

Basidiomycete yeasts in the cortex of ascomycete macrolichens

Toby Spribille, Veera Tuovinen, Philipp Resl, Dan Vanderpool, Heimo Wolinski, M. Catherine Aime, Kevin Schneider, Edith Stabentheiner, Merje Toome-Heller, Göran Thor, Helmut Mayrhofer, Hanna Johannesson and John P. McCutcheon

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Lichens assemble in three parts

Lichen growth forms cannot be recapitulated in the laboratory by culturing the plant and fungal partners together. Spribille *et al.* have discovered that the classical binary view of lichens is too simple. Instead, North American beard-like lichens are constituted of not two but three symbiotic partners: an ascomycetous fungus, a photosynthetic alga, and, unexpectedly, a basidiomycetous yeast. The yeast cells form the characteristic cortex of the lichen thallus and may be important for its shape. The yeasts are ubiquitous and essential partners for most lichens and not the result of lichens being colonized or parasitized by other organisms.

Science, this issue p. 488

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