



Check out the June issue of Lab Animal I

**LabAnimal Europe** Make sure to che June issue (Vol 1 **Lab Animal Europe**. Our biomedical produ Ásgeir Bjarnason, has a guest editorial abou considerations for measuring body temperal laboratory animals.

**NEWS FROM THE LAB**

**Temperature response measured in mice: "Do sedatives engage natural sleep pathways?"**



Researchers from Imperial College London and ETH in Zürich recently published a paper in [Nature Neuroscience](#) where the DST nano-T was implanted in mice. The research focused on answering the question "Do sedatives engage natural sleep pathways?"

The temperature data was used to establish a baseline for the study, to record drop in body temperature during the experimental phases and to record elevation in body temperature during sleep deprivation.

The [DST nano-T temperature loggers](#) were implanted in the peritoneal cavity seven days prior to the experiment. They were programmed to record every 30 min during 24 hour sleep recordings, every 5 min during sleep deprivation and recovery sleep, and every 2 min for experiments with dexmedetomidine, saline or CNO injection.

The article can be accessed on Nature Neuroscience's homepage: <http://www.nature.com/neuro/journal/v18/n4/abs/nn.3957.html>



**Star-Oddi loggers at Scandias in Turku ir**



Star-Oddi's heart rate temperature logger far represented at the [Sci meeting](#) in Turku, Finl 9-12 where our Scand distributor, [Openi](#), will

**Fun Fact: European golden plover Iceland's official harbinger of spr**



After, for what ha: an endless winter sounds of the mig returning for the s sure to fill every l heart with warmtr

Every spring, abc species of birds n Iceland for the su including birds su Whimbrel and the Eurasian oystercatcher. A imagined, these birds add a much welcome otherwise small Icelandic fauna.

**NEWS FROM NATURE**

**Hot research with Star Oddi - Data loggers implanted in lions in South Africa**



How will free-ranging mammals cope with the rise in global temperatures predicted under climate change? Can they adapt to climatic conditions unlike anything they currently experience or will they succumb to extinction? For the members of the [Wildlife Conservation Physiology](#) team in the Brain Function Research Group, at the University of the Witwatersrand in South Africa, these questions form the basis of much of their research.

Star Oddi's DST temperature data loggers are a key tool in helping the team to understand the physiological responses of wild mammals to changing climatic conditions. Following implantation into animals through a minor surgical procedure, the data loggers record core body temperature of free-living mammals going about their daily lives in their natural habitat, without interference by human observers. The Star Oddi DST data loggers are ideal for long-term research as they can record temperature at short intervals (5 minutes) for more than a year.



The researchers have collected impressive datasets for aardvark, monkeys, lions and antelope. The fine-scale body temperature data extracted from the reliable data loggers have yielded important and fascinating insights. For example, vervet monkeys with more "friends" (social partners) are better able to maintain their body temperatures on cold winter nights. Another more threatened species, the aardvark, appears to be particularly sensitive to the hot and dry environments likely to become common with climate change. Star Oddi temperature data loggers have revealed large daily fluctuations in the body temperatures of aardvark when their food (ants and termites) becomes inaccessible during dry



periods.

Body temperature recordings in wild mammals allows the researchers to detect when an individual becomes physiologically stressed by its environment. With this knowledge they can better predict how species will respond to global climate change, and ultimately improve conservation strategies.

The most iconic of these migrants and what the official harbinger of spring in Iceland is tl golden plover or "Lóa" as it is called in Icela plover spends the winter in Great Britain anc of Western Europe down to Gibraltar and No usually arrives in Iceland for its summer stay lays its eggs at the end of May with each fer about four eggs. It then returns south with it: 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 dev since 1993. The data loggers are used for v research studies. You can find our whole pr [here](#). The following sensors are available:

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

Published research using our temperature loggers



We would like to point out the extensive collection of scientific papers and posters using our sensors in various types of biomedical research which can be found on our website. To view the research, please click on the following [link](#).



**Star-Oddi Online**

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