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News Bytes of the Week--Could Coastal Trees Have Saved Lives in Myanmar?

Dust devils greet Mars lander; Carbon nanotubes measure spiciness; Autism linked to schizophrenia ... and more

By David Biello, Larry Greenemeier, JR Minkel and Nikhil Swaminathan



**Buffer Zone:** Officials claim that mangrove trees, which previously grew on the coast of Myanmar, could have absorbed some of the force of last week's cyclone.

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**Felled mangrove trees may have doomed the coast of Myanmar**

By cutting down 50,000 acres (20,235 hectares) of mangrove trees in the 1990s, and probably more since, Myanmar may have left itself much more vulnerable to last week's deadly Cyclone Nargis, according to Surin Pitsuwan, the secretary-general of the Association of Southeast Asian Nations. That shouldn't be surprising: A study appearing in Science in 2005 found that regions buffered by coastal vegetation sustain fewer deaths and less damage when they are swamped by inundations

from strong storms or tsunamis, such as the one in December 2004. Roughly nine million acres (3.6 million hectares) of mangrove forests have been cleared worldwide since 1980, according to the United Nations Food and Agriculture Organization (FAO). More than half of that loss took place in Asia, where trees are cleared to build fish and shrimp farms as well as resorts. According to Myanmar's minister for relief and resettlement, most of the deaths caused by Cyclone Nargis were due not to the 120 mile (190 kilometer) per hour winds, but to its storm surge—some of which the forests may have been able to absorb or at least moderate.

**Brittle Stars to Ocean Acidification: Bring It on**

At first glance, unlike many other sea creatures, it seems that brittle stars—relatives of starfish with longer, more flexible limbs—might actually be able to adapt once the ocean becomes more acidic, according to a new study in Proceedings of the Royal Society B: Biological Sciences. Marine biologist Hannah Wood of the Plymouth Marine Laboratory in England and her colleagues subjected brittle stars to the more acidic ocean conditions that are predicted to result from increasing concentrations of atmospheric carbon dioxide; instead of dissolving, like other animals, the creatures grew longer limbs and were able to regenerate lost ones more quickly. This, however, came at a cost: The stars lost muscle mass in those limbs. Because the brittle star relies on these muscles to feed itself as well as for locomotion and burrowing to avoid predators, this adaptive trait may ultimately prove a poor trade-off.

**Dust devils set stage for Phoenix Mars Lander's arrival**

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Indonesia coal mine explosion kills 28

A craft orbiting Mars has spotted a pair of swirling dust devils capped by towering plumes in the "Green Valley" near the planet's north pole, where the Phoenix Mars Lander is scheduled to touch down on May 25. NASA's Mars Reconnaissance Orbiter captured an [image](#) of the dust devils on April 20 during monitoring of the area in preparation for the landing. The storms measured 3,000 and 2,600 feet (920 and 790 meters) tall, respectively. NASA says that should similar twisters greet Phoenix, they are unlikely to do any damage; if anything, they'll do the opposite: [Dust storms](#) are thought to have repeatedly cleaned off the solar panels of the Mars rovers Spirit and Opportunity. Call them angel dust.

Crunch time for mechanical mouths

It sounds like a late-night infomercial: a new, adjustable grinding device designed to mash up food just like a real set of chompers. But this isn't a labor-saving device. French researchers say it could be the perfect complement to [electronic "tongues"](#) being developed to test food quality and safety. Chewing, saliva, temperature and the rate of food breakdown all affect the release of chemicals that give food its flavor, so researchers built a metal chamber with a rotating floor to hold food, a spiky plunger to compress it, and a system for pumping imitation saliva in and out. (The prototype resembles a first kiss: no tongue.) Apples ground up in the mechanical mouth were similar in texture and aroma to those chewed by humans, a team of scientists report in the May 14 issue of the [Journal of Agricultural and Food Chemistry](#).

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