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Fun fact: Volcanic eruption at Vatnajokull glacier still ongoing after five months



Five months after it first started, the volcanic eruption at Holuhraun is still ongoing. The lava field now covers about 85 square kilometers and its thickness is about 40 cm at its extreme. The lava flow and seismic activity

in the area has decreased significantly, but according to Magnus Tumi Gudmundsson, professor of geophysics at the University of Iceland, the eruption will continue for at least two months.

Scientists have recently begun studying the gases emerging from the eruption, but the amount of gas is unusually high which has sparked health concerns. A total of six different gases have been identified, 90% of the gas is water, 3 to 4% is carbon dioxide and sulfur dioxide. A small amount is chlorine and fluorine and a very small amount is carbon monoxide which is the most dangerous.

A peculiar lava formation known as Pele's hair has been found at the field, Pele's hair are volcanic glass threads or fibers formed when small particles of molten material are thrown into the air and spun out by the wind into long hair-like strands. This phenomenon is known as "Normahár" or Witches hair in Icelandic; the lava field at Holuhraun has therefore been given the name "Normahraun" or Witches lava.



(Photo copyright: RUV and NHM, London)

Data Storage Tags - DSTs

Star-Oddi has been manufacturing and developing DSTs since 1993. The data loggers are used for various studies, such as fish tagging, fishing gear studies and oceanography. You can find our whole product range [here](#). The following sensors are available:

Spawning behavior of Atlantic cod studied using Star-Oddi's temperature and depth loggers



Atlantic cod possess a complex mating system that is difficult to study in the wild. However, understanding the behavior underlying cod spawning is important for effectively monitoring and managing cod stocks.

A recent study using DST data collected as part of a large-scale, long-term study of the movements and habitat use of the Icelandic cod stock conducted by the Marine Research Institute of Iceland has identified patterns in the depth profiles of tagged cod consistent with published descriptions of the behavior of spawning cod. The researchers used Star-Oddi [DST Centi-TD](#) and [DST Milli-TD](#) temperature and pressure archival tags to record the depth and temperature histories of Atlantic cod tagged and recovered during 2002-2007.

The study identified periods of vertical behavior that were unique to the spawning season of Atlantic cod in Iceland. In particular, long periods (>12 hours) of fish maintaining a constant depth were only observed during February-May and interpreted as individuals participating in an aggregation of spawning cod. Brief ascents into the water column followed by a return to a baseline depth were interpreted as putative spawning events. When these patterns were analyzed, the researchers found that male cod spend more time participating in spawning aggregations than females and that the males exhibited a greater number of the brief ascents into the water column that were interpreted as putative spawning events.

These results require additional confirmation, but will enable researchers to study the spawning behavior of Atlantic cod at greater spatial and temporal resolutions than previously possible and will enable for inclusion of spawning behavior into conservation and management planning.

The study was conducted by a team of researchers from the Texas Cooperative Fish and Wildlife Research Unit, the Marine Research Institute of Iceland, and the University of Iceland. Please click [here](#) to read the whole article.

Behavioral pattern and environmental conditions of the Greenland halibut



With its plentiful numbers along the Greenland west coast, Greenland halibut has rendered a socio-economically important resource for the Greenlandic people for more than a century. This traditional fishery is centered in a small area off Ilulissat (Disko Bay) where up to 8-9000 tons are caught annually, making it one of the most condensed fisheries in the world. However, due to the deep and partly ice-covered environment, very little is known about the halibut's behavior and habitat characteristics.

During three consecutive years, adult Greenland halibut were tagged with Star-Oddi [DST milli-temperature and depth archival tags](#) in the waters off Ilulissat. The retrieved data showed that, although clear differences between individuals in migration were present, a consistent seasonal migration from the relatively shallow-water Disko Bay area into the deep waters of the Ilulissat Icefjord occurred, and the fish resided within the icefjord during winter months before returning to Disko Bay. Irrespective of year, the fish experienced warmer water and a broader range of temperatures when resident in Disko Bay than when resident in the icefjord. Information on how distributional patterns of Greenland halibut change with season and environmental parameters (e.g. temperature) can be used for management and conservation purposes.



Using Greenland halibut as a 'measuring tool' the study also documented the first seawater temperature measurements made beneath the Jakobshavn Isbræ outlet glacier (one of the largest outlet glaciers in the world and covering the icefjord), revealing a positive relationship between depth and temperature for the upper 600 m and a between-year variation in temperatures beneath the ice sheet.

Furthermore, the derived temperature data from beneath the Jakobshavn Isbræ outlet glacier and within the Disko Bay area has been used in a comprehensive study addressing variability and renewal of Ilulissat Icefjord waters during the last 15 years (Gladish et al 2014).

Please click [here](#) to read the whole article.

Published research using our sensors





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