

Party slugs, pseudo-Saturn and a dancing Moon rover

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

30 June 2017

Taxonomic titan



Terry Gosliner, an invertebrate zoologist at the California Academy of Sciences in San Francisco, has discovered more than 1,000 species of the delicate sea molluscs called nudibranchs, which look like slugs on their way to Mardi Gras. He discovered his first new 'nudi' before he left high school. This is one of his more recent findings, a species of *Cuthona* that he and an intern are in the process of formally describing and naming.

Terry Gosliner/CASC



Gosliner's 1,000 nudibranch species account for around one-third of all named examples of the creatures. This find — seen back in 1992 but still awaiting formal description — was the first of many new species he has discovered in the Philippines.

Terry Gosliner/CASC



This creature with bright orange gills and looks like a feather duster was also found in the Philippines, and is named *Chromodoris joshi* after Gosliner's son. "I had already named a species after my daughter," he says.

Terry Gosliner/CASC



Siphopteron nakakatuwa, found in 2015. He collaborated with another intern at the California Academy of Sciences on the genetic analysis. “She was actually able to go out into the field with me recently and see one of the species she had helped describe in the wild,” says Gosliner.

Terry Gosliner/CASC

Disco rover



Fernando Gandía (GMV), courtesy of GMV and ESA

In preparation for a Moon mission, the European Space Agency has been putting some of its rover technology through their paces on the Spanish island of Tenerife this month. Here, the Rover Autonomy Testbed shows off its ability to spin round and round ... and round and round.

This is *Miamira alleni*. The species was brought to Gosliner's attention by his friend, the underwater photographer Jerry Allen. "While Jerry was trying to take a picture of a mandarin fish, this nudibranch just crawled into the frame and was apparently a total nuisance. He brought it up from the dive and asked, "Is this something that would be interesting to you?" I had never seen anything like it before!"

Terry Gosliner/CASC

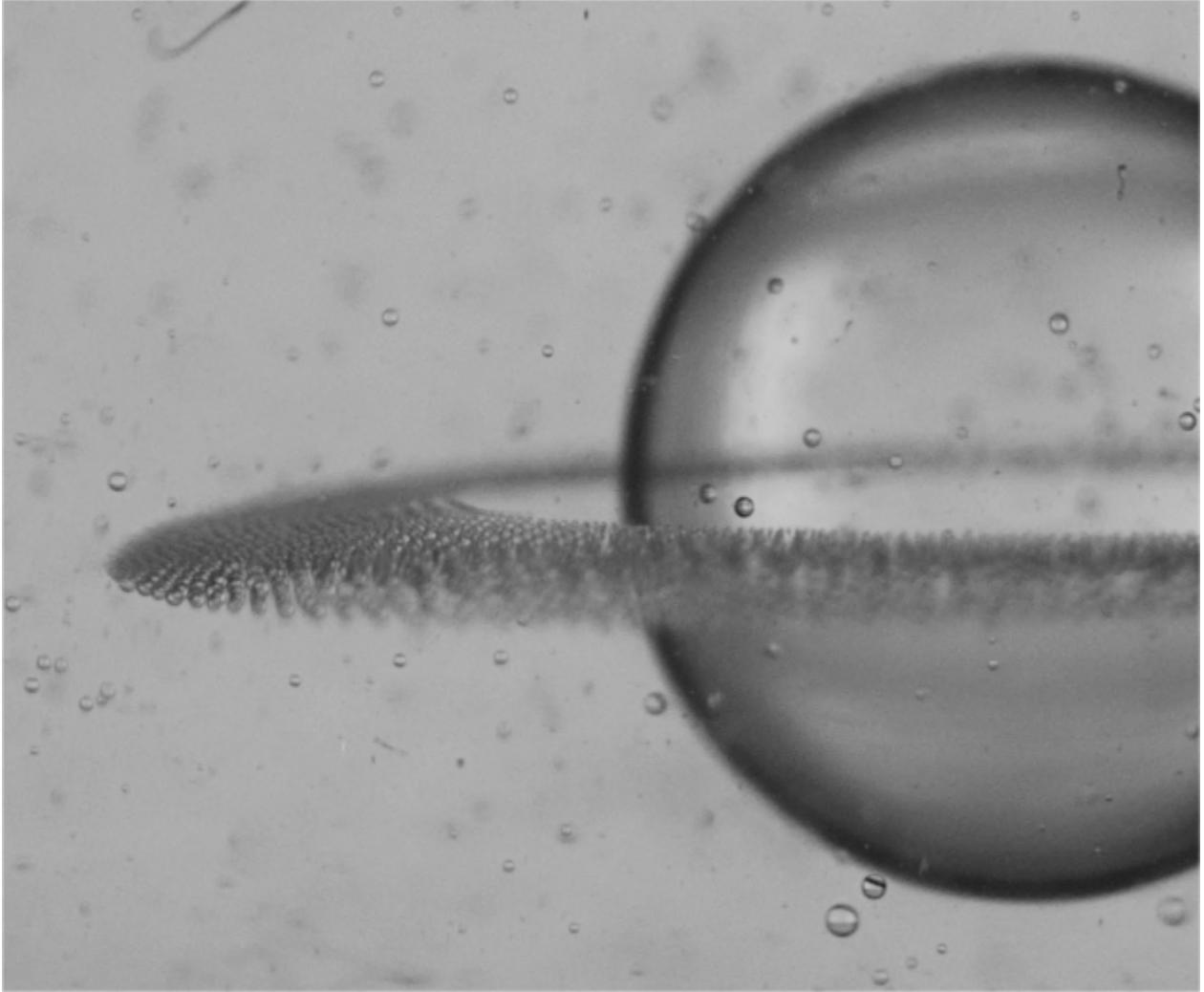
Cassini's swansong continues



NASA/JPL-Caltech/Space Science Institute

The Cassini mission continues to send back amazing pictures of Saturn as it prepares for its death dive into the planet's atmosphere in September. Earlier this month, NASA released this image of the rings, taken from a mere 1 million kilometres away.

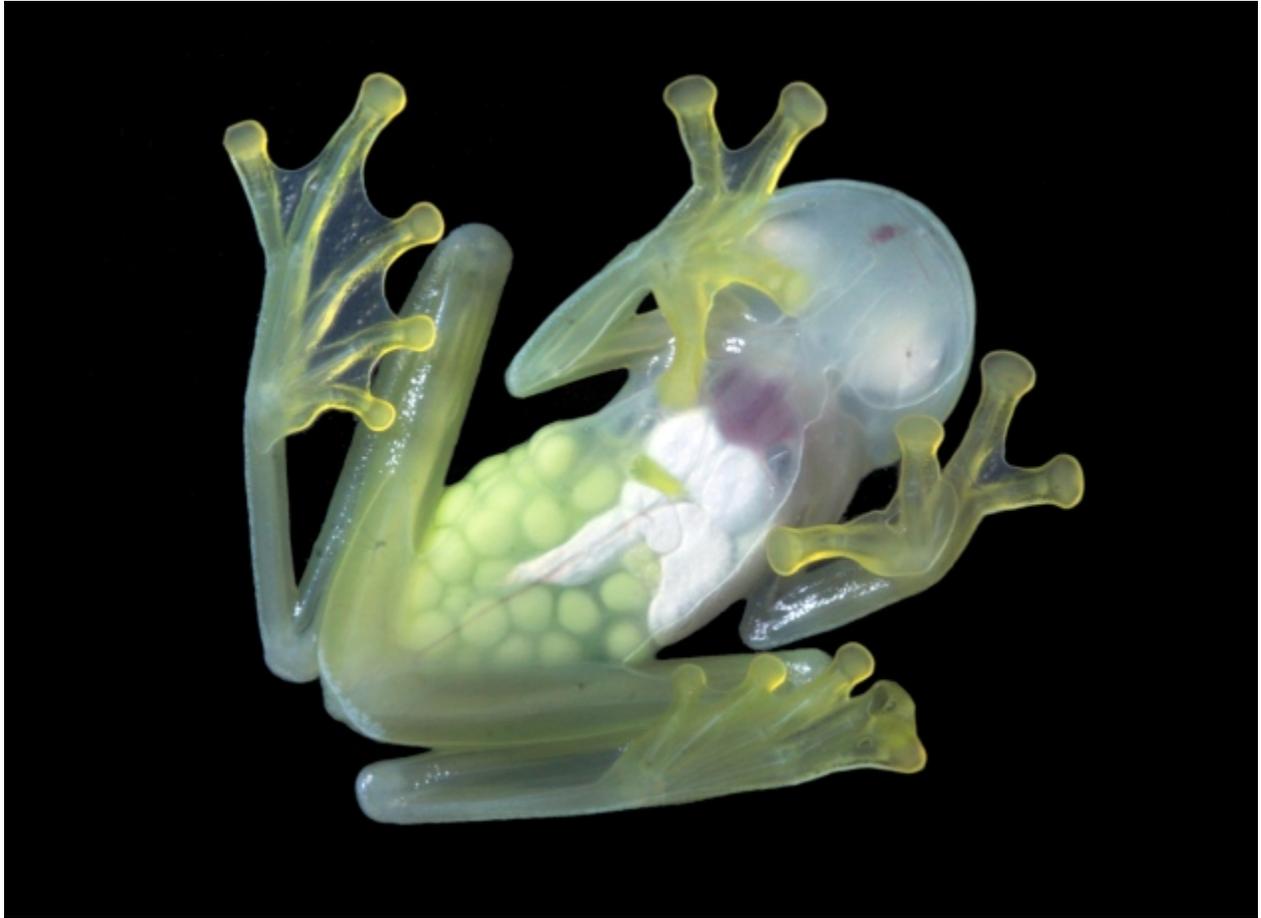
Not-Saturn



Brosseau et al. 2017/Phys. Rev. Letters

This might look like one of those Saturn images that Cassini keeps sending back. In fact it's a droplet of water, suspended in an electric field by Quentin Brosseau and Petia Vlahovska of Brown University in Providence, Rhode Island. The image is part of a series of experiments investigating a phenomenon called electrohydrodynamic tip streaming, in which drops emit tiny fluid jets from their surfaces.

Helpful *Hyalinobatrachium*



Jesse Delia, Boston Univ.

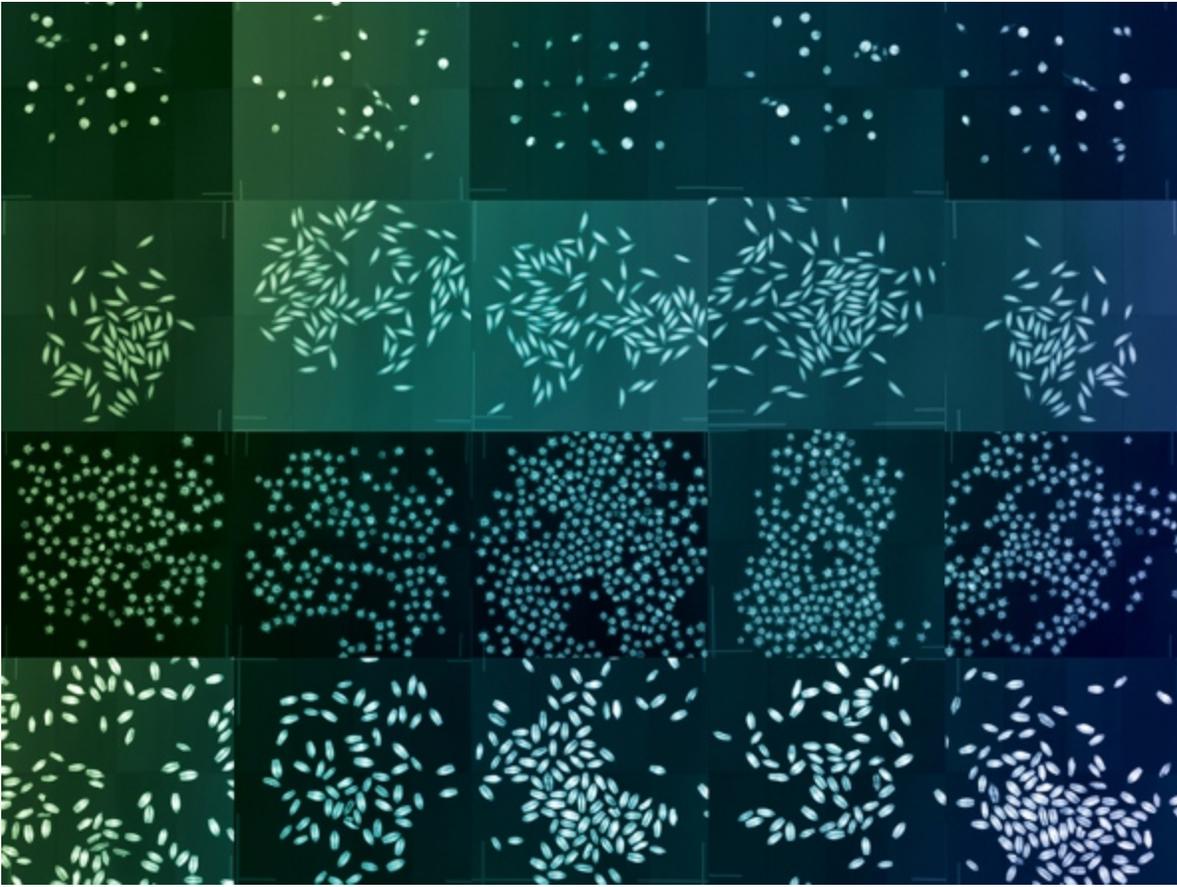
The eggs inside this pregnant 'glass frog' (*Hyalinobatrachium colymbiphyllum*) are clearly visible through its transparent belly. And that was convenient for Jesse Delia at Boston University in Massachusetts, who took the photo and is studying how glass frogs care for their offspring².

Secure seeds



Since 2008, photographer Dornith Doherty has worked with seed vaults around the world to capture images of the samples they hold to secure the world's plant richness against future catastrophes. This collage shows X-rays of material from three different repositories in Australia.

Dornith Doherty/Schilt Publishing



This image is one of many from her latest book, *Archiving Eden* (Schilt Publishing, 2017), which documents the project.

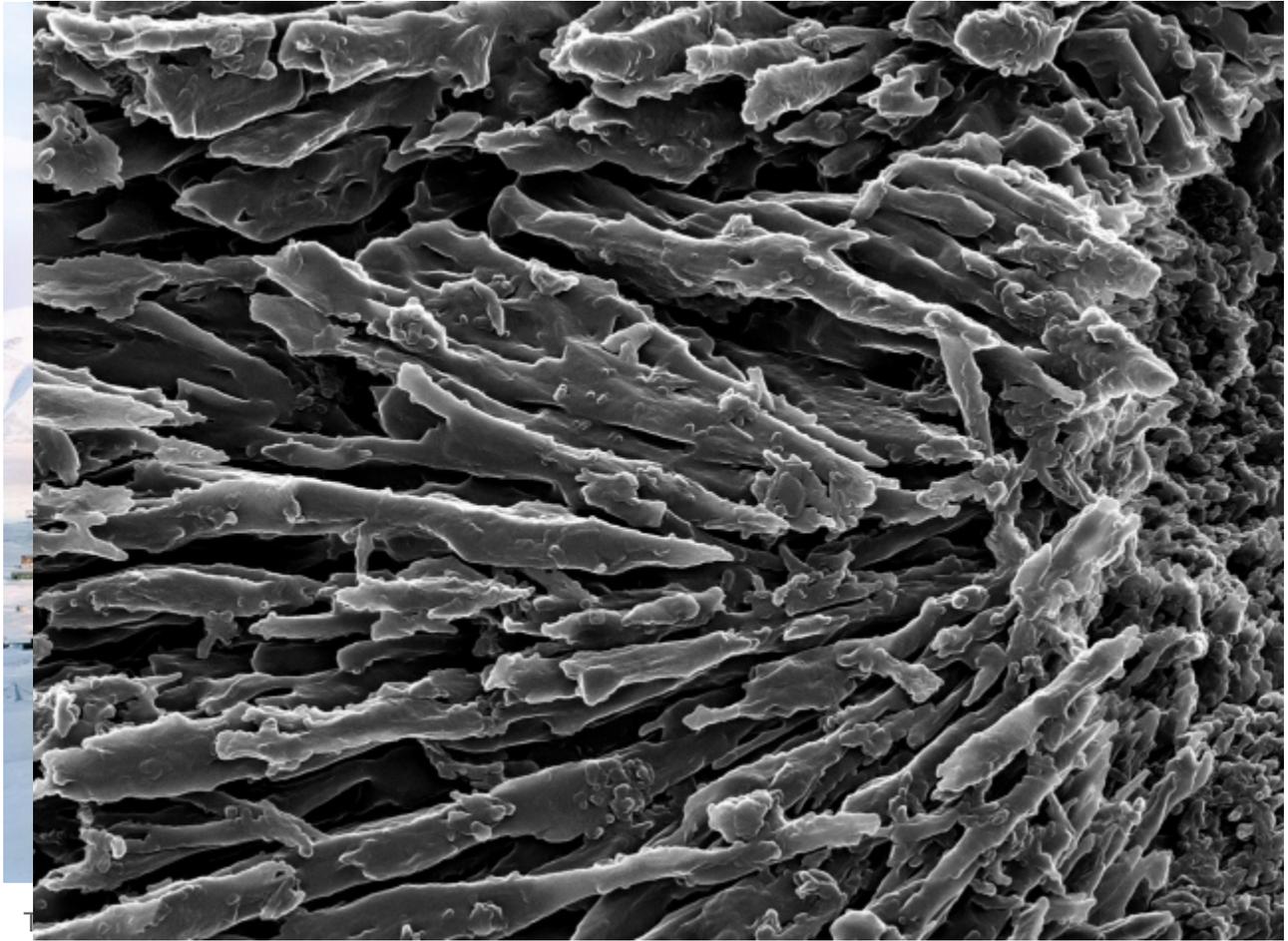
Dornith Doherty/Schilt Publishing



As well as studies of the plant material, Doherty has been carefully observing the vaults in which the organisms sit as insurance against extinction. Shown here are the Threatened Flora Seed Centre in Kensington, Australia, and the US government's Plant Genetic Resources Unit in Geneva, New York.

Dornith Doherty/Schilt Publishing

Coral crystals



Domitien/Dan/Schmitt/Edwards/Rutgers

Stanislas Von Euw at Rutgers University in New Jersey and his colleagues used a scanning helium ion microscope to peer at corals as they build their skeletons. They found that the growth of their aragonite skeletons is controlled biologically, rather than by the chemistry of the oceans¹.

Aftermath



Miguel Riopa/AFP/Getty

Forest fires in Portugal this month killed more than 60 people and injured many more. This picture was taken in Vale de Cambra on 20 June, three days after the huge blaze started.

Super shock

In 2013, a lump of rock from space measuring 17–20 metres in diameter exploded over Russia. It was the largest object recorded striking Earth in more than a century. On 29 June, NASA released this video of a simulation of how a similar-sized rock breaks up as it enters the atmosphere at 20 kilometres per second. Grey represents the the asteroid, black the fragments torn off it, and red–yellow the shockwave that forms around it.

NASA/Ames Research Center/Darrel Robertson

Nature [doi:10.1038/nature.2017.22236](https://doi.org/10.1038/nature.2017.22236)

References

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1. Von Ew, S. *et al. Science* **356**, 933–938 (2017).
 2. Delia, J., Bravo-Valencia, L. & Warkentin, K. M. *J. Evol. Biol.* **30**, 898–914 (2017).