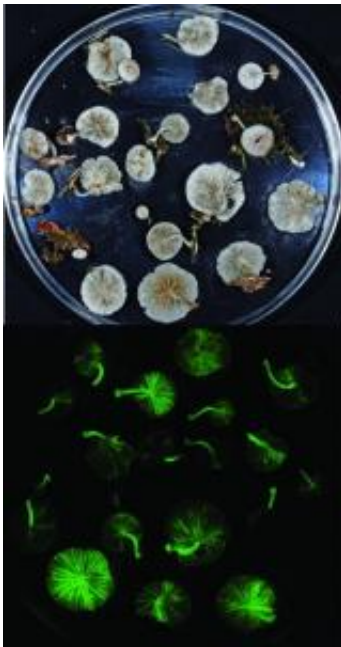


Seven new luminescent mushroom species discovered

October 5 2009



A new luminescent fungus, *Mycena silvaelucens*, discovered by San Francisco State University Professor Dennis Desjardin and former SF State graduate student Brian Perry has been reported in the journal *Mycologia*. The species was collected in the grounds of an Orangutan Rehabilitation Center in Borneo, Malaysia and was found on the bark of a standing tree. The mushrooms are tiny with each cap measuring less than 18 millimeters in diameter. Credit: Brian Perry, University of Hawaii

Seven new glow-in-the-dark mushroom species have been discovered, increasing the number of known luminescent fungi species from 64 to

71. Reported today in the journal *Mycologia*, the new finds include two new species named after movements in Mozart's Requiem. The discoveries also shed light on the evolution of luminescence, adding to the number of known lineages in the fungi 'family tree' where luminescence has been reported.

San Francisco State University Biology Professor Dennis Desjardin and colleagues discovered the [fungi](#) in Belize, Brazil, Dominican Republic, Jamaica, Japan, Malaysia and Puerto Rico. The discoveries include four [species](#) new to science and three new reports of luminescence in known species. Three quarters of glowing mushrooms, including the species described in the study, belong to the *Mycena* genus, a group of mushrooms that feed off and decompose organic matter as a source of nutrients to sustain their growth.

"What interests us is that within *Mycena*, the luminescent species come from 16 different lineages, which suggests that [luminescence](#) evolved at a single point and some species later lost the ability to glow," said Desjardin, lead author of the study. He believes that some fungi glow in order to attract nocturnal animals that aid in the dispersal of the mushroom's spores which are similar to seeds and are capable of growing into new organisms.

"It's pretty unusual to find this many luminescent species, typically only two to five percent of the species we collect in the field glow," Desjardin said. "I'm certain there are more out there."



A new luminescent fungus, *Mycena luxaeterna* discovered by San Francisco State University Professor Dennis Desjardin and Professor Cassius V. Stevani from the University of Sao Paulo has been reported in the journal *Mycologia*. The species was collected in Sao Paulo, Brazil and was found on sticks in an Atlantic forest habitat. These mushrooms are tiny with each cap measuring less than 8 millimeters in diameter and their stems have a jelly-like texture. The species' name was inspired by Mozart's Requiem. Credit: Cassius V. Stevani, Chemistry Institute, University of Sao Paulo

The newly discovered fungi glow constantly, emitting a bright, yellowish-green light, and are tiny, with caps smaller than one centimeter across.

Desjardin has named two of the new species *Mycena luxaeterna* (eternal light) and *Mycena luxperpetua* (perpetual light), names inspired by Mozart's Requiem and the fact that these [mushrooms](#) glow 24 hours a day. To date, Desjardin has discovered more than 200 new fungi species and together with these latest findings, has discovered nearly a quarter of all known luminescent fungi.

More information: "Luminescent Mycena: new and noteworthy species" was published online in the journal *Mycologia* on Oct. 5 and will appear in the March/April 2010 print issue.

Source: San Francisco State University ([news](#) : [web](#))

Citation: Seven new luminescent mushroom species discovered (2009, October 5) retrieved 19 April 2024 from <https://phys.org/news/2009-10-luminescent-mushroom-species.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.