NATURE PRODUCTION/NATUREPL.COM

GENOMICS

Genome shows gecko evolution

The first genome of a gecko species hints at the basis of its ability to regrow tails and climb walls.

More than 1,400 species of gecko inhabit temperate areas across the world. A team led by Huanming Yang at BGI in Shenzhen and Xiaosong Gu at Nantong University, both in China, sequenced the genome of Schlegel's Japanese gecko (*Gekko japonicus*; **pictured**) and identified more than 22,000 genes. Comparisons with other reptile and vertebrate genomes show that geckos diverged from other lizards around 200 million years ago, after the split of two supercontinents.

The gecko genome harbours dozens of copies of β-keratin genes — expressed in hair-like growths called setae that help the animal to cling to vertical surfaces. Expression of two genes that make the hormone prostaglandin increased in geckos after their tails had been amputated, suggesting a role for this hormone in regeneration.
Nature Commun. 6, **10033 (2015)**

ATMOSPHERIC SCIENCE

Ozone destruction in a future climate

ZSUZSA ÁKOS

The potency of one of the major ozone-destroying gases could double because of future climate change.

Nitrous oxide (N_2O) leads to ozone destruction through various chemical reactions in the stratosphere, and is the main ozone-destroying gas released by human activity. Laura Revell at the Swiss Federal Institute of Technology in Zurich and her colleagues analysed the ozone-depletion potential of this gas using different scenarios of future climate change. The models showed that ozone destruction involving N_2O is made less efficient by the higher concentrations of carbon dioxide and methane that are expected in the atmosphere by 2100. However, the team found that other changes in atmospheric chemistry, temperature and air circulation by 2100 could still increase the ozone depletion potential of N_2O by as much as two-fold relative to 2000.
Geophys. Res. Lett. **http://doi.org/9h2 (2015)**

ECOLOGY

Africa's herbivores mapped

Researchers have constructed a map of Sub-Saharan Africa showing the types of plant-eating animals that grazed it some 1,000 years ago.

Gareth Hempson, of the University of Cape Town in South Africa, and his colleagues used factors such as species distribution, rainfall and vegetation patterns to model the likely biomass of 92 large herbivores across Sub-Saharan Africa around 1,000 years ago. They divided the region into areas each measuring around 12,000 square kilometres, and grouped areas that had similar biomass and animal types into four herbivore regimes. They named these 'herbivomes' after the forest duiker, the arid gazelle and the bulk feeder, with the fourth regime containing a high variety and abundance of larger species. The analysis should assist research on the loss of large plant-eaters and improve understanding of African ecology, the team says.
Science 350, **1056–1061 (2015)**

ECOLOGY

Pollination is more than bees

Other creatures visit more flowers than bees do, and may be almost as important in pollinating crops.

Romina Rader at the University of New England in Armidale, Australia, and her colleagues analysed data from 39 field studies of pollination by honey bees, other bees and other insects, including flies, beetles, moths and ants. They found that other insects carried out 25–50% of all visits to crop flowers. Although these 'non-bees' were less effective at pollinating on each visit, their increased visits made them roughly as effective as bees.

Crops such as coffee and grapefruit were almost exclusively pollinated by bees, whereas crops such as custard apples and mangoes relied almost totally on other insects. Non-bees were also found to be less affected by changes to natural habitats, so the authors suggest that these insects might provide a more robust pollination service than bees do.
Proc. Natl Acad. Sci. USA **http://dx.doi.org/10.1073/pnas.1517092112 (2015)**

SOCIAL SELECTION

Popular topics on social media

Credit and co-authors cause chatter

Questions of paper authorship have been plaguing scientists on social media: who should come first? And who deserves to be listed at all? When it comes to papers with numerous authors, the publishing process can get messy. For instance, when Dorothy Bishop, a psychologist at the University of Oxford, UK, found herself trying to review a paper blemished with mistakes, she tweeted: "When a manuscript with 20+ authors has grammatical errors, typos and/or no page numbers, you wonder how many authors actually read it." Others took a less dark view. Deirdre Toher, a statistician at the University of the West of England in Bristol, UK, tweeted that the logistics of implementing changes from multiple researchers may have led to the mistakes, adding "with that many authors it also means that people assume that the basics are 'someone else's responsibility'."

NATURE.COM
For more on popular papers:
go.nature.com/noociy

ZOOLOGY

Pigeon leaders fly faster

Birds that lead a social group learn faster than their followers, although the leaders might not start out as the best decision-makers.

Benjamin Pettit and Dora Biro at the University of Oxford, UK, and their colleagues tracked the behaviour of 40 homing pigeons (**pictured**) as the birds navigated various routes, both individually and as a flock. They found that birds that later assumed leadership of flocks had been the fastest fliers on previous solo flights, but had not necessarily navigated the shortest and most energy-efficient routes. On later solo flights, leaders learned to navigate along direct routes more quickly than followers did. The team suggests that, among pigeons at least, leadership is based on pre-existing individual differences rather than on social preferences or optimal group decision-making.
Curr. Biol. **http://doi.org/9kb (2015)**

NATURE.COM
For the latest research published by *Nature* visit:
www.nature.com/latestresearch