

Flapper skate are the largest of all skate, reaching lengths of around 2.5 metres. Their upper sides are rough skin, often with a variable pattern of lighter spots. The underside is darker in colour at birth, fading to light grey with age, often with a darker mottling around the snout and mouth.

As with all skate and rays, male fish are distinguished from female fish by the presence of two long claspers that are used in reproduction. Male skate also have two small but pronounced thorn patches on the upper side of the wing tips (the alar thorns).

Other similar ray and skate species are also found around Orkney, particularly the thornback ray (*Raja clavata*) and the blonde ray (*Raja brachura*). These smaller species have suffered declines due to fishing pressure, but they are not as endangered as the flapper skate.

Flapper skate (*Dipturus intermedius*) used to be known as the common skate (*Dipturus bats*), but research has shown that the 'common skate' is actually two separate species – the blue skate (*Dipturus flossada*), which is not thought to occur around Orkney, and the flapper skate.

Orkney waters support the largest known skate in the world. This is one of their last remaining strongholds. The rich and diverse marine environment around the 70 islands gives them the conditions to survive and reproduce.

Orkney skate species

The flapper skate is now considered Critically Endangered by the International Union for Conservation of Nature, recognising this fish as being one step away from extinction. This conservation status shows flapper skate to be at even greater risk than the blue whale and giant panda.

Retention of flapper skate on board commercial vessels. It is now dwindling, whilst recent legislation now prevents the retention of flapper skate on board commercial vessels. Fortunately, with a greater awareness of their rarity, this behaviour for photographs later at the pier, the fish later being discarded. Where recreational anglers would retain their captured skate – a practice Skate have also suffered from 'trophy fishing' – a practice where recreational anglers would retain their captured skate for photographs later at the pier, the fish later being discarded.

Dead flapper skate on a trawler

Trophy fishing for flapper skate in Orkney, 1970s



They are extremely vulnerable to fishing pressure, being large in size, slow to mature and having a low birth rate. There has been a sharp decline in skate population and distribution over the years, as adult and juvenile fish, as well as the egg purses laid by female skate, are all of a size that can be picked up and retained by commercial fishing gear. This combination of high mortality rate and slow breeding rate is unsustainable, and the species has steadily declined.

Flapper skate were once prolific in the Eastern Atlantic. Their historic distribution ranged from North Africa, including the Mediterranean, up to Iceland and the Norwegian Sea.

How common are flapper skate?

The Orkney Skate Trust is beginning to discover the extent of the skate population and distribution within Orkney waters. Diver's observations of flapper skate and their egg cases as well as recreational fishing records have been used to produce distribution maps within a Geographical Information System. The next phase of the research is to commence a targeted tag and release angling scheme for flapper skate in Orkney.



All species of skate, ray and dogfish lay egg cases or 'mermaid's purses' during reproduction. Flapper skate egg cases however, are much larger than other local species, such as the Blonde and Thornback Ray, and are normally over 25cm long. The protective leathery egg capsules have a large yolk supply which nurtures the embryos, whilst also allowing dissolved oxygen through to enable life. By laying their young in well-protected egg capsules with sufficient nutrients, the female skate cuts the time needed to care for their young, leaving the juvenile fish to fend for themselves after hatching. The downside of this behaviour is the risk of egg case predation, damage during rough weather and also being caught by commercial fishing operations, such as trawling and dredging.

The waters around Orkney have become an important stronghold for the species owing to the protection the many islands and skerries give from bottom-trawling fishing operations. Our waters also abound with easily available food such as scallops, crabs, horse mussels and fish.

Flapper skate are strong swimming fish, and well adapted to fast flowing tidal waters. They can be found over various types of seabed, but prefer sandy and muddy areas. Around Orkney, they occur from the shallow coastal areas around the North Isles and in Scapa Flow to the deeper waters off the West Mainland coast.

Orkney skate population

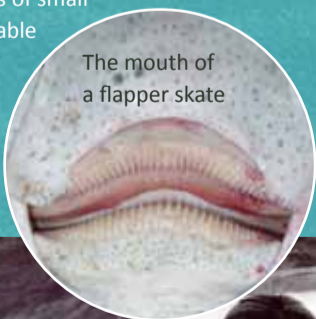
## What are skate?

The flapper skate is a top predator – their only known enemies are people. Their size and formidable strength makes them very attractive to game anglers, who enjoy the thrill of catching large fighting fish.



Skate are bottom dwelling species in the shark family. Their distinctive flat shape stems from their greatly enlarged pectoral fins. They also have a long pointed snout and prominent tail.

Skate have a large mouth with rows of small angular teeth making them formidable predators. They hunt a variety of prey species, such as crustaceans, molluscs and fish on the seabed, whilst they will also catch other fish species in mid water.



Flapper skate *Dipturus intermedius* being caught by anglers in Orkney in the 1970s

# ORKNEY SKATE TRUST

## How can you help?

- Conserve all flapper skate by returning captured fish safely back to sea and ensure others follow this good practice.
- Take part in the tag and release scheme by contacting Orkney Skate Trust for a tagging guide.
- Report all your flapper skate sightings and captures from waters around Orkney and the north of Scotland to the Orkney Skate Trust. Submit any photos of Orkney flapper skate to the Orkney Skate Trust.
- Divers – Please inform the Orkney Skate Trust of the underwater location of any flapper skate egg cases around Orkney and the north of Scotland.
- Become a member of the Orkney Skate Trust – email us or go online for an application form.

Contact the Orkney Skate Trust  
Email: [mail@orkneyskatetrust.org.uk](mailto:mail@orkneyskatetrust.org.uk)



[www.orkneyskatetrust.org.uk](http://www.orkneyskatetrust.org.uk)

# ORKNEY SKATE TRUST



TAG & RELEASE FISHING AND CONSERVATION