

World's Largest Squid

In 2007 fishermen on the New Zealand fishing boat *San Aspiring* caught the world's largest known specimen of an adult colossal squid in Antarctica's Ross Sea.

In the past 18 months, the 495 kg colossal squid has been thawed, examined by scientists, preserved in a tank, and put on long-term display at New Zealand's national museum, Te Papa Tongarewa.

How was it caught?

The *San Aspiring* was fishing for Antarctic toothfish and was carrying a Ministry of Fisheries Observer, who was on board gathering data on fishing activities and collecting specimens for scientific study.

The colossal squid was brought to the surface on a long-line that had hooks set for toothfish and it was holding on to a toothfish when first seen.

The squid was only just alive when it reached the surface. Observers and crew thought it would be very unlikely to survive if they released it, as it had been brought up to the surface from a depth of around 800 m.

The crew took great care to get it on board and preserve it as a specimen for science.

Where is it now?

The 4.2m long squid was later given to Te Papa to exhibit and since its arrival it has been frozen, defrosted, examined, and moved to a permanent purpose-built display tank. It is the only colossal squid on public display in the world.



Staff at Te Papa very carefully thawed the squid, a process that took several days, and it was then preserved in a tank of propylene glycol chemical.



What is a colossal squid?

Squid are cephalopods, a class of molluscs. Colossal squid has the scientific name *Mesonychoteuthis hamiltoni* and is the world's largest known squid species. It also has the largest eyes in the animal kingdom. The squid is estimated to grow up to 12 to 14 m long.

It is believed that colossal squid hunt large fish, such as toothfish, and other squid.

Colossal squid are found in Antarctic waters and are not related to giant squid, which are found around the coast of New Zealand.

Colossal squid are slightly shorter than giant squid, but have a larger, heavier body. For example, the colossal squid on display at Te Papa weighs more than 490 kg. In contrast, giant squid weigh up to about 275 kg.

All squid have sharp horny beaks and the colossal squid has the largest beak of any squid. The tips of the colossal squid's tentacles (the clubs) are armed with two unusual rows of sharp, swivelling hooks and tiny suckers.

What did the scientists discover?

Scientists then measured it, looked at its stomach contents for information about its diet, and found out its sex. They also took small tissue samples for analysis by researchers. They worked very carefully because squid are delicate animals and are very easily damaged.

Among the discoveries, scientists found that:

- ★ The beak of this colossal squid is quite a lot smaller than others previously found in the stomachs of sperm whales that feed on the squid. This suggests there are colossal squid much larger than this one.
- ★ The eye of the captured squid measures 27 cm wide, the largest eye of any known animal, and the lens of the eye is 12 cm across. Scientists think that when the squid was alive, its eye probably measured 30 – 40 cm across.

Find out more:

Te Papa has an excellent colossal squid website: <http://squid.tepapa.govt.nz> which also contains interactive material. There is also a link to an online learning resource about the colossal squid, which contains links to the curriculum, learning areas, key competencies, and questions for discussion.

Te Papa's Blog: <http://blog.tepapa.govt.nz/category/colossal-squid> is updated regularly and there is a link to the captain's blog, on board the *San Aspiring*.

Also check out Te Ara's (<http://www.teara.govt.nz>) material on New Zealand octopus and squid populations under: Earth, Sea and Sky > Sea Life > Octopus and Squid.



Giant stamps and coins

In celebration of New Zealand's unique natural heritage, New Zealand Post this year issued a set of 'larger than life' stamps, 28 percent larger than normal stamps, as well as five coins.



The colossal squid features on the \$1.00 stamp. Other giants chosen for the stamps and coins include the giant moa (extinct), southern right whale, giant eagle (extinct), and giant weta.

Related factsheets

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