

Elucidation of the life cycle of a saprotrophic inoperculate discomycete that is associated with pinesap, using a polyphasic taxonomic approach*

Özge Demir^{a,b}, Lucile Wendt^{a,b}, Yanpeng Chen^c, Christopher Lambert^{a,b}, Anja Schöffler^d, Frank Surup^{a,b}, Marc Stadler^{a,b,*}

- a. Department Microbial Drugs, Helmholtz Centre for Infection Research (HZI), German Centre for Infection Research (DZIF), Partner Site Hannover-Braunschweig, Inhoffenstrasse 7, 38124 Braunschweig, Germany
- b. Institute of Microbiology, Technische Universität Braunschweig, Spielmannstraße 7, 38106 Braunschweig, Germany
- c. School of Life Science and Technology, University of Electronic Science and Technology of China, Chengdu, 611731, People's Republic of China
- d. Institut für Biotechnologie und Wirkstoff-Forschung gGmbH (IBWF), Hanns-Dieter-Hüsch-Weg 17, 55128 Mainz, Germany

*Corresponding Author: marc.stadler@helmholtz-hzi.de

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Alignment of the ITS sequences used in the phylogenetic study

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This image shows a full page of white paper with horizontal dashed lines, typical of primary school handwriting practice paper. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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Alignment of the LSU sequences used in the phylogenetic study

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Table S1: Reference data for the ten closest matches for the ITS sequence of *Lachnum papyraceum* in GenBank (accessed by a BLAST search on 21 January 2024). The corresponding original literature was retrieved from the Internet if possible.

Acc no	Taxonomy/Origin	Literature (if available)
FJ37885	China, mycorrhizal on <i>Kobresia</i> (grass)	Gao,Q. and Yang, Z.L. Ectomycorrhizal fungi associated with two species of <i>Kobresia</i> in an alpine meadow in the eastern Himalaya Mycorrhiza 20 (4):281-287 (2010)
KF617921	Unidentified OTU; USA, Alaska, soil under <i>Picea</i>	Taylor,D.L., Hollingsworth,T.N., McFarland,J.W., Lennon,N.J., Nusbaum,C. and Ruess,R.W. A first comprehensive census of fungi in soil reveals both hyperdiversity and fine-scale niche partitioning Ecological Monographs (2014) 84(1):3-20
MK808064	<i>Lachnum</i> sp; USA, grassland	Fox,S., Rudgers,J.A., Porras-Alfaro,A et al.. Biogeographic patterns of root-associated fungi in foundation grasses of the North American Great Plains. J. Biogeography 2022 49:22-37
FJ475783	Helotiales, USA, Oregon, soil	Yarwood SA et al. (2009) Termination of belowground C allocation by trees alters soil fungal and bacterial communities in a boreal forest. FEMS Microbiol Ecol 70:151-162
DQ420921	Unidentified OTU, USA, soil	Waldrop MP et al. (2006) Resource availability controls fungal diversity across a plant diversity gradient Ecol Lett 9:1127-1135
MK808050	<i>Lachnum</i> sp., USA, grassland	Fox S et al (2022) Biogeographic patterns of root-associated fungi in foundation grasses of the North American Great Plains. J. Biogeography 49:22-37
MT528052	Unidentified OTU, USA, Alaska, soil	Hewitt RE et al. (2020) Limited overall impacts of ectomycorrhizal inoculation on recruitment of boreal trees into Arctic tundra following wildfire belie species-specific responses. PLoS ONE 15(7): e0235932
MZ158561	<i>Lachnum</i> sp., USA Olean, Cattaraugus County, NY"	Taylor GM (2018) Direct Submission. Specimen depicted on iNaturalist 13413828
MT276007	<i>Lachnum pygmaeum</i> , see discussion in the manuscript text	Ramsfield T et al. (2020) Distance from the forest edge influences soil fungal communities colonizing a reclaimed soil borrow site in boreal mixedwood forest. Forests 11(4):427.
OR860210	<i>Lachnum</i> sp., USA, California, Nov. 2023	Squazzo,S et al. Direct Submission. Specimen depicted on iNaturalist 165335940