



It was a challenge to translate our training from a small rat to a mammal with a heart the size of an armchair.

Mr Marcus Chua, one of the curators at the Lee Kong Chian Natural History Museum



BONE COLLECTORS:
(From left) Mr Foo Maosheng, Miss Kate Pocklington and Mr Marcus Chua from the Lee Kong Chian Natural History Museum, who are involved in the preparation of the exhibit.

TNP PHOTO: SARANYA MAHENDRAN

hoping to complete the cleaning process by the end of this month.

Mr Chua said: "The smells changed during the different stages of (the) cleaning process. Initially, it smelled like rotting flesh, then meat gone bad and finally, old rotting oil."

Miss Pocklington admitted that she was used to rotting carcasses as it was part of her job, but took extra precaution by adding medicated oil to her face mask to block out the stench of the whale.

Apart from the smell, the team had to deal with blowflies and maggots that were attracted to the decomposing body, and were feasting on carcass remains.

The researchers also had to cut the whale's stomach open to investigate its diet. It consisted of squid beaks and plastic refuse.

DIET

Curator Foo Maosheng, 27, said: "By examining the contents of the gut, we got an idea of the whale's diet and were also able to get more information about deep sea life."

"Currently, humans have a very shallow understanding of what lurks in the deepest areas of the ocean."

One of the biggest challenges was time.

Miss Pocklington said: "We were working against time for the initial few days as we were trying to remove and preserve the important organs for research before they decomposed."

For Mr Foo, one of the main challenges was getting the logistics organised.

They were not prepared for such a big animal and there were initial issues, such as working out locations to place the carcass and finding a container to keep the skull in.

However, the team believes that it will be proved to be worthwhile.

Miss Pocklington said: "I feel extremely lucky to be part of this project despite all its challenges, as we will be able to share our findings with the public for them to enjoy and hopefully learn more and develop a further interest in wildlife."

Researchers at the Lee Kong Chian Natural History Museum are used to handling animal carcasses for their research and conservation efforts.

They have a regular recovery committee and framework for recovering carcasses such as rats and medium-sized animals such as dolphins.

However, nothing prepared them for the 10.6m-long sperm whale that was found off the coast of Jurong Island on July 10.

One of the museum curators, Mr Marcus Chua, 31, said: "Our training is based on small animals like rats, leopard cats and sea turtles, so it was a challenge to translate our training from a rat to a mammal with a heart the size of an armchair."

Miss Kate Pocklington, a 28-year-old conservator, added: "It was very overwhelming to see the carcass in person. It took me awhile to take in how large the whale actually was!"

Braving the blazing sun, humidity and strong stench of the decomposing carcass, researchers work from 9am to 6pm every weekend, pausing every hour for short breaks to ensure they do not get heat exhaustion.

The entire project has taken a month so far, and the researchers are

BY THE NUMBERS

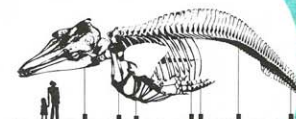
10.6m

The length of the sperm whale, which is estimated to weigh between 8,000 and 10,000kg.

Preserving the bones

- STEP 1**
Researchers puncture the carcass to allow the gas to escape. This is to ensure it does not explode due to the build-up of gas.
- STEP 2**
Blubber and flesh are removed from the whale. Maggots and blowflies are present, thus speeding up the decomposition process, which was not ideal for researchers who want to extract tissues and organs. To keep the flies away, seawater is sprayed onto the carcass periodically.
- STEP 3**
The whale's intestines and stomach are removed to study their contents. Research will be done to investigate the whale's diet and extract material for research. Stomach contents included squid beaks and plastic food containers.
- STEP 4**
Researchers manage to expose the heart and lower jaw of the whale. Heart: As big as an armchair and consists of huge blood vessels. The heart muscles are around 8cm thick. Lower jaw (mandible): Long and narrow, lined with cone-shaped teeth.
- STEP 5**
The spine and skull bones are exposed from under the flesh and blubber. Skull: 3m long with several small teeth and sockets where the larger teeth from the lower jaws fit into. Spine: The spinal column consists of 45 individual bones interlocked together, with discs in between the bones.
- STEP 6**
The tail fluke of the whale carcass, which does not contain any bones, is removed. The smaller pieces of flesh on the whale bones are cleaned.

EXHIBITION
The team of researchers from Lee Kong Chian Natural History Museum hope to complete the clean-up by the end of the month and begin the process of transporting the remains from Tuas to the museum at NUS for exhibition.



STEP 7
The bones are separated and labelled in preparation for the preservation of the bones. They are then cleaned and placed back together again.

STEP 8
After defleshing the skeleton, the process of degreasing the oily bones begins.

Whale of a find

A dead sperm whale was found floating off Jurong Island on July 10. **KHAIRIYAH RAMTHAN, FADZIL HAMZAH and CEL GULAPA** report on how staff from the Lee Kong Chian Natural History Museum are preparing its skeleton for display