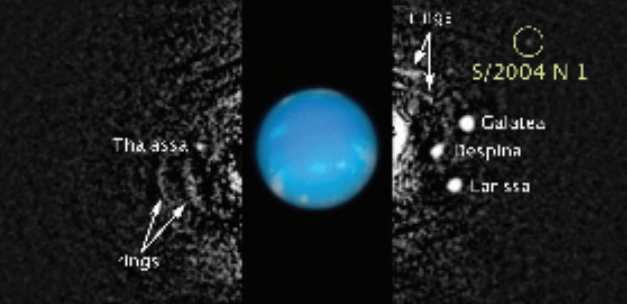


# 10 COOL THINGS WE LEARNED THIS MONTH



## Bees greet with their antennae

Just like humans use both sides of their brain for different purposes, so too do honeybees. In fact, they prefer to use their right-hand antenna when determining the difference between friend and foe. Each antenna is covered in sensitive hairs called sensilla, which are the chemical receptors that send sensory information to the brain. The right antenna apparently features more sensilla that are concerned with the sense of smell, which is an important method of insect communication.



## Neptune has a new moon

The Hubble telescope has spotted a 14th moon orbiting Neptune. It was probably harder to see because it's less than 20 kilometres (12 miles) in diameter and it's also 100 million times less bright than the faintest star visible to the naked eye. The moon - currently designated S/2004 N 1 - was found by SETI planetary astronomer Mark Showalter who noticed the tiny dot on 1 July 2013.



## Gorilla Glass shrinks

The shrinking of Gorilla Glass (often used on smartphone screens) has been measured for the first time. Technicians at Corning, where the material is made, observed a sheet of the glass for 18 months. In the first ten days the glass's width and length decreased by five micrometres and, over 18 months, it shrunk by another five micrometres. It won't damage your phone, but the shrinkage is interesting. Atoms of sodium and potassium, which help make the glass robust, initially move around as if in liquid form until they find an energetically more favourable position and slow down.



## The Yellow Sea has turned green

A suffocating yet non-poisonous green algae called *Enteromorpha prolifera* washed up on the shoreline of Qingdao beach in eastern China in July. While this type of seaweed is found all over the world, this is China's largest-ever algal bloom. Some 20,000 tons of the stuff has already been cleared from the 28,900 square kilometres (11,158 square miles) of beaches in the area. Industrial pollution is thought to be responsible for the deluge that could severely damage local ecosystems. While the seaweed is not harmful itself the thick green blanket now covering the surface of the ocean prevents sunlight from penetrating the sea beneath, starving the water of oxygen and choking marine life.

## 20,000 Earthlings said, "Cheese!"

Using a wide-angle camera on 19 July NASA's Cassini space probe took some very cool snaps of the Earth from a distance of nearly 1.5 billion kilometres (900 million miles) away near Saturn. In this rare colour photograph, our planet and the Moon were captured in the same frame as the ringed gas giant. On the same day NASA's MESSENGER probe also acquired a black-and-white still of Earth from its orbit 98 million kilometres (61 million miles) away around Mercury. NASA informed the world the images were being captured on 19 July, giving Earth's inhabitants the chance to locate Saturn with their telescopes and wave. 20,000 people took part and shared their photos online.

## TV dinners taste worse

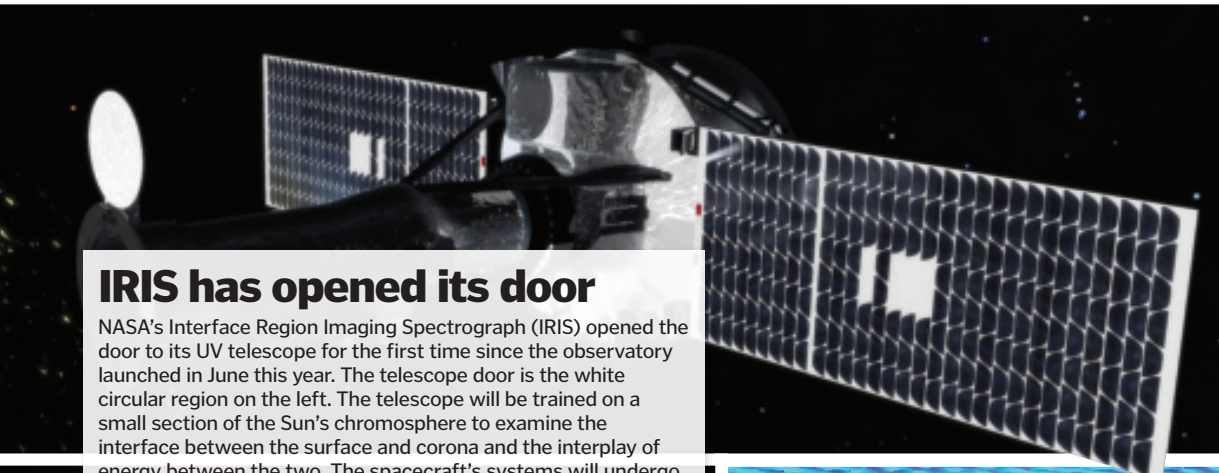
A Dutch study, published in the journal *Psychological Science*, has revealed that our perception of how food tastes changes when we are engaged in other activities. Many of us eat on the go or while watching television, and it's thought that it's distractions like these that impair our taste perception. The intensity of sweetness and saltiness is reduced when we're not paying attention, which led the test subjects to add more salt and sugar to food than was necessary. Not only that, but we also pay less attention to how much food we're putting into our mouths, so we're less aware of being full.



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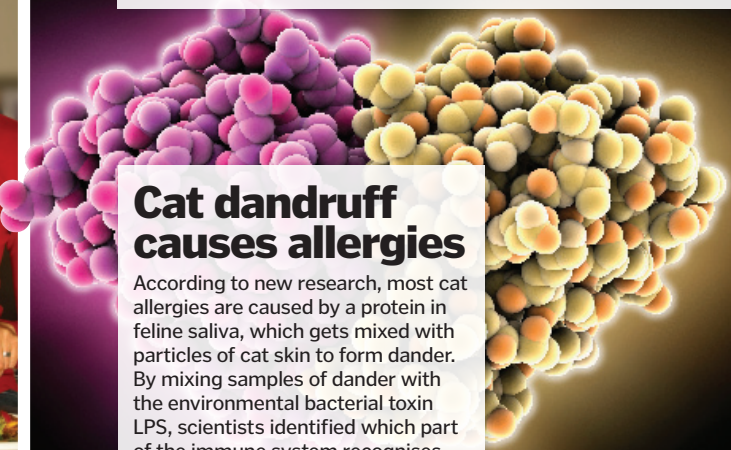
## IRIS has opened its door

NASA's Interface Region Imaging Spectrograph (IRIS) opened the door to its UV telescope for the first time since the observatory launched in June this year. The telescope door is the white circular region on the left. The telescope will be trained on a small section of the Sun's chromosphere to examine the interface between the surface and corona and the interplay of energy between the two. The spacecraft's systems will undergo observational tests and checks to ensure everything is working properly before going into full operation by 26 August.



## Cat dandruff causes allergies

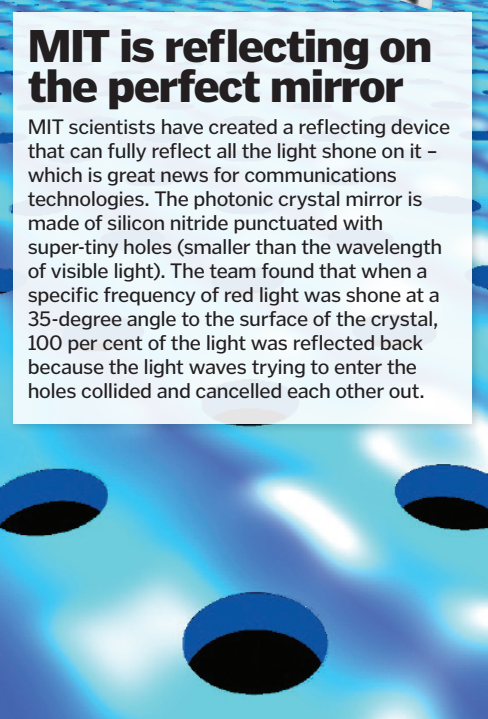
According to new research, most cat allergies are caused by a protein in feline saliva, which gets mixed with particles of cat skin to form dander. By mixing samples of dander with the environmental bacterial toxin LPS, scientists identified which part of the immune system recognises the dander protein and which drugs block its effects on human cells.



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## MIT is reflecting on the perfect mirror

MIT scientists have created a reflecting device that can fully reflect all the light shone on it - which is great news for communications technologies. The photonic crystal mirror is made of silicon nitride punctuated with super-tiny holes (smaller than the wavelength of visible light). The team found that when a specific frequency of red light was shone at a 35-degree angle to the surface of the crystal, 100 per cent of the light was reflected back because the light waves trying to enter the holes collided and cancelled each other out.



## The Nexus 7 is the highest-res tablet

Google's Nexus 7 from Asus has a higher-resolution display than any other tablet today - even the iPad mini. With a 1,980 x 1,200 display and 323 pixels per inch this device can boast twice as many pixels per inch as Apple's smaller iPad sibling. With better resolution and more power generally, this tablet could be the one to really dethrone the iPad dynasty.



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