

WISSENSCHAFTLICHE VERÖFFENTLICHUNGEN
Wolfgang Wanek

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Publications in peer-reviewed journals

1. G. Petter, K. Wagner, **W. Wanek**, E. J. Sanchez Delgado, G. Zottz, J. S. Cabral, H. Kreft (2015) Functional leaf traits of vascular epiphytes: vertical trends within the forest, intra- and interspecific trait variability, and taxonomic signals. *Functional Ecology*, doi: 10.1111/1365-2435.12490
2. A. Schindlbacher, J. Schnecker, M. Takriti, W. Borken, **W. Wanek** (2015) Microbial physiology and soil CO₂ efflux after 9 years of soil warming in a temperate forest – no indications for thermal adaptation. *Global Change Biology* **21**, 4265–4277.
3. A. Moghaddam, A. Raza, J. Vollmann, M. R. Ardakani, **W. Wanek**, G. Gollner, J. K. Friedel (2015) Biological Nitrogen Fixation and Biomass Production Stability in Alfalfa (*Medicago sativa* L.) Genotypes under Organic Management Conditions. *Biological Agriculture & Horticulture* **31**: 177-192.
4. PG. Taylor, GP. Asner, K. Dahlin, C. Anderson, DE. Knapp, RE. Martin, J. Mascaro, R. Chazdon, R. Cole, **W. Wanek**, F. Hofhansl, A. Townsend (2015) Landscape-scale controls on aboveground forest carbon stocks on the Osa Peninsula, Costa Rica. *PlosONE* **10**(6): e0126748
5. A. Schindlbacher, W. Borken, I. Djukic, C. Brandstätter, C. Spötl, **W. Wanek** (2015) Contribution of carbonate weathering to the CO₂ efflux from temperate forest soils. *Biogeochemistry* **124**: 273-290
6. S. Zechmeister-Boltenstern, KM. Keiblinger, M. Mooshammer, J. Penuelas, A. Richter, J. Sardans, **W. Wanek** (2015) The application of ecological stoichiometry to plant-microbial-soil organic matter transformations. *Ecological Monographs* **85**: 133-155.
7. J. Bramley-Alves, **W. Wanek**, K. French, SA. Robinson (2015) Moss δ¹³C: an accurate proxy for past water environments in polar regions. *Global Change Biology* **21**: 2454-2464.
8. HJR. Heinzmann, J. Beyschlag, F. Hofhansl, **W. Wanek**, G. Zottz (2015) Host tree phenology affects vascular epiphytes at the physiological, demographic and community level. *AoB Plants* **7**: plu073.
9. J. M. Craine, A. J. Elmore, L. Wang, L. Augusto, W. T. Baisden, E. N. J. Brookshire, M. D. Cramer, N. J. Hasselquist, E. A. Hobbie, A. Kahmen, K. Koba, J. M.

- Kranabetter, M. C. Mack, E. Marin-Spiotta, J. R. Mayor, K. K. McLauchlan, A. Michelsen, G. B. Nardoto, R. S. Oliveira, S. S. Perakis, P. L. Peri, C. A. Quesada, A. Richter, L. A. Schipper, B. A. Stevenson, B. L. Turner, R. A.G. Viani, **W. Wanek**, B. Zeller (2015) Convergence of soil nitrogen isotopes across global climate gradients. *Scientific Reports* **5**: 8280.
10. F. Hofhansl, J. Schnecker, G. Singer, **W. Wanek** (2015) New insights into mechanisms driving carbon allocation in tropical rainforests. *New Phytologist* **205**: 137–146.
11. F. Hofhansl, J. Kobler, J. Ofner, S. Drage, EM. Pölz, **W. Wanek** (2014) Sensitivity of tropical forest aboveground productivity to climate anomalies in SW Costa Rica. *Global Biogeochemical Cycles* **28**: 1437-1454.
12. P. Schweiger, M. Hofer, J. Vollmann, **W. Wanek** (2014) The relationship between N isotopic fractionation within soybean and N₂ fixation during soybean development. *Physiologia Plantarum* **152**: 546-557.
13. M. Bengtson, K. Wagner, N.R. Burns, E.R. Herberg, **W. Wanek**, L.A. Kaplan, T.J. Battin (2014) No evidence of aquatic priming effects in hyporheic zone microcosms. *Scientific Reports* **4**: article 5187.
14. X. Xu, **W. Wanek**, C. Zhou, A. Richter, M. Song, G. Cao, H. Ouyang, Y. Kuzyakov (2014) Nutrient limitation of alpine plants: Implications from leaf N:P stoichiometry and leaf δ¹⁵N. *Journal of Plant Nutrition and Soil Science* **177**: 378-387.
15. F. W. Gerbl, G. W. Weidler, **W. Wanek**, A. Erhardt, H. Stan-Lotter (2014) Thaumarchaeal ammonium oxidation and evidence for a nitrogen cycle in a subsurface radioactive thermal spring in the Austrian central Alps. *Frontiers in Microbiology* **5**: article 225.
16. M. Stieglmeier, M. Mooshammer, B. Kitzler, **W. Wanek**, S. Zechmeister-Boltenstern, A. Richter, C. Schleper (2014) Aerobic nitrous oxide production through N-nitrosating hybrid formation in ammonia oxidizing archaea. *ISME Journal* **8**: 1135-1146.
17. M. Mooshammer, **W. Wanek**, I. Hämmерle, L. Fuchsleger, F. Hofhansl, A. Knoltsch, J. Schnecker, M. Takriti, M. Watzka, B. Wild, K. M. Keiblinger, S. Zechmeister-Boltenstern, A. Richter (2014) Adjustment of microbial nitrogen use efficiency to carbon:nitrogen imbalances regulates soil N cycling. *Nature Communications* **5**: article no 3694.
18. A. Raza, G. Bodner, A. Moghaddan, M.R. Ardakani, W. Loiskandl, M. Himmelbauer, G. Gollner, **W. Wanek**, J.K. Friedel (2014) Assessing the effect of lucerne utilization systems in the Pannonic region of Austria. *Archives in Agronomy and Soil Science*. **60**: 297-311.
19. M. Mooshammer, **W. Wanek**, Sophie Zechmeister-Boltenstern, A. Richter (2014) Stoichiometric imbalances between terrestrial decomposer communities and their resources: mechanisms and implications of microbial adaptations to their resources.

20. J. Prommer, **W. Wanek**, F. Hofhansl, D. Trojan, P. Offre, T. Urich, C. Schleper, S. Sassmann, B. Kitzler, G. Soja, RC. Hood-Nowotny (2014) Biochar decelerates soil organic nitrogen cycling but stimulates soil nitrification in a temperate arable field trial. *PLOS ONE* **9**: e86388.
21. R.J.W. Brienen, P. Hietz, **W. Wanek**, M. Gloor (2013) Oxygen isotopes in tree rings record variation in precipitation $\delta^{18}\text{O}$ and amount effects in the south of Mexico. *Journal of Geophysical Research – Biogeosciences* **118**: 1604-1615.
22. J.G. Zaller, K.F. Wechselberger, M. Gorfer, P. Hann, T. Frank, **W. Wanek**, T. Drapela (2013) Subsurface earthworm casts can be important soil microsites specifically influencing the growth of grassland plants. *Biology and Fertility of Soils* **49**: 1097-1107.
23. C. Brandstätter, K. Keiblanger, **W. Wanek**, S. Zechmeister-Boltenstern (2013) A closeup study of early beech litter decomposition: potential drivers and microbial interactions on a changing substrate. *Plant and Soil* **371**, 139-154.
24. A. Moghaddam, A. Raza, J. Vollmann, M.R. Ardakani, **W. Wanek**, G. Gollner, J.K. Friedel (2013) Carbon isotope discrimination and water use efficiency relationships of alfalfa genotypes under irrigated and rain-fed organic farming. *European Journal of Agronomy* **50**, 82-89.
25. R. J. E. Alves, **W. Wanek**, A. Zappe, A. Richter, M. M. Svenning, C. Schleper, T. Urich (2013) Nitrification rates in Arctic soils are associated with functionally distinct populations of ammonia-oxidizing archaea. *ISME Journal* **7**, 1620-1631..
26. D. Berry, B. Stecher, A. Schintlmeister, J. Reichert, S. Brugiroux, B. Wild, **W. Wanek**, A. Richter, I. Rauch, T. Decker, A. Loy, M. Wagner (2013) Host Compound Foraging by Intestinal Microbiota Revealed by Single-Cell Stable Isotope Probing. *Proceedings of the National Academy of Sciences U.S.A.* **110**, 4720-4725.
27. J. Dolinsek, I. Lagkouvardos, **W. Wanek**, M. Wagner, H. Daims (2013) Interactions of Nitrifying Bacteria and Heterotrophs: Identification of a Micavibrio-like, Putative Predator of Nitrospira. *Applied and Environmental Microbiology* **79**, 2027-2037.
28. E. Inselsbacher, **W. Wanek**, J. Strauss, S. Zechmeister-Boltenstern, C. Müller (2013) A novel ^{15}N tracer model reveals: Plant nitrate uptake governs nitrogen transformation rates in agricultural soils. *Soil Biology and Biochemistry* **57**, 301-310.
29. K. M. Keiblanger, T. Schneider, B. Roschitzki, E. Schmid, L. Eberl, I. Hämmерle, S. Leitner, A. Richter, **W. Wanek**, K. Riedel, and S. Zechmeister-Boltenstern (2012) Effects of stoichiometry and temperature perturbations on beech leaf litter decomposition, enzyme activities and protein expression. *Biogeosciences* **9**, 4537-4551.
30. J. Wasley, S. A. Robinson, J. D. Turnbull, D. H. King, **W. Wanek**, M. Popp (2012) Bryophyte species composition over moisture gradients in the Windmill Islands, East

Antarctica; development of a baseline for monitoring climate change impacts.
Biodiversity **13**, 257-264.

31. N. Welti, E. Bondar-Kunze, M. Mair, P. Bonin, **W. Wanek**, G. Pinay, T. Hein (2012) Mimicking floodplain reconnection and disconnection using ¹⁵N mesocosm incubations. *Biogeosciences* **9**, 4263-4278.
32. F. Hofhansl, **W. Wanek**, S. Drage, W. Huber, A. Weissenhofer, A. Richter (2012) Controls of hydrochemical fluxes via stemflow in tropical lowland rainforests: Effects of meteorology and vegetation characteristics. *Journal of Hydrology* **452-453**, 247-258.
33. S. Leitner, **W. Wanek**, B. Wild, I. Haemmerle, L. Kohl, K.M. Keiblinger, S. Zechmeister-Boltenstern, A. Richter (2012) Influence of litter chemistry and stoichiometry on glucan depolymerization during decomposition of beech (*Fagus sylvatica* L.) litter. *Soil Biology and Biochemistry* **50**, 174-187.
34. M. Mooshammer, **W. Wanek**, J. Schnecker, B. Wild, S. Leitner, F. Hofhansl, A. Blöchl, I. Hämmeler, A.H. Frank, L. Fuchslueger, K.M. Keiblinger, S. Zechmeister-Boltenstern, A. Richter (2012) Stoichiometric controls of nitrogen and phosphorus cycling in decomposing beech leaf litter. *Ecology* **93(4)**, 770-782.
35. P. Schweiger, M. Hofer, W. Hartl, **W. Wanek**, J. Vollmann (2012) N₂ fixation by organically grown soybean in Central Europe: Method of quantification and agronomic effects. *European Journal of Agronomy* **41**, 11-17.
36. E. Hall, K. Besemer, L. Kohl, C. Preiler, K. Riedel, T. Schneider, **W. Wanek**, T. Battin (2012) Effects of resource chemistry on the composition and function of hyporheic stream biofilms. *Frontiers in Aquatic Microbiology* **3**, article 35.
37. P. Hietz, B.L. Turner, **W. Wanek**, A. Richter, C.A. Nock, S.J. Wright (2011) Pervasive change in the nitrogen cycle in tropical forests. *Science* **334**, 664-666.
38. M. Gorfer, M. Blumhoff, S. Klaubauf, A. Urban, E. Inselsbacher, D. Bandian, B. Mitter, A. Sessitsch, **W. Wanek**, J. Strauss (2011) Community profiling and gene expression of fungal assimilatory nitrate reductases in agricultural soils. *ISME Journal* **5**, 1771-1775.
39. H. Hofhansl, **W. Wanek**, S. Drage, W. Huber, A. Weissenhofer, A. Richter (2011) Topography strongly affects atmospheric deposition and canopy exchange processes in different types of wet lowland rainforest, SW Costa Rica. *Biogeochemistry* **106**, 371-396.
40. **W. Wanek**, G. Zotz (2011) Are vascular epiphytes nitrogen or phosphorus limited? A study of plant ¹⁵N fractionation and foliar N:P stoichiometry with the tank bromeliad *Vriesea sanguinolenta*. *New Phytologist* **192**, 462-470
41. E. Inselsbacher, **W. Wanek**, K. Ripka, E. Hackl, A. Sessitsch, J. Strauss, S. Zechmeister-Boltenstern (2011) Greenhouse gas fluxes respond to different N fertilizer types due to altered plant-soil-microbe interactions. *Plant and Soil* **343**, 17-

42. M. Garnett, R. Bardgett, R. Bol, **W. Wanek**, A. Richter (2011) Natural abundance radiocarbon in soil microbial biomass: results from a glacial foreland. *Soil Biology and Biochemistry* **43**, 1356-1361
43. B. Putz, T. Drapela, **W. Wanek**, O. Schmid, T. Frank, J. Zaller (2011) A simple method for in-situ-labeling with ^{15}N and ^{13}C of grassland plant species by foliar brushing. *Methods in Ecology and Evolution* **2**, 326-332
44. X. Xu, H. Oyang, G. Cao, A. Richter, **W. Wanek**, Y. Kuzyakov (2011) Dominant plant species shift their nitrogen uptake patterns in response to nutrient enrichment in caused by a fungal fairy in an alpine meadow. *Plant and Soil* **341**, 495-504
45. R.J.W. Brienen, **W. Wanek**, P. Hietz (2011) Stable carbon isotopes in tree rings indicate improved water-use efficiency and drought responses of a tropical dry forest tree species. *Trees* **25**, 103-113
46. X. Xu, H. Oyang, A. Richter, **W. Wanek**, G. Cao, Y. Kuzyakov (2011) Spatio-temporal variations determine plant-microbe competition for inorganic nitrogen in an alpine meadow. *Journal of Ecology* **99**, 563-571
47. S. Wester, G.M. Leiva, L. Nauheimer, **W. Wanek**, H. Kreft, G. Zotz (2011) Physiological diversity and biogeography of vascular epiphytes at Rio Changuinola, Panama. *Flora* **206**, 66-79
48. C. Nock, P. Baker, **W. Wanek**, A. Leis, M. Grabner, S. Bunyavejchewin, P. Hietz (2011) Long-term increases in intrinsic water use efficiency do not lead to increased stem growth in a tropical monsoon forest in western Thailand. *Global Change Biology* **17**, 1049-1063
49. P. Lachouani, A.H. Frank, **W. Wanek** (2010) A suite of sensitive chemical methods to determine $\delta^{15}\text{N}$ of ammonium, nitrate, and total dissolved N in soil extracts. *Rapid Communications in Mass Spectrometry* **24**, 3615-3623.
50. K. Glaser, E. Hackl, E. Inselsbacher, J. Strauss, **W. Wanek**, S. Zechmeister-Boltenstern, A. Sessitsch (2010) Dynamics of ammonia oxidizing communities in barley planted bulk soil and rhizosphere following nitrate and ammonium fertilizer amendment. *FEMS Microbiol. Ecol.* **74**, 575-591
51. S. Klaubauf, E. Inselsbacher, S. Zechmeister-Boltenstern, **W. Wanek**, R. Gottsberger, J. Strauss, M. Gorfer (2010) Molecular diversity of fungal communities in agricultural soils from Lower Austria. *Fungal Diversity* **44**, 65-75.
52. K.M. Keiblinger, E.K. Hall, **W. Wanek**, U. Szukics, I. Hämmeler, G. Ellersdorfer, K. Sterflinger, S. Böck, J. Strauss, A. Richter, S. Zechmeister-Boltenstern (2010) The effect of resource quantity and stoichiometry on microbial carbon use efficiency. *FEMS Microbiol. Ecol.* **73**, 430-440.

53. **W. Wanek**, M. Mooshammer, A. Blöchl, A. Hanreich, A. Richter (2010) Determination of gross rates of amino acid production and immobilization in decomposing leaf litter by a novel isotope pool dilution technique. *Soil Biology and Biochemistry* **42**, 1293-1302.
54. N. Hinko-Najera Umana, **W. Wanek** (2010) Large canopy exchange fluxes of inorganic and organic nitrogen and preferential retention of nitrogen by epiphytes in a tropical lowland rainforest. *Ecosystems* **13**, 367-381.
55. B. Wild, **W. Wanek**, A. Richter (2010) Use of natural ^{13}C abundance to dissect leaf carbon partitioning and phloem export in a Crassulacean Acid Metabolism plant. *Journal of Experimental Botany* **61**, 1375-1383.
56. R.C. Hood-Nowotny, N. Hinko, E. Inselbacher, P. Oswald, **W. Wanek** (2010) A suite of simple methods for measuring soil nitrogen pools. *Soil Science Society of America Journal* **74**, 1018-1027.
57. P. Hietz, O. Dünisch, **W. Wanek** (2010) Long-term trends in nitrogen isotope composition and nitrogen concentration in Brazilian rainforest trees suggest changes in nitrogen cycle. *Environmental Science and Technology* **44** (4), 1191–1196.
58. E. Inselsbacher, N. Hinko-Najera Umana, FC. Stange, M. Gorfer, E. Schüller, K. Ripka, S. Zechmeister-Boltenstern, R. Hood-Nowotny, J. Strauss, **W. Wanek** (2010) Short-term competition between crop plants and soil microbes for inorganic N fertilizer. *Soil Biology and Biochemistry* **42**, 360-372.
59. E. Pittl, G. Innerebner, **W. Wanek**, H. Insam (2010) Microbial communities of arboreal and ground soils in the Esquinas rain forest, Costa Rica. *Plant and Soil* **329**, 65-74.
60. M.R. Ardakani, G. Pietsch, **W. Wanek**, P. Schweiger, A. Moghaddam, J.K. Friedel (2009) Nitrogen fixation and yield of Lucerne (*Medicago sativa L.*), as affected by co-inoculation with *Sinorhizobium meliloti* and arbuscular mycorrhiza under dry organic farming conditions. *American-Eurasian Journal of Agricultural and Environmental Sciences* **6**, 173-183.
61. A. Richter, **W. Wanek**, RA. Werner, J. Ghashghaie, M. Jäggi, A. Gessler, E. Brugnoli, E. Hettmann, SG. Göttlicher, Y. Salmon, C. Bathellier, N. Kodama, S. Nogués, A. Søe, F. Volders, K. Sörgel, A. Blöchl, R. Siegwolf, N. Buchmann, G. Gleixner (2009) Preparation of starch and soluble sugars of plant material for analysis of carbon isotope composition: a comparison of methods. *Rapid Communications in Mass Spectrometry* **23**, 2476-2488.
62. M. Sonnleitner, S. Dullinger, **W. Wanek**, H. Zechmeister (2009) Microclimatic patterns correlate with the distribution of epiphyllous bryophytes in a tropical lowland rainforest in Costa Rica. *Journal of Tropical Ecology* **25**, 321-330
63. E. Inselsbacher, K. Ripka, S. Klaubauf, D. Fedosoyenko, E. Hackl, A. Sessitsch, N. Von Wieren, S. Zechmeister-Boltenstern, **W. Wanek**, J. Strauss (2009) A cost-effective high-throughput microcosm system for studying nutrient dynamics at the

plant-microbe-soil interface. *Plant and Soil* **317**, 293-307

64. H.G. Zechmeister, A. Richter, S. Smidt, D. Hohenwallner, I. Roder, S. Mariner, **W. Wanek** (2008) Total nitrogen content and $\delta^{15}\text{N}$ signatures of moss tissue: Indicative value for nitrogen deposition patterns and source allocation on a nation-wide scale. *Environmental Science & Technology* **42** (23), 8661-8667.
65. A. Kahmen, **W. Wanek**, N. Buchmann (2008) Foliar stable nitrogen isotope ratio values characterize soil N cycling and reflect nitrate or ammonium preference of plants along a temperate grassland gradient. *Oecologia* **156**, 861-870.
66. M. Fürnkranz, **W. Wanek**, A. Richter, G. Abell, F. Rasche, A. Sessitsch (2008) Nitrogen fixation by phyllosphere bacteria associated with plants and their colonizing epiphytes of a tropical lowland rainforest in Costa Rica. *ISME Journal* **2**, 561-570.
67. X. Xu, Y. Kuzyakov, **W. Wanek**, A. Richter (2008) Root-derived respiration and non-structural carbon of rice seedlings. *European Journal of Soil Biology* **44**, 22-29.
68. **W. Wanek**, K. Pörtl (2008) Short-term ^{15}N uptake kinetics and nitrogen nutrition of bryophytes in a lowland rainforest, Costa Rica. *Functional Plant Biology* **35**, 51-62.
69. X. Xu, F. Stange, A. Richter, **W. Wanek**, Y. Kuzyakov (2008) Light affects competition for inorganic and organic nitrogen between maize seedlings and rhizosphere microorganisms. *Plant and Soil* **304**, 59-72.
70. E. Huber, **W. Wanek**, M. Gottfried, H. Pauli, P. Schweiger, SK. Arndt, K. Reiter, A. Richter (2007) Shift in soil-plant nitrogen dynamics of an alpine-nival ecotone. *Plant and Soil* **301**, 65-76.
71. **W. Wanek**, J. Hofmann, IC. Feller (2007) Canopy interactions of rainfall in an off-shore mangrove ecosystem dominated by *Rhizophora mangle* (Belize). *Journal of Hydrology* **345**, 70-79.
72. S. Dojani, M. Lakatos, U. Rascher, **W. Wanek**, U. Lüttge, B. Büdel (2007) Nitrogen input by cyanobacterial biofilms of an inselberg into a tropical rainforest in French Guiana. *Flora* **202**, 521-529.
73. RD. Bardgett, A. Richter, R. Bol, MH. Garnett, R. Bäumler, X. Xu, E- Lopez-Capel, DAC. Manning, PJ. Hobbs, IR. Hartley, **W. Wanek** (2007) Heterotrophic microbial communities use ancient carbon following glacial retreat. *Biology Letters* **3** (5): 487-490.
74. E. Inselsbacher, CA. Cambui, A. Richter, CF. Stange, H. Mercier, **W. Wanek** (2007) Microbial activities and foliar uptake of nitrogen in the epiphytic bromeliad *Vriesea gigantea*. *New Phytologist* **175**, 311-320.
75. K. Pörtl, S. Zechmeister-Boltenstern, **W. Wanek**, TW. Berger (2007) Natural ^{15}N abundance of soil N pools and N_2O reflect nitrogen dynamics of forest soil. *Plant and Soil* **295**, 79-94.

76. M. Koranda, S. Kerschbaum, **W. Wanek**, H. Zechmeister, A. Richter (2007) Physiological responses of bryophytes *Thuidium tamariscinum* and *Hylocomium splendens* to increased nitrogen deposition. *Annals of Botany* **99** (1), 161-169.
77. X. Xu, H. Ouyang, Y. Kuzyakov, A. Richter, **W. Wanek** (2006) Significance of organic nitrogen acquisition for dominant plant species in an alpine meadow on the Tibet plateau, China. *Plant and Soil* **285**, 221-231.
78. M. Watzka, K. Buchgraber, **W. Wanek** (2006) Natural ^{15}N abundance of plants and soils under different management practices in a montane grassland. *Soil Biology & Biochemistry* **38**, 1564-1576.
79. S. Göttlicher, A. Knohl, **W. Wanek**, N. Buchmann, A. Richter (2006) Short-term changes in carbon isotope composition of soluble carbohydrates and starch: from canopy leaves to the root system. *Rapid Communications in Mass Spectrometry* **20**, 653-660.
80. E. M. Wild, M. Teschler-Nicola, W. Kutschera, P. Steier, **W. Wanek** (2005) First direct dating of Early Upper Paleolithic human remains from Mladeč. *Nature* **435**, 332-335. doi: 10.1038/nature03585
81. R. Fischer, Ölzant, V. Mayer, **W. Wanek** (2005) The fate of *Corydalis cava* elaiosomes within an ant colony of *Myrmica rubra*: elaiosomes are preferentially fed to larvae. *Insectes Sociaux* **52**, 55-62.
82. P. Hietz, **W. Wanek**, O. Dünisch (2005) Long-term trends in cellulose $\delta^{13}\text{C}$ and water use efficiency of tropical *Cedrela* and *Swietenia* from Brazil. *Tree Physiology* **25**, 745-752.
83. **W. Wanek**, K. Pörtl (2005) Phyllosphere nitrogen relations: reciprocal transfer of nitrogen between epiphyllous liverworts and host plants in the understorey of a lowland tropical wet forest in Costa Rica. *New Phytologist* **166**, 577-588 doi:10.1111/j.1469-8137.2005.01319.x.
84. C. Biasi, **W. Wanek**, O. Rusalimova, C. Kaiser, H. Meyer, P. Barsukov, A. Richter (2005) Microtopography and plant-cover controls on nitrogen dynamics in hummock tundra ecosystems in Siberia. *Arctic, Antarctic and Alpine Research* **37**, 435-443.
85. G.A. Singer, M. Panzenböck, G. Weigelhofer, C. Marchesani, J. Waringer, **W. Wanek**, T.J. Battin (2005) Flow history explains temporal and spatial variation of carbon fractionation in stream periphyton. *Limnology and Oceanography* **50**, 706-712.
86. C. Biasi, O. Rusalimova, H. Meyer, C. Kaiser, **W. Wanek**, P. Barsukov, H. Junger, A. Richter (2005) Temperature-dependent shift from labile to recalcitrant carbon sources of arctic heterotrophs. *Rapid Communications in Mass Spectrometry* **19**, 1401-1408.
87. R. Hood-Novotny, R. Bol, **W. Wanek**, A. Richter (2005) Preface: Special Issue on Joint European Stable Isotope Users Group Meeting. *Rapid Communications in Mass Spectrometry* **19**, 1363-1364.

88. R. Hood, R. Bol, Richter A, **W. Wanek** (2005) Selected papers of the first Joint European Stable Isotope Users Group Meeting (JESIUM), August 30 to September 3, 2004, Vienna, Austria - Preface. *Isotopes in Environmental and Health Studies* **41**, 185-188.
89. G. Hertenberger, **W. Wanek** (2004) Evaluation of methods to measure differential ^{15}N labelling of soil and root N pools for studies of root exudation. *Rapid Communications in Mass Spectrometry* **18**, 2415-2425.
90. T. Hein, C. Baranyi, GJ. Herndl, **W. Wanek**, F. Schiemer (2003) Allochthonous and autochthonous particulate organic matter in floodplains of the River Danube: the importance of hydrological connectivity. *Freshwater Biology* **48**, 220-232.
91. RC. Fischer, **W. Wanek**, A. Richter, V. Mayer (2003) Do ants feed plants ? A ^{15}N labeling study of nitrogen fluxes from ants to plants in the mutualism of *Pheidole* and *Piper*. *Journal of Ecology* **91**, 126-134.
92. P. Hietz, **W. Wanek** (2003) Size-dependent variation of carbon and nitrogen isotope abundances in epiphytic bromeliads. *Plant Biology* **5**, 137-142.
93. D. Tscherko, J. Rustemeyer, A. Richter, **W. Wanek**, E. Kandeler (2003) Functional diversity of the soil microflora in primary succession along two glacier forelands in the Central Alps. *European Journal of Soil Science* **54**, 685-696.
94. K. McKee, I.C. Feller, M. Popp, **W. Wanek** (2002) Mangrove isotopic ($\delta^{15}\text{N}$ and $\delta^{13}\text{C}$) fractionation across a nitrogen versus phosphorus limitation gradient. *Ecology* **83** (4) 1065-1075.
95. **W. Wanek**, S.K. Arndt (2002) The $\delta^{15}\text{N}$ variation between nodulated roots and shoots of soybean reflects the relative contribution of symbiotic N_2 fixation to plant N acquisition. *Journal of Experimental Botany* **53** (371) 1109-1118.
96. R. Wania, P. Hietz, **W. Wanek** (2002) Natural ^{15}N abundance of epiphytes depends on the position within the forest canopy: source signals and isotope fractionation. *Plant, Cell and Environment* **25** (4) 581-589.
97. S. K. Arndt, **W. Wanek** (2002) Use of decreasing foliar carbon isotope discrimination during water limitation as a carbon tracer to study whole plant carbon allocation. *Plant, Cell and Environment* **25**, 609-616.
98. P. Hietz, **W. Wanek**, R. Wania, N. M. Nadkarni (2002) ^{15}N natural abundance in a montane cloud forest canopy as an indicator of nitrogen cycling and epiphyte nutrition. *Oecologia* **131** (3), 350-355.
99. **W. Wanek**, S. K. Arndt, W. Huber, M. Popp (2002) Nitrogen nutrition during ontogeny of hemiepiphytic *Clusia* species. *Functional Plant Biology* **29** (6) 733-740.
100. S. K. Arndt, **W. Wanek**, G. Hoch, A. Richter, M. Popp (2002) Flexibility of nitrogen metabolism in the tropical CAM-C₃ tree species *Clusia minor*. *Functional*

Plant Biology **29** (6) 741-747.

101. **W. Wanek**, W. Huber, S. K. Arndt, M. Popp (2002) Mode of photosynthesis during different life stages of hemiepiphytic *Clusia* species. *Functional Plant Biology* **29** (6) 725-732.
102. R. Fischer, V. Mayer, **W. Wanek**, A. Richter (2002) Plants feed ants: food bodies of myrmecophytic *Piper* and their significance for the interaction with *Pheidole bicornis* ants. *Oecologia* **133**, 186-192.
103. S.K. Arndt, S.C. Clifford, **W. Wanek**, H. Jones, M. Popp (2001) Physiological and morphological adaptations of the fruit tree *Ziziphus mauritiana* Lamk. in response to progressive drought stress. *Tree Physiology* **21**, 705-715.
104. W. Wanek, S. Heintel, A. Richter (2001) Preparation of starch and other carbon fractions from higher plant leaves for stable carbon isotope analysis. *Rapid Communications in Mass Spectrometry* **15**, 1136-1140.
105. X. M. Li, **W. Wanek**, N. Uwe, M. Popp, H. Rennenberg, W. Einig (2001) Phosphoenolpyruvate carboxylase in mistletoe leaves: Regulation of gene expression, protein content, and covalent modification. *Physiologia Plantarum* **112**, 343-352.
106. **W. Wanek** and M. Popp (2000) Effects of rhizospheric bicarbonate on net nitrate uptake and partitioning between the main nitrate utilizing processes in *Populus canescens* and *Sambucus nigra*. *Plant and Soil* **221**, 13-24.
107. S.K. Arndt, **W. Wanek**, S.C. Clifford, M. Popp (2000) Contrasting adaptations to drought stress in field grown *Ziziphus mauritiana* Lamk. and *Prunus persica* L. trees: Water relations, osmotic adaptation and carbon isotope fractionation. *Australian Journal Plant Physiology* **27**, 985-996.
108. P. Hietz, **W. Wanek** and M. Popp (1999) Stable isotopic composition of carbon and nitrogen and nitrogen content in vascular epiphytes along an altitudinal transect. *Plant Cell and Environment* **22**, 1435-1443.
109. **W. Wanek** and A. Richter (1997) Biosynthesis and accumulation of D-ononitol in *Vigna umbellata* in response to drought stress. *Physiologia Plantarum* **101**, 416-424.
110. **W. Wanek** and A. Richter (1995) Purification and characterization of myo-inositol 6-O-methyltransferase from *Vigna umbellata* Ohwi et Ohashi. *Planta* **197**, 427-434.
111. **W. Wanek** and A. Richter (1993) L-Iditol: NAD⁺ 5-oxidoreductase in *Viscum album*: Utilization of host-derived sorbitol. *Plant Physiology and Biochemistry* **31**, 205-211.

Other publications/Proceedings/not peer reviewed:

1. **W. Wanek**, S. Drage, N. Hinko, F. Hofhansl, E.-M. Pölz, A. Ratzer, A. Richter (2008) Primary production and nutrient cycling in lowland rainforests of the Golfo Dulce region. In: Natural and Cultural History of the Golfo Dulce Region. Stafzia 88: 155-178. Oberösterreichische Landesmuseen, Linz.
2. A. Riemerth, M. Gusenleitner, G. Draxler, **W. Wanek**, F. Schiemer (2008) The role of leaf anatomy and tannins in litter decay in a tropical stream. In: Natural and Cultural History of the Golfo Dulce Region. Stafzia 88: 467-484. Oberösterreichische Landesmuseen, Linz.
3. A. Weissenhofer, W. Huber, **W. Wanek**, A. Weber (2008) Terrestrial litter trappers in the Golfo Dulce region: diversity, architecture and ecology of a poorly known group of plant specialists. In: Natural and Cultural History of the Golfo Dulce Region. Stafzia 88: 143-154. Oberösterreichische Landesmuseen, Linz.
4. E.M. Wild, M. Teschler-Nicola, W. Kutschera, P. Steier, **W. Wanek** (2006) ¹⁴C dating of early upper Palaeolithic human and faunal remains from Mladeč. In: Teschler-Nicola M. (ed.) Early Modern Humans at the Moravian Gate-Mladeč Caves and Their Remains. Springer Verlag, ISBN 3-211-23588-4. pp. 149-158.
5. P. Hietz, **W. Wanek** (2006) Dissecting the canopy nitrogen cycle with N isotopes or something similar. What's Up. The Newsletter of the International Canopy Network Vol 12 (3) 4-5.
6. M. Watzka, **W. Wanek** (2004) Natural ¹⁵N abundance as an indicator of the effect of management intensity on nitrogen cycling in montane grasslands. In: DJ. Hatch, DR. Chadwick, SC. Jarvis, JA. Roker (eds.) Controlling nitrogen flows and losses. Wageningen Academic Publishers, The Netherlands. pp. 246-248.
7. P. Hietz, H. Rammler, **W. Wanek** (2004) Effect of canopy position on the physiology and ecology of epiphytes. In: S.-W. Breckle et al. (Eds.) Proceedings of the 2nd Symposium of the A.F.W. Schimper-Foundation est. by H. and E. Walter. Verlag Günter Heimbach, Stuttgart, Germany, 145-154.
8. **W. Wanek**, K. Pörtl, R. Wania (2004) Effect of epiphyll colonization on phyllosphere nutrient relations in a tropical wet forest, Costa Rica. In: S.-W. Breckle et al. (Eds.) Proceedings of the 2nd Symposium of the A.F.W. Schimper-Foundation est. by H. and E. Walter. Verlag Günter Heimbach, Stuttgart, Germany, 129-144.
9. R. Wania, **W. Wanek** (2003) Seasonality of nitrogen source availability of epiphytes in a tropical lowland rainforest. What's Up. The Newsletter of the International Canopy Network Vol 9 (4) 4-5.
10. S. Heintel, **W. Wanek**, A. Richter (2002) Carbon isotope signatures of leaf carbon fractions: a new approach for studying short term water deficits of plants. International Symposium on Nuclear Techniques in Integrated Plant Nutrient, Water and Soil Management (IAEA, Vienna 2000, IAEA/SM-363/28, ISSN 1562-4153) p. 243-244

11. R. Wania, **W. Wanek** (2002) Nitrogen cycling in a neotropical rainforest International Symposium on Nuclear Techniques in Integrated Plant Nutrient, Water and Soil Management (IAEA, Vienna 2000, IAEA/SM-363/47P, ISSN 1562-4153)
12. **W. Wanek** and M. Popp (2000) Effect of rhizospheric bicarbonate on nitrate uptake, assimilation, and transport in *Populus canescens* and *Sambucus nigra*. In *Nitrogen in a Sustainable Ecosystem. From the Cell to the Plant* (ed. M.A. Martins-Loucao), Blackhuys Publishers, Leiden, pp. 51-57.
13. P. Hietz, **W. Wanek** (2000) Stable Isotopes in Canopy Research. What's Up. The Newsletter of the International Canopy Network Vol 6 (3) 2-3.