

**365 DAYS:**  
*the year in science*

# IMAGES OF THE YEAR

NASA's New Horizons probe won headlines and hearts this year as it sent back pictures of Pluto from the edges of the Solar System. But NASA scientists were not the only ones with images for us to wonder over. Animals at war, shock waves made visible and close-ups of objects normally beyond the limits of our vision were among the shots that caught the eye of *Nature's* art team.

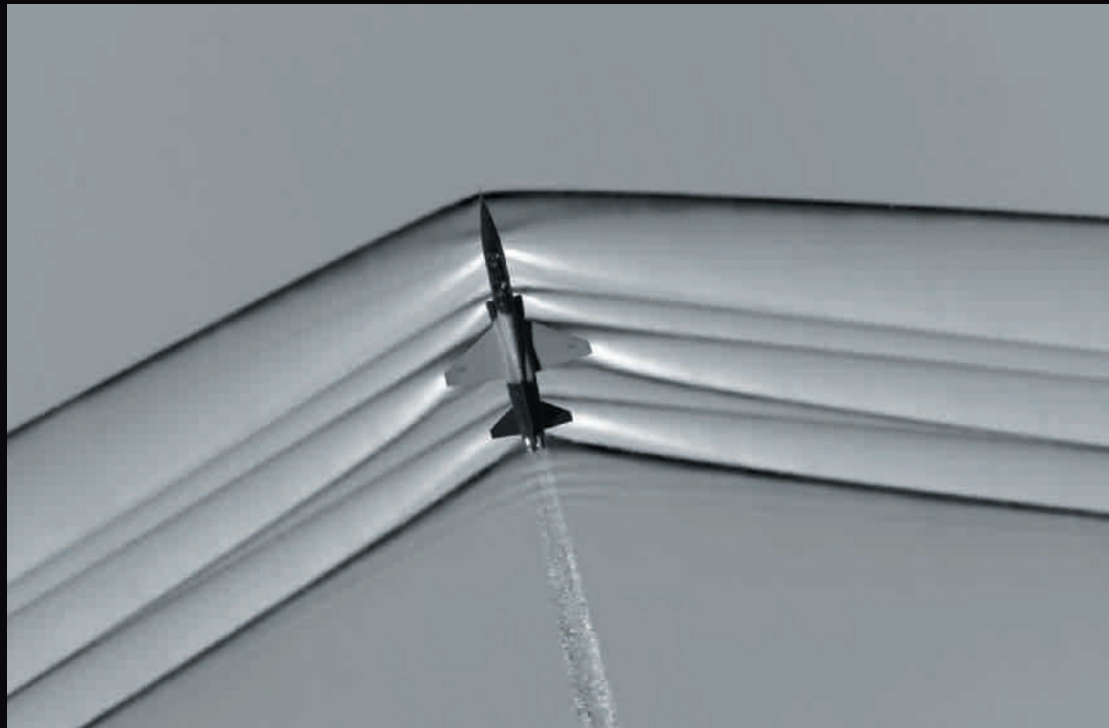
Images selected by *Nature's* art and design team  
Text by Daniel Cressey



## REPTILE WARFARE

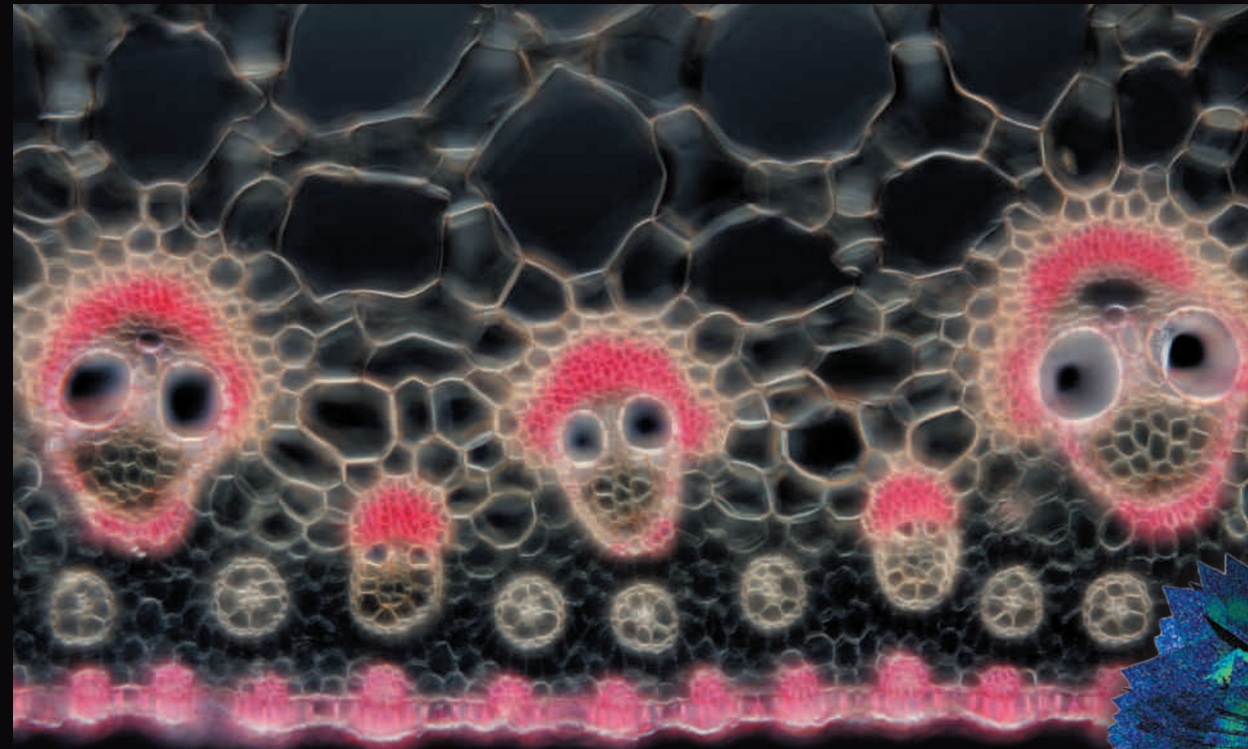
The biggest lizards on Earth — Komodo dragons — stage brutal fights over territory in Indonesia. This shot of such a bout was a finalist in the 2015 Wildlife Photographer of the Year competition.





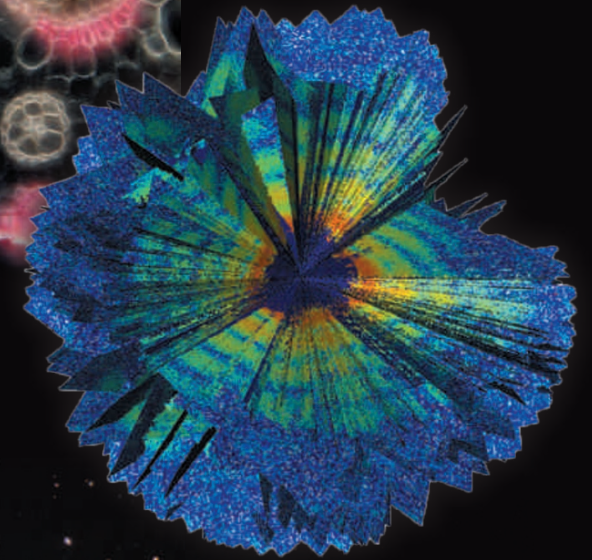
### SUPERSONIC BOOM

The shock waves generated by a US jet moving at supersonic speed were imaged from another plane above the Mojave Desert. NASA researchers exploited a technique called schlieren photography, first developed in the nineteenth century by German physicist August Toepler, to capture changes in light as the jet passed through air of different densities.



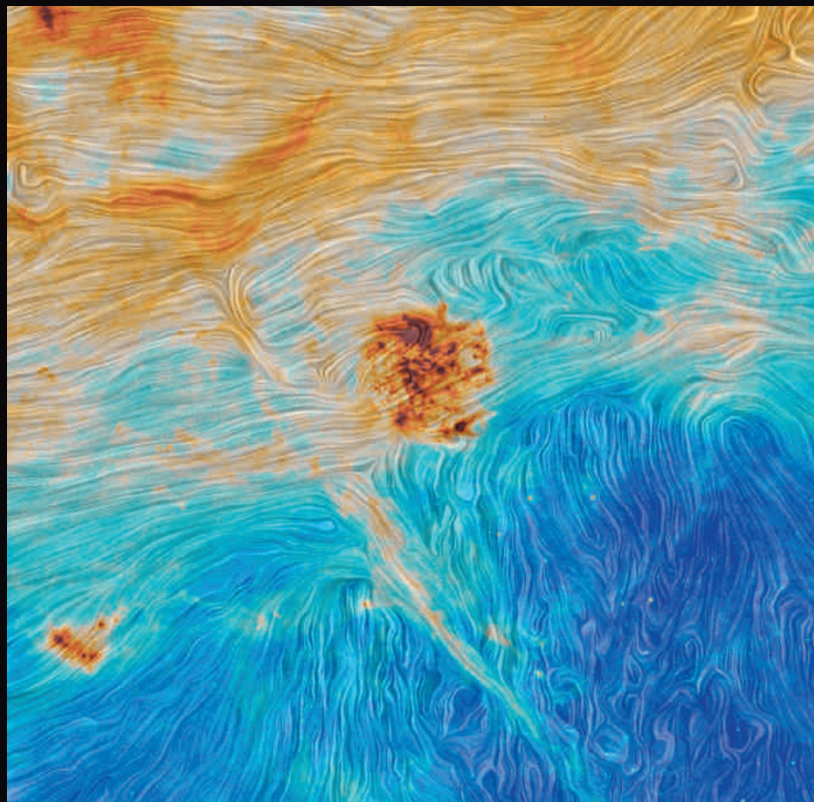
### SPOOKY SLICE

These eerie, skull-shaped objects are actually a vital part of the papyrus plant (*Cyperus papyrus*). Photographed by David Maitland at 200 times life size, the image is a slice through the 'vascular bundles' that plants use to transport fluids through their tissues.



### GOING VIRAL

It took hundreds of 2D snapshots of the large virus that infects *Acanthamoeba polyphaga* to produce this 3D structure. Researchers showed that powerful X-ray free-electron lasers could reconstruct a single particle of the giant virus despite its not being amenable to crystallization.



### MAGELLANIC MAGIC

The Planck satellite provided a fresh view of the Large Magellanic Cloud (dark dots, centre) and the Small Magellanic Cloud (bottom left) — two galaxies close to our own Milky Way. The image uses data captured at microwave and sub-millimetre wavelengths.

### THE WEEVIL'S HEAD

This detailed picture of the head of a boll weevil (*Anthonomus grandis*) was one of the winners in this year's Wellcome Image Awards. The head, which measures just millimetres across, was imaged using a scanning electron microscope.



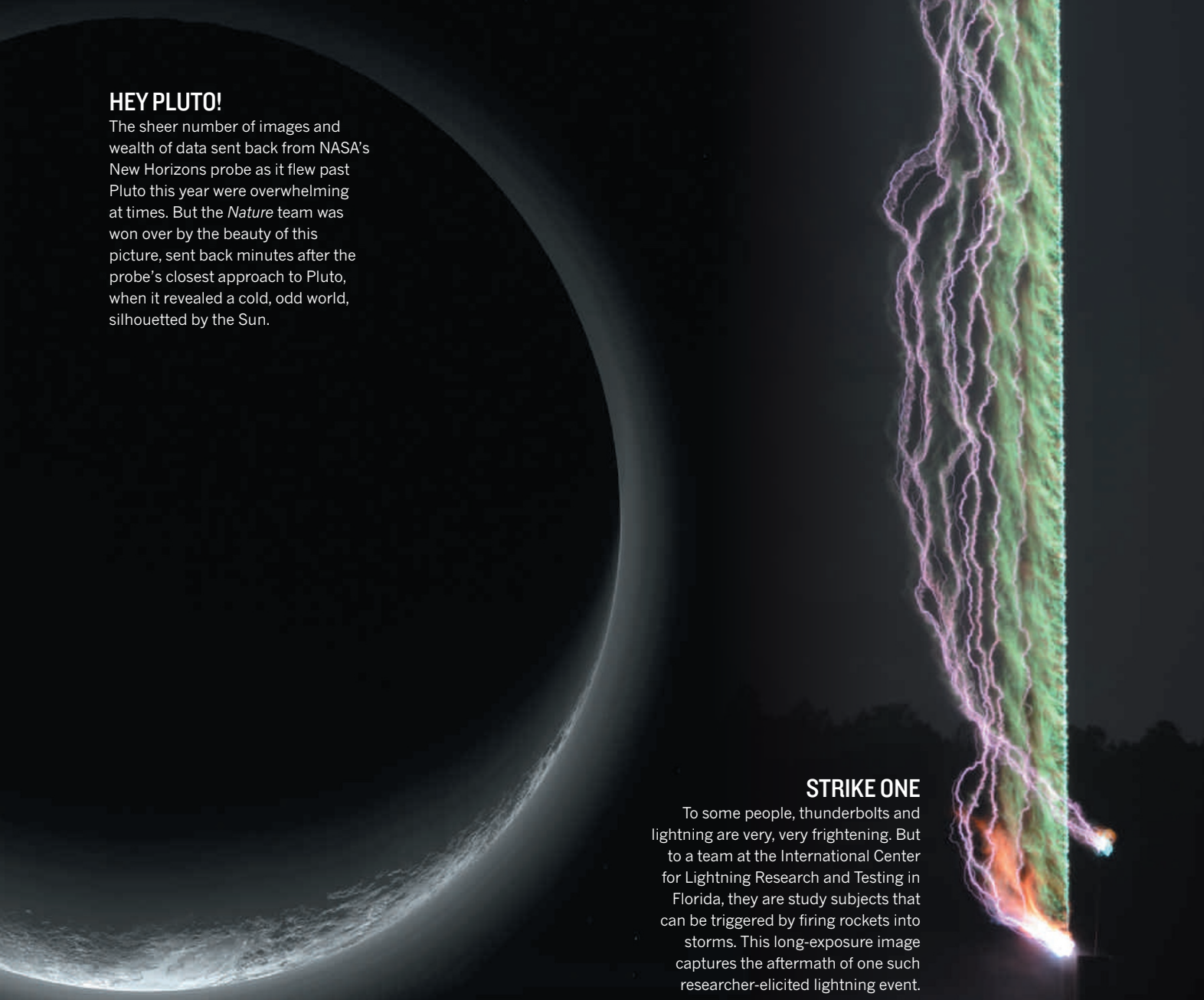
### SPACE BUBBLE

This ghostly vision is a planetary nebula — the gently glowing remnants of a dying star. Nicknamed the Southern Owl Nebula, it was captured by the Very Large Telescope in Chile.



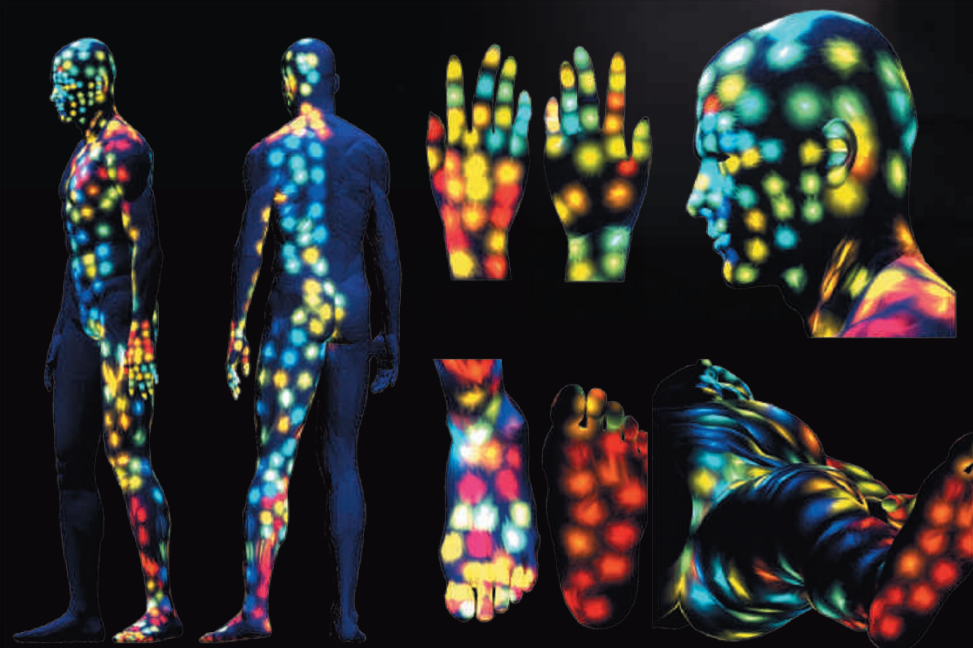
## HEY PLUTO!

The sheer number of images and wealth of data sent back from NASA's New Horizons probe as it flew past Pluto this year were overwhelming at times. But the *Nature* team was won over by the beauty of this picture, sent back minutes after the probe's closest approach to Pluto, when it revealed a cold, odd world, silhouetted by the Sun.



## STRIKE ONE

To some people, thunderbolts and lightning are very, very frightening. But to a team at the International Center for Lightning Research and Testing in Florida, they are study subjects that can be triggered by firing rockets into storms. This long-exposure image captures the aftermath of one such researcher-elicited lightning event.



## SKIN DEEP

This disco-map of the human body catalogues the chemicals and microbes found on the largest of all organs: the skin. Swabs from 400 sites on two healthy people were taken after the willing volunteers did not bathe for three days in the name of science.



## BODY OF EVIDENCE

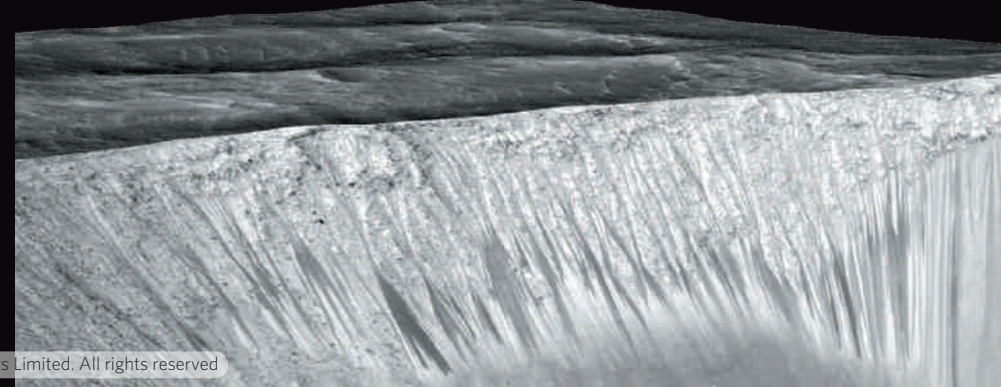
Day-to-day life for African vultures is thrown into sharp focus by this 'carcass cam' shot. Although the scene is a bit gruesome, the birds' feeding habits play a key part in keeping the ecosystem healthy.

KOMODO DRAGONS: ANDREY GUDKOV/WILDLIFE PHOTOGRAPHER OF THE YEAR 2015; SHOCKWAVES: NASA PHOTO; MEGALLANIC CLOUDS: ESA/PIANCK COLLABORATION; BOLL WEEVIL: DANIEL KARIKOW/ELLCOME IMAGES; VASCULAR BUNDLES: DAVID MATT LAND, COURTESY OF NIKON SMALL WORLD; VIRUS STRUCTURE: TOMAS EKBERG/UPPSALA UNIV/AM. PHYS. SOC.; SPACE BUBBLE: ESO; PLUTO: NASA/JHUAPL/SWRI; LIGHTNING: UNIV. FLORIDA LIGHTNING RESEARCH GROUP; BODY SCAN: A. BOUSLIMAN ET AL. PROC. NATL. ACAD. SCI. USA 112, E2120-E2129 (2015); VULTURES: CHARLIE HAMILTON JAMES/WILDLIFE PHOTOGRAPHER OF THE YEAR 2015; DROUGHT: JUSTIN SULLIVAN/GETTY; MARS: NASA/JPL-CALTECH/UNIV. ARIZONA



## CALIFORNIA BURNING

The US 'golden state' has been hit hard by four years of severe drought. As locals and wildlife struggle to adapt to the dry spell, the frequency of fires, such as this one near Clearlake in August, has increased.



## MARTIAN FLOWS

Planetary scientists have been finding water on Mars in different forms for some time now. But the dark streaks visible here are particularly exciting as they form part of the strongest evidence so far of liquid brine at the surface. The image was created by fitting images from NASA's High Resolution Imaging Science Experiment over a model of the terrain of the Garni Crater.