

Alexander Urban: Publications, presentations, areas of research

1998

Urban, A. 1998: *Identifizierung und Charakterisierung von Ektomykorrhizen an Eichen*. Diplomarbeit zur Erlangung des akademischen Grades Mag. rer. nat. an der Formal- und Naturwissenschaftlichen Fakultät d. Universität Wien.

2000

Kovacs, G., Pausch & Urban, A. 2000: Diversity of ectomycorrhizal morphotypes and oak decline. *Phyton* **40**: 109-116.

Urban, A., Ertl, C., & Staribacher 2000: *Haselnussanbau in der Praxis*. AgrarPlus, Laa/Thaya, Austria.

2001

Urban, A., & Pla, T. 2001 : Edible truffle species in Austria. In Hall, I., Yun, W., Danell, E., & Zambonelli, A., (eds): *Proceedings of the Second International Conference on Edible Mycorrhizal Mushrooms*. Crop & Food research, Christchurch, New Zealand.

2002

Urban, A., Plattner-Neuner, I., Krisai-Greilhuber, I., Haselwandter, K. 2002: Detection of an anamorph of *Tuber dryophilum*: molecular and immunological evidence. Poster, *International Mycological Congress 7 (IMC7)*, Oslo, Norwegen.

Urban, A., 2002: Truffle cultivation – potentials for the reconciliation of ecology and economy in an unconventional agroecosystem?. *Verhandlungen der Gesellschaft für Ökologie* **32**: 389.

Urban, A., 2002: *Systematic frontiers in ectomycorrhizal symbioses explored with molecular phylogenetic methods*. PhD Dissertation. Wien.

2003

Urban, A., Weiss, M. & Bauer, R. 2003: Ectomycorrhizae involving sebacinoid mycobionts. *Mycological research* **107**: 3-14.

Urban, A. & Mader, A., 2003: Über Trüffelvorkommen (*Tuber aestivum*) im südlichen Niederösterreich: Einfluss des Niederschlags auf die Fundmenge. *Austrian Journal of Mycology* **12**: 193-204.

2004

Urban, A., Plattner-Neuner, I., Krisai-Greilhuber, I., Haselwandter, K. 2004: Molecular studies on terricolous microfungi reveal novel anamorphs of two *Tuber* species. *Mycological Research* **108**: 749-758.

Weiß, M., Selosse, M-A., Rexer, K-H., Urban, A. and Oberwinkler, F. 2004: *Sebacinales*: A hitherto overlooked cosm of heterobasidiomycetes with a broad mycorrhizal potential. *Mycological Research* **108**: 1003-1010.

2005

Nociarová, G., Havranová, I., Bučinová, K. and Urban, A. 2005: Current state of contamination in a beech ecosystem situated near the Aluminium plant in Žiar nad Hronom, Central Slovakia (Abstract) *ForwardFORESTs – International Conference*
<http://forwardforests.czu.cz/docs/abstracts/s1/Ab123.pdf>

Urban, A., Puschenreiter, M., Wenzel, W., Strauß, J. and Gorfer, M. 2005: Molecular diversity of ectomycorrhizal and associated fungi in pine forest on serpentine soil (Abstract). XVII International Botanical Congress, Vienna.
http://www.abc2005.ac.at/program/abstracts/IBC2005_Abtracts.pdf

2007

Peer reviewed articles

Jamnická G, Bučinová K, Havranová I and Urban A, 2007. Current state of mineral nutrition and risk elements in a beech ecosystem situated near the aluminium smelter in Žiar nad Hronom, Central Slovakia. *Forest Ecology and Management* 248: 26-35.

Book chapters and published contributions

Urban A. 2007: Molecular Methods for the identification of ectomycorrhizal fungi. *In Mycotechnology: Current Trends and Future prospects.* (ed. Mahendra Rai) I.K. International Publishing House Pvt Ltd, New Delhi, pp 163 to 172.

Schickmann, S., Urban, A., Nopp-Mayr, U., Hackländer, K. (2007): Small mammals as vectors for spores of mycorrhizal fungi., *In: PRIGIONI C. and SFORZI A. (eds) 2007. Abstracts V European Congress of Mammalogy, Hystrix It. J. Mamm., (n.s.) Vol. I-2, 555-555; ISSN 1825-5272*

2008

Peer reviewed articles

Urban A., Puschenreiter M., Strauss J. and Gorfer, M. 2008. Diversity and structure of ectomycorrhizal and co-associated fungal communities in a serpentine soil. *Mycorrhiza* 18:339–354

Book chapters and published contributions

Urban A. and Pla T, 2008. Truffles and truffle cultivation in Austria. *In: G. Chevalier (ed.), La culture de la truffe dans le monde. Actes du colloque, Brive-La-Gaillarde, France, 2 Février 2007. Le Causse Corrèzien. France: Imprimerie Georges Lachaise.*

Kräutler, K., Schickmann, S., Nopp-Mayr, U., Urban, A., Hackländer, K. (2008): Small mammal mycophagy in mountainous forests in Austria. , *Mammalian Biology*, 73 (Special Issue), 22-23; ISSN 1616-5047

Urban A. and Pla T, 2008. Trufficulture et changement climatique – comment gérer l’incertitude? In: Yves Rousset-Rouard (Ed): L’avenir de la truffe face au réchauffement climatique. Actes des lies rencontres internationales de la truffe –Ménerbes-Carpentras-Avignon-Richeranches. Éditions Albin Michel, Département Livres pratiques, 22, rue Huyghens, 75014 Paris.

2009

Peer reviewed articles

Lenzemo V., Kuyper T.W., Urban A., Vegvari G., Puschenreiter M., Schickmann S., I. Langer I., Steinkellner S. & Vierheilig H. 2009 The arbuscular mycorrhizal host status of plant cannot be linked with the Striga seed-germination-activity of plant root exudates. *Journal of Plant Diseases and Protection* 116 (2): 86-89.

Abstracts and Presentations:

Alexander Urban and Tony Pla. From landscape history to genetic diversity - conservation strategies for *Tuber aestivum*. Abstract & Oral Presentation in: First Conference on the “European” Truffle *Tuber aestivum/uncinatum* 6-8.11.2009, Faculty Centre of Biodiversity, University of Vienna.

Eva Schrampf, Alexander Urban and Erich Leitner. Quality assessment of truffles by aroma analysis using solid phase micro extraction (SPME) coupled with GC and multiple detection systems. Abstract & Poster Presentation in: First Conference on the “European” Truffle *Tuber aestivum/uncinatum* 6-8.11.2009, Faculty Centre of Biodiversity, University of Vienna.

Schrampf, E.; Leitner, E.; Urban, A.; Cardinale, M.: Analyzing variations in aroma patterns of truffles using solid phase micro extraction (SPME) coupled with GC and multiple detection systems. – Abstract & Poster Presentation in: Euro Food Chemistry XV (EUROFOOD). Copenhagen, Denmark, 05.07.2009

S. Schickmann, K. Kräutler, A. Urban, U. Nopp-Mayr, K. Hackländer. Small mammals as vectors for mycorrhizal fungi in Central European mountain forests. Oral Presentation in: 83rd Annual Meeting of the German Society of Mammalogy. Dresden, 13 to 17 September 2009. Abstracts of Oral Communications and Poster Presentations ISSN 1616-5047. *Mamm. biol.* Special issue to volume 74..

Vladimír Antonín, Martina Vašutová, Alexander Urban Molecular evidence for identity of *Marasmius epiphyllus* and *M. tenuiparietalis* (*Physalacriaceae*). – Abstract & Poster Presentation, Internationale 34. Mykologische Dreiländertagung, 13.-19. 9. 2009, Litschau.

Conference Organisation

First Conference on the “European” Truffle *Tuber aestivum/uncinatum* 6-8.11.2009, Faculty Centre of Biodiversity, University of Vienna. Honorary Chairman Gérard Chevalier.

Biodiversity activities

Tag der Artenvielfalt, 6.6.09, Pfaffstätten

2010

Nagy LG, Urban A, Örstadius L, Papp T, Larsson E, Vágvölgyi C 2010: The evolution of autodigestion in the mushroom family Psathyrellaceae (Agaricales) inferred from Maximum

Likelihood and Bayesian methods. *Molecular Phylogenetics and Evolution* 57: 1037-48. Available online 27 August 2010.

Antonín V, Vašutova M, Urban A 2010: A molecularly supported concept of *Marasmius epiphyllus* (Basidiomycetes, Physalacriaceae). *Cryptogamie Mycologie* 31: 355-362.

Urban A, Pla T. (2010) Conservation strategies for *T. aestivum*. *Austrian Journal of Mycology* 19: 273-279.

Alexander Urban, Susanne Schickmann, Katharina Kräutler, Carolin Rebernigg, Gudrun Kohl, Ursula Nopp-Mayer, Irmgard Greilhuber, Klaus Hackländer (2010) Diversity of Fungi Consumed and Vectored by Small Mammals in Austrian Mountain Forests. Abstract P3.47 and Poster Presentation. International Mycological Congress 9 (IMC9), Edinburgh, Schottland 1-6.8.2010.

Vorträge:

A. Urban (2010) Truffles - using, cultivating and preserving a precious element of Europe's natural heritage. The First Rumanian Truffle Conference. Csíkszereda/ Miercurea Ciuc, Rumania. Invited Oral Presentation.

A. Urban (2010) The genetic diversity of *Tuber aestivum* revisited. Oral presentation and Abstract. Second Congress of the *Tuber aestivum/uncinatum* European Scientific Group (TAUESG). 20-22.8.2010, Juva, Finland.

Alexander Urban, Tony Pla (2010) Écologie et Culture de la Truffe de Bourgogne/ del Tartuffo Nero di Fragno en Autriche. Invited presentation (In French). Convegno europeo e tavola rotonda sulla coltivazione del Tartufo nero di Fragno. 6.11.2010, Calestano, Italy.

Alexander Urban (2010) Truffles demystified? Invited presentation. Napa Truffle Festival, 11. 12. 2010, Napa, California.

Tag der Artenvielvalt 29. Mai 2010: Nationalpark Thayatal, Mauer, Wien: 11.6.2010.

Edition:

Greilhuber I, Hausknecht A, Urban A (2010) eds: Proceedings of the First Conference on the 'European' Truffle *Tuber aestivum/uncinatum*. 6-8. 11. 2009. *Austrian Journal of Mycology* 19.

Non-scientific journals, extension

NP Donauauen Artikel

2011

Book chapter

Urban A 2011: Metal Elements and the Diversity and Function of Ectomycorrhizal Communities. In: Diversity and Biotechnology of Ectomycorrhiza. Mahendra Rai and Ajit

Varma (Eds). Soil Biology Series 25: 231-254, Springer. DOI: 10.1007/978-3-642-15196-5_11

Peer reviewed articles (ISI listed)

Gorfer M, Blumhoff M, Klaubauf S, Urban A, Inselsbacher E, Bandian D, Mitter B, Sessitsch A, Wanek W, Strauss J 2011 : Community profiling and gene expression of fungal assimilatory nitrate reductases in agricultural soil. ISME J (May 12, 2011), <http://dx.doi.org/10.1038/ismej.2011.53>

Schickmann S., Krätzler K., Kohl G., Nopp-Mayr U., Krisai-Greilhuber I., Hackländer K. & Urban A. (2010) Comparison of extraction methods applicable to fungal spores in faecal samples from small mammals. *Sydowia* 63(2): 237–247

Articles in Conference Proceedings:

Urban, A., Pla, T., Schickmann, S., Krätzler, K., Nopp-Mayer, U., Krisai-Greilhuber, I., Hackländer, K., 2011: Research on hypogeous fungi and first harvest of a cultivated truffle in Austria. *Atti del 3. Congresso Internazionale di Spoleto sul Tartuffo*, p. 795-799.

Urban, A. 2011: Application of DNA sequence based taxon identification to the study of root associated fungal communities. *Tagung der ASRR – Austrian Society for Root Research*. 13-14. 9. 2011.

Conference contributions

Oral contributions

Urban, A., Chrysopoulos, C., Stobbe, U., Pla, T., 2011: Emerging phylogeographic patterns in the *Tuber aestivum/uncinatum* complex. *Congrès du Groupe Scientifique Européen Tuber aestivum/Tuber uncinatum (TAUESG)*, Nancy, Nov. 7th. Abstract and Oral Presentation.

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www.trueffelgarten.at

³ www.troufa.net, Greece

⁴*Albert-Ludwigs-University Freiburg, Chair of Forest Botany, Bertoldstraße 17
79085 Freiburg, Germany.*

Alexander Urban (2011) The genetic diversity of *Tuber aestivum* revisited. Oral presentation and Abstract. IWEMM6 – 6th International Workshop on Edible Mycorrhizal Mushrooms. Rabat. Morocco, April 6-10. Abstract and Oral Presentation.

Alexander Urban, Gabriela Jarníková, Katarína Bucinová, Markus Puschenreiter (2011) Patterns of heavy metal uptake by macrofungi including edible ectomycorrhizal fungi. Oral presentation and Abstract. IWEMM6 – 6th International Workshop on Edible Mycorrhizal Mushrooms. Rabat. Morocco, April 6-10, 2011. Abstract and Oral Presentation.

Outreach activities, non-scientific journals, extension

Urban, A., Koller, G.: „Pilze-Die verborgene Artenvielfalt des Waldes – Teil 1“ Natur und Umwelt im Pannonischen Raum, Heft 3/2011, Seite 10-11. Eisenstadt; Verleger: Landesumweltanwaltschaft Burgenland, Herausgeber Naturschutzbund Burgenland.

Urban, A., Koller, G.: „Pilze-Die verborgene Artenvielfalt des Waldes – Teil 2“ Natur und Umwelt im Pannonischen Raum, Heft 4/2011, Seite 47. Eisenstadt; Verleger: Landesumweltanwaltschaft Burgenland, Herausgeber Naturschutzbund Burgenland.

Interview für das Radiokolleg zum Thema Pilze, Ausgestrahlt in Ö1, 27-30. Juni 2011, jeweils ab 9:30; Redaktion Ilse Huber.

Scientific visitors

Uthaiwan Sangwanit, Kasethsan University, Thailand, May 2011 Asia-net grant

Projekte: 2011/2012: Acquisition des Auftrags “Monitoring Kernzonen BPWW – Projektteil Pilze”

2012

Book chapter

Peer reviewed articles

Articles in Conference Proceedings:

Conference presentations

Oral contributions

Poster presentations

Extension articles

2005

First central european truffle conference, Budapest 2005 ??

Urban, A., Puschenreiter, M., Wenzel, W., Strauß, J. and Gorfer, M. 2005: Molecular diversity of ectomycorrhizal and associated fungi in pine forest on serpentine soil (Abstract).

XVII International Botanical Congress, Vienna.
http://www.abc2005.ac.at/program/abstracts/IBC2005_Abstracts.pdf

2006

Urban, A.: Truffle orchards - reconciling economical and ecological value? 2nd Central European Truffle Conference, Budapest, 4-6. September

Urban, A.: Trüffel und Trüffelkultur in Österreich. Vortrag am Biozentrum Linz, 4. Dezember.

2007

Urban, A., Pla, T., 2007 : Truffles et cultivation de la truffe en Autriche. Brive la Gaillarde, France,

2008

Urban, A., 2008 : Trüffel – Mythen und Wirklichkeit. Vortrag im Auftrag des Magistrats der Stadt Wien, Marktamt – MA59. (6.11.2008, 13:30 - 15:30 Uhr, Freitag, 7.11.2008, 13:30 - 15:30 Uhr)

Poster presentations:

2001(?)
ICOM Adelaide

2002
IMC7, Tuber anamorphs

2007-10-30
European Mycological Congress, Psathyrellaceae

2007, Säugetierkongress, Mycophagy

2008, Säugetierkongress, Mycophagy

Fungal intoxications, mycological advice

9.8.2008, Landeskrankenhaus Tulln, intoxication with *Omphalotus olearius* (collected as *Cantharellus cibarius*)

Biodiversity activities

Tag der Artenvielfalt, 7.6.08, Wien, Steinhofgründe
Tag der Artenvielfalt, 6.6.09, Pfaffstätten

Areas of research / keywords:

mycology, ecology, mycorrhiza, ectomycorrhiza, symbiosis, evolution, molecular phylogeny, *Sebacina*, hypogeous fungi, truffles, truffle cultivation