



Data from Star-Oddi temperature and depth loggers allows researchers to track the migration of Atlantic salmon



The Icelandic Institute of Freshwater Fisheries recently published their research on the behaviour and migration route of Atlantic salmon. The data used in the research was gathered by Star-Oddi's [DST micro-TD temperature and depth loggers](#). In 2005 and 2006, 598 hatchery smolts were released in Kiðafellsá river on the southwest coast of Iceland. The DSTs were implanted into the smolts' abdominal cavity and programmed to sample temperature and depth once every hour.

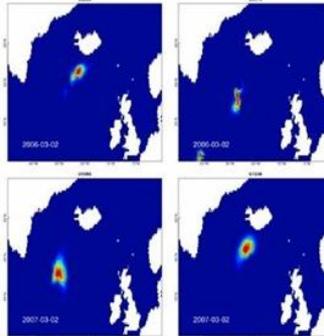
A total of 7 DSTs were recaptured, five from salmon that returned to the river in 2006 and two that returned in 2007, all the recaptured salmon had spent one year at sea. The data retrieved from the DSTs has given the researchers a very interesting insight into the behaviour of the fish while out at sea.

The data, for example, revealed that the salmon spends most of the time close to the surface, but moves to a slightly deeper level during the day. It also likes to stay at a relatively high ocean temperature, about 6 to 15°C, which helps it grow faster.

Interesting video showing the estimated migration route

The temperature and depth data in combination with geo-location models was also used to estimate the migration route of the fish. During the first summer months the fish stayed in the Irminger Sea, southwest of Iceland, but then moved southeast towards the Faroe Islands in the fall. They then returned and spent the remainder of the winter months in the Irminger Sea before returning to Kiðafellsá. The picture on the right is a screenshot from a video showing the estimated route of the salmon. To watch the video please click on the following Youtube link: <https://www.youtube.com/watch?v=ykaOLaYq1Yk>

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



Researchers find evidence of a link between the spawning behavior of Atlantic cod and the lunar cycle

Understanding the environmental processes determining the timing and success of reproduction is of critical importance to developing effective management strategies of marine fishes. Unfortunately most marine broadcast-spawning fishes are very discrete in regards to their sex lives rendering it difficult to study their reproductive behavior that may be important for conservation and management planning.



Peak activity around new and full moon

Electronic data storage tags (DSTs) offer a potential avenue to examine aspects of individual behavior during spawning. The DSTs are particularly useful as they can collect data over relatively large spatial and temporal scales that can be correlated to predicted environmental conditions. Grabowski et al. (2015) have

presented data retrieved from [Star-Oddi's temperature and depth data storage tags](#) implanted into Atlantic Cod captured from spawning aggregations around Iceland. The research shows that events putatively identified as Atlantic cod spawning behavior is tied to a lunar cycle with a pronounced semi-lunar cycle within it.

Peak activity occurred around the full and new moons, but there was no evidence of a relationship between activity and diel tidal or day/night cycles. Given that most Atlantic Cod spawning aggregations around Iceland complete spawning within a single lunar cycle, these patterns were only observable through tagging individuals from aggregations around the entire island.

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



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Star-Oddi Online

<http://www.star-oddi.com/news/newsletters/issues/2015/4/27/default.aspx>

We have the winners!



Star-Oddi held a raffle at the Ocean Business exhibition in Southampton U.K. last month with great prizes. The exhibition was a great success with more professional guests than ever before and we had

record participants in the raffle.



The winners are Dr. David Fratantoni, chief technology officer at the oceanographic services company Horizon Marine located

the US, who won Star-Oddi's small [DST CTD](#) and Dr. Nadim Dayoub, offshore surveyor at Fugro Survey LTD in the UK, who won the durable temperature logger [Starmon mini](#). We hope they make the best of their winnings.



Fun fact: European golden plover - Iceland's official harbinger of spring



After, for what has seemed like, an endless winter, the pleasing sounds of the migrating birds returning for the summer is sure to fill every Icelander's heart with warmth.

Every spring, about 24 different species of birds migrate to Iceland for the summer,

including birds such as the Whimbrel and the Eurasian oystercatcher. As can be imagined, these birds add a much welcomed variety to the otherwise small Icelandic fauna.

The most iconic of these migrants and what can be called the official harbinger of spring in Iceland is the European golden plover or "Lóa" as it is called in Icelandic. The plover spends the winter in Great Britain and on the coast of Western Europe down to Gibraltar and North-Africa. It usually arrives in Iceland for its summer stay in April and lays its eggs at the end of May with each female laying about four eggs. It then returns south with its chicks quit early or at the end of July.

The first sighting of the plover is awaited with much excitement and often makes prime time news. Various songs and nursery rhymes have also been written about the beloved bird and historically people have even tried to predict the weather by reading into its behaviour, with little known success though.



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:

Now you can find product updates, video tutorials and general information about Star-Oddi on:



Temperature



Pressure



Conductivity



Tilt



Magnetic field strength



Acoustic receiver



Light intensity

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