

Name: Piers Langhelt.

Date: August 1987.

Location: South Haven, Skomer Island.

Title: Leatherback turtle at South Haven, 1987.

Memory:

“In August 1987, a leatherback turtle (*Dermochelys coriacea*) was discovered, washed-up on South Haven beach, Skomer Island.

The discovery was reported by the then Warden, Steve Sutcliffe of the Wildlife Trust of South and West Wales – Skomer Island. He contacted the National Museum of Wales, Cardiff. He spoke to Prof. Peter Morgan – Biology Department. Since we had already dissected a large turtle from North Wales, it seemed fitting that we should investigate the Skomer turtle.

On arrival on Skomer, went to South Haven and there at the bottom off the cliff was the beached turtle in the surf, half floating. Our priority was to secure the turtle to prevent it from floating away on the ebbing tide.

The turtle appeared to be in poor state, with most of the leathery skin was stripped off. There were deep lacerations along the side of the carapace. The naked carapace showed signs of being attacked by the breakdown on the internal organs.

It was quite obvious; the turtle had been dead for some time and of course it had had quite a buffeting by the sea against the rocky shores before arriving on South Haven Beach.

Having secured the turtle, I started to dismember the body, and this I knew would take some time as I had to work in the surf. The prime objective was to remove the carapace, thus making it lighter and hopefully easier to drag the carcass above the high-water mark.

As so often happens, I was still in the process of cutting the flesh away from the carapace, when the tide continued to ebb leaving me high and dry. Because of the condition of the turtle, the rotten flesh was not easy to cut away without causing further damage to the carcass.

So, I had to be very careful along the bottom of the carapace where it joins the plastron (the underside of the turtle). The problem was made more difficult as I could not lift the turtle to see where I was cutting, and therefore, I had to use my hands to feel where the tissue was cut away. I gradually cut the flesh away from round the carapace. The using a hand to gently lift the carapace allowing my hand to cut the remaining tissues and lifting the carapace to be removed in one piece.



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From memory this took a couple of hours, maybe a bit longer to complete as I had to be extra careful in making sure I did not remove any other bones in the process or damage the carapace in the process.

The next obstacle was to remove the front large flippers and the smaller ones at the rear. These usually much easier to locate, the fixing points and these I had to remove by feeling as the internal organs were in a mess.

The skull, although fairly easy to remove, care must also be taken not to lose any of the small vertebrae, also from the back. The skull looked in a very poor state, but on removal of most of the flesh, it appeared to be intact and in reasonable condition.

On closer look at the inside of the mouth reveals the mouth to be full of villi. These are slender vascular projections that increase the surface area of the mouth, they also probably secrete digestive enzymes to help with the maximum food absorption, as jelly fish (their normal diet) have less nutrients than other marine organisms.

It is worth noting that clear polythene bags floating on the ocean currents can and look like jellyfish to a turtle, and this, if eaten could bring about the death of the leatherback turtle.

The villi continue into the throat and to the gizzard. This is a ball-like structure and it is this that macerates what is left of the jelly fish, to acquire what little nutrients are left.

From memory, the remaining alimentary canal is a fairly straight tube to the anus, however, the villi continue in the 'canal' performing different functions.

It is all well, dismembering a body down to its component parts. The real difficult part is to get as much meat off the bones without (a) losing any of the smaller bones, (b) making sure that the bones location within the body are labelled and dated. The carapace had a thick layer of fat, with the consistency of lard, this had to be scrapped clean before this can be packed and labelled.

The removal of the fat insulating layer (approx. 3 inches (7.5cm) thick)), was scrapped clean by Prof. Peter Morgan, quite a 'smelly' operation!

When the work was done, the Warden took all the bones by boat to the shore at Martins Haven, where it was loaded into our van to be taken back to the National Museum, Cardiff and into our cold store.

After further cleaning of the bones, arrangements were made to take the bones to the professional company, Gerrard Company in Littlehampton, who cleaned and degreased the skeleton.

During this process it was noticed that some dark stains appeared on the carapace prior to degreasing and the bones were quite 'spongy' in texture, but this area hardened off after the degreasing.

The cause of the staining was suggested that it was due, in all probability, to the internal organs breaking down, such as the spleen, kidney, etc..

After collection from Littlehampton, the skeleton was mounted on a board and returned to Skomer Island for long term display.



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Information re: people involved

Piers Langhlet – Senior Conservation Officer in the Department of Biodiversity, Systematic Biology Ltd.

Prof. Peter Morgan – Keeper of Collections in the above Department.

Further notes

1. All the flesh was taken out to deep water, well off shore, away from the mainland coast and islands.
2. This species is the largest of all the living turtles and it's the only living genus *Dermochelys* turtle and family *Dermochelyidae*.
3. The largest leatherback turtle ever recorded is a male, found dead on a beach at Harlech, Gwnedd on 23rd September 1988. It measured 2.91m (9ft 5½ inches) in total length over the carapace, 2.77m (9ft) across the front flippers, and weighed 961.1kg (2120lb or ¾ UK ton). The Skomer Island specimen weighed approximately 250kg."