

WHERE DO ORMERS LIVE?

The ormer has a fairly wide geographic range extending from the Channel Islands to Senegal in Africa. Somewhat usually, the highest density occurs at the more northern limit of this range around Jersey and the adjacent coast of Brittany. As the only organ that the ormer possesses to attach to the seabed is the foot, they are found exclusively on rocks and boulders. In sandy areas the ormer could be easily turned over and subject to predation. There is also less available food and the gills can become clogged with the fine particles. Unlike the larvae, adults tend to avoid direct sunlight and therefore, ormers are found in crevices, under overhangs or boulders. They are generally a sub-tidal species extending from the low water spring tide level to around 20 metres depth, although some will be exposed during big spring tides. They also prefer areas of high current flow or turbulence, where the water contains a higher level of oxygen.

FISHING FOR ORMERS

In Jersey no commercial fishery exists for ormers and they can only be caught at low water by recreational fishermen. Elsewhere, commercial fishery for abalones is done by diving. Important abalone fisheries have existed in Australia, China, Japan, the Pacific coast of Mexico, New Zealand, South Africa and California in the USA. All of these have collapsed apart from ones in Australia and Japan. Historically, ormer fishing was prominent around Guernsey until over fishing led to the collapse of the wild stocks. Commercial fisheries are very closely managed with strict bag limits, minimum sizes, limited entry and quotas. In some fisheries a surface supply system must be used. In some areas fishing for ormers is only permitted using a glass bottomed bucket and a hook at the end. Fishing is also allowed for a limited time, for example weekends and bank holidays and in some areas, for as little as seven days per year.

HOW ARE ORMER STOCKS BEING CONSERVED AND MANAGED?

Due to the biology and the social importance of this species the fishery is carefully managed in Jersey.

- Scuba diving for ormers is not allowed.
- During the ormering season, fishing may only take place on the first day of each new or full moon, and the three following days.
- It is also an offence to either possess fresh ormers or export them at any time other than between the 1st October and the 30th April and then on the first day of a new or full moon and the five days following.
- Dates for the ormering season can be obtained from the department or found on our website.

	MINIMUM SIZE	BAG LIMIT	SEASON
Commercial	90mm	Advisory 20 per day	1 st October – 30 th April
Recreational			

FISHERIES & MARINE RESOURCES
PLANNING AND ENVIRONMENT DEPARTMENT
HOWARD DAVIS FARM
TRINITY
JE3 5JP

Phone: 01534 441600, Fax: 01534 441601

Email: fisheries@gov.je

WWW: www.gov.je

These details are correct at time of printing. Copies of appropriate legislation are available from the States Greffe and Fisheries website.

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ECO-ACTIVE
MARINE

States of Jersey

The Ormer *Haliotis tuberculata*

Biology and Regulations in Jersey



Fisheries and Marine Resources

THE ORMER, *Haliotis tuberculata*

"tis much bigger than an oyster and like that, good, either fresh or pickled, but infinitely more pleasant to the gusto, so that an epicure would think his pallat in paradise if he might but always gormandise on such delicious ambrosia."

Anonymous, 1673.

The ormer evokes an emotive response from Jersey people, as it is a subject close to many hearts. It is no exaggeration to say that for many people ormering is part of Jersey life and long hours are spent, by young and old alike, searching for and gathering this delicacy. Undoubtedly it is part of the Island's heritage, ranking alongside the Jersey cow and the Jersey Royal Potato. Ormers can live for over 15 years and be up to 155mm in length.

Although the ormer is not a commercially exploited species, it is very important both biologically and socially to Jersey.

WHAT IS AN ORMER?

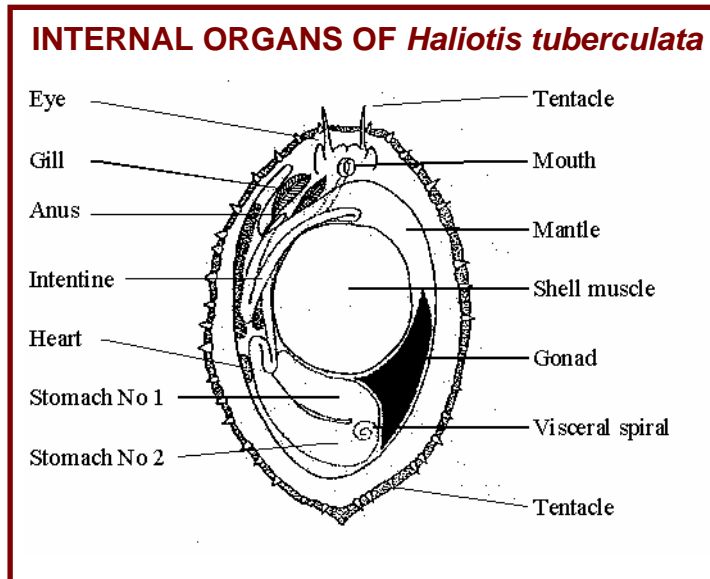
Ormer is the local name for what are known worldwide as abalones. Abalones are **gastropod molluscs** which are basically marine snails. There are almost one hundred species of abalone, all belonging to the genus *Haliotis*.

The shell covers virtually all of the soft body of the ormer and, like snails, the shell forms a spiral although it is not always immediately apparent as the shell is flattened. In fact, the ormer is only about a fifth as high as it is long. When the flesh is removed the inside of the shell is smooth, iridescent mother of pearl of high quality. In fact such is the high quality of this material that ormer shells were exported in bulk from Jersey in the 18th century to be used as inlay in fine English furniture of that period. Even to this day Jersey ormer mother of pearl is sought after for inlay in certain musical instruments. A row of holes exists in the shell to assist with the circulation of water for respiration and the removal of waste.

As the shell grows new holes are formed and the oldest close up so the number of holes remains constant. The number of holes does not represent the age of the ormer.

The ormer is attached to the seabed, in typical snail like fashion, by a muscular foot. The part of the foot just exposed at the edge of the shell is known as the lips. These are covered by tough skin and protect the more delicate inner part of the foot. Around the outside of the foot, above the lips is a series of tentacles which are involved in predator and food detection, touch and taste. It is this foot along with the short stalk that is prepared, cooked and eaten.

Ormers possess a feeding organ known as a **radula**. The radula is a tongue like organ covered with teeth which is used to rasp food. They are herbivorous. When newly settled the ormers use the radulae to scrape coralline algae and slime, which contains a mixture of micro-algae and bacteria, off the surface of rocks. As the ormer ages so the diet changes and they will graze on seaweeds attached to the seabed and trap seaweed drifting in the current.



This is done by extending the foot and catching the weed under the shell before fixing it with the mouthparts.

They have a pair of gills which are situated in a chamber called the mantle cavity under the series of holes in the shell. Oxygenated water enters from the front and is passed over the gills where oxygen is taken up. Waste gases and the used water then pass out through the holes. The holes in the shell also allow waste products from the gut and kidney to be taken away, as these organs also discharge into the mantle cavity. The reproductive organs also empty into the mantle cavity and so sperm and eggs are released into the environment through the holes.

In ormers the sexes are **dioecious** meaning that they are separate with the colour of the gonad indicating the sex of an individual. Ripe females are blue, green or brown and ripe males have gonads that are a cream, ivory or bone colour. Immature individuals tend to be grey. However, observation of the gonads can be quite difficult and sexing individuals and state of maturity is sometimes subjective. In July, August and September, when the sea is warm enough the adults will spawn. An average female will release about 1 million eggs which will remain on the seabed for 15 to 18 hours before hatching. The larvae then rise to the surface, drawn by the sunlight. This is known as **positive phototropism**. After 3 - 6 days in the water column the larvae sink to the seabed and metamorphose to a very small juvenile ormer. After a year the ormers will reach the size of a fingernail, and then in 3 to 4 years will reach the Minimum Landing Size of 90mm across the shell. Ormers have an oxygen carrying blood pigment that is based on copper, and not iron like ourselves. The pigment is called **haemocyanin**, and when oxygen is present it is blue, but colourless when it is absent.