

Star-Oddi

Star-Oddi (Iceland) is a leading-edge company in developing research equipment for increasing knowledge of marine life and underwater environments. Star-Oddi specialises in the design and manufacture of scientific equipment, microelectronics and sensors for monitoring behavioural and environmental parameters such as temperature, depth, salinity, tilt, compass and GPS.<P>

Star-Oddi works closely with scientists and research institutes worldwide, providing solutions that can give information on behavioural patterns of fish and environmental parameters. When making the instruments, the company aims to create equipment that enables scientists and researchers to understand, protect and maintain ecosystem health.

The Data Storage Tag (DST) was developed by the company and has been available since 1993. DST is an ultra-small data logger that measures and records data into its internal memory. DST can store up to three parameters. The basic sensors are temperature and depth/pressure, but other sensors that can be added are salinity, tilt, compass and GPS. The recorded data are uploaded from the DST into a PC computer, using reader box interface and application software. The battery inside the DST typically lasts for 3–5 years, depending on sampling interval used. DST is available in three different sizes, with diameter ranging from 8 to 15mm and length from 25 to 46mm. All types have variations of sensors, battery lifetime and memory size.

The DST is specially designed for fish tagging. With the recapture of DST, scientists obtain invaluable information on fish position, the environment the fish prefers and behavioural patterns. Examples of research objectives using Data Storage Tags on fish include:

- data for improving stock assessment and management
- data for stock models, accessibility and availability of fish resources
- behaviour analysis, migration and distribution.

The GPS Fish Positioning System enables researchers to monitor the geographical distribution of fish. The GPS Fish Positioning System will increase knowledge on fish migratory routes and provide a major contribution to sustainable management of fish resources. The system is based on the DST GPS, Simrad sonar or an acoustic transmitter called Fish Positioning Sounder (FPS). The DST GPS tags can receive positions from the FPS and from vessels equipped with Simrad sonars that have a range of 4 km. The GPS Fish Positioning System was developed in co-operation with Simrad (Norway).

While Star-Oddi's roots are embedded in fish and marine animal tagging, the products have also been employed by scientists conducting research in oceans, rivers and lakes. The solutions have proven to be economical, reliable and easy to use in a wide variety of situations, such as fishing gear studies or as an in situ instrument for oceanographic studies.

This sector has experienced enormous growth during the past few years, demonstrating quality of design and innovative solutions. For the oceanography and limnology sectors, Star-Oddi has focused on developing accurate, reliable, innovative and high-quality equipment.