

R E P O R T
ON THE MARINE BIOLOGICAL SURVEY AROUND AND
ON SURTSEY

by

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Plankton and bottom samples were taken around Surtsey on December 1-2, 1963, 1-12 nautical miles off the island. A trawling station was also taken $5\frac{1}{2}$ nautical miles W of the island, where the catch consisted of 8 species of fish besides Norway lobster.

The result from this survey supported the general view that life was normal around Surtsey.

On January 23rd, 1964, zooplankton samples were taken around Surtsey. They have not been worked up yet.

Phyto- and zooplankton, as well as bottom animals, were sampled around Surtsey April 2-3, 1964. On April 3rd a trawling station was also taken $2\frac{1}{2}$ -6 nautical miles SE of Surtsey, where we obtained 11 species of fish.

The samples already worked up did not show anything extraordinary. However, at the stations located 1 nautical mile off the island, there was a layer of volcanic sand over the mud, and fewer animals were obtained there than at the stations further away. We could not measure the thickness of that layer.

Phyto- and zooplankton were taken around Surtsey on the 10th of April, 1964. The composition of plankton was similar to that found about one week earlier.

On May 29-30, 1964, phyto- and zooplankton and bottom samples were taken around Surtsey. The bottom samplings were unsuccessful because of technical difficulties.

The samples, which have been worked up, have not shown anything extraordinary.

The same can be said about plankton samples from June 22-23, and plankton and bottom samples from September 5-7, 1964.

On November 16-17, 1964, plankton samples were taken to collect larvae of fish and bottom animals. As was to be expected at this time of year, very few larvae were found.

Bottom samples were also taken and there were living animals in all of them. The material from one station only has been worked up as yet. This station was clearly over the new lava on the sea floor, 0.2 nautical miles W of the island, off a place where lava was flowing into the sea and where the depth was 70 m. The sample was taken by a scraper. As could be expected, it got caught at once. However, the sample obtained contained some fragments of new lava and 8 animals listed below:

<u>Name</u>	<u>Number</u>
Pectenaria koreni	2
Portunus holaster	4
Pandalus montagui	1
Crangon allmani	1

This sample shows an early immigration to the lava on the sea floor and, especially as regards the Polychaeta, a rather surprising one.

Every other week in summer and every third week in winter m/s Gullfoss has taken samples with Continuous Plankton Recorder on her route passing Surtsey. The samples obtained after the beginning of the eruption were in good accordance with the samples from previous years.

All the marine biological surveys seem to indicate that the eruption has not had any effect on the life in the sea, except for the bottom animals in the area covered by a thick layer of volcanic material.

Scientists who have worked up the samples:

Ingvar Hallgrímsson	Zooplankton
Jutta Magnússon	Zooplankton
Aðalsteinn Sigurðsson	Bottom animals and their larvae
Unnur Skúladóttir	Bottom animals
Þórunn Þórðardóttir	Phytoplankton

The shore at the north coast of Surtsey was examined for marine animals November 25th, 1964.

The animals which had drifted ashore were:

Euphausiacea	in great numbers
Amphipoda	"
Cirripedia (Lepas sp.)	some few on debris drifted ashore
Chaetognatha	a few animals
Scopelidae	few animals
Scyphozoa	"

None of these animals have interest as immigrants.