase expedition

You can collect eggcases at any time, skate and ray eggcases are washed up on to our beaches all year round. The best time to look, however, is after stormy weather when lots of seaweed and debris have been thrown up on to the beaches. Eggcases are often found in amongst seaweed on the strandline, so keep your eyes peeled – they can be difficult to spot at first.

Eggcases are very light when they are dry and the wind can blow them up the beach. The back of the beach, along cliffs or dunes can often be a fruitful location to search.

Whilst you're on the shore:

- Always tell someone where you're going
- Be aware of the tide
- Wear appropriate clothing for the weather
- Search through seaweed with a stick, be careful of man-made debris
- Respect the Seashore Code, and the wildlife on the beach

# What to look for

There are two different types of eggcase on Britain's beaches:

**Skates and rays**
These eggcases have a 'horn' at each corner.

**Catsharks (or 'Dogfish')**
These eggcases have long, curly tendrils at both ends – it is quite common to find several eggcases tangled together, or tangled with seaweed.

**The Shark Trust only want records of skate and ray eggcases.**

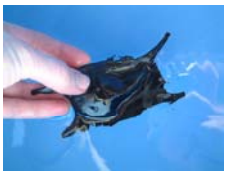
**Imposters**
Some species of seaweed have huge air bladders that may be confused for eggcases. These have neither horns or tendrils.

# Bucket science

Once you have found an eggcase make a note of which beach you found it on, the date, and any comments that you think are relevant such as whether there had been a storm the day before. Then take the eggcase home and prepare it for identification by doing a bit of bucket science - follow the steps below:

Dry Thornback Ray eggcase.

1. Fill a waterproof container with fresh water – you can use anything from a freezer bag to a bucket.



Submerging Thornback Ray eggcase.

2. Submerge the eggcase in the water. Evict all the air from the eggcase to ensure it sinks. Don't let it float, otherwise you'll only soak one half.
3. Leave for 24 hours.

Soaked Thornback Ray eggcase.

4. Remove the eggcase from the water. Now it's ready to be identified.

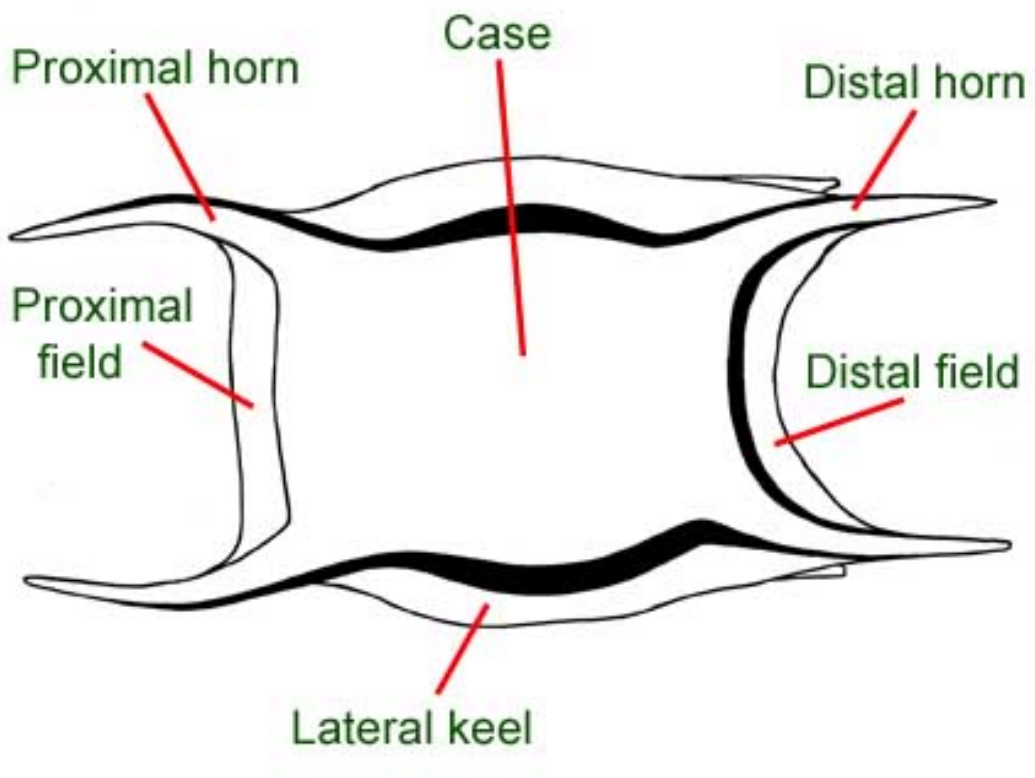
To dry the eggcase out, leave it in a well ventilated spot. As long as the eggcase is empty, it won't smell.

# Identify that eggcase …

Once the eggcase has been soaked for 24 hours, you will be able to identify which species it comes from. If you can't match your eggcase to one of the species listed on this site, don't worry – you've probably found a species that we haven't listed yet. In this case, either send your eggcase to us or send us a photo.

For a comprehensive list (and photos) of skate eggcases from around the world visit www.rajidae.tmfweb.nl/enter.html

## What does an eggcase look like?




To clearly see the fields and keels, lay the eggcase on a lightbox, or shine a torch through it.

Soaked eggcase on a light box.

# Spotted Ray
## *Raja montagui*


Spotted Ray eggcase with all four horns intact. Note that the top pair of horns are characteristically slightly turned towards one another at the tips.


Spotted Ray eggcase with one horn broken short.

Side view of Spotted Ray eggcase. Note the 'bobsleigh' position of two of the horns. Not all eggcases are as rounded on one side as this particular individual is.

**Capsule**:
- Relatively delicate and elongate in comparison to other species.
- Widest across its 'waist'.
- Both sides convex.

**Capsule size**: 53-78mm x 30-50mm (excluding horns).

**Horns (when present)**:
- All four horns of similar length to one another; more than half the length of the capsule, but no longer than capsule length.
- One pair are flattened and often curl towards one another at the tips (giving the impression of a stag beetle).
- When the capsule is viewed side on, the other pair are curled upwards, in the style of a bobsleigh, with a strong downwards hook at the tips.

**Lateral keels**: Absent.

**Fields**: Absent or very shallow.

**Characteristic features**:
- No lateral keels, and fields absent or shallow.
- Distinctive 'bobsleigh' curl to one pair of horns.

# Small-eyed Ray
## *Raja microocellata*

Small-eyed Ray eggcase with all horns intact. It is widest at the top, unlike most other eggcases that are widest at the 'waist'.


Small-eyed Ray eggcase. The bottom pair of horns are intact, but the long filamentous endings to the top pair of horns are missing.

Side view of Small-eyed Ray. Note that the whole structure curves longitudinally.

**Capsule**:

- One face considerably more convex than the other making the capsule curve longitudinally.
- Widest across the base of the long horns, narrowest across the base of the short horns.

**Capsule size**: 55-99mm x 35-60mm (excluding horns).

**Horns (when present)**:

- Both pairs differ greatly in appearance.
- The long horns should be elongated into thin, filamentous tubes (however, these are unlikely to survive the surf and will probably be absent), while the other pair of horns are very short and strongly hooked at the base.
- Both sets of horns tend to curve away from the same side of the capsule giving the capsule a strong curve longitudinally.

**Lateral keels**: Present.

**Fields**:

- Present at both ends of capsule.
- Strongly concave between the short pair of horns.

**Characteristic features**:

- Strongly hooked, short pair of horns at narrow end of capsule.
- Strong longitudinal curve to capsule and horns.
- A distinctive eggcase despite often missing the long filamentous endings to their horns.

# Thornback Ray
## *Raja clavata*


Thornback Ray eggcase with all horns and keels intact.


Thornback Ray eggcase with damaged lateral keels, and fields. The bottom pair of horns are broken short.


Misshapen Thornback Ray eggcase. Not only are the horns broken, the lateral keels are almost absent.

**Capsule**:
- Looks like home-made ravioli when the horns are discounted.
- Almost as wide as long resulting in a relatively fat, 'square' capsule.

**Capsule size**: 50-90mm x 34-68mm (excluding horns).

**Horns (when present)**: Of equal length to one another; more than half the length of the capsule, but never longer than capsule.

**Lateral keels**: Relatively deep compared to other eggcase species, up to 10mm deep (when intact).

**Fields**:
- Present at both ends of capsule.
- Deep.

**Characteristic features**:
- Extremely deep lateral keels (when intact).
- A relatively fat, 'square' capsule when compared to other species of eggcase.

# Blonde Ray
## *Raja brachyura*

Blonde Ray eggcase with all horns intact.


Blonde Ray eggcase with all horns broken short. However, the large size of the capsule is a strong indicator of the species.


Blonde Ray eggcase with most of its horns broken.

**Capsule**:
- By far the largest eggcase of the rays.
- Convex on one side and relatively flat on the other.
- Widest at the 'waist'.
- Thick and sturdy.

**Capsule size**: 100-143mm x 58-90mm (excluding horns).

**Horns (when present)**:
- Distinctive.
- One pair are very long, about two thirds the length of the capsule.
- The second pair are very short and strongly curled at the tips. Unfortunately the horns appear to be the first casualties of the sea, and often only the capsule is washed up.

**Lateral keels**: Quite deep, up to 10mm deep.

**Fields**: Relatively deep.

**Characteristic features**: Large size of capsule should be an instant giveaway, even when the horns are missing.

# Common Skate
## *Dipturus batis*

Common Skate eggcase.

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| **Capsule**: | Very distinctive, twice or three times as long as it is wide. |
| **Capsule size**: | 106-245mm x 50-145mm (excluding horns). |
| **Horns (when present)**: | Very short relative to the size of the eggcase. |
| **Lateral keels**: | Absent. |
| **Fields**: | • Extremely deep, up to a quarter of the length of the capsule when intact.<br>• Concave between the shorter pair of horns.<br>• Convex (if eggcase found in good condition) between the longer pair of horns. |
| **Characteristic features**: | Extremely large eggcase with extremely deep fields and short horns. |

# Eggcase troubleshooter

## Having problems identifying your eggcase?

There may be several reasons for this …

**It's broken**
It is unlikely that eggcases will be washed up on to the beach intact, especially if they have delicate horns – therefore it is quite likely that you will have to identify the eggcase with missing elements.

**Hairs**
You may notice patches of velvety, fawn coloured hairs on the eggcase – please ignore these as they are not useful in identifying the eggcase once it has been washed up on to the beach.

**Misshapen capsules**
Eggcases that have been dry for a long time will take longer to rehydrate, and may not fully recover their original shape.

**Short horns**
Look closely at the horns, they may have snapped and therefore look a lot shorter than they should. Species, such as the Small-eyed Ray, that have long, fine, filamentous endings to the horns are unlikely to survive the surf with these delicate appendages intact.

**Eggcase impersonators**
Do not be fooled into thinking that the large air bladders of some species of seaweed are eggcases. These can easily be identified by the lack of horns at each corner.

**Colour**
Do not use colour as an identifying factor – eggcases will change their colour with increased exposure to sunlight.

# Send us your unidentified eggcase

You may have an eggcase from a species of skate or ray that we haven't listed, yet. Or you may have whittled it down to two species and you can't decide which it is. In this case, you might like to post the eggcase to us. Keep the eggcase damp and package it up into a rigid container such as an ice-cream pot or two yoghurt pots taped together.

Post it to:

The Shark Trust
Rope Walk
Coxside
Plymouth
Devon
PL4 0LF

Don't forget to include your name and address, and details of when and where you found the eggcase. We can then get it identified, record it on your behalf, update our website accordingly and let you know. Unfortunately, we won't be able to return your eggcase to you.

# Send us a photo of your unidentified eggcase

If you want to keep your eggcase, then you can take a photograph of it for us.

- Place the soaked eggcase on a white background.
- Include either a ruler or a 2p to give it scale.
- Take several, well-lit photos of the eggcase from above and from the side.
- Write clear notes on: capsule size (length and breadth); horns; fields and keels; where and when you found it.
- Include your name and address so that we can record the species on your behalf.

You can either email the images and notes to enquiries@sharktrust.org, or post it to:

The Shark Trust
Rope Walk
Coxside
Plymouth
Devon
PL4 0LF

# Once you've identified your eggcase

Fill in the record form and send it to the National Museums and Galleries of Wales (details on the form). Watch this space for an update on the records we receive from around the country.

| **Eggcase Recording Form** | | | | |
|---|---|---|---|---|
| *Species* | *Location (+ OS grid reference)* | *Quantity* | *Date found* | *Additional comments* |
| | | | | |
| | | | | |
| | | | | |
| Your name and address: | | | | |
| | | | | |
| | | | | |
| ***Return this form to Peter Howlett, Curator of Vertebrates, National Museums and Galleries of Wales, Cathays Park, Cardiff, Wales, CF10 3NP. Or email this form to: peter.howlett@nmgw.ac.uk.*** | | | | |

# Glossary

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|---|---|
| Capsule size | Minimum and maximum length (including fields but excluding horns) x minimum and maximum width (including keels). |
| Concave | Curves/dips inwards. |
| Convex | Curves/dips outwards. |
| Fields | Flattened extensions at either end of the capsule, between the horns. |
| Filamentous | Strap-like, like shoe-laces |
| Keels | Flattened extensions along either side of the capsule. |
| Longitudinal | Along the length of the structure. |

**Concave** between horns.

**Convex** capsule.

# Resources – organise your Eggcase Event

Eggcase hunting is fun when done with lots of people – at any time of the year. Why not organise a Great Eggcase Hunt? Here are a few ideas and materials to help get you started.

- **Certificates**
- **Leaflets**
- **Poster**
- **Photos**
- **Artwork**
- **Promotional text (framework for)**
- **Eggcase and shark activities**

# Tell us about your Eggcase Event

Tell us when you're running an organised Eggcase Hunt and send us photos of the event – we will put these on the Shark Trust's eggcase website.

# Eggcase and shark activities

Customise your Eggcase Hunt with some of the ideas below.

**Skate mats**
Life-sized floor mats/cut-outs in the shape of different species of skate, including the 2m wide Common Skate. Each printed with facts and figures relevant to each species. Can be used as stepping-stones, or for quiz games with the smallest skate, Starry Skate, as the starting point and the largest, Common Skate, as the goal.

**How big are sharks?**
Long length of rope with the average lengths of several species of shark (e.g. from the 0.5m Cookie Cutter, 3m Common Skate to the 15m Whale Shark) marked with tags along its length. Each tag specifies the name of the shark, and one or two facts. A great illustration of just how small and big sharks can be. Then you can hold.

**Shark races**
Run the length of two Whale Sharks and a Great White! (That's 40m).

**Shark Art and Poems**
A chance for kids to write what they think about sharks.

**Eggcase models**
Monster paper-maché eggcases, cunningly devised so that toy sharks/rays can be stored inside and pulled out.

**Displays**
Once you have recorded the eggcases, display them! – peg them along a washing line; place them in a small, clear tank of water; or arrange them in a display cabinet. This is a great way to show the public what they are actually looking for.

**Skate kites**
Not made of real skates of course, but cut out their kite-shape in paper or a plastic bag, attach to a frame of two sticks tied together in a cross, and tie on a long length of string. Let the wind do the rest.