

***Basidiomycetes* inhabiting the ornamental tree *Koelreuteria* (*Sapindaceae*)**

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Key words: *Basidiomycetes*, fungus-host plant associations, *Koelreuteria*.

Abstract: Single taxa of the genera *Armillaria*, *Auricularia*, *Ganoderma*, *Phellinus*, *Polyporus*, and *Schizophyllum* were the only species of *Basidiomycetes* known hitherto to occur on *Koelreuteria* as host plant. During 1977-2006 six new fungus-host plant associations from *Koelreuteria paniculata* grown in Central Europe could be found by the author. All 12 taxa known are listed.

Zusammenfassung: Einzelne Taxa der Gattungen *Armillaria*, *Auricularia*, *Ganoderma*, *Phellinus*, *Polyporus* und *Schizophyllum* waren bisher die einzigen bekannten Basidiomyceten auf *Koelreuteria* als Wirtspflanze. Dem Autor gelang es 1977-2006 sechs neue Pilz-Wirt-Assoziationen von mitteleuropäischen *Koelreuteria paniculata* Bäumen zu finden. Alle 12 bekannten Taxa werden aufgelistet.

Koelreuteria LAXM. (*Sapindaceae*) is a far eastern (China, Taiwan, Fiji) genus of rather small-scale trees favoured as ornamentals due to their showy inflorescences. *Koelreuteria paniculata* LAXM. is commonly planted as street-tree in C Europe. It is often naturalised near seashores in Japan.

OUDEMANS (1921), TAI (1979), and SINCLAIR & al. (1989) enumerate many non-basidiomycetous fungal species known to inhabit *Koelreuteria*. BONTEA (1985) mentions, with reference to TOMA (1965), the occurrence of *Auricularia auricula-judae* on *Koelreuteria* in Romania. Among diverse fungi isolated from *Koelreuteria* ALFIERI & al. (1984) and FARR & al. (1989) list only one basidiomycete from the genus *Armillaria*. KOTLABA (1997) mentions *Polyporus squamosus* on *Koelreuteria* in Prague. In further literature (see below) *Phellinus noxius*, *Ganoderma lucidum*, and *Schizophyllum commune* are reported as invaders of *Koelreuteria* in E Asia, California and Cuba, respectively.

The present paper alphabetically lists all basidiomycetous species hitherto known on *Koelreuteria* as host plant predominantly including the collections and new observations of the author. New records for the host are marked by *. Specimens are preserved in the private herbarium of the author and a few in PRM.

List of species

Armillaria socialis (DC.: FR.) FAYOD

= *Armillaria tabescens* (SCOP.) EMEL

USA: Florida, listed by ALFIERI & al. (1984) and FARR & al. (1989) for cultivated *Koelreuteria* [*K. elegans* (SEEM.) A. C. SM., flamegold; *K. paniculata*, varnish tree]. On roots and stem basis wood.

ANTONÍN & al. (2006) consider *A. tabescens* as a synonym of *A. socialis*, which is a sanctioned name having priority.

Auricularia auricula-judae (BULL.: FR.) WETTST.

SW Slovakia: Bratislava, Staré Mesto, Bernolákova ulica, on decorticated part of a living trunk of *K. paniculata*, 27. 1. 1994, J. PACLT. – Bratislava, Nivy, Svätoplukova ulica, on cut surface of a living branch of *K. paniculata*, 4. 7. 2004, J. PACLT.

* *Bjerkandera adusta* (WILLD.: FR.) P. KARST.

Czech Republic, Moravia: Brno, town park Lužanky, on cut surface of a living trunk of *K. paniculata*, 2. 2. 1977, J. PACLT.

* *Flammulina velutipes* (CURTIS: FR.) SINGER

SW Slovakia: Bratislava, Prievoz, Mierová ulica, on a living trunk of *K. paniculata*, 18. 2. 1977, J. PACLT. – Bratislava, Staré Mesto, Bernolákova ulica, on decorticated part of a living trunk of *K. paniculata*, 27. 1. 1994, J. PACLT.

Ganoderma lucidum (CURTIS: FR.) P. KARST.

USA: northern Central valley of California, heart rot and root rot pathogen of *K. paniculata*; FRENCH (1989).

Inonotus hispidus (BULL.: FR.) P. KARST.

Czech Republic, Moravia: Brno, Černá Pole, Zemědělská ulice, collected three times on a single living trunk of *K. paniculata*, 19. 10. 1978, 9. 6. 2004, 20. 7. 2005, leg. J. PACLT, det. I. KRISAI-GREILHUBER.

Phellinus noxius (CORNER) G. CUNN.

Taiwan: county Taichung, isolated as a very destructive, brown root rot fungus from *K. henryi* DÜMMER; CHANG (1995), CHANG & YANG 1998, ANN & al. (2002).

* *Pleurotus ostreatus* (JACQ.: FR.) P. KUMM.

NW Hungary: Győr, town park, Batthyáni tér, on a living trunk of *K. paniculata*, 6. 11. 1996, J. PACLT, PRM 889598.

Polyporus squamosus (HUDS.) FR.

SW Slovakia: Bratislava, Nivy; Svätoplukova ulica, on a living trunk of *K. paniculata*, 7. 2003 and 7./8. 2005, J. PACLT. – Bratislava, Staré Mesto, Justičná ulica, on a living trunk of *K. paniculata*, 21. 9. 2006, J. PACLT.

* *Radulomyces confluens* (FR.: FR.) M. P. CHRIST.

= *Cerocorticium confluens* (FR.: FR.) JÜLICH & STALPERS

S Slovakia: Štúrovo, Komenského ulica, on a living trunk of *K. paniculata*, 31. 8. 1988, J. PACLT.

Schizophyllum commune FR.: FR.

Cuba: collected on *K. paniculata* (URTIAGA 1986). This fungus develops on heavy damaged trees only and has never been observed on host individuals in Slovakia.

* *Stereum hirsutum* (WILLD.: FR.) S. F. GRAY

SW Slovakia: Bratislava, Ružová Dolina, Trenčianska ulica, collected as a wound pathogen on two (of 50) trees of *K. paniculata*, senescent basidiocarps only, 10. 8. 2004, J. PACLT.

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References

- ALFIERI Jr., S. A., LANGDON, K. R., WEHLBURG, C., KIMBROUGH, J. W., 1984: Index of plant diseases in Florida (revised). – Florida Dept. Agric. and Consumer Serv., Div. Plant Ind. Bull. **11**.
- ANN, P. J., CHANG, T.-T., KO, W.-H., 2002: *Phellinus noxius* brown root rot of fruit and ornamental trees in Taiwan. – Plant Disease **86**: 820-826.
- ANTONÍN, V., JANKOVSKÝ, L., LOCHMAN, J., TOMŠOVSKÝ, M., 2006: *Armillaria socialis* – morphological-anatomical and ecological characteristics, pathology, distribution in the Czech Republic and Europe and remarks on its genetic variation. – Czech Mycol. **58**: 209-224.
- BONTEA, V., 1985: Ciuperci parasite și saprofite din România I. – Bucharest: Editura Academiei Republicii Socialiste România.
- CHANG, T.-T., 1995: Decline of nine tree species associated with brown root rot caused by *Phellinus noxius* in Taiwan. – Plant Disease **79**: 962-965.
- YANG, W.-W., 1998: *Phellinus noxius* in Taiwan: distribution, host plants and the pH and texture of the rhizosphere soils of infected hosts. – Mycol. Res. **102**: 1085-1088.
- FARR, D. F., BILLS, G. F., CHAMURIS, G. P., ROSSMAN, A. Y., 1989: Fungi on plants and plant products in the United States. – St. Paul, Minnesota: APS Press.
- FRENCH, A. M., 1989: California plant disease host index. – Sacramento: California Dept. Food Agriculture.
- KOTLABA, F., 1997: Common polypores (*Polyporales* s. l.) collected on uncommon hosts. – Czech Mycol. **49**: 169-188.
- OUDEMANS, C. A. J. A., 1921: Enumeratio Systematica Fungorum 3. – The Hague: Martin Nijhoff.
- SINCLAIR, W. A., LYON, H. H., JOHNSON, W. T., 1989: Diseases of trees and shrubs. 2nd edn. – Ithaca, London: Comstock Publishing Associates, Cornell University Press.
- TAI, F.-L., 1979: Sylloge Fungorum Sinicorum. – Beijing: Science Press, Academia Sinica.
- TOMA, M., 1965: Buretele de soc [*Auricularia auricula* (HOOK.) UNDERW.]. – Natura, ser. Biologie **1**: 75-76.
- URTIAGA, R., 1986: Indice de enfermedades en plantas de Venezuela y Cuba. – Barquisimeto, Venezuela: Impresos Nuevo Siglo, S. R. L.

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