

COMMUNICATION

Climate sceptics use strong words

Climate scientists use more cautious language in scientific reports than do climate-change sceptics, even though the sceptics often accuse the scientists of being alarmist.

Srdan Medimorec and Gordon Pennycook at the University of Waterloo in Canada used software to analyse the style of language in a report by the Intergovernmental Panel on Climate Change (IPCC) in 2013 and in a response written by a sceptic group, the Nongovernmental International Panel on Climate Change (NIPCC). The researchers did not assess the scientific accuracy of the reports but found that the NIPCC report used emotional language and the IPCC report contained more neutral and formal phrasing.

The authors hypothesize that the IPCC uses such language because of scrutiny from the media and sceptics. *Clim. Change* <http://doi.org/7mb> (2015)

NUCLEAR PHYSICS

Forensics reveals uranium's past

Uranium from German experiments during the Second World War was not used in a nuclear reactor for any appreciable amount of time.



Maria Wallenius at the European Commission Joint Research Centre's Institute for Transuranium Elements in Karlsruhe, Germany, and her colleagues did a forensic analysis of uranium samples (pictured) used in 1940s experiments in Germany. They looked for trace elements and isotopes of uranium and plutonium that are created when neutrons released during nuclear fission smash into other atoms.

They traced the origin of the uranium to a mine in the Czech Republic, and

found that isotope ratios matched those found in natural uranium ore. The samples were never used in experiments that reached the critical mass necessary for sustained nuclear fission. *Angew. Chem. Int. Ed.* <http://doi.org/f3f7js> (2015)

CANCER

A trap for roving cancer cells

Implanting a polymer scaffold in mice that have tumours captures spreading cancer cells,

enabling their early detection.

Lonnie Shea at the University of Michigan in Ann Arbor and his colleagues placed human breast-cancer cells in mice and implanted the scaffolds in their abdomens a week later. Two weeks after cell transplantation, the researchers detected cancer cells in the scaffolds but not in the lungs or liver, where breast cancer often spreads. After 28 days, mice with scaffolds had fewer tumours in their lungs than did animals without scaffolds. And using an imaging technique, the team measured changes in the tissue



ANIMAL BEHAVIOUR

Whales that click create cliques

Sperm whales form clans by learning vocal calls from others that sing like them. This kind of 'cultural transmission' has been seen as a mainly human trait.

Sperm-whale clans use distinct dialects of clicks to communicate. To learn how their complex societies form, Maurício Cantor at Dalhousie University in Halifax, Canada, and his colleagues used 18 years of data on the acoustic calls of sperm whales (*Physeter macrocephalus*; pictured) from around the Galapagos Islands to build several possible

models of whale populations. In their simulations, the clans that have been observed in nature did not form when the vocal calls were genetically inherited or learned from other sperm whales in general. But clans did form when the animals adopted the most common calls produced by certain individuals — mainly those with similar communication patterns.

This further suggests that humans are not the only mammals that segregate according to similarities in learned behaviour.

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