



# THE WORLD OF SCIENCE.

## GIANT SQUID: THE QUEST FOR THE KRAKEN.

By W. J. REES, D.Sc.

EVERY now and then a wanderer on a lonely stretch of coast comes across a strange animal that has been washed up by the winter gales. One of the strangest of these is a torpedo-shaped object, with fins at one end and a bunch of tentacles at the other. This can be readily recognised as a squid. Sometimes it is a very large one. True giants among the squids are but rarely cast up and are often the object of much speculation. Already two have been reported this year, and it seems probable that there may be more before the winter is over.

From very remote times there have been many allusions in ancient chronicles to giant species of squid, but it is only during the past 100 years that their existence has been accepted as a scientific fact. In that time we have learnt much about their structure, but we still know very little about their habits and life history. Giant squids of the North Atlantic belong to the genera *Architeuthis* and *Sthenoteuthis*; the former may reach an overall length of 60 ft., and the latter, by comparison, is a little fellow of only about 7 ft.

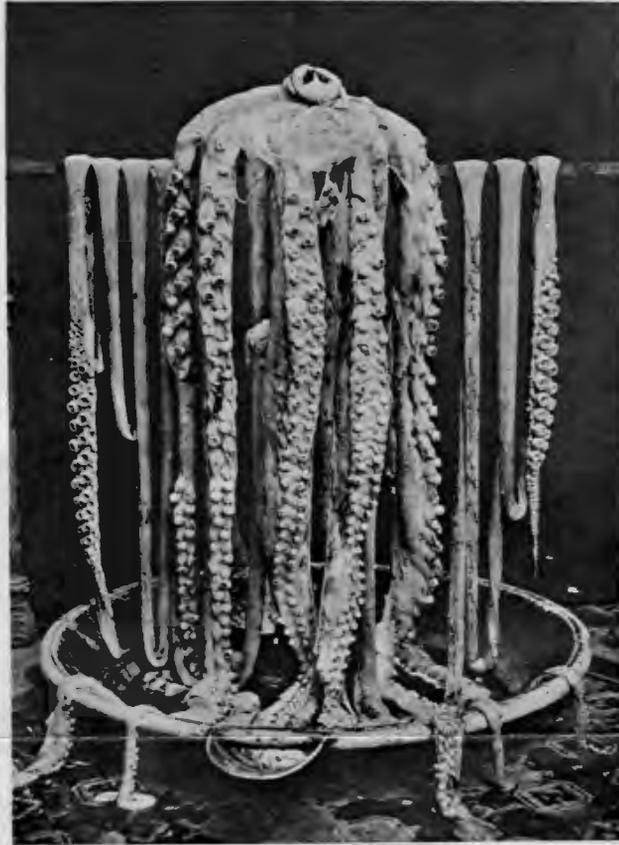
*Architeuthis*, our largest marine invertebrate animal, is a rare and infrequent visitor to our shores, and has in earlier times been responsible for nearly as many legends as the mythical mermaid and the problematic sea-serpent. Indeed, many sea-serpent stories have been proved to be due to the appearance of this animal; there is no doubt that the sea monster known to the Norwegian historians as the Kraken was a giant squid. Even to-day there is much uncertainty as to how many species of *Architeuthis* there are. This is understandable when it is realised that what we know is based on various fragments and incomplete specimens obtained mainly from strandings. Quite recently, in October of this year, one of these huge squids was stranded at Whalefirth Voe, in the Shetlands, but unfortunately it was cut up as bait by fishermen before it could be secured for scientific study. Yet another in a moribund condition was caught off the coast of Denmark by Danish fishermen about the same time.

Less than a dozen strandings on British coasts are recorded, the earliest being in October, 1673, in Dingle Bay, Southern Ireland. The following extract from a broadsheet apparently printed in Dublin announced the exhibition of:

"A Wonderful Fish or Beast that was lately killed, by James Steward, as it came of its own accord to Him out of the sea to the Shore, where he was alone on Hors-back at the Harbour's Mouth of Dingle-Ioush, which had two heads and Ten horns, and upon Eight of the said Horns about 800 Buttons or the resemblance of Little Coronets; and in each of them a set of Teeth, the said Body was bigger than a Horse and was 19 Foot Long Horns and all, the great Head thereof Carried only the said ten Horns and two very large Eyes, And the little Head thereof carried a wonderful strange mouth and two Tongues in it..."



CAST UP AT SCARBOROUGH IN MARCH 1927: A SPECIMEN OF *Sthenoteuthis caroli*, THE LITTLEST GIANT SQUID. THIS SQUID MEASURED 5 FT. 7 INS. OVERALL LENGTH AND IS NOW IN THE BRITISH MUSEUM (NATURAL HISTORY). SUCH STRANDINGS ARE OF SCIENTIFIC INTEREST.



THE FIRST AND ALMOST COMPLETE SPECIMEN OF THE GIANT SQUID TO BE MADE AVAILABLE FOR SCIENTIFIC STUDY: ONE OF THE ORIGINAL PHOTOGRAPHS OF *Architeuthis harveyi*; TAKEN IN NOVEMBER 1873, OF A SPECIMEN FOUND BY THE REV. MOSES HARVEY, OF ST. JOHNS, NEWFOUNDLAND. THE GOVERNOR OF NEWFOUNDLAND FORWARDED THE PHOTOGRAPHS TO LORD KIMBERLEY AT THE COLONIAL OFFICE, WHO PRESENTED IT TO THE BRITISH MUSEUM (NATURAL HISTORY).

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The "little Head," of course, refers to the siphon through which water is pumped out to propel the squid through the water.

An even earlier stranding, on the coast of Iceland in 1639, is mentioned by Japetus Steenstrup, the Danish zoologist, who first undertook the unravelling of the giant squid problem. Steenstrup was able to confirm the existence of giant squids from various fragments which reached him—a pair of jaws from one, a tentacle from another, and so on. Whalers and cod-fishermen working during the 19th century in Newfoundland waters had long been familiar with big squids, and were positive in their assertions of their existence. The former frequently made statements that recognisable fragments were vomited by sperm whales in their death flurry, while the latter occasionally found dying specimens on the surface and cut them up for bait. It was, however, the enthusiasm of the Rev. Moses Harvey, of St. Johns, Newfoundland, which made the first and almost complete specimen landed available for study. This specimen, known as the Logie Bay *Architeuthis*, became entangled in herring nets in November, 1873, and was preserved through the efforts of Harvey. The original photographs, of which one is reproduced here, were despatched by the

Governor to Lord Kimberley at the Colonial Office, and are now in the British Museum (Natural History).

The problem of the giant squid now aroused the interest of the American naturalist A. E. Verrill, who, with the willing co-operation of Harvey and by enlisting the help of the Gloucester, Mass., fishermen and the whaling masters, amassed sufficient fragments to enable him to make a good reconstruction of two species, one of these being named *Architeuthis harveyi* in honour of his friend.

The habits of *Architeuthis* are still a matter of speculation, but it is possible to draw a few conclusions from what we already know. Most specimens have been found in the Grand Bank area of Newfoundland, on the American coast, and on the coasts of North-West Europe and Iceland. This is a curious distribution, and suggests that there are two main concentrations of population, one east and one west, but this is by no means as simple as it looks. In the Newfoundland area we get a concentration of records that at once suggests some unfavourable hydrographic conditions killing off individuals which have wandered away from their normal haunts. It is well known that squids in general succumb quickly to a sudden lowering of temperature, and the rapid change which occurs where the cold Labrador current meets the warmer water of the Gulf Stream would appear to satisfy all the conditions. This, however, is mere speculation, but it is borne out by the more widespread records of the North European coastline, where temperature changes are not so abrupt and where strandings are fewer. There the changes are much more irregular and infrequent. Additional evidence that temperature is a controlling factor is provided by the fact that most strandings have taken place in the autumn and winter months. The full story has yet to be written, however, but there is no doubt that changes in salinity, disease, parasites and food problems contribute to the wanderings—and the strandings—of these giants.

The sperm whale includes *Architeuthis* as an item in its diet, and there is evidence, from the cuttle-beaks found in its stomach and by the scars of battle frequently seen on its head, that it does so regularly.

There must therefore be a big population of *Architeuthis* in the normal haunts of the whale, which lie outside the 100-fathom line. Structurally *Architeuthis* gives the impression of being a rather sluggish squid without the great swimming powers of its smaller cousin, *Sthenoteuthis*. To sum up, *Architeuthis* appears to live a somewhat sluggish life in deep water of 100-200 fathoms on the edge of continents in moderately warm water. It is the straggler, driven far from its normal haunts, which comes to grief on our shores.

It will be seen that there is much we do not know about the giant squid, and every stranding is well worth recording, especially if the specimen can be preserved and dispatched to one of our national museums. Or in default of the specimen, a photograph or a tentacle would be most valuable.



A SMALL EXAMPLE OF THE GIANT SQUID, *Architeuthis clara*, STRANDED AT SCARBOROUGH IN JANUARY 1933. THE RECORDED SIZE FOR A GIANT SQUID IS FOR *A. harveyi*, WHICH REACHES A LENGTH OF 60 FT., TWO-THIRDS OF WHICH IS REPRESENTED BY THE TENTACLES.

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