

RESEARCH HIGHLIGHTS

Selections from the scientific literature

CLIMATE SCIENCE

West Antarctic warming hotspot

West Antarctica warmed by about 2.4°C between 1958 and 2010, making it one of the fastest-warming areas of the planet.

Previously reported temperature trends in West Antarctica have been disputed, and records in the region are sparse. David Bromwich at Ohio State University in Columbus and his colleagues analysed the most complete set of records available, from the Byrd Station US research outpost, and filled in missing observations with modelling and data from other sites. Their analysis shows warming in West Antarctica in the spring, summer and winter.

Despite the lack of evidence for increased surface melting in this region so far, a continued rise in summer temperatures could boost the chances of more frequent and intense melting events, the authors say.

Nature Geosci. <http://dx.doi.org/10.1038/ngeo1671> (2012)

GENOMICS

Single-cell sequencing

Sequencing a genome usually requires DNA from thousands or even millions of cells, but a technique now allows more than 90% of the genome of a single cell to be sequenced. This could enable studies, for example, on how mutated cancer cells emerge or how individual neurons differ.

Sunney Xie at Harvard University in Cambridge, Massachusetts, and his colleagues developed the method, which uses short

DNA molecules called primers. These molecules are added to DNA that has been isolated from a single cell, and that stick to its strands to act as starting points for DNA replication. The primers are designed to reduce the excessive copying of some portions of the genome at the expense of others — a problem that has plagued other attempts at single-cell sequencing.

Science 338, 1622–1626 (2012)
For a longer story on this research, see <http://go.nature.com/fdvwb2>

ASTRONOMY

Most powerful quasar yet

Astronomers have discovered a quasar that is expelling material 10 times more powerfully than any previously observed.

The quasar — the luminous centre of a galaxy powered by a supermassive black hole — each year blasts out material equivalent to the mass of 400 Suns. Benoit Borguet at Virginia

Polytechnic Institute and State University in Blacksburg and his colleagues spotted the object, dubbed SDSS J1106+1939, in April 2011 using the Very Large Telescope, a European Southern Observatory facility on Cerro Paranal in Chile. The quasar's existence helps to strengthen models of galactic evolution, which use outflows of supermassive black holes as a feedback mechanism to constrain star formation. *Astrophys J.* 762, 49 (2013)



ANIMAL BEHAVIOUR

Bisexuality boosts attractiveness

Female fish find some males more attractive if they have seen the males engaging in mating behaviour, even when such behaviour was with other males.

David Bierbach and his colleagues at the University of Frankfurt in Germany assessed the preferences of female Atlantic mollies (*Poecilia mexicana*) for various males of the same species (pictured) by showing them video animations of the males and measuring the time they spent in proximity to the images. Females preferred colourful males at first, but showed an increased preference for drabber males that they witnessed engaging

in either homosexual or heterosexual mating behaviour. Another experiment confirmed that the females could tell the difference between male and female fish in the animations.

The authors suggest that this increased female preference for sexually active males may explain the prevalence of bisexuality in some group-living species. Homosexual behaviour, they say, confers a reproductive advantage on males of those species by increasing their likelihood of future heterosexual mating.

Biol. Lett. 9, 20121038 (2013)