

## CURRICULUM VITAE



Dr. Sonja Knapp

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Department Community Ecology  
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Born December 7, 1980, Tübingen, Germany  
Nationality: German

Halle (Saale), 2022/05/30



## EDUCATION

- 01/2009 Johann Wolfgang Goethe-University Frankfurt (Main), Germany, Department of Biological Sciences: PhD graduation (Dr. phil. nat.), rated "very good"  
Topic: "Plant Biodiversity in Urbanized Areas – Analyses of Plant Functional Traits in Space and Time, Plant Rarity and Phylogenetic Diversity"  
Supervisors: Prof. Dr. Rüdiger Wittig, Dr. Stefan Klotz
- 11/2005 Eberhard Karls University Tübingen, Germany, Faculty of Biology and Faculty of Geosciences: Diploma Geoecology/ Ecosystem management (Dipl. Geoökol.), rated: "very good" (1,2)  
Topic: "Species diversity in urban and rural protected areas. Analysing the relationship of species diversity with landscape structure and the location along the urban-to-rural gradient in the city of Halle (Saale) and the district of Saalkreis"  
Supervisors: Prof. Dr. Dr. h.c. Volker Mosbrugger, Dr. Stefan Klotz
- 2000 - 2005 Eberhard Karls University Tübingen, Germany: Diploma studies Geoecology/ Ecosystem Management
- 1991 - 2000 Isolde-Kurz-Gymnasium Reutlingen: Abitur, rated "very good" (1,4)

## EMPLOYMENT

- 11/2018 – 09/2019 Technical University Berlin, School VI - Planning Building Environment, Institute for Ecology, Chair for Urban Ecology: Visiting professorship
- Since 2009 Helmholtz Centre for Environmental Research – UFZ, Halle (Saale), Germany, Department Community Ecology: Research scientist
- 02 – 04 2009 University of Minnesota, St. Paul, USA, Department of Ecology, Evolution and Behavior, Jeannine Cavender-Bares Lab: Research stay
- 2006 - 2008 Helmholtz Centre for Environmental Research – UFZ, Halle (Saale), Germany, Department Community Ecology: PhD-student
- 12/2005 Helmholtz Centre for Environmental Research – UFZ, Halle (Saale), Germany, Department Community Ecology: Research assistant

## RESEARCH PROJECTS

- 2021 - 2027 Helmholtz-Programme "Changing Earth - Sustaining our Future": Involved scientist in integrated platform "Sustainability Transformations", project "Resilient Cities". Funding: Helmholtz Association
- 2021 - 2024 Faktencheck Artenvielfalt: Lead-author for urban areas chapter. Funding: BMBF
- 2019 - 2021 Helmholtz Climate Initiative - HI-CAM: Involved Scientist in key area "Adapting to the Impacts of Climate Change". Funding: Helmholtz Association
- 2017 - 2021 UrBioNet (Urban Biodiversity Network) "Patterns, Drivers and Traits Working Group": Involved scientists. Funding: NSF
- 2017 - 2018 sUrBioCity – Deciphering Drivers of Urban Biodiversity across Multiple Scales: Involved scientists. Funding: sDiv
- 2014 - 2020 Citizen Science-project "Recording the flora and fauna of protected areas in the city of Halle (Saale)": Coordinator. Funding: Helmholtz Centre for Environmental Research – UFZ and City of Halle (Saale), Germany
- 2014 - 2020 Helmholtz-Programme "Terrestrial Environment" III: Involved scientist in project "Mitigating land-use conflicts – between land sparing and land sharing". Funding: Helmholtz Association
- 2014 – 2020 Helmholtz-Programme "Terrestrial Environment" III: Involved scientist in project "Urban transformations – sustainable urban development towards resource efficiency, quality of life and resilience". Funding: Helmholtz Association

- 2013 - 2016 "Natural Capital Germany – TEEB-DE": Chapter-Coordinator for the report on "Ecosystem services in cities – Protecting health and enhancing quality of life". Scientific and financial support by the Federal Agency for Nature Conservation (BfN), Germany with funding from the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety, Germany (BMBF)
- 2009 "Dynamics of Coupled Human and Natural Systems program for the Twin Cities Household Ecosystem Project" and Cedar Creek Long-Term Ecological Research (DEB-0620652): Guest scientist at University of Minnesota. Funding: National Science Foundation, USA (NSF)
- 2009 - 2013 Helmholtz-Programme "Terrestrial Environment" II: Involved scientist in cluster "Impacts of climate change on ecological patterns and processes". Funding: Helmholtz Association
- 2008 - 2011 "RAME - Research Association Mining and Environment in Vietnam": Coordinator of work package "Plant-based methods for the sustainable recultivation of mining sites and the treatment of waste water". Funding: BMBF

#### INVITED CONFERENCE TALKS (SELECTION)

- 09/2019 Fachkongress "Stadtgrün naturnah"; Deutsche Umwelthilfe e.V. & Kommunen für biologische Vielfalt e.V., Bonn, Germany
- 11/2017 "Naturschutztag Schleswig-Holstein 2017 – Natur in Dorf und Stadt", Neumünster, Germany
- 04/2016 Conference "The 150<sup>th</sup> Anniversary of the Ecology Concept"; European Ecological Federation; Leipzig, Germany
- 11/2015 Education training workshop for gymnasium biology teachers, administrative region of Arnsberg, Germany
- 03/2015 Workshop "Nature-based solutions to climate change [...] in urban areas" of the German Federal Agency for Nature Conservation (BfN) and the European Network of Heads of Nature Conservation Agencies (ENCA), Isle of Vilm, Germany
- 10/2014 Conference "United Nations decade on biodiversity" of the German Federal Environmental Foundation, Leipzig, Germany
- 03/2014 4th British-German Frontiers of Science Symposium of German Young Academy, UK Royal Society, and Alexander von Humboldt Foundation, Potsdam, Germany

#### TEACHING

- 2019 TU Berlin: Course on Nature conservation and urban ecology (for "Ökologie und Umweltplanung BSc")
- 2018 TU Berlin: Lectures on urban ecosystem services, nature-based solutions, and urban soils within lecture series "Grundlagen der Stadtökologie" and "History and Perspectives of Urban Regions"
- Since 2015 TU Berlin: Courses on urban biodiversity – functional traits and phylogenetic diversity (for "Stadtökologie MSc" and "Ökologie und Umweltplanung BSc")
- 2015 - 2018 MLU Halle-Wittenberg: Lectures in module "Freilandökologie" (MA Biology)
- 2013 - 2016 HIGRADE-graduate school, Helmholtz Centre for Environmental Research – UFZ: Introductory lectures and seminar on biodiversity
- 2012 - 2014 MLU Halle-Wittenberg: Co-supervision of seminar group, basic ecological practical course in Geobotany (2014 & 2013: BIO.03069.0; 2012: 2671)

#### SUPERVISION OF STUDENTS – PHD

- Since 2019 V. Volke (MSc. TU Dresden)
- Since 2019 E. Mollenkopf (MSc. Martin-Luther-University Halle-Wittenberg)
- 2017 - 2021 M. Milanović (MSc. University of Belgrade, MSc. University of Kiel)

Dr. Sonja Knapp

2016 - 2019 M. Hanisch (MSc. University Leipzig)  
2013 - 2018 M. Jaganmohan (MSc. Bangalore University)

#### **SUPERVISION OF STUDENTS – MASTER, BACHELOR, DIPLOMA**

Since 2022 L. Hess (BSc.-student TU Berlin)  
Since 2022 S. Holldack (BSc.-student TU Berlin)  
Since 2022 R. Schneider (BSc.-student TU Berlin)  
Since 2021 M. Mehrabiy-Pari (BSc.-student TU Berlin)  
Since 2021 K. Michel (MSc.-student TU Berlin)  
Since 2021 A. Schulz (BSc.-student TU Berlin)  
Since 2020 L. Winker (BSc.-student TU Berlin)  
2021 – 2022 F. Kliem (BSc.-student TU Berlin)  
2021 – 2022 L. Ramke (BSc.-student TU Berlin)  
2021 – 2022 M. Biazeck (BSc.-student TU Berlin)  
2021 L. Heupel (BSc.-student TU Berlin)  
2020 – 2021 R. A. Urrego Alvarez (MSc.-student TU Dresden)  
2020 – 2021 D. Kurch (Diploma-student University of Koblenz-Landau)  
2020 - 2021 M. Eckhardt (BSc.-student TU Berlin)  
2018 - 2020 S. Witte (MSc.-student Martin-Luther-University Halle-Wittenberg)  
2017 - 2018 S. Werner (MSc.-student Martin-Luther-University Halle-Wittenberg)  
2016 - 2017 V. Volke (MSc.-student TU Dresden)  
2007 - 2008 A. Scholz (Diploma-student University Leipzig)

#### **SUPERVISION OF INTERNS**

2021 E. Kaplan (MSc. Middle East Technical University, Turkey)  
2016 S. Werner (MSc.-student University Halle-Wittenberg)  
2015 - 2016 F. Hummel (Scholar Landesschule Pforta Sachsen-Anhalt)  
2014 C. Heitzer (High-school graduate Leibniz Gymnasium Dortmund/ Dortmund International School)  
2013 V. Hoeber (B.Sc.-student University Halle-Wittenberg)  
2010 M. Schmid (B.Sc.-student University of Tübingen)  
2010 S. Schneider (Participant of "Biologieolympiade", Biologieolympiade e.V.)  
2009 G. Müller (B.Sc.-student University of Tübingen)

#### **PROFESSIONAL AND EDITORIAL SERVICES**

Since 2021 Ombudsperson for good scientific practice, Helmholtz Centre for Environmental Research-UFZ  
Since 2021 General Secretary, European Ecological Federation  
Since 2021 Co-chair of Specialist Group "Urban Ecology" at Ecological Society of Germany, Austria and Switzerland (GfÖ)  
2021 Session chair at 50th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), online  
Since 2021 Editorial Board Member, "Urban Ecosystems"

Dr. Sonja Knapp

Since 2018	Guest Associate Editor, "Frontiers in Ecology and Evolution", section "Urban Ecology"
Since 2018	Associate Editor, "Frontiers in Environmental Science", section "Land Use Dynamics"
Since 2017	Subject Editor, "Web Ecology"
2015	Session chair at conference "Nature-based solutions to climate change in urban areas", organized by German Federal Agency for Nature Conservation and European Network of Heads of Nature Conservation Agencies, Bonn, Germany
2015	Session chair at 58th Annual Symposium of the International Association for Vegetation Science, Brno, Czech Republic
2015	Session chair at conference "Nature and Urban Wellbeing Nature-Based Solutions to Societal Challenges" organized by ALTER-Net, Ghent, Belgium
2014	Coordinator of 8th Annual Conference of specialist group "Macroecology" within the Ecological Society of Germany, Austria and Switzerland (GfÖ), Halle (Saale), Germany
Since 2014	Editorial Board Member, "Urban Naturalist" (2017 - 2019: Managing Editor)
2013	Session chair at 43rd Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Potsdam, Germany
2012 - 2014	Chairwoman of the executive board, Association for Geoecology in Germany e.V.
2011	Session chair at 41st Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Oldenburg, Germany
2010 - 2012	Member of the executive board, Association for Geoecology in Germany e.V.

#### PROFESSIONAL MEMBERSHIPS

Since 2015	Urban Biodiversity Network (UrBioNet)
Since 2015	Society for Urban Ecology (SURE)
Since 2011	Ecological Society of Germany, Austria and Switzerland (GfÖ)
Since 2001	Association for Geoecology in Germany e.V. (VGöD)

#### AWARDS AND HONOURS

Since 2021	Member of German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig
2014 - 2015	Selected member of the Helmholtz Mentoring Programme "Taking the Lead"
2008	3rd prize for best talk at the 4th UFZ-PhD conference, Leipzig, April 2008

#### PUBLIC OUTREACH (SELECTION)

2020	Klima – schützen und anpassen. Ein UFZ-Forschungsspaziergang. <a href="http://www.ufz.de/index.php?de=47691">www.ufz.de/index.php?de=47691</a>
2018	SWR radio interview "Zufluchtsort für Pflanzen und Tiere – Retten Gärten die biologische Vielfalt?"
2017	3sat TV-show „nano“ at the International Day for Biological Diversity
2014	Mitteldeutscher Rundfunk TV-show "Lexi TV – Wildnis Sommer" (led by M. Endt)
2012	Press release "Tale of Two Scientific Fields – Ecology and Phylogenetics – Offers New Views of Earth's Biodiversity" at <a href="http://www.nsf.gov">www.nsf.gov</a>
2010	Newspaper-article "Pflanzen auf Wanderschaft" published in Mitteldeutsche Zeitung 2010/09/08 by journalist J. Klabuhn
2008	Deutschlandfunk radio report "Gleichförmige Vielfalt - Artenreichtum der Städte gleicht sich auf der ganzen Welt" by journalist V. Wildermuth
2006 - 2015	Long Night of Science at UFZ Halle: Exhibition and presentations

## LIST OF PUBLICATIONS, SONJA KNAPP

AVERAGE CITATIONS PER ARTICLE 45.26; H-INDEX = 21 (WEB OF SCIENCE, 2022/05/30)

### INTERNATIONAL, PEER-REVIEWED

- Knapp, S.**, von der Lippe, M., Kowarik, I. (2022) Interactions of Functional Traits With Native Status and Ecosystem Novelty Explain the Establishment of Plant Species Within Urban Ecosystems: Evidence From Berlin, Germany. *Frontiers in Ecology and Evolution* 10: 790340. doi: 10.3389/fevo.2022.790340
- Rega-Brodsky, C.C., Aronson, M.F.J., Piana, M.R., Carpenter, E.-S., Hahs, A.K., Herrera-Montes, A., **Knapp, S.**, Kotze, D.J., Lepczyk, C.A., Moretti, M., Salisbury, A.B., Williams, N.S.G., Jung, K., Katti, M., MacGregor-Fors, I., MacIvor, J.S., La Sorte, F.A., Sheel, V., Threlfall, C.G., Nilon, C.H. (2022) Urban biodiversity: State of the science and future directions. *Urban Ecosystems* – online early
- Swan, C.M., Brown, B., Borowy, D., Cavender-Bares, J., Jeliaskov, A., **Knapp, S.**, Lososová, Z., Padullés Cubino, J., Pavoine, S., Ricotta, C., Sol, D. (2021) A framework for understanding how biodiversity patterns unfold across multiple spatial scales in urban ecosystems. *Ecosphere* 12 (7) e03650
- Milanović, M., Kühn, I., Pyšek, P., **Knapp, S.** (2021) Functional diversity changes in native and alien urban flora over three centuries. *Biological Invasions* 23, 2337-2353
- Knapp, S.**, Aronson, M.F.J., Carpenter, E., Herrera-Montes, A., Jung, K., Kotze, D.J., La Sorte, F.A., Lepczyk, C.A., MacGregor-Fors, I., MacIvor, J.S., Moretti, M., Nilon, C.H., Piana, M.R., Rega-Brodsky, C.C., Salisbury, A., Threlfall, C.G., Trisos, C., Williams, N.S.G., Hahs, A.K. (2021) A Research Agenda for Urban Biodiversity in the Global Extinction Crisis. *BioScience* 71 (3), 268-279
- Marselle, M.R., Hartig, T., Cox, D.T.C., de Bell, S., **Knapp, S.**, Lindley, S., Triguero-Mas, M., Böhning-Gaese, K., Braubach, M., Cook, P.A., de Vries, S., Heintz-Buschart, A. Hofmann, M., Irvine, K.N., Kabisch, N., Kolek, F., Kraemer, R., Markevych, I., Martens, D., Müller, R., Nieuwenhuijsen, M., Potts, J.M., Stadler, J., Walton, S., Warber, S.L., Bonn, A. (2021) Pathways linking biodiversity to human health: A conceptual framework. *Environment International* 150, 106420
- Padullés Cubino, J., Borowy, D., **Knapp, S.**, Lososová, Z., Ricotta, C., Siebert, S., Cavender-Bares, J., Sol, D., Jeliaskov, A., Swan, C. (2021) Contrasting impacts of cultivated exotics on the functional diversity of domestic gardens in three regions with different aridity. *Ecosystems* 24, 875–890
- Wellmann, T., Lausch, A., Andersson, E., **Knapp, S.**, Cortinovis, C., Jache, J., Scheuer, S., Kremer, P., Mascarenhas, A., Kraemer, R., Haase, A., Schug, F., Haase, D. (2020) Remote sensing in urban planning: Contributions towards ecologically sound policies? *Landscape and Urban Planning* 204, 103921
- Hanisch, M., Schweiger, O., Cord, A. F., Volk, M., **Knapp, S.** (2020) Plant functional traits shape multiple ecosystem services, their trade-offs and synergies in grasslands. *Journal of Applied Ecology* 57 (8), 1535-1550
- Milanović, M., **Knapp, S.**, Pyšek, P., Kühn, I. (2020) Trait–environment relationships of plant species at different stages of the introduction process. *NeoBiota* 58, 55-74
- Cavender-Bares, J., Padullés Cubino, J., Pearse, W. D., Hobbie, S. E., Lange, A. J., **Knapp, S.**, Nelson, K. C. (2020) Horticultural availability and homeowner preferences drive plant diversity and composition in urban yards. *Ecological Applications*, 30 (4), e02082
- Kondratyeva, A., **Knapp, S.**, Durka, W., Kühn, I., Vallet, J., Machon, N., Martin, G., Motard, E., Grandcolas, E., Pavoine, S. (2020) Urbanization effects on biodiversity revealed by a two-scale analysis of species functional uniqueness versus redundancy. *Frontiers in Ecology and Evolution* 8:73
- Schwarz, N., Hoffmann, F., Knapp, S., Strauch, M. (2020) Synergies or trade-offs? Optimizing a virtual urban region to foster plant species richness, climate regulation and compactness under varying landscape composition. *Frontiers in Environmental Science* 8:16
- Milanović, M., **Knapp, S.**, Pyšek, P. & Kühn, I. (2020) Linking traits of invasive plants with ecosystem services and disservices. *Ecosystem Services* 42, 101072

- Knapp, S.**, Schmauck, S., Zehnsdorf, A. (2019) Biodiversity impact of green roofs and constructed wetlands as progressive eco-technologies in urban areas. *Sustainability* 11, 5846
- Volke, V., **Knapp, S.**, Roloff, A. (2019) Survey of *Hymenoscyphus fraxineus* in a central European urban area and exploration of its possible environmental drivers. *Urban Forestry and Urban Greening* 40, 165-173
- Lausch, A., Bastian O., Klotz, S., Leitão, P.J., Jung, A., Rocchini, D., Schaepman, M.E., Skidmore, A.K., Tischendorf, L., **Knapp, S.** (2018) Understanding and assessing vegetation health by in-situ species and remote sensing approaches. *Methods in Ecology and Evolution* 9, 1799-1809
- Lausch, A., Borg, E., Bumberger, J., Dietrich, P., Heurich, M., Huth, A., Jung, A., Klenke, R., **Knapp, S.**, Mollenhauer, H., Paasche, H., Paulheim, H., Pause, M., Schweitzer, C., Schmulius, C., Settele, J., Skidmore, A.K., Wegmann, M., Zacharias, S., Kirsten, T. & Schaepman, M.E. (2018) Understanding Forest Health with Remote Sensing, Part III: Requirements for a Scalable Multi-Source Forest Health Monitoring Network Based on Data Science Approaches. *Remote Sensing* 10, 1120
- Wellmann, T., Haase, D., **Knapp, S.**, Salbach, C., Selsam, P., Lausch, A. (2018) Urban land use intensity assessment: The potential of spatio-temporal spectral traits with remote sensing. *Ecological Indicators* 85, 190-203
- Schwarz, N., Moretti, M., Bugalho, M., Davies, Z., Haase, D., Hack, J., Hof, A., Melero, Y., Pett. T., **Knapp, S.** (2017) Understanding biodiversity-ecosystem service relationships in urban areas: a comprehensive literature review. *Ecosystem Services* 27, 161-171
- Stadler, J., Klotz, S., Brandl, R., **Knapp, S.** (2017) Species richness and phylogenetic structure in plant communities: 20 years of succession. *Web Ecology* 17, 37-46
- Knapp, S.**, Winter, M., Klotz, S. (2017) Increasing species richness, but decreasing phylogenetic richness and divergence over a 320 year period of urbanization. *Journal of Applied Ecology* 54 (4), 1152-1160
- Banzhaf, E., Kabisch, S., **Knapp, S.**, Rink, D., Wolff, M., Kindler, A. (2017) Integrated Research on Land-Use Changes in the Face of Urban Transformations – an Analytic Framework for Further Studies. *Land Use Policy*, 60, 403-407
- Knapp, S.**, Schweiger, O., Kraberg, A., Asmus, H., Asmus, R. Brey, T., Frickenhaus, S., Gutt, J., Kühn, I., Liess, M., Musche, M., Pörtner, H.-O., Seppelt, R., Klotz, S. & Krause, G. (2017) Do drivers of biodiversity change differ in importance across marine and terrestrial systems - or is it just different research communities' perspectives? *Science of the Total Environment*, 574, 191-203
- Kabisch, N., Frantzeskaki, N., Pauleit, S., Naumann, S., Davis, M., Artmann, M., Haase, D., **Knapp, S.**, Korn, H., Stadler, J., Zaunberger, K., Bonn, A. (2016) Nature-based solutions to climate change mitigation and adaptation in urban areas - perspectives on indicators, knowledge gaps, barriers and opportunities for action. *Ecology and Society*, 21 (2): 39
- Knapp, S.**, Stadler, J., Harpke, A. & Klotz, S. (2016) Dispersal traits as indicators of vegetation dynamics in long-term old-field succession. *Ecological Indicators*, 65, 44-54
- Jaganmohan, M., **Knapp, S.**, Buchmann, C.M. & Schwarz, N. (2016) The bigger, the better? The influence of urban green space design on cooling effects for residential areas. *Journal of Environmental Quality*, 45, 134-145
- Wang H.-F., Qureshi, S., **Knapp, S.**, Friedman, C.R. & Hubacek, K. (2015) A basic assessment of residential plant diversity and its ecosystem services and disservices in Beijing, China. *Applied Geography* 64, 121-131
- Knapp, S.**, Kühn, I. (2012) Origin matters: Widely distributed native and non-native species benefit from different functional traits. *Ecology Letters*, 15: 696-703
- Knapp, S.**, Dinsmore, L., Fissore, C., Hobbie, S. E., Jakobsdottir, I., Kattge, J., King, J., Klotz, S., McFadden, J. P. & Cavender-Bares, J. (2012) Phylogenetic and functional characteristics of household yard floras and their changes along an urbanization gradient. *Ecology*: 93, S83-S98
- Honoured as "Nature Research Highlight" "A look at backyard biodiversity" *Nature* 484: 144
- Knapp, S.**, Wittig, R. (2012) An analysis of temporal homogenisation and differentiation in Central European village floras. *Basic and Applied Ecology*, 13: 319-327
- Beck J., Ballesteros-Mejia L., Buchmann C.M., Dengler J., Fritz S., Gruber B., Hof C., Jansen F., **Knapp S.**, Kreft H., Schneider A-K., Winter M., Dormann C.F. (2012) What's on the horizon for macroecology? *Ecography*, 35: 673-683

Bräuniger, C., **Knapp, S.**, Kühn, I., Klotz, S. (2010) Testing taxonomic and landscape surrogates for biodiversity in an urban setting. *Landscape and Urban Planning*: 97, 283-295

**Knapp, S.**, Kühn, I., Stolle, J. & Klotz, S. (2010) Changes in the functional composition of a Central European urban flora over three centuries. *Perspectives in Plant Ecology, Evolution and Systematics*, 12: 235-244

**Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2010) Erratum to: Do protected areas in urban and rural landscapes differ in species diversity? *Biodiversity and Conservation* 19: 3307-3310

**Knapp, S.**, Kühn, I., Bakker, J.P., Kleyer, M., Klotz, S., Ozinga, W.A., Poschlod, P., Thompson, K., Thuiller, W. & Römermann, C. (2009) How species traits and affinity to urban land use control large-scale species frequency. *Diversity and Distributions*, 15: 533-546

**Knapp, S.**, Kühn, I., Wittig, R., Ozinga, W.A., Poschlod, P. & Klotz, S. (2008) Urbanization causes shifts in species' trait state frequencies. *Preslia* 80: 375-388

**Knapp, S.**, Kühn, I., Schweiger, O. & Klotz, S. (2008) Challenging urban species diversity: contrasting phylogenetic patterns across plant functional groups in Germany. *Ecology Letters* 11: 1054-1064

**Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2008) Do protected areas in urban and rural landscapes differ in species diversity? *Biodiversity and Conservation* 17: 1595-1612

#### INTERNATIONAL, NOT PEER-REVIEWED

**Knapp, S.**, Gerth, A. & Klotz, S. (2012) Sustainable recultivation and wastewater treatment in Vietnamese coal mining. *World of Mining - Surface & Underground* 64: 253-261

#### NATIONAL, PEER-REVIEWED

**Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2006) Artenvielfalt in Schutzgebieten der Stadt Halle (Saale) und des Saalkreises - ein Stadt-Land-Vergleich. *Geobotanische Kolloquien* 20: 21-30

#### NATIONAL, NOT PEER-REVIEWED

**Knapp, S.** (2018) Grün in der Stadt: Potenziale zum Erhalt der Biodiversität. Die Gemeinde SH 3/2018, 70-71

Volke, V., **Knapp, S.** & Roloff, A. (2018) Eschentriebsterben in Leipzig. *TASPO Baumzeitung* 01/2018, 40-42

**Knapp, S.** (2015) Die Stadt der Zukunft - grün, vielfältig, lebenswert? *FORUM der Geoökologie* 26 (3), 41-43

**Knapp, S.** (2014) Die Stadt brummt. Vom Wert der Stadtnatur für Pflanzen und Bienen. *Allgemeine Deutsche Imkerzeitung / Die Biene / Imkerfreund* 1/2014: 18-19

**Knapp, S.** (2008) Vielfalt vor der Haustür. Biodiversität in der Stadt. *Forum der Geoökologie* 19 (3): 28-31

Hoechstetter, S., Wahr, J., **Knapp, S.**, Klotz, S., Uhl, D., Thiv, M. & Mosbrugger, V. (2005) Muster der Biodiversität von Gefäßpflanzen in Baden-Württemberg - eine geostatistische Analyse abiotischer Einflussfaktoren. *Stuttgarter Beiträge zur Naturkunde Serie A (Biologie)*: 676

**Knapp, S.** (2013) Forschung in Tübingen. *Forum der Geoökologie* 24 (1): 20-21

**Knapp, S.** (2012) Umweltkommunikation – Argumentieren, Spielen und Agieren für Natur- und Umweltschutz. *Forum der Geoökologie* 23 (2): 10-12

**Knapp, S.** (2012) Göks and the City: Exkursion zur Stadtökologie Karlsruhe. *Forum der Geoökologie* 23 (1): 26-27

**Knapp, S.** (2012) Eine runde Sache: 25 Geoökologie Karlsruhe und 25 Jahre VGÖD – Die Jahrestagung 2011 in Karlsruhe. *Forum der Geoökologie* 23 (1): 10-11

**Knapp, S.** (2011) Zur Lage der Welt 2010. *Forum der Geoökologie* 22 (1): 50-51

#### BOOKS, BOOK-CHAPTERS, REPORTS, AND MORE

Isermeyer, F., Teutsch, G., Ammer, C., Bauhus, J., Böckmann, T., Bolte, A., Farwig, N., Hafner, A., Höltermann, A., Kasal, B., **Knapp, S.**, Ordon, F., Pröbstle, P., Klemmt, H.J., Richter, K., Schraml, U., Wirth, C., Wolperdinger, M. (2021) Stärkung der Wald- und Holzforschung in Deutschland: Abschlussbericht der Arbeitsgruppe. Johann Heinrich von Thünen-Institut, Helmholtz-Zentrum für Umweltforschung – UFZ, Braunschweig, Leipzig, 60 S.

**Knapp, S.**, Klotz, S., Fachbereich Umwelt der Stadt Halle (Eds.) (2020) Geschützte Natur in Halle (Saale). Eine Bestandsaufnahme der Tier- und Pflanzenwelt. Natur + Text, Rangsdorf. 448 Seiten. ISBN 978-3-942062-43-5



**Knapp, S.** (2019) Wie steht es um die Biodiversität der Städte? ESKP-Themenspezial „Biodiversität im Meer und an Land“; <https://themenspezial.eskp.de/biodiversitaet-im-meer-und-an-land/inhalt/verstaedterung-und-biodiversitaet/biodiversitaet-in-staedten/>

**Knapp, S.** (2019) Unsere Städte – neue Spielfelder der Evolution? ESKP-Themenspezial „Biodiversität im Meer und an Land“; <https://themenspezial.eskp.de/biodiversitaet-im-meer-und-an-land/inhalt/verstaedterung-und-biodiversitaet/anpassung-unsere-staedte-neue-spielfelder-der-evolution/>

**Knapp, S.** (2019) The Link Between Diversity, Ecosystem Functions, and Ecosystem Services. In: Schröter, M., Bonn, A., Klotz, S., Seppelt, R., Baessler, C.: Atlas of Ecosystem Services. Drivers, Risks, and Societal Responses. pp. 13-15. Springer, Cham

**Knapp, S.,** Jaganmohan, M., Schwarz, N. (2019) Climate Regulation by Diverse Urban Green Spaces: Risks and Opportunities Related to Climate and Land Use Change. In: Schröter, M., Bonn, A., Klotz, S., Seppelt, R., Baessler, C.: Atlas of Ecosystem Services. Drivers, Risks, and Societal Responses. pp. 167-172. Springer, Cham

**Knapp, S.,** Winter, M., Zehnsdorf, A., Kühn, I. (2019) How Good Are Bad Species? In: Schröter, M., Bonn, A., Klotz, S., Seppelt, R., Baessler, C.: Atlas of Ecosystem Services. Drivers, Risks, and Societal Responses. pp. 215-223. Springer, Cham

**Knapp, S.,** Kraberg, A., Frickenhaus, S., Klotz, S., Schweiger, O., Krause, G. (2018) Linking Biodiversity Research Communities. In: Krause, G. (Ed.) Building Bridges at the Science-Stakeholder Interface. Towards Knowledge Exchange in Earth System Science. Springer International Publishing AG, p. 39-45

Kabisch, S., Koch, F., Gawel, E., Haase, A., **Knapp, S.,** Krellenberg, K., Nivala, J., Zehnsdorf, A. (Eds.) (2018) Urban Transformations - Sustainable Urban Development Through Resource Efficiency, Quality of Life and Resilience. Future City 10, Springer International Publishing AG

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**Knapp, S.,** Haase, D., Klotz, S., Schwarz, N. (2018) Do Urban Biodiversity and Urban Ecosystem Services Go Hand in Hand, or Do We Just Hope It Is That Easy? In: Kabisch, S., Koch, F., Gawel, E., Haase, A., **Knapp, S.,** Krellenberg, K., Nivala, J., Zehnsdorf, A. (Eds.) (2018) Urban Transformations - Sustainable Urban Development Through Resource Efficiency, Quality of Life and Resilience. Future City 10, Springer International Publishing AG Future City 10, Springer International Publishing AG, pp. 301 - 312

Kabisch, S., Koch, F., Gawel, E., Haase, A., **Knapp, S.,** Krellenberg, K., Zehnsdorf, A. (2018) Reflections. In: Kabisch, S., Koch, F., Gawel, E., Haase, A., **Knapp, S.,** Krellenberg, K., Nivala, J., Zehnsdorf, A. (Eds.) (2018) Urban Transformations - Sustainable Urban Development Through Resource Efficiency, Quality of Life and Resilience. Future City 10, Springer International Publishing AG Future City 10, Springer International Publishing AG, pp. 375 - 379

**Knapp, S.,** Klotz, S. (2017) Stadtnatur. In: Marx, A. (Ed.), Klimaanpassung in Forschung und Politik. Springer Spektrum, Wiesbaden, pp. 215-236.

**Knapp, S.,** Keil, A., Keil, P., Reidl, K., Rink, D., Schemel, H.-J. (2016) Naturerleben, Naturerfahrung und Umweltbildung. In: Kowarik, I., Bartz, R., Brenck, M. (Eds.) Naturkapital Deutschland – TEEB DE: Ökosystemleistungen in der Stadt – Gesundheit schützen und Lebensqualität erhöhen, S. 146 – 169. TU Berlin, Helmholtz-Zentrum für Umweltforschung – UFZ. Berlin, Leipzig. (in press)

Fischer, F., Schneider, H., Fröhle, K., **Knapp, S.,** Locher, R., Reidl, K., Rink, D., Schwarze-Rodrian, M. (2016) Natur und Wirtschaft. In: Kowarik, I., Bartz, R., Brenck, M. (Eds.) Naturkapital Deutschland – TEEB DE: Ökosystemleistungen in der Stadt – Gesundheit schützen und Lebensqualität erhöhen, S. 203 – 215. TU Berlin, Helmholtz-Zentrum für Umweltforschung – UFZ. Berlin, Leipzig.

**Knapp, S.** (2014) The Urban Garden: A Centre of Interactions Between People and Biodiversity. In: Kabisch, N., Larondelle, N., Reeve, A., Artmann, M. (Eds.) Human-Environmental Interactions in Cities: Challenges and Opportunities of Urban Land Use Planning and Green Infrastructure, p. 82-99, Cambridge Scholars Publishing, Newcastle Upon Tyne.

**Knapp, S.** (2010) Plant biodiversity in urbanized areas. Plant functional traits in space and time, plant rarity and phylogenetic diversity. Vieweg + Teubner, GWV Fachverlage GmbH, Wiesbaden; 150 pp.

#### CONFERENCE AND WORKSHOP PRESENTATIONS (SELECTION)

**Knapp, S.** (2021) Urbanization and Global Biodiversity Loss. Invited talk at "Städtebau-Kolloquium" of University of Stuttgart, Germany

**Knapp, S.** (2021) Halles Schutzgebiete - Grüne Kleinode inmitten der Stadt. Invited talk at celebrations of German Unity Day, Halle (Saale), Germany

Volke, V., **Knapp, S.**, Schlink, U. (2021) Assessing the cooling potential and drought resistance of street trees by species' functional traits. Talk at 3rd Sure World Conference 2020/21, Poznan. Poland / online

**Knapp, S.** (2020) Klimaschutz und Anpassung mit Stadtnatur. Invited talk at seminar "Auftrag: Klima - Klimaschutz und Klimaanpassung in der Kommune", Leipzig, Germany

**Knapp, S.** (2020) Insekten in der Stadt. Invited talk at "Aktionstag Artenvielfalt", Leipzig, Germany

**Knapp, S.** (2019) Natur in der Stadt: Potenziale zum Erhalt der Biodiversität. Invited talk at conference "StadtGrün naturnah - Handlungsspielräume für mehr Vielfalt im kommunalen Grün", Bonn, Germany

**Knapp, S.** (2019) Die Bedeutung von Stadtgrün für Mensch und Biodiversität. Invited talk at conference "Markkleebergs Stadtgrün – Chancen und Visionen". Markkleeberg, Germany

**Knapp, S.** (2018) Biologische Vielfalt in Städten: Trends und Konsequenzen. Invited talk at Umweltbibliothek Leipzig, Germany

**Knapp, S.** (2017) Grün in der Stadt: Potenziale zum Erhalt der Biodiversität. Talk at "Naturschutztag Schleswig-Holstein 2017 – Natur in Dorf und Stadt", Neumünster, Germany

**Knapp, S.** (2017) Can we enhance ecosystem services by protecting biodiversity in urban areas? Talk at GreenSurge: Urban Green Infrastructure – Connecting people and Nature for Sustainable Cities. Malmö, Sweden

Schwarz, N., Moretti, M., Bugalho, M., Davies, Z., Haase, D., Hack, J., Hof, A., Melero, Y., Pett, T., **Knapp, S.** (2016) "Can we enhance ecosystem services by protecting biodiversity in urban areas or do we just hope it is that easy?" Talk at 46th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Marburg, Germany

**Knapp, S.** (2016) Ecology and Evolution in Urban Systems. Talk at conference "The 150<sup>th</sup> Anniversary of the Ecology Concept" of the European Ecological Federation, Leipzig, Germany

**Knapp, S.** (2015) Effects of urbanization on plant biodiversity - insights into functions and phylogenetics. Talk at 32<sup>rd</sup> International Union of Biological Sciences Conference, Berlin, Germany

**Knapp, S.** (2015) Biodiversität in Städten – Ist die Vielfalt vor unserer Haustür schützenswert? Invited talk at Education training workshop for gymnasium biology teachers, administrative region of Arnsberg, Germany

**Knapp, S.** (2015) "Overview of biodiversity in urban areas" Talk at conference "Nature and Urban Wellbeing Nature-Based Solutions to Societal Challenges" organized by ALTER-Net, in collaboration with the European Commission and under the auspices of the Latvian Presidency of the Council of the European Union, Ghent, Belgium

**Knapp, S.** (2015) "Changes in the functional and phylogenetic composition of a Central European urban flora over three centuries" Talk at 10<sup>th</sup> Annual meeting of the Long-Term Ecological Research Network Germany (LTER-D), Halle (Saale), Germany

**Knapp, S.** (2015) "Impacts of Climate change on urban biodiversity (incl. invasive non-native species)" Invited talk at workshop "Nature-based solutions to climate change mitigation and adaptation in urban areas and their rural surroundings" of the Federal Agency of Nature Conservation, Germany together with the European Network of Heads of Nature Conservation Agencies, Vilm, Germany

**Knapp, S.** (2015) "Veränderungen der urbanen Biodiversität und der Bereitstellung von Ökosystemdienstleistungen durch den Klimawandel" Invited talk at conference of "Netzwerk Blühende Landschaften", Berlin, Germany

- Knapp, S.**, Winter, M., Klotz, S. (2015) "The legacy and future of phylogenetic diversity in urbanizing areas". Poster and flash talk at 7th Biennial Conference of the International Biogeography Society, Bayreuth, Germany
- Knapp, S.**, Hansjürgens, B., Brenck, M., Kowarik, I. & Bartz, R. (2014) "Vielfalt nutzen inmitten menschlicher Aktivität - Die Angebote der Natur in der Stadt". Invited talk at United Nations decade on biodiversity-conference, Leipzig, Germany
- Knapp, S.** (2014) "Plant species responses to urbanisation on national vs. regional scales". Talk at Trait Meeting Halle-Jena-Leipzig "Prospects and limitations in the use of functional traits on different (organizational) levels, scales, with different aims and backgrounds", Jena, Germany
- Knapp, S.** (2014) "Ausbreitungsstrategien heimischer und gebietsfremder Pflanzenarten". Invited talk at training course for volunteers in nature conservation, Leipzig, Germany
- Knapp, S.** (2014) "Linking Biodiversity, Ecosystem Functions, and Human Wellbeing in Urban Areas". Flash talk and poster at 4th British-German Frontiers of Science Symposium of the Young Academy, Germany, the Royal Society, UK, and the Alexander von Humboldt Foundation, Germany, Potsdam, Germany
- Knapp, S.** & Klotz, S. (2014) "Changes in the phylogenetic composition of a Central European urban flora over three centuries". Talk at 8th annual conference of the specialist group "Macroecology" within the Ecological Society of Germany, Austria and Switzerland (GfÖ), Halle, Germany
- Knapp, S.** & Kühn, I. (2013) "Origin matters: widespread native and non-native plant species benefit from different functional traits". Talk at iDiv-workshop "Linking vegetation and plant trait databases", Leipzig, Germany
- Knapp, S.**, Cavender-Bares, J., Dinsmore, L., Fissore, C., Hobbie, S., Jacobsdottir, I., Kattge, J., King, J., Klotz, S., Lange, AJ, McFadden, J. & Nelson, K. (2013) "What's in my backyard? Effects of urbanization and yard management on plant biodiversity". Talk at 1st Congress of the Society for Urban Ecology (SURE), Berlin, Germany
- Knapp, S.** (2013) "Veränderungen durch den Klimawandel und die Bedeutung der Städte für die Artenvielfalt". Invited talk at conference of "Netzwerk Blühende Landschaften", Rosenfeld, Germany
- Knapp, S.** & Kühn, I. (2012) "Origin matters: Successful native and non-native plant species differ functionally". Talk at 6th annual conference of the specialist group "Macroecology" within the Ecological Society of Germany, Austria and Switzerland (GfÖ), Frankfurt (Main), Germany
- Knapp, S.** & Wittig, R. (2011) "Escaped ornamental species in village floras promote taxonomic homogenisation". Talk at 41st Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Oldenburg, Germany
- Knapp, S.**, Klotz, S. & Cavender-Bares, J. (2011) "A comparison of plant phylogenetic and functional diversity across urban to rural gradients in the US and Europe". Invited talk at plenary meeting of the international TRY-network, Paris, France
- Knapp, S.**, Kühn, I., Stolle, J. & Klotz, S. (2010) "Die Flora der Stadt Halle (Saale) – Florentwicklung und die fortschreitende Invasion fremdländischer Arten". Invited talk at scientific yearly colloquium of Müritz National Park, Hohenzieritz, Germany
- Knapp, S.**, Kühn, I., Stolle, J. & Klotz, S. (2010) "Changes in the functional composition of a Central European urban flora over three centuries". Talk at conference "Cracks in the Concrete Jungle – New Perspectives on Urban Ecology", Berlin, Germany
- Knapp, S.**, Dinsmore, L., Fissore, C., Jacobsdottir, I., Hobbie, S., King, J., Klotz, S., McFadden, J. & Cavender-Bares, J. (2010) "Functional and phylogenetic diversity of spontaneous garden floras". Talk at 40th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Giessen, Germany
- Knapp, S.**, Kühn, I. & Klotz, S. (2010) "The Role of Plant Functional Traits as Links between Effects of Global Change and Response of Ecosystem Services". Talk at 4th annual conference of the specialist group "Macroecology" within the Ecological Society of Germany, Austria and Switzerland (GfÖ), Uder, Germany
- Knapp, S.**, Kühn, I., Stolle, J. & Klotz, S. (2010) "Die Flora der Stadt Halle und ihr funktioneller Wandel zwischen 1687 und 2008". Talk at 7th Annual meeting of the Long-Term Ecological Research Network Germany (LTER-D), Monschau-Höfen, Germany

- Knapp, S.**, Fissore, C., Jacobsdottir, I., Hobbie, S., Klotz, S. & Cavender-Bares, J. (2009) "Functional and phylogenetic diversity of vascular garden floras across an urbanization gradient". Talk at 39th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Bayreuth, Germany
- Knapp, S.**, Kühn, I., Schweiger, O. & Klotz, S. (2009) "Linking functional traits and phylogenetic diversity of urban floras". Talk at 10th International Congress of Ecology (INTECOL), Brisbane, Australia
- Scholz, A., **Knapp, S.**, Kühn, I., Freiberg, M. & Klotz, S. (2008) "The historic development of the flora of Leipzig". Poster at EURECO – 11th European Ecological Conference of the European Ecological Federation (with GfÖ), Leipzig, Germany
- Knapp, S.**, Kühn, I., Schweiger, O. & Klotz, S. (2008) "The hotspot is not that hot - functional and phylogenetic patterns of urban species diversity". Talk at CONTUREC (Competence Network for Urban Ecology), Erfurt, Germany
- Knapp, S.**, Kühn, I. & Klotz, S. (2007) "Gemischtes Doppel – die zwei Seiten der Stadtnatur". Poster at CONTUREC (Competence Network for Urban Ecology), Salzburg, Austria
- Knapp, S.**, Kühn, I. & Klotz, S. (2007) "The urban environment filters trait states". Poster at International Association for landscape Ecology (IALE), Ede-Wageningen, The Netherlands
- Knapp, S.**, Kühn, I. & Klotz, S. (2007) "Urbanisation causes shifts of species' trait state frequencies". Talk at 37th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Marburg, Germany
- Knapp, S.** (2007) "Different plant trait patterns in urban and rural areas – a question of scale?" Talk at 1st meeting of the specialist group "Macroecology" within the Ecological Society of Germany, Austria and Switzerland (GfÖ), Mainz, Germany
- Knapp, S.**, Kühn, I., Wittig, R. & Klotz, S. (2006) "Plant trait patterns in urban, agricultural and forested areas". Poster at International Conference on Macroecological Tools for Global Change Research, Potsdam, Germany
- Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2006) "Comparing Species Diversity in Urban and Rural Protected Areas". Poster at 36th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Bremen, Germany
- Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2006) "Comparing Species Diversity in Urban and Rural Protected Areas". Talk at 17th International Symposium Biodiversity and Evolutionary Biology, Bonn, Germany
- Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2006) "Artenvielfalt in städtischen und ländlichen Schutzgebieten". Talk at Workshop "Biomonitoring/Global Change" of the Reinhold-Tüxen Gesellschaft, Hannover, Germany
- Knapp, S.**, Kühn, I., Mosbrugger, V. & Klotz, S. (2005) "Species diversity in urban and rural protected areas". Poster at 35th Annual Conference of the Ecological Society of Germany, Austria and Switzerland (GfÖ), Regensburg, Germany