STAR : ODDI

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Water quality and thermal stratification surveyed with Star-Oddi's CTD loggers

Tehran Water Authority (TWA) decided to survey the quality of water in Latian dam and study the thermal stratification of its lake. Those studies and surveys would enable TWA to predict the changes in quality of the water in the near and mid-term future. TWA measured three main parameters: conductivity, temperature, and depth. Using these parameters, TWA could run numeric models in order to obtain the water quality prediction.

Latian Dam is situated 25km from Tehran and has a reservoir of 95 million cubic meter. This dam is one of the main suppliers of drinking water to the 15 million inhabitants of Tehran. Therefore, controlling water quality is of the utmost importance to the TWA.

TWA commissioned BADR AZIN BANA (BAB) to provide a solution in a timely manner and within a very narrow budget. After a detailed study, BAB proposed using 8 DST CTDs made by Star-Oddi. Each CTD was securely attached using Star-Oddi protective housing. The housings were then carefully and meticulously attached to a steel sensor string at an interval of 6m.

The project was completed in summer 2013. TWA has been using the data from the system non-stop. The project was a tremendous success due to 1) cost effectiveness 2) instantaneous data logging at every level as opposed to a gradual reading 3) no need for an attendee to use the system 4) no need for providing power because DST CTD has a typical battery life of 4 years.

A study on thermal refuge of smallmouth bass using Star-Oddi temperature loggers

River systems dominated by groundwater sources provide unique thermal environments for aquatic organisms. A recent study conducted in the Jacks Fork River in Missouri, USA examined how smallmouth bass (a popular native sport fish) use areas of different temperature within the stream as thermal refuge. The researchers used radio telemetry and Star-Oddi DST micro-T temperature archival tags to monitor fish location and temperature over one year. Those results were then used to inform different bioenergetics models to determine if there may be energetic differences among three ways that fish use thermal refuge.

The study showed the exact conditions under which smallmouth bass leave thermal refuge and what temperatures they experienced throughout the year. Results of the bioenergetics models were somewhat conflicting, but indicated that there are potential differences in growth and consumption based on the degree to which fish used thermal refuge. Results of the study may be used to inform management of the species.

The study was conducted by researchers from the Missouri Cooperative Fish and Wildlife Research Unit, the University of Missouri, Missouri State University, the Missouri Department of Conservation, and the National Park Service.

The full study can be accessed via the following website: http://onlinelibrary.wiley.com/doi/10.1111/eff.12192/full

Published research using our sensors

You can view an extensive collection of scientific papers and posters using our sensors in various types of aquatic and fisheries research which can be found on our website. To view the research, please click on the following link.

If you have a story or research to share with us, please contact us.

Meet our representative at OSEA 2014

Our Singaporean distributor, Precision Technologies, will b exhibiting at OSEA 2014: International Oil & Gas Industry Exhibition & Conference which will be held in Marina Bay Sands in Singapore, December 2-5.

Among other products, Precision Technologies will be exhibiting our newly released Starmon ES-External Sensor Data Logger, which is ideal for use in demandin environments with high pressure and high temperature.

Fun fact: The yearly bookflood is upon us

Christmas is a time of giving and in Iceland the single most popular Christmas gift is a book. For many Icelanders, the highlight of the Christmas season involve snuggling up in bed on Christmas Eve with a new book and the remains of the chocolate box.

Iceland has a very strong literary tradition which began with the Icelandic Sagas and Prose Edda and has remained strong up until this day. In 2010, for example, about 1506 books were published in Icelandic which is quite a feat for such a small linguistic area.

In late October and November new titles come flooding into the bookshops; it is estimated that about 60 to 70% of all new books are published during this season. This phenomenon is usually referred to as "jólabókaflóðið" or "The Christmas Bookflood". Bookshop employees are hard at work finding space for all the new books and supermarkets stock up on the most popular titles. Every Icelandic home receives a large booklet listing all the titl and authors stop by every other bookshop, cafe, bar and shopping centre to promote his or her book.

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:

- Temperature
- Pressure
- Conductivity
- Tilt
- Magnetic field strength
- Acoustic receiver
- Light intensity

Star-Oddi Online

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