

# Gannet Fact Sheet 1

## Adaptations

Northern Gannets are extremely well adapted to their environment! Their main food sources are fast swimming pelagic fish such as squid, haddock and sardines. This means they must move quickly within the water column and have attempted a technique known as plunge diving. They dive from heights of up to 40m and at speeds of up to 60mph. Because of the impact this has on the Gannet's body they have special physical adaptations that prepare them for plunge diving.

- 1) They do not have external nostrils and their secondary nostrils can be closed when in water.
- 2) Their hearing canal is extremely small and covered in feathers to prevent water from entering.
- 3) The sternum (the bone that connects the ribs) is extremely strong and provides lots of protection against the organs when the Gannet hits the water.
- 4) Highly developed lungs that help in reducing the impact of hitting the water at high speeds.
- 5) Air sacs between the sternum and pectoral muscles (between the ribs and intercostal muscles) and in the lower body help to cushion the impact of fast diving.



They also have a fat layer below the skin, thick down and tight overlapping external feathers that help keep heat in and be able to withstand low temperatures. During the breeding season they have increased blood flow to the feet to help them incubate their eggs but outside of the breeding season blood flow to the feet is reduced and this helps to keep their body temperature high when swimming.