

WHAT DOES A LOBSTER EAT?

The lobster is a nocturnal animal and emerges from the shelter at dusk to feed. The lobster's prey consists of crabs, which are grabbed by the legs using the cutter claw while the crusher claw breaks open the carapace. Other prey includes mussels, clams, sea urchins, star fish and marine worms. In good visibility the lobster can also catch fast moving prey such as shrimps and small fish. The lobster will also feed opportunistically as a scavenger.

The amount of time spent foraging depends on the temperature of the water. In summer the lobster will feed for several hours. This is generally reduced during the winter and in sea temperatures less than 5°C the lobster will retreat into the shelter and block the entrance where it can remain for several weeks, almost in hibernating state.

WHERE DO LOBSTERS LIVE?

The European lobster is found in the cold, temperate waters of the Eastern North Atlantic, from Norway down to Morocco, with the centre of distribution around the British Isles. Lobsters live on the sea bed and inhabit the coastal area from the intertidal zone down to depths of approximately 120m. The lobster is a solitary animal, except during mating periods, spending most of the time within the protection of some kind of shelter.

Despite its hard shell the lobster has a number of predators such as octopus, large fish (cod, dogfish, conger eels) and seals. On sandy bottoms a hollow or tunnel is dug out from under boulders or stones. In an area of bedrock the lobster will select a perforated hole and adapt it to suit with other small stones and bits of debris. When the lobster grows the shelter must be adapted or a new one must be found.

HOW ARE LOBSTER STOCKS BEING CONSERVED AND MANAGED?

- Anybody wishing to catch and sell lobsters must possess a commercial fishing license, which are limited in number, effectively capping fishing effort.
- All parlour pots must be fitted with an escape gap allowing undersize lobsters to exit the pot, instead of being damaged by larger lobsters or by rough handling by fishermen once the pot has been hauled.
- Parlour pots are banned from the offshore reef known as Les Minquiers. The area is an important location for the recruitment of juvenile lobsters.
- There is a limit on the number of pots commercial fishermen can work and all pots must be tagged.

There are several other management measures that are currently under discussion between local fishermen and their French counterparts. These include measures such as:

- Marine Stewardship Council accreditation
- Increased minimum size
- 'V' notching schemes
- 'Seeding out' of hatchery reared lobsters (stock enhancement).

	MINIMUM SIZE	BAG LIMIT	SEASON
Commercial	87mm	Unlimited	None
Recreational		Advisory 5 per day	None

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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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European Lobster *Homarus gammarus*

Biology and Regulations in Jersey



Fisheries and Marine Resources

THE EUROPEAN LOBSTER, *Homarus gammarus*

Of all the marine species the lobster, is the most important to Jersey fishermen. Lobster landings account for over 40% of the potting fishermen's income and in recent years around 150 tonnes, worth approximately £2 million at first sale, have been landed. They are also caught by recreational fishermen.

Lobsters can grow to a huge size with some record breaking specimens having a carapace length of 250mm; that's an overall length of over 70cm and will weigh up to 10kg. It is estimated that these individuals are between 50 and 70 years old! However, catching one of these monsters is very rare.

WHAT IS A LOBSTER?

A lobster is a marine strong-clawed edible crustacean of the order Decapoda. The word 'lobster' comes from the old English *loppestre*, which in turn came from the Latin *locusta*, or locust.

The lobster is completely enclosed in a tough chitinous exoskeleton, inside which all of the soft organs, including the gills, are protected. The front, or anterior, of the exoskeleton is modified to form a pointed rostrum which projects forward and provides protection for the stalked compound eyes. Vision is an important sense for the lobster, but they also possess long, whip-like antennae, which are sensitive to vibration and touch if visibility is bad. These are the length of the lobster itself and can be moved to feel the whole way around the individual. Lobsters also have the ability to detect minute concentrations of chemicals in the water, the marine form of an excellent sense of smell. Lobsters have 5 pairs of legs or **peripods**. The first pair are hugely enlarged and modified to form the claws or **chelae**, and differentiated into a cutter and a crusher.

The cutting claw has serrated edges and can catch fast moving prey and cut meat into smaller pieces. The crushing claw is the larger of the two and, as the name suggests, is capable of crushing the hard shells of prey such as crabs and bivalve molluscs. The four other pairs of legs are used predominantly for walking, the main method of movement. The abdomen of the lobster is heavily muscled and can be flexed which propels the animal backwards through the water. This type of movement is a rapid escape response from predators and other lobsters.

HOW DOES A LOBSTER GROW?

In order to grow the lobster must shed the hard exoskeleton, in a process known as **moulting** or **ecdysis**. Just before each moult a new soft and flexible shell is laid down inside the old one. New linings to the stomach, gut and gills are also produced as these are lost during ecdysis.

The lobster will retreat into its shelter and through a series of violent movements splits the old shell, which the lobster then backs out of.

At this stage the lobster is soft and very vulnerable to predators. It takes a few days for the shell to become rigid and a few weeks to reach full strength. At each moult a lobster increases its weight by approximately 50% and length by 10–15%. Juveniles moult more frequently than adults. A one year old lobster may moult five or six times during the year, whereas a large individual may only moult once every two years. Males tend to moult more than females, as the females do not moult whilst carrying eggs and have the extra energetic burden of producing them. It takes between four to five years for a lobster to reach the commercial size of 87mm carapace length.

