

# Seeds, sponges and spinal surgery

October's sharpest science shots, selected by *Nature's* photo team.

31 October 2017

## Small beauties

This image of an immortalized human skin cell won first place in the Nikon Small World Photomicrography Competition. It was taken by Bram van den Broek, a biophysicist at the Netherlands Cancer Institute in Amsterdam.

*B. van den Broek, A. Volkov, K. Jalink, N. Schwartz, R. Windoffer/Nikon Small World 2017*

This might look like computer-game character Pac-Man, but it is actually a type of alga called Volvox releasing daughter colonies to continue its line.

*Jean-Marc Babalian/Nikon Small World 2017*



This portrait of a tropical weevil (*Rhigus nigrosparus*) was given an 'image of distinction' award.

*M. Clemens/Nikon Small World 2017*



An eerie green crystal of the mineral pyromorphite featured in another shot that received an image of distinction.

*E. C. Márquez/Nikon Small World 2017*

This butterfly-like shape is in fact the fractured plastic of a credit-card hologram, seen at ten times its real size.

*S. Simon/Nikon Small World 2017*

## From tragic to touching



The grand title winner of this year's Wildlife Photographer of the Year competition features a black rhino (*Diceros bicornis*) in Hluhluwe Imfolozi Game Reserve in South Africa, after it was butchered by poachers who were after its horns. Brent Stirton has seen more than 30 such tragic scenes.

*Brent Stirton/Wildlife Photographer of the Year*



This Maori octopus (*Macroctopus maorum*) was spoilt for choice when it came across a huge congregation of giant spider crabs off Tasmania, Australia. The photograph won the invertebrate-behaviour category of the Wildlife Photographer of the Year competition, which is developed and produced by the Natural History Museum, London.

*Justin Gilligan/Wildlife Photographer of the Year*



Divers from the Dumont d'Urville scientific base in East Antarctica worked for 3 days in the frigid waters off the continent to capture this image of an ice berg, which was stitched together from 147 separate shots. It won the Earth's environments category.

*Laurent Ballesta/Wildlife Photographer of the Year*



These polar bears (*Ursus maritimus*) near Norway's Arctic island of Svalbard were photographed feeding on waste from a ship's kitchen. The image won the black-and-white category in this year's awards.

*Eilo Elvinger/Wildlife Photographer of the Year*



Controversial oil drilling is an increasing threat to the residents of Yasuní National Park in Ecuador. Among the animals imperilled is this toad, the star of this finalist in the animal-portraits category.

*Jaime Culebras/Wildlife Photographer of the Year*

## Syrian seeds



The Sonoran Desert in the United States and Mexico hosts many saguaro cacti (*Carnegiea gigantea*), including this example that has suffered frost damage, causing its limbs to fall to the ground. The image is a finalist in the plants and fungi category.

Diego Ibarra Sanchez/The New York Times/eyevine  
Jack Dykinga/Wildlife Photographer of the Year

Among the people forced out of their country by the war in Syria are researchers from the nation's seed bank, who are now rebuilding their lives in locations around the world. Ali Shehadeh (pictured) is one of them. A researcher who was based at a International Center for Agricultural Research in the Dry Areas seed bank in Aleppo, he now works in Terbol, Lebanon.



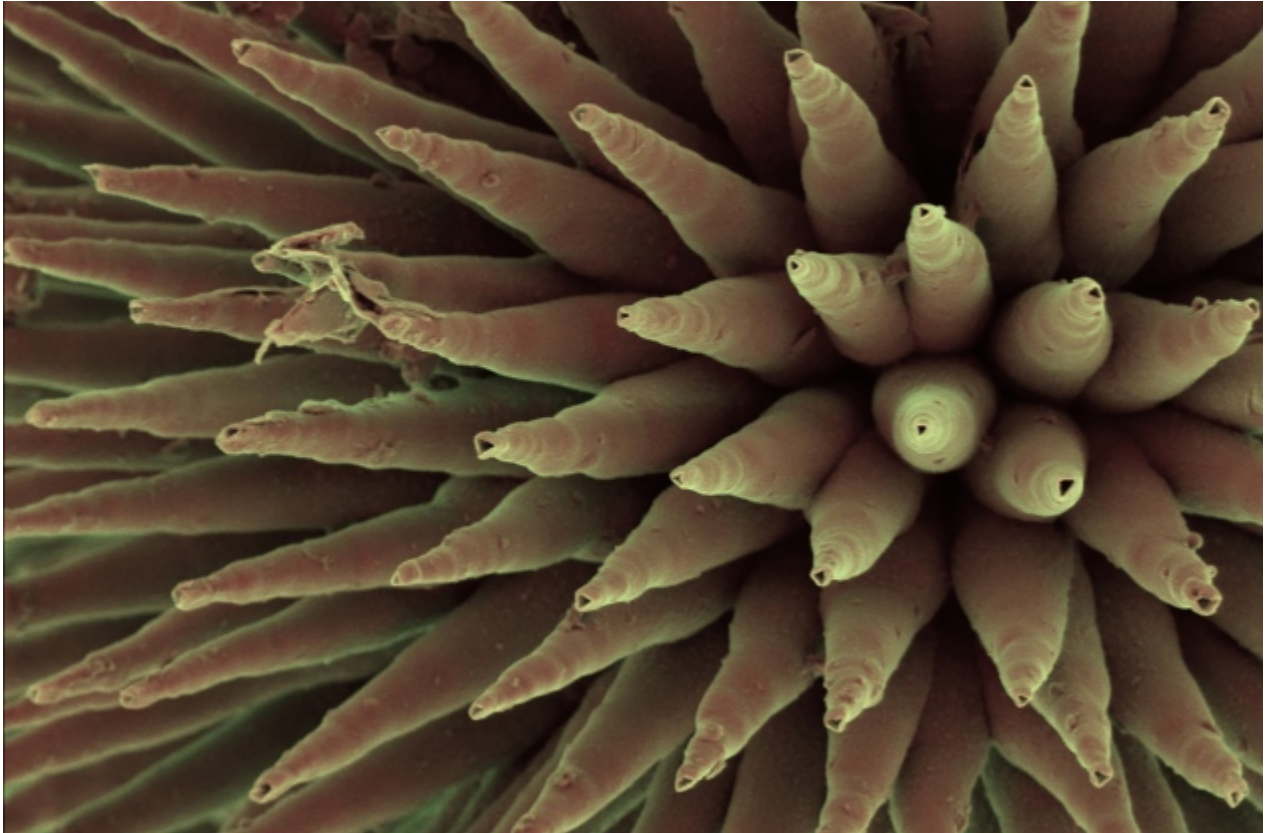
## Capturing sunlight



*Xu Haijing/Xinhua/ZUMA Wire*

The 2017 World Solar Challenge this month saw strange vehicles racing 3,000 kilometres across Australia, powered only by sunlight. Here, the Dutch-built vehicle RED Shift passes a rock formation known as the Devil's Marbles, near Tennant Creek in the Northern Territory.

## Sponge spikes



*Zlotnikov Group, B CUBE, TU Dresden*

Marine sponges called demospongiae make their skeletons out of silica-glass structures called spicules. Using this image and others, researchers have been unpicking what they call the “half-a-billion-year-old fabrication concept” that produces these structures.

## Spinal surgery



*Beatrice de Gea/The New York Times/Redux/eyevine*

Physicians at Texas Children's Hospital in Houston now operate on fetuses with spina bifida while they are still in the womb using a new, experimental technique. This technique involves lifting the mother's uterus out of her body to operate on the spine of the baby inside it.

## A cosmic collision's aftermath



*ESA/Hubble & NASA*

Two galaxies smashed together into one to form this cluster of stars, with tails some 15,000 parsecs (50,000 light years) long. NASA released the image this month, and cheerfully pointed out that this is what our Milky Way will look like in 4 billion years' time, after it collides with neighbouring galaxy Andromeda.

## Sun block

**\*\*CAPTION\*\***

*\*\*NASA's Goddard Space Flight Center/SDO/Joy Ng\*\**

NASA's Solar Dynamics Observatory was launched into space in 2010 to supply researchers back on Earth with an uninterrupted view of the Sun. Uninterrupted, that is, except when the Moon gets in the way, as shown in this ultraviolet spectrum from 19 October.

*Nature* [doi:10.1038/nature.2017.22923](https://doi.org/10.1038/nature.2017.22923)