

Publikationen

Bücher

1. UNU-IHDP (eds., 2014, member of editorial advisory board): Land, Water, and People. From Cascading Effects to Integrated Flood and Drought Responses. Summary for Decision-Makers. Bonn: UNU-IHDP, 32 pp.
2. Krönert, R., U. Steinhardt & **M. Volk** (Eds., 2001): Landscape balance and landscape assessment. – Springer: 304 pp.
3. Steinhardt, U. & **M. Volk** (Eds., 1999): Regionalisierung in der Landschaftsökologie: Forschung, Planung, Praxis. - Teubner-Verlag, 400 pp.
4. **Volk, M.** (1996): Geomorphodynamik eines vergletscherten hocharktischen Küstengebietes, Liefde- und Bockfjord, NW-Spitzbergen. – Selbstverlag, Giessen, 170 pp.

Publikationen in rezensierten Zeitschriften (ISI)

2025

- Dai, X., L. Wang, Z. Hu, R. Wang, Z. Niu, Y. Zhang, M. Stauch & **M. Volk** (2025): Runoff and sediment dynamics induced by the “grain for green” programme: A case study in the Three Gorges Reservoir Area, China. *Progress in Physical Geography* DOI: <https://doi.org/10.1177/03091333251378932>
- Burdon, F.J., J. Sargac, E. Ramberg, C. Popescu, N. Darmina, C. Bradu, M.A.E. Forio, F. Witing, B. Kupilas, D.C.P. Lau, **M. Volk**, G. Rîsnoveanu, P. Goethals, N. Friberg, R.K. Johnson & B.G. McKie (2025): Fatty acid biomarkers reveal landscape influences on linkages between aquatic and terrestrial food webs. *Ecological Monographs* 95(3)e70025. DOI: <https://doi.org/10.1002/ecm.70025>
- White, S.E., F. Witing, C.H. Wittekind, **M. Volk** & M. Strauch (2025): Distilling the Pareto Optimal Front into Actionable Insights. *Environmental Modelling & Software* 191, 106508. DOI (<https://doi.org/10.1016/j.envsoft.2025.106508>)
- Zhang, C., B. Su, M. Beckmann, S. Fang, Y. Xiao, H. Ma, N. Yan & **M. Volk** (2025): Emergency-based valuation of glacier ecosystem services: A case from the Tibetan Plateau. *Journal of Environmental Management* 374, 123966. DOI: <https://doi.org/10.1016/j.jenvman.2024.123966>.
- Rufino, P.R., B. Gücker, **M. Volk**, M. Strauch, F. da Silva Cardozo, I. Gonçalves Boëchat, M. Faramarzi & G. Pereira (2025): Modeling the Nexus of Climate Change and Deforestation: Implications for the Blue Water Resources of the Jari River, Amazonia. *Water* 17(5), 660. DOI: <https://doi.org/10.3390/w17050660>
- Heiß, I., F. Stegmann, M. Wolf, **M. Volk** & A. Kaim (2025): Supporting the spatial allocation of management practices to improve ecosystem services – an opportunity map approach for agricultural landscapes. *Ecological Indicators* 172, 113212. DOI: <https://doi.org/10.1016/j.ecolind.2025.113212>

2024

- Özdemir, A., **M. Volk**, M. Strauch & F. Witing (2024): The Effects of Climate Change on Streamflow, Nitrogen Loads, and Crop Yields in the Gordes Dam Basin, Turkey. *Water* 16, 1371; <https://doi.org/10.3390/w16101371>.
- Leone, M., F. Gentile, A. Lo Porto, G.F. Ricci, C. Schürz, M. Strauch, **M. Volk** & A.M. De Girolamo (2024): Setting an Environmental Flow regime under climate change in a data-

limited Mediterranean basin with temporary river. *Journal of Hydrology: Regional Studies* 101698, <https://doi.org/10.1016/j.ejrh.2024.101698>

- Magnier, J., B. Fribourg-Blanc, T. Lemann, F. Witing, W. Critchley & **M. Volk** (2024): Natural/Small Water Retention Measures: their contribution to ecosystem-based concepts. *Sustainability* 16(3), 1308, <https://doi.org/10.3390/su16031308>
- Zhang, C., B. Su, M. Beckmann & **M. Volk** (2024): Emergy-based evaluation of ecosystem services: Progress and perspectives. *Renewable and Sustainable Energy Reviews* 192, 114201, <https://doi.org/10.1016/j.rser.2023.114201>

2023

Zhang, C., W. Ran, S. Fang, S. Hu, M. Beckmann & **M. Volk**: Divergent glacier area and elevation changes across the Tibetan Plateau in the early 21st century. *Anthropocene* 44, 100419, <https://doi.org/10.1016/j.ancene.2023.100419>

Derepasko, D., F. Witing, F.J. Peñas, J. Barquín & **M. Volk** (2023): Towards adaptive water management - Optimizing river water diversion at the basin scale under future environmental conditions. *Water* 15(18), 3289, <https://doi.org/10.3390/w15183289>

Witing, F., **M. Volk** & U. Franko (2023): Modeling Soil Organic Carbon Dynamics of Arable Land across Scales: A Simplified Assessment of Alternative Management Practices on the Level of Administrative Units. *Agronomy* 13, 1159, <https://doi.org/10.3390/agronomy13041159>

2022

Seppelt, R., S. Klotz, E. Peiter & **M. Volk** (2022): Agriculture and food security under a changing climate: An underestimated challenge. *iScience* 25, 10551, <https://doi.org/10.1016/j.isci.2022.105551>

Lausch, A., ..., **M. Volk**, ... & R. Baatz (2022): Linking Remote Sensing of Geodiversity and Traits relevant to Biodiversity— Part III: Traits, Processes and Remote Sensing Characteristics of Geomorphology. *Remote Sensing* 14, 2279: <https://doi.org/10.3390/rs14092279>

Witing, F., M.A.E. Forio, F. Burdon, B. McKie, P. Goethals, M. Strauch & **M. Volk** (2022): Riparian reforestation on the landscape scale – Navigating trade-offs among agricultural production, ecosystem functioning and biodiversity. *Journal of Applied Ecology*: <https://doi.org/10.1111/1365-2664.14176>

Lee, H., B. Seo, A.F. Cord, **M. Volk** & S. Lautenbach (2022): Using crowdsourced images to study selected cultural ecosystem services and their relationships with species richness and carbon sequestration. *Ecosystem Services* 54, 101411: <https://doi.org/10.1016/j.ecoser.2022.101411>.

Jungandreas, A., S. Roilo, **M. Strauch**, T. Václavík, **M. Volk** & A. Cord (2022): Response of endangered bird species to land-use changes in an agricultural landscape in Germany. *Regional Environmental Change* 22, Article number 19i: <https://doi.org/10.1007/s10113-022-01878-3>.

Forio, M.A.E., F.J. Burdon, N. de Troyer, K. Lock, F. Witing, L. Baert, N. de Saeyer, G. Risnoveanu, C. Popescu, B. Kupilas, N. Friberg, P. Boets, R.K. Johnson, **M. Volk**, B.G. McKie & P. Goethals (2022): A Bayesian Belief Network learning tool integrates multi-scale effects of riparian buffers on stream invertebrates. *Science of The Total Environment*: <https://doi.org/10.1016/j.scitotenv.2021.152146>

Maasri, A., S. Jähnig, M.C. Adamescu,...**M. Volk**,...C. Wolter & S. Worischka (2021): A global agenda for advancing freshwater biodiversity research. *Ecology Letters*: <https://onlinelibrary.wiley.com/doi/10.1111/ele.13931>

Owusu, A.G., M. Mul, M. Strauch, P. van der Zaag, **M. Volk** & J.H. Slinger (2021): The clam and the dam: A Bayesian belief network approach to environmental flow assessment in a data scarce region. *Science of The Total Environment* DOI: <http://dx.doi.org/10.1016/j.scitotenv.2021.151315>

2021

Derepasko, D., F.J. Peñas, J. Barquín & **M. Volk** (2021): Applying Optimization to Support Adaptive Water Management of Rivers. *Water* 2021, 13, 1281.

<https://doi.org/10.3390/w13091281>

Derepasko, D., J.H.A. Guillaume, A.C. Horne & **M. Volk** (2021): Considering scale within optimization procedures for water management decisions: balancing environmental flows and human needs. *Environmental Modelling & Software* (doi: <https://doi.org/10.1016/j.envsoft.2021.104991>).

Kaim, A., B. Bartkowski, N. Lienhoop, C. Schröter-Schlaack, **M. Volk** & M. Strauch (2021): Combining biophysical optimization with economic preference analysis for agricultural land use allocation. *Ecology & Society* 26(1), 9 (Doi: 10.5751/ES-12116-260109).

2020

Donmez, C., O. Sari, S. Berberoglu, A. Cilek, O. Satir & **M. Volk** (2020): Improving the Applicability of the SWAT Model to Simulate Flow and Nitrate Dynamics in a Flat Data-scarce Agricultural Region in the Mediterranean. *Water* 12(12), 3479 (Doi: 10.3390/w12123479)

Lausch, A., ...**M. Volk**,... & C. Thiel (2020): Linking the Remote Sensing of Geodiversity and Traits Relevant to Biodiversity—Part II: Geomorphology, Terrain and Surfaces. *Remote Sensing* 12, 22 (<https://www.mdpi.com/2072-4292/12/22/3690#>).

Fu, B., J.S. Horsburgh, A.J. Jakeman, C. Gualtieri, T. Arnold, L. Marshall, T.R. Green, N.W.T. Quinn, **M. Volk**, R.J. Hunt, L. Vezzaro, B.F.W. Croke, J.D. Jakeman, V. Snow & B. Rashleigh (2020): Modeling water quality in watersheds: From here to the next generation. *Water Resour. Res.* (<https://doi.org/10.1029/2020WR027721>)

Forio, M.A.E, N. de Troyer, K. Lock, F. Witing, L. Baert, N. de Saeyer, G. Risnoveanu, C. Popescu, F.J. Burdon, B. Kupilas, N. Friberg, P. Boets, **M. Volk**, B.G. McKie & P. Goethals (2020): Small Patches of Riparian Woody Vegetation Enhance Biodiversity of Invertebrates. *Water* 2020, 12(11): 3070 (<https://doi.org/10.3390/w12113070>)

Hanisch, M., O. Schweiger, A.F. Cord, **M. Volk** & S. Knapp (2020): Plant functional traits shape multiple ecosystem services, their trade-offs and synergies in grasslands. *Journal of Applied Ecology* 57(8): 1535-1550 (<https://doi.org/10.1111/1365-2664.13644>)

Burdon, F.J., E. Ramberg, J. Sargac, M.A.E. Forio, N. de Saeyer, P.T. Mutinova, T. Fosholt Moe, M.O. Pavelescu, V. Dinu, C. Cazacu, F. Witing, B. Kupilas, U. Grandin, **M. Volk**, G. Rîsnoveanu, P. Goethals, N. Friberg, R.K. Johnson & B.G. McKie (2020): Assessing the Benefits of Forested Riparian Zones: A Qualitative Index of Riparian Integrity Is Positively Associated with Ecological Status in European Streams. *Water* 12(4): 1178 (<https://doi.org/10.3390/w12041178>)

Cambien, N., S. Gobeyn, I. Nolivos, M.A.Eurie Forio, M. Arias-Hidalgo, L. Dominguez-Granda, F. Witing, **M. Volk** & P.L.M. Goethals (2020): Using the Soil and Water Assessment Tool to Simulate the Pesticide Dynamics in the Data Scarce Guayas River Basin, Ecuador. *Water* 12(3): 696 (<https://doi.org/10.3390/w12030696>)

Cakir, R., S. Sauvage, M. Gerino, **M. Volk** & J. M. Sánchez-Pérez (2020): Assessment of ecological function indicators related to nitrate under multiple human stressors in a large watershed. *Ecological Indicators* 111: 106016, DOI: <https://doi.org/10.1016/j.ecolind.2019.106016>

Hagemann, N., E.H. van der Zanden, B.A. Willaarts, A. Holzkamper, **M. Volk**, C. Rutz, J.A. Priess & M. Schönhart (2019): Bringing the sharing-sparing debate down to the ground—Lessons learnt for participatory scenario development. *Land Use Policy* (<https://doi.org/10.1016/j.landusepol.2019.104262>)

Hölting, L., F. Komossa, A. Filyushkina, M.-M. Gastinger, P.H. Verburg, M. Beckmann, **M. Volk** & A.F. Cord, A.F. (2020): Including stakeholders' perspectives on ecosystem services in multifunctionality assessments. *Ecosyst. People* 16 (1), 354 - 368 (DOI: <http://dx.doi.org/10.1080/26395916.2020.1833986>)

Kaim, A., M. Strauch & **M. Volk** (2020): Using Stakeholder Preferences to Identify Optimal Land Use Configurations. *Frontiers in Water* 2: 579087.

2019

Stefanova, A., C. Hesse, V. Krysanova, **M. Volk** (2019): Assessment of Socio-Economic and Climate Change Impacts on Water Resources in Four European Lagoon Catchments. *Environmental Management* 64(6): 701–720 (<https://doi.org/10.1007/s00267-019-01188-1>).

Strauch, M., A.F. Cord, C. Pätzold, S. Lautenbach, A. Kaim, C. Schweitzer, R. Seppelt & **M. Volk** (2019): Constraints in multi-objective optimization of land use allocation – Repair or penalize? *Environmental Modelling & Software* 118: 241-251 DOI: <https://doi.org/10.1016/j.envsoft.2019.05.003>

Hölting, L., M. Beckmann, **M. Volk** & A.F. Cord (2019): Multifunctionality assessments – More than assessing multiple ecosystem functions and services? A quantitative literature review. *Ecological Indicators* 103: 226-235.

Karner, K., A. F. Cord, N. Hagemann, N. Hernandez-Mora, A. Holzkämper, B. Jeangros, N. Lienhoop, H. Nitsch, D. Rivas, E. Schmid, C.J.E. Schulp, M. Strauch, E. van der Zanden, **M. Volk**, B. Willaarts, N. Zarrineh & M. Schönhart (2019): Developing stakeholder-driven scenarios on land sharing and land sparing – insights from five European case studies. *Journal of Environmental Management* 241: 488-500.

Lautenbach, S., A.-C. Mupepele, C.F. Dormann, H. Lee, S. Schmidt, S.S.K. Scholte, R. Seppelt, A.J.A. van Teeffelen, W. Verhagen & **M. Volk** (2019): Blind spots in ecosystem services research and challenges for implementation. *Regional Environmental Change*: DOI: <https://doi.org/10.1007/s10113-018-1457-9>

Guse, B., M. Pfannerstill, J. Kiesel, M. Strauch, **M. Volk** & N. Fohrer (2019): Analysing spatio-temporal process and parameter dynamics in models to characterise contrasting catchments. *Journal of Hydrology* 570: 863-874.

Gobeyn, S., A.M. Mouton, A.F. Cord, A. Kaim, **M. Volk** & P.L.M. Goethals (2019): Evolutionary algorithms for species distribution modelling: A review in the context of machine learning. *Ecological Modelling* 392: 179-195.

2018

Coles, N.A., Y. Wang, **M. Volk** & J. Wue (2018): Ecoservices and multifunctional landscapes: Balancing the benefits of integrated ES-based water resources, agricultural and forestry production systems. *Ecohydrology & Hydrobiology* 18: 262-269 (<https://doi.org/10.1016/j.ecohyd.2017.10.006>).

Seppelt, R., M. Beckmann, T. Václavík & **M. Volk** (2018): The Art of Scientific Performance. *Trends in Ecology and Evolution*: DOI: <https://doi.org/10.1016/j.tree.2018.08.003>

Kaim, A., A. Cord & **M. Volk** (2018): A review of multi-criteria optimization techniques for agricultural land use allocation. *Environmental Modelling & Software* 105: 79-93 (<https://doi.org/10.1016/j.envsoft.2018.03.031>).

Nguyen, T.H.T., G. Everaert, P. Boets, M.A. E. Forio, E. Bennetsen, **M. Volk**, T.H.T. Hoang & P. Goethals (2018): Modelling tools to analyse and assess the ecological impact of hydropower dams. *Water* 10(30): 259 (<https://doi.org/10.3390/w10030259>).

2018

Scheuer, S., D. Haase & **M. Volk** (2017): Integrative assessment of climate change for fast-growing urban areas: Measurement and recommendations for future research. *PLoS ONE* 12(12): e0189451 (<https://doi.org/10.1371/journal.pone.0189451>).

Cord, A., B. Bartkowski, M. Beckmann, A. Dittrich, K. Hermans, A. Kaim, N. Lienhoop, K. Locher-Krause, J. Priess, C. Schröter-Schlaack, N. Schwarz, R. Seppelt, M. Strauch, T. Václavík & **M. Volk** (2017): Towards systematic analyses of ecosystem service trade-offs and synergies: main concepts, methods and the road ahead. *Ecosystem Services* 28: 264-272 (<http://dx.doi.org/10.1016/j.ecoser.2017.07.012>).

Locher-Krause, K.E., S. Lautenbach & **M. Volk** (2017): Spatio-temporal change of ecosystem services as a key to understand natural resources utilization in Southern Chile. *Regional Environmental Change* 17(8): 2477–2493 (<http://dx.doi.org/10.1007/s10113-017-1180-y>).

Gobeyn, S., **M. Volk**, L. Dominguez-Granda & P.L.M. Goethals (2017): Input variable selection with a simple genetic algorithm for conceptual species distribution models: A case study of river pollution in Ecuador. *Environmental Modelling & Software* 92: 269-316. DOI: (<http://dx.doi.org/10.1016/j.envsoft.2017.02.012>)

Bieger, K., J.G. Arnold, H. Rathjens, M.J. White, D.D. Bosch, P.M. Allen, **M. Volk** & R. Srinivasan (2017): Introduction to SWAT+, a completely restructured version of the Soil and Water Assessment Tool. *Journal of the American Water Resources Association* 53(1), 115-130 (<http://dx.doi.org/10.1111/1752-1688.12482>)

Locher-Krause, K.E., **M. Volk**, B. Waske, F. Thonfeld & S. Lautenbach (2017): Expanding temporal resolution in landscape transformations: Insights from a landsat-based case study in Southern Chile. *Ecological Indicators* 75: 132-144 (<http://dx.doi.org/10.1016/j.ecolind.2016.12.036>)

Volk, M., D. Bosch, V. Nangia & B. Narasimhan (2017): SWAT: Agricultural water and nonpoint source pollution management at a watershed scale - Part II. *Agricultural Water Management* 180: 191–193 (<http://dx.doi.org/10.1016/j.agwat.2016.09.029>).

Lautenbach, S., A. Jungandreas, J. Blanke, V. Lehsten, S. Mühlner, I. Kühn & **M. Volk** (2017): Trade-offs between plant species richness and carbon storage in the context of afforestation – Examples from afforestation scenarios in the Mulde Basin, Germany. *Ecological Indicators* 73: 139-155 (<http://dx.doi.org/10.1016/j.ecolind.2016.09.035>)

2016

Ziv, G., K. Mullin, B. Boeuf, W. Fincham, N. Taylor, G. Villalobos-Jimenez, L. von Vittorelli, C. Wolf, O. Fritsch, M. Strauch, R. Seppelt, **M. Volk** & M. Beckmann (2016): Water Quality Is a Poor Predictor of Recreational Hotspots in England. *PLoS ONE* 11(11): e0166950 (<http://dx.doi.org/10.1371/journal.pone.0166950>)

Volk, M., D. Bosch, V. Nangia & B. Narasimhan (2016): SWAT: Agricultural water and nonpoint source pollution management at a watershed scale. *Agricultural Water Management* 175: 1-3 (<http://dx.doi.org/10.1016/j.agwat.2016.06.013>)

Scheuer, S., D. Haase & **M. Volk** (2016): On the Nexus of the Spatial Dynamics of Global Urbanization and the Age of the City. *PLoS ONE* 11(8): e0160471. (<http://dx.doi.org/10.1371/journal.pone.0160471>)

Rathjens, H., K. Bieger, I. Chaubey, J.G. Arnold, P.M. Allen, R. Srinivasan, D.D. Bosch & **M. Volk** (2016): Delineating floodplain and upland areas for hydrologic models - A comparison of methods. *Hydrological Processes* 30: 4367-4383 (<http://dx.doi.org/10.1002/hyp.10918>)

Sun, X., L. Bernard-Jannin, C. Garneau, **M. Volk**, J. G. Arnold, R. Srinivasan, S. Sauvage & J.M. Sánchez-Pérez (2016): Improved simulation of river water and groundwater exchange in an alluvial plain using the SWAT model. *Hydrological Processes* 30(2): 187-202 (<http://dx.doi.org/10.1002/hyp.10575>)

2015

Guse, B., M. Pfannerstill, M. Strauch, D.E. Reusser, S. Lüdtkke, **M. Volk**, H. Gupta & N. Fohrer (2015): On characterizing the temporal dominance patterns of model parameters and processes. *Hydrological Processes* 30(13): 2255–2270 (<http://dx.doi.org/10.1002/hyp.10764>)

Möller, M. & **M. Volk** (2015): Effective map scales for soil transport processes and related process domains - statistical and spatial characterization of their scale-specific inaccuracies. *Geoderma* 247-248: 151-160 (<http://dx.doi.org/10.1016/j.geoderma.2015.02.003>).

Franko, U., F. Witing, G. Jäckel & **M. Volk** (2015): Large-scale identification of hot spots for soil carbon demand under climate change and bioenergy production. *Journal of Plant Nutrition and Soil Science* 178(2): 199-208 (<http://dx.doi.org/10.1002/jpln.201400241>)

Rathjens, H., N. Oppelt, D.D. Bosch, J.G. Arnold, & **M. Volk** (2015): Development of a grid-based version of the SWAT landscape model. *Hydrological Processes* 29(6): 900-914 (<http://dx.doi.org/10.1002/hyp.10197>).

2014

Renner, M., K. Brust, K. Schwärzel, **M. Volk** & C. Bernhofer (2014): Separating the effects of changes in land cover and climate: a hydro-meteorological analysis of the past 60 yr in

Saxony, Germany. *Hydrology and Earth System Sciences* 18: 389-405 <http://www.hydrol-earth-syst-sci.net/18/389/2014/hess-18-389-2014.pdf>

Bonumá, N.B., C.G. Rossi, J.G. Arnold, J.M. Reichert, J.P. Minella, P.M. Allen & **M. Volk** (2014): Simulating Landscape Sediment Transport Capacity by Using a Modified SWAT Model. *Journal of Environmental Quality* 43: 55-66 (<http://dx.doi.org/10.2134/jeq2012.0217>)

Cerro, I., I. Antigüedad, R. Srinivasan, S. Sauvage, **M. Volk** & J. M. Sanchez-Perez (2014): Simulating Land Management Options to Reduce Nitrate Pollution in an Agricultural Watershed Dominated by an Alluvial Aquifer. *Journal of Environmental Quality* 43:67-74 (<http://dx.doi.org/10.2134/jeq2011.0393>)

2013

Glavan, M., M. Pintar & **M. Volk** (2013): Land use change in a 200-year period and its effect on blue and green water flow in two Slovenian Mediterranean catchments - lessons for the future. *Hydrological Processes* 27(26): 3964–3980 (<http://dx.doi.org/10.1002/hyp.9540>)

Strauch, M. & **M. Volk** (2013): SWAT plant growth modification for improved modeling of perennial vegetation in the tropics. *Ecological Modelling* 269: 98-112 (DOI: <http://dx.doi.org/10.1016/j.ecolmodel.2013.08.013>).

Seppelt, R., S. Lautenbach & **M. Volk** (2013): Identifying trade-offs between ecosystem services, land use, and biodiversity: a plea for combining scenario analysis and optimization on different spatial scales. *Current Opinions in Environmental Sustainability* 5: 458–463 (<http://dx.doi.org/10.1016/j.cosust.2013.05.002>)

Brocca, L., S. Liersch, F. Melone, T. Moramarco & **M. Volk** (2013): Application of a model-based rainfall-runoff database as efficient tool for flood risk management. *Hydrology and Earth System Sciences* 17: 3159–3169 (<http://www.hydrol-earth-syst-sci.net/17/3159/2013/hess-17-3159-2013.html>).

Lautenbach, S., **M. Volk**, M. Strauch, G. Whittaker & R. Seppelt (2013): Optimization-based trade-off analysis of biodiesel crop production for managing an agricultural catchment. *Environmental Modelling & Software* 48: 98–112 (<http://dx.doi.org/10.1016/j.envsoft.2013.06.006>)

Strauch, M., J.E.F.W. Lima, **M. Volk**, C. Lorz & F. Makeschin (2013): The impact of Best Management Practices on simulated streamflow and sediment load in a Central Brazilian catchment. *Journal of Environmental Management* 127: S24-S36 (<http://dx.doi.org/10.1016/j.jenvman.2013.01.014>)

Lausch, A., M. Pause, I. Merbach, S. Zacharias, D. Doktor, **M. Volk** & R. Seppelt (2013): A new multiscale approach for monitoring vegetation using remote sensing-based indicators in laboratory, field, and landscape. *Environmental Monitoring and Assessment* 185(2): 1215-1235 (<http://dx.doi.org/10.1007/s10661-012-2627-8>)

2012

Willaarts, B.A., **M. Volk** & P. Aguilera (2012): Assessing the ecosystem services supplied by freshwater flows in Mediterranean agroecosystems. *Agricultural Water Management* 105: 21-31 (<http://dx.doi.org/10.1016/j.agwat.2011.12.019>).

Strauch, M., C. Bernhofer, S. Koide, **M. Volk**, C. Lorz & F. Makeschin (2012): Using precipitation data ensemble and Bayesian Model Averaging for uncertainty analysis in hydrologic modeling. *Journal of Hydrology* 414-415: 413-424: <http://dx.doi.org/10.1016/j.jhydrol.2011.11.014>.

2011

McIntosh, B.S., J.C. Ascough II, M. Twery, J. Chew, A. Elmahdi, D. Haase, J.J. Harou, D. Hepting, S. Cuddy, A.J. Jakeman, S. Chen, A. Kassahun, S. Lautenbach, K. Matthews, W. Merritt, N.W.T. Quinn, I. Rodriguez-Roda, S. Sieber, M. Stavenga, A. Sulis, J. Ticehurst, **M. Volk**, M. Wrobel, H. van Delden, S. El-Sawah, A. Rizzoli & A. Voinov (2011): Challenges to and good practices for environmental DSS development. *Environmental Modelling & Software* 26(12): 1389-1402: <http://dx.doi.org/10.1016/j.envsoft.2011.09.009>

Hirt, U. & **M. Volk** (2011): Quantifying the proportion of tile-drained land in large river basins. *Physics and Chemistry of the Earth* 36: 591-598: <http://dx.doi.org/10.1016/j.pce.2011.05.004>

Volk, M. & F. Ewert (2011): Scaling methods in integrated assessment of agricultural systems - State-of-the-art and future directions. *Agriculture, Ecosystems and Environment* 142: 1-5: <http://dx.doi.org/10.1016/j.agee.2010.10.014>

Bende-Michl, U., **M. Volk**, L.T.H. Newham, D. Harmel & T. Dalgaard (2011): Short Communication: Monitoring strategies and scale-appropriate hydrologic and biogeochemical modelling for natural resource management: Conclusions and horizons from a session held at the iEMSs 2008. *Environmental Modelling & Software* 26: 538-542: <http://dx.doi.org/10.1016/j.envsoft.2010.09.006>.

2010

Fürst, C., **M. Volk** & F. Makeschin (2010): Squaring the Circle? Combining Models, Indicators, Experts and End-Users in Integrated Land-Use Management Support Tools. *Environmental Management* 46: 829-833: <http://dx.doi.org/10.1007/s00267-010-9574-3>

Volk, M., S. Lautenbach, H. van Delden, L.T.H. Newham & R. Seppelt (2010): How Can We Make Progress with Decision Support Systems in Landscape and River Basin Management? Lessons Learned from a Comparative Analysis of Four Different Decision Support Systems. *Environmental Management* 46: 834-849: <http://dx.doi.org/10.1007/s00267-009-9417-2>

Fürst, C., **M. Volk**, K. Pietzsch & F. Makeschin (2010): Pimp your landscape! A tool for qualitative evaluation of the effects of regional planning measures on ecosystem services *Environmental Management* 46: 953-968: <http://dx.doi.org/10.1007/s00267-010-9570-7>.

Arnold, J.G., P.M. Allen, **M. Volk**, J.R. Williams & D.D. Bosch (2010): Assessment of Different Representations of Spatial Variability on SWAT Model Performance. *Transactions of the ASABE* 53(5), 1433-1443.

Bosch, D.D., J.G. Arnold, **M. Volk** & P.M. Allen (2010): Simulation of a Low-Gradient Coastal Plain Watershed using the SWAT Landscape Model. *Transactions of the ASABE* 53(5), 1445-1456.

Ullrich, A. & **M. Volk** (2010): Influence of different nitrate-N monitoring strategies on load estimation as a base for model calibration and evaluation. *Environmental Monitoring and Assessment* 171: 513-527: <http://dx.doi.org/10.1007/s10661-009-1296-8>

Hirt, U., K. Fiedler & **M. Volk** (2010): Changes in land management and nitrogen balance at different scales in the Weisse Elster river basin, Germany. *Desalination and Water Treatment* 19: 219-225: <http://dx.doi.org/10.5004/dwt.2010.1888>

Volk, M., M. Möller & D. Wurbs (2010): A pragmatic approach for soil erosion risk assessment within policy hierarchies. *Land Use Policy* 27(4): 997-1009: <http://dx.doi.org/10.1016/j.landusepol.2009.12.011>

2009

Seppelt, R., F. Müller, B. Schröder & **M. Volk** (2009): Challenges of simulating complex environmental systems at the landscape scale: A controversial dialogue between two cups of espresso. *Ecological Modelling* 220: 3481-3489: <http://dx.doi.org/10.1016/j.ecolmodel.2009.09.009>.

Ullrich, A. & **M. Volk** (2009): The use of the SWAT model to predict the impact of tillage on water quality. *Agricultural Water Management* 96(8): 1207-1217: <http://dx.doi.org/10.1016/j.agwat.2009.03.010>.

Volk, M., S. Liersch & G. Schmidt (2009): Towards the implementation of the European Water Framework Directive? Lessons learned from water quality simulations in an agricultural watershed. *Land Use Policy* 26, 3: 580-588: <http://dx.doi.org/10.1016/J.landusepol.2008.08.005>.

2008

Rode, M., B. Klauer, D. Petry, **M. Volk**, G. Wenk & D. Wagenschein (2008): Integrated nutrient transport modelling with respect to the implementation of the European WFD: The Weiße Elster Case Study, Germany. *Water SA* 34(4), 490-496 (<http://www.wrc.org.za>)

Möller, M., **M. Volk**, K. Friedrich & L. Lymburner (2008): Placing soil genesis and transport into a landscape context: A multi-scale terrain analysis approach. *Journal of Plant Nutrition and Soil Science* 171: 419-430: <http://dx.doi.org/10.1002/jpln.200625039>

Volk, M., J. Hirschfeld, A. Dehnhardt G. Schmidt, C. Bohn, S. Liersch & P.W. Gassman (2008): Integrated Ecological-Economic Modelling of Water Pollution Abatement Management Options in the Upper Ems River . *Ecological Economics* 66: 66-76:
<http://dx.doi.org/10.1016/j.ecolecon.2008.01.016>

2007

Lorz, C, **M. Volk** & G. Schmidt (2007): Considering spatial distribution and functionality of forests in a modeling framework for river basin management. *Forest Ecology and Management* 248: 17-25: <http://dx.doi.org/10.1016/j.foreco.2007.02.032>.

Volk, M., J. Hirschfeld, G. Schmidt, C. Bohn, A. Dehnhardt, S. Liersch & L. Lymburner (2007): A SDSS-based Ecological-Economic Modelling Approach for Integrated River Basin Management on Different Scale Levels - The project FLUMAGIS. *Water Resources Management* 21, 12: 2049-2061: <http://dx.doi.org/10.1007/s11269-007-9158-z>

Möller, M., L. Lymburner & **M. Volk** (2007): The comparison index: A tool for assessing the accuracy of image segmentation. *International Journal of Applied Earth Observation and Geoinformation* 9, 3: 311-321: <http://dx.doi.org/10.1016/j.jag.2006.10.002>

1994 - 2006

Chen, P.-Y., J.G Arnold, R. Srinivasan, **M. Volk** & P.M. Allen (2006): Surveying Ground Water Level Using Remote Sensing: An Example over the Seco and Hondo Creek Watershed in Texas. *Ground Water Monitoring & Remediation* 26, 2: 94-102:
<http://dx.doi.org/10.1111/j.1745-6592.2006.00077.x>

Steinhardt, U. & **M. Volk** (2003): Mesoscale landscape analysis on the base of investigations of water balance and water-bound material fluxes: Problems and hierarchical approaches for their resolution. *Ecological Modelling* 168: 251-265.

Steinhardt, U. & **M. Volk** (2002): The investigation of water and matter balance on the meso-landscape scale: A hierarchical approach for landscape research. *Landscape Ecology* 17, 1: 1-12.

King, L. & **M. Volk** (1994): Glaziologie und Glazialmorphologie des Liefde- und Bockfjord-gebietes, NW-Spitzbergen. *Z. Geomorphologie*, N.F., Suppl.-Band. 97: 145-159.

Publikationen in anderen Zeitschriften (rezensiert und unrezensiert)

Wenzel, J.L., G. Schmidt, M. Usman, C. Conrad & **M. Volk** (2021): Long-term baseflow estimation and environmental flow assessment in a mining-impacted catchment in Central Germany. *Hercynia N. F.* 54/2: 103-143.

Volk, M. (2014): Modelling ecosystem services – Challenges and promising future directions. *Sustainability of Water Quality and Ecology* 1-2: 3-9 (<http://dx.doi.org/10.1016/j.swaqe.2014.05.003>).

Lautenbach, S., **M. Volk**, M. Strauch, G. Whittaker & R. Seppelt (2014): Management support by optimization-based trade-off analysis? The example of biodiesel crop production. *Geo-Öko* 35: 39- 77

Lautenbach, S., J. Maes, M. Kattwinkel, R. Seppelt, M. Strauch, M. Scholz, C. Schulz-Zunkel, **M. Volk**, J. Weinert, C.F. Dormann (2012): Mapping water quality related ecosystem services – concepts and applications for nitrogen and pesticides. *International Journal of Biodiversity Science, Ecosystem Services & Management* 8 (1-2): 35-49.

Fürst, C., C. Davidsson, K. Pietzsch, M. Abiy, **M. Volk**, C. Lorz & F. Makeschin (2008): "Pimp your landscape" -- an interactive land-use planning support tool. In: Mander, U., C.A. Brebbia & J.F. Martin-Duque (eds., 2008): *Geo-Environment and Landscape Evolution III*. WIT *Transactions on the Built Environment*, Vol 100, 219-232. ISSN 1743-3509, doi:10.2495/GEO080221

Seppelt, R., F. Müller, B. Schröder & **M. Volk** (2007): Discussing Landscape Ecology - A Dialogue between two Espressi (with a typical male distribution of the roles). - In: Löffler, J. & U. Steinhardt (Eds.): *Landscape Ecology*. - *Colloquium Geographicum* 28: 11-26.

- Lorz, C., G. Schmidt & **M. Volk** (2005): Perspektiven der Bewirtschaftung von bewaldeten Einzugsgebieten nach Europäischer Wasserrahmenrichtlinie. *Forst und Holz* 8/2005: 320-324.
- Haase, D., U. Hirt, M. Möller, M. Rosenberg, G. Schmidt, T. Weichel & **M. Volk** (2004): Analysis of water and matter balance using CORINE Land Cover data on different spatial scales. *UBA-Texte* 04-04: 229-233.
- Neubert, M., **M. Volk** & F. Herzog (2003): Modellierung und Bewertung des Einflusses von Landnutzung und Bewirtschaftungsintensität auf den potenziellen Nitrataustrag in einem mesoskaligen Einzugsgebiet. *Landnutzung und Landentwicklung* 44, 1: 1-8 (reviewed).
- Haase, D. & **M. Volk** (2002): Erfassung und Bewertung von Bodenversauerung im Rahmen von mesoskaligen Untersuchungen von Flusseinzugsgebieten. *Mitteilungen der Deutschen Bodenkundlichen Gesellschaft* 98: 41-42.
- Herzog, F., J. Kunze, M. Weiland & **M. Volk** (2001): Modellierung der Grundwasserneubildung im Lockergesteinsbereich Mitteldeutschlands. – *Wasser und Boden* 53/3: 32-36 (reviewed).
- Möller, M. & **M. Volk** (2001): Kombination von GIS und digitaler Reliefanalyse zur wissensbasierten Ableitung von Standortfaktoren: Grundlage für ein Monitoring der landwirtschaftlichen Bodennutzung mittels Fernerkundungsmethoden. *Mitteilungen der Deutschen Bodenkundlichen Gesellschaft* 96, 2: 757-758.
- Volk, M.**, U. Steinhardt, S. Gränitz & D. Petry (2001): Probleme und Möglichkeiten der mesoskaligen Abschätzung des Bodenabtrages mit einer Variante der ABAG. *Wasser & Boden* 53, 12: 24-30. (reviewed).
- Petry, D., F. Herzog, **M. Volk**, U. Steinhardt & S. Erfurth (2000): Auswirkungen unterschiedlicher Datengrundlagen auf mesoskalige Wasserhaushaltsmodellierungen: Beispiele aus dem mitteldeutschen Raum. *Z. Kulturtechnik und Landentwicklung* 1/2000: 19-26. (reviewed).
- Steinhardt, U. & **M. Volk** (2000): Von der Makropore zum Flußeinzugsgebiet – Hierarchische Ansätze zum Verständnis des landschaftlichen Wasser- und Stoffhaushaltes. *Petermann's Geographische Mitteilungen* 2/2000: 80-91. (reviewed).
- Volk, M.** & M. Bannholzer (1999): Auswirkungen von Landnutzungsänderungen auf den Gebietswasserhaushalt: Anwendungsmöglichkeiten des Modells „ABIMO“ für regionale Szenarien. *Geoökodynamik* 20, 3: 193-210. (reviewed).
- Volk, M.** & R. Kolem (1998): Möglichkeiten bei der Berechnung eines Gletscherinventars mittels GIS und digitaler Bildverarbeitung am Beispiel des Liefde- und Bockfjordgebietes, NW-Spitzbergen. *PFG - Photogrammetrie, Fernerkundung, Geoinformation* 1/98: 27-40. (reviewed).
- Volk, M.** & U. Steinhardt (1998): Integration unterschiedlich erhobener Datenebenen in GIS für landschaftsökologische Bewertungen im mitteldeutschen Raum. *PFG - Photogrammetrie, Fernerkundung, Geoinformation* 6/98: 349-362. (reviewed)
- King, L. & **M. Volk** (1996): Kurzfassung: Glaziologie und Glazialmorphologie des Liefde- und Bockfjordgebietes, NW-Spitzbergen/ Abstract: Glaciology and glacial geomorphology of the Liefdefjord and Bockfjord areas, NW-Spitsbergen. *Stuttgarter Geogr. Studien* 124: 25. (reviewed)
- Volk, M.** (1996): Kurzfassung: Geomorphodynamik eines vergletscherten hocharktischen Küstengebietes, Liefde- und Bockfjord, NW-Spitzbergen/ Abstract: Geomorphology and dynamics of a glaciated coastal area in the High Arctic (Liefde- and Bockfjorden, NW-Spitsbergen. *Stuttgarter Geographische Studien* 124: 57. (reviewed)
- Volk, M.** & N. Volk (1991): Technik für Eisbären. *SIEMENS-Mitt.* 12, 91: 13.

Buchkapitel oder Buchbeiträge

- Seppelt, R., S. Klotz, E. Peiter & **M. Volk** (2022): Landwirtschaft in einer heißen Welt. In: Wigandt, K. (ed.): 3 Grad mehr: Ein Blick in die drohende Heißzeit und wie uns die Natur helfen kann, sie zu verhindern: 55–78. oekom verlag, 2022, München (in German).

Cord, A.F., N. Schwarz, R. Seppelt, **M. Volk** & M. Schröter (2019): Introduction to Part III: Trade-Offs and Synergies Among Ecosystem Services. In: M. Schröter, A. Bonn, S. Klotz, R. Seppelt & C. Baessler (2019): Atlas of Ecosystem Services. Drivers, Risks, and Societal Responses: 245-248, Springer.

Franke, U., F. Witing & **M. Volk** (2019): Climate Change Induced Carbon Competition: Bioenergy Versus Soil Organic Matter Reproduction. In: M. Schröter, A. Bonn, S. Klotz, R. Seppelt & C. Baessler (2019): Atlas of Ecosystem Services. Drivers, Risks, and Societal Responses: 257-262, Springer.

Volk, M. (2012): Landscape Planning for Sustainable Water Usage. In: Meyers, R.A. (ed.): Encyclopedia of Sustainability Science and Technology. Springer.

Volk, M., N. Fohrer, B. Schmalz & A. Ullrich (2011). Chapter 7: Application of the SWAT Model for Ecohydrological Modelling in Germany. - In: Shukla, M. (ed.): Soil Hydrology, Land Use and Agriculture. CABI: 176-195.

Möller, M. & **M. Volk** (2010). Maßstabsspezifische Analyse der Bodenerosion durch Wasser. In: Helbig, H., Möller, M. & Schmidt, G. (Hrsg., 2010). Bodenerosion durch Wasser in Sachsen-Anhalt. BVB-Materialien Band 15: 11-22. Erich Schmidt Verlag, Berlin, ISBN 978-3-503-12498-5 (<http://www.bvb-materialien.de/buchreihe.html>).

Haase, D., U. Hirt, B. Klauer, D. Petry, M. Rosenberg, M. Rode, J. Schiller, **M. Volk** & Dierk Wagenschein (2008): Kapitel 3: Die Weiße Elster als Fallbeispiel. - In: Bernd Klauer, Michael Rode, Daniel Petry (Hrsg.): Flussgebietsmanagement nach EG-Wasserrahmenrichtlinie. - Metropolis, S. 63-74.

Rosenberg, M., U. Hirt, **M. Volk**, D. Wagenschein & M. Rode (2008): Kapitel 5: Modellierung des Entwicklungsrahmens. - In: Bernd Klauer, Michael Rode, Daniel Petry (Hrsg.): Flussgebietsmanagement nach EG-Wasserrahmenrichtlinie. - Metropolis, S. 99-113.

Wenk, G., M. Rode, **M. Volk**, G. Schmidt & S. Liersch (2008): Kapitel 8: Modellierung von Wasserhaushalt und Stickstofftransport mit dem integrierten Modell SWAT (Soil Water Assessment Tool). - In: Bernd Klauer, Michael Rode, Daniel Petry (Hrsg.): Flussgebietsmanagement nach EG-Wasserrahmenrichtlinie. - Metropolis, S. 147-157.

Volk, M. & U. Steinhardt (2004): Mesoskalige Landschaftsanalyse auf Basis von Untersuchungen des Landschaftshaushaltes. Probleme und hierarchische Lösungsansätze am Beispiel von Flusseinzugsgebieten. – In: Lorz, C. & D. Haase (Hrsg., 2004): Stoff- und Wasserhaushalt in Einzugsgebieten. Beiträge zur EU-Wasserrahmenrichtlinie und Fallbeispiele. – GuG-Gesellschaft für Umweltgeowissenschaften, Springer: 171-205.

Gretzschel, O., G. Schmidt, M. Uhl & **M. Volk** (2004): Der Umgang mit der Skalenproblematik bei der Modellierung des Wasserhaushaltes im Projekt FLUMAGIS. – In: Möltgen, J. & D. Petry (Eds., 2004): Interdisziplinäre Methoden des Flussgebietsmanagements. – IfGI-Prints 21: 341-350, Münster.

Schmidt, G., O. Gretzschel, **M. Volk** & M. Uhl (2004): Bilanzierung und Lokalisierung von Nähr- und Schadstoffemissionen als Grundlage der Bewertung und Maßnahmefindung. - In: Möltgen, J. & D. Petry (Eds., 2004): Interdisziplinäre Methoden des Flussgebietsmanagements. – IfGI-Prints 21: 295-303.

Schmidt, G., O. Gretzschel, **M. Volk** & M. Uhl (2003): Konzept zur skalenspezifischen Modellierung des Wasser- und Stoffhaushaltes im Projekt FLUMAGIS. – In: K. Hennrich, M. Rode, & A. Bronstert (Hrsg., 2003): 6. Workshop zur grossskaligen Modellierung in der Hydrologie, Flussgebietsmanagement. - Kassel University Press: 7-20.

Volk, M. & U. Steinhardt (2002a): Chapter 1.1: The landscape concept (What is a landscape?). - In: Bastian, O. & U. Steinhardt (Eds., 2002): „Development and Perspectives in Landscape Ecology“, Kluwer: 1-10.

Volk, M. & U. Steinhardt (2002b): Chapter 2.7: Water-bound material fluxes in landscapes. - In: Bastian, O. & U. Steinhardt (Eds., 2002): „Development and Perspectives in Landscape Ecology“, Kluwer: 96-100.

Volk, M. & U. Steinhardt (2002c): Chapter 6.4: Models in landscape ecology. - In: Bastian, O. & U. Steinhardt (Eds., 2002): „Development and Perspectives in Landscape Ecology“, Kluwer: 295-306.

Möller, M., M. Rosenberg & **M. Volk** (2002): Nutzung von Methoden der Fernerkundung und GIS zur Standortcharakterisierung als Beitrag zur Umsetzung der EG-Wasserrahmenrichtlinie. – In: Blaschke, T. (Eds., 2002): Fernerkundung und GIS. Neue Sensoren - innovative Methoden – Wichmann: 150-158. (reviewed).

Franke, U., T. Schmidt & **M. Volk** (2001): Modellierung des Einflusses von Landnutzungsänderungen auf die Nitratkonzentration im Sickerwasser. – Horsch H., I. Ring & F. Herzog (Eds., 2001): Nachhaltige Wasserbewirtschaftung und Landnutzung. Methoden und Instrumente der Entscheidungsfindung und –umsetzung. – Metropolis: 165-186, Marburg. (reviewed).

Krönert, R., **M. Volk** & U. Steinhardt (2001): Introduction: landscape balance and landscape assessment. – In: Krönert, R., U. Steinhardt & M. Volk (Eds., 2001): Landscape balance and landscape assessment. – Springer: 1-22.

Messner, F., B. Klauer, H. Horsch, S. Geyler, **M. Volk** & F. Herzog (2001): Ableitung von Szenarien für Entscheidungsanalysen: Methodik und beispielhafte Anwendung. - Horsch H., I. Ring & F. Herzog (Eds., 2001): Nachhaltige Wasserbewirtschaftung und Landnutzung. Methoden und Instrumente der Entscheidungsfindung und –umsetzung. – Metropolis: 99-130, Marburg.

Müller, E. & **M. Volk** (2001): History of landscape assessment. – In: Krönert, R., U. Steinhardt & M. Volk (Eds., 2001): Landscape balance and landscape assessment. – Springer: 23-46.

Steinhardt, U. & M. Volk (2001a): Scales and spatio-temporal dimensions in Landscape Research. – In: Krönert, R., U. Steinhardt & M. Volk (Eds., 2001): Landscape balance and landscape assessment. – Springer: 137-162.

Volk, M., F. Herzog, T. Schmidt & S. Geyler (2001): Der Einfluss von Landnutzungsänderungen auf die Grundwasserneubildung. – Horsch H., I. Ring & F. Herzog (Eds., 2001): Nachhaltige Wasserbewirtschaftung und Landnutzung. Methoden und Instrumente der Entscheidungsfindung und –umsetzung. – Metropolis: 147-164, Marburg.

Volk, M. & U. Steinhardt (2001): Landscape balance. – In: Krönert, R., U. Steinhardt & M. Volk (Eds., 2001): Landscape balance and landscape assessment. – Springer: 163-202.

Volk, M. (2000): A hierarchical approach for mesoscale assessment of landscape functions: modeling – parameters – integration in environmental planning. – In: Richling, A., J. Lechnio & E. Malinowska (Eds., 2000): Landscape Ecology. Theory and applications for practical purposes. – The problems of Landscape Ecology Vol. IV: 301-312. (reviewed)

Volk, M. & U. Steinhardt (1999a): Fazit: Landschaftsbewertungsverfahren auf regionaler Ebene. - In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 377-380.

Volk, M. & U. Steinhardt (1999b): Fazit: Akzeptanz regionaler Bewertungsverfahren aus der Forschung bei relevanten Behörden. - In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 397-398.

Volk, M. & U. Steinhardt (1999c): Fazit: Ableitung dimensionsspezifischer Indikatoren für die Landschaftsbewertung. - In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 233-235.

Volk, M. & U. Steinhardt (1999d): Probleme der Ableitung dimensionsspezifischer Parameter und Indikatoren für mesoskalige Landschaftsbewertungen. - In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 129-138.

Volk, M. & U. Steinhardt (1999e): Fazit: Upscaling von Prozessen und Standorteigenschaften. - In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 122-125.

Volk, M. & U. Steinhardt (1999f): Einführung: Regionalisierung in der Landschaftsökologie - Stand der Forschung: Offene Fragen, Trends und Lösungsansätze. - In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 11-16.

Volk, M. & U. Steinhardt (1999g): Fazit: Bewertungs- und Bezugseinheiten- In: Steinhardt, U. & M. Volk (Eds., 1999): Regionalisierung in der Landschaftsökologie. - Teubner-Verlag: 282-283

Berichte (Herausgeber und/oder Autor)

Maes, J., L. Braat, K. Jax, M. Hutchins, E. Furman, M. Termansen, S. Luque, M.L. Paracchini, C. Chauvin, R. Williams, **M. Volk**, S. Lautenbach, L. Kopperoinen, M.-J. Schelhaas, J. Weinert, M. Goossen, E. Dumont, M. Strauch, C. Görg, C. Dormann, M. Katwinkel, G. Zulian, R. Varjopuro, O. Ratamáki, J. Hauck, M. Forsius, G. Hengeveld, M. Perez-Soba, F. Bouraoui, M. Scholz, C. Schulz-Zunkel, A. Lepistö, Y. Polishchuk & G. Bidoglio (2011): A spatial assessment of ecosystem services in Europe: methods, case studies and policy analysis - phase 1. PEER Report No 3. Ispra: Partnership for European Environmental Research, 143 pp.

Haase, D., T. Weichel, L. Bütter, **M. Volk**, C. Gläßer, J. Birger, D. Zober, P. Reinartz, T. Heege, R. Müller, J. Heblinski & M. Schröder (2004): Teilprojekt 2: Flächenhafte Erfassung der Hochwassergebiete mittels Fernerkundungsdaten. – In: Geller, W., K. Ockenfeld, M. Böhme & A. Knöckel (Hrsg., 2004): Schadstoffbelastung nach dem Elbe-Hochwasser 2002. – Endbericht BMBF-FKZ PTJ 0330492: 37-69.

Haase, D., T. Weichel, **M. Volk**, C. Glaesser, J. Birger, D. Zober, P. Reinartz, T. Heege, R. Mueller & M. Schroeder (2003): Flächenhafte Erfassung der Hochwassergebiete mittels Fernerkundungsdaten. – Tagungsband Statusseminar des BMBF-Ad-hoc-Verbundprojektes in Freiberg, 27.08. – 29.08.2003: 43-57.

Volk, M. & U. Steinhardt (2002): Landschafts- und Agrarraumforschung vom Einzelschlag bis zur Region. – In: Mühle, H. (Eds., 2002): Dauerhaft umweltgerechte umweltgerechte Landwirtschaft. Kenntnisstand, Instrumente, Forschungsbedarf. – UFZ-Broschüre: 25-26.

Horsch, H., Messner, F., **M. Volk** (Eds., 2001): Integriertes Bewertungsverfahren und seine beispielhafte Anwendung im Torgauer Raum: Datengrundlagen, methodische Algorithmen und Ergebnisse. - UFZ-Bericht 24/2001: 309 pp.

Horsch, H., Messner, F., **M. Volk** (2001): Die Fallstudie Torgauer Raum: Anliegen und Struktur. – In: Horsch, H., Messner, F., M. Volk (Eds., 2001): Integriertes Bewertungsverfahren und seine beispielhafte Anwendung im Torgauer Raum: Datengrundlagen, methodische Algorithmen und Ergebnisse. UFZ-Bericht 24/2001: 3-5.

Messner, F., B. Klauer & **M. Volk** (2001): Problemspezifische Kriterien für den Torgauer Raum. – In: Horsch, H., Messner, F., M. Volk (Eds., 2001): Integriertes Bewertungsverfahren und seine beispielhafte Anwendung im Torgauer Raum: Datengrundlagen, methodische Algorithmen und Ergebnisse. UFZ-Bericht 24/2001: 105-106.

Meyer, B. & **M. Volk** (2001): Die Schutzgüter Boden und Wasser in der Naturschutzplanung. Vorschläge für die Entwicklung von fachlichen Standards. – UFZ-Bericht 6/2001: 60 pp.

Schmidt, T., **M. Volk** & M. Neubert (2001): Nitratkonzentration im Sickerwasser. – In: Horsch, H., Messner, F., Volk, M. (Eds., 2001): Integriertes Bewertungsverfahren und seine beispielhafte Anwendung im Torgauer Raum: Datengrundlagen, methodische Algorithmen und Ergebnisse. UFZ-Bericht 24/2001: 130-142.

Volk, M., F. Herzog & D. Härtel (2001): Waldumbau und Aufforstung. – In: Horsch, H., F. Messner & Volk, M. (Eds., 2001): Integriertes Bewertungsverfahren und seine beispielhafte Anwendung im Torgauer Raum: Datengrundlagen, methodische Algorithmen und Ergebnisse. UFZ-Bericht. 24/2001: 51-62.

Volk, M. & S. Geyler (2001): Grundwasserneubildung und –entnahme. – In: Horsch, H., Messner, F., Volk, M. (Eds., 2001): Integriertes Bewertungsverfahren und seine beispielhafte Anwendung im Torgauer Raum: Datengrundlagen, methodische Algorithmen und Ergebnisse. UFZ-Bericht 24/2001: 117-129.

Volk, M. & H. Horsch (Hrsg.), D. Härtel (2000): Erstaufforstung im Torgauer Raum: Flächenauswahl und ökonomische Bewertung. – UFZ-Bericht 21/2000: 44 pp.

Volk, M., U. Franko, S. Schenk & U. Steinhardt (2000): Einflüsse von Landnutzungsänderungen – vom Ackerschlag bis zur Region. – Jahresbericht '98 - '99 des UFZ-Umweltforschungszentrums Leipzig-Halle GmbH: 202-210.

Volk, M., U. Franko, F. Herzog, T. Schmidt & M. Neubert (2000): Modellierung des Einflusses von Landnutzungsänderungen auf die Grundwasserquantität und –qualität am Beispiel des

Torgauer Raumes. – In: Horsch, H., B. Klauer, I. Ring, H.-J. Gericke & F. Herzog (Eds., 2000): Nachhaltige Wasserbewirtschaftung und Landnutzung: Methoden und Instrumente der Entscheidungsfindung und –umsetzung. - UFZ-Bericht 24/2000: 36-38.

Müller, E. & **M. Volk** (1998): Entwicklung, Stand und Perspektiven der Landschaftsbewertung. - In: Grabaum, R. & U. Steinhardt (Eds., 1998): Landschaftsbewertungsverfahren unter Anwendung analytischer Verfahren und Fuzzy-Logic. - UFZ-Bericht 6/1998: 10-26.

King, L., J. Knies, E. Schmitt, **M. Volk** & D. Wollesen (1993): Geomorphologie und Geoökologie eines glazial geprägten arktischen Küstengebietes, Liefdefjorden, Spitzbergen - Daten und erste Interpretation (Gruppe Glazialmorphologie und -ökologie, L. King, Gießen). - Basler Beiträge zur Physiogeographie: Materialien zur Physiogeographie 15: 71-86.

Eingeladene Vorträge und Mitglied von Podiumsdiskussionen

Volk, M. (2020): Towards multifunctional agricultural landscapes in Europe: Assessing and governing synergies between food production, biodiversity, and ecosystem services – TALE. WWU Münster, Kolloquium des Instituts für landschaftsökologie, WS 19 / 20, 21. Januar 2020, Münster.

Volk, M. (2017): Soil and Water Assessment Tool (SWAT) – Application and further development. Technische Universität München, Januar 2017, München.

Scheuer, S., D. Haase & **M. Volk** (2018): Integrative assessment of 20th century climate change observations: Identifying needs and barriers in adaptation to climate change-related hazards in urban areas. EGU 2018.

Lautenbach, S., A. Bayer, S. Lavorel, A. van Teeffelen, P. Verburg & **M. Volk** (2017): Understanding ecosystem service trade-offs and synergies for land use decision making. ALTER-Net conference, 2.-4. Mai, 2017, Gent, Belgien.

Volk, M. (2016): Soil and Water Assessment Tool (SWAT) – Application and further development. Ghent University, June 2016, Gent, Belgien.

Volk, M. (2016): Analysing trade-offs between land use, ecosystem services and biodiversity – How far are we? TALE-Project meeting and stakeholder workshop. 27.04. 2016, BOKU Wien, Österreich.

Volk, M. (2016): Präsentation des UFZ, des Departments Landschaftsökologie und Projektideen. EU-MEX Meeting, Mexico City, Mexiko, 8. bis 9. März 2016

Volk, M. (2016): Using models for decision support in sustainable river basin management - still dancing in the dark?. Symposium "Sustainability in time and space", organized by A. Voinov, University of Twente, Enschede, Niederlande.

Volk, M. (2015): Soil and Water Assessment Tool (SWAT) - Anwendungsbeispiele und Entwicklung. Geoinformatik-Kolloquium am Geographischen Institut der Universität Tübingen, 10.02.2015.

Volk, M. (2014): Brasilien – zwischen Aufschwung und Umweltveränderung. Verein für Erdkunde zu Halle, 16. Dezember 2014, Halle.

Volk, M. (2014): Trade-offs and Synergies between Freshwater Ecosystem Services – Implications for Land Use Intensities and Landscape Configurations. 7th Sino-German Workshop on Biodiversity Conservation: Challenges in Water Quality & Quantity. Approaches & Methodologies for Freshwater Ecosystem Management in the Context of TEEB. July 6-9, 2014, Shenyang, Liaoning Province, China.

Volk, M. (2014): Land use strategies based on trade-off assessments reconciling biodiversity and ecosystem services. Scientific workshop of UNU-FLORES and UFZ, June 23, 2014, Leipzig, Germany.

Volk, M. (2014): Are they used? Environmental decision support systems (EDSS) development – Challenges and best practices. HarmBio-Workshop on 'Bridging the gap between IT design and biodiversity conservation modelling' Technical University of Crete, Department of Production Engineering and Management, May 29-31, 2014, Chania, Crete

Volk, M. (2014): Ecosystem Services and River Basin Models. C03 Special Session: Ecosystems and their Services in the Nexus. International Conference in the Water-Energy-Food Nexus. 19-20 May 2014 in Bonn, Germany.

Volk, M. (2014): Integrating water and land resources management and ecosystem services by combining scenario analysis and optimization on different scales. Session No. 120: Joint and integrated management of land and water resources (*Round Table Discussions*). 2nd Global Land Project Open Science Meeting. March 19-21, 2014, Berlin, Germany.

Volk, M. (2013): Integrated River Basin Management – A Challenge for Hydrology. Florisa Melone Memorial Conference. Assisi, Italy, Basilica of Saint Francis, October 10-11th, 2013.

Volk, M., M. Strauch & F. Witing (2013): Water quality in large-scale integrated modeling – Challenges and key considerations on the example of model applications in Central Germany. Water & Environmental Dynamics. 6th International Conference on Water Resources and Environmental Research. Koblenz, Germany, June, 3-7, 2013.

Volk, M. (2013): Water Resources Management and Ecosystem Services - Integrating what needs to be integrated. GWSP Conference on "Water in the Anthropocene: Challenges for Science and Governance, Indicators, Thresholds and Uncertainties of the Global System. Bonn, Germany, May 12-14, 2013.

http://conference2013.gwsp.org/uploads/media/Volk_Water_Resources_Management_and_Ecosystem_Services_Integrating_what_needs_to_be_integrated.pdf

Member of Panel discussion (Joe Alcamo, Kasper Kok, Fulco Ludwig, **Martin Volk**). Special Session „Do we have a sound basis for predicting future water resources?“ Bonn, 21.-24. Mai 2013. Water in the Anthropocene: Challenges for Science and Governance. Indicators, Thresholds and Uncertainties of the Global Water System.

Volk, M. (2012): Quantifizierung und Bewertung von Ökosystemleistungen. Vortrag am Landesbetrieb für Hochwasserschutz und Wasserwirtschaft Sachsen-Anhalt. 17. Oktober 2012, Halle (Saale), Germany.

Volk, M. & A. v. Griensven (2012): The Soil and Water Assessment Tool (SWAT). Workshop held at EMBRAPA Training Center, September 27, 2012, Brasilia, Brazil.

Volk, M. (2012): Soil erosion and sediment transport – consequences, monitoring, models and measures. Workshop "Degraded soils", September 24-26, Brasilia, Brazil.

Volk, M. (2012): Towards the implementation of the water framework directive? Lessons learned from nutrient simulations in watersheds with different conditions. Life M3 Workshop "Modelling pressures and impacts for WFD river basin management: Lessons learned and future prospects. June 14-15, 2012, Cologne, Germany.

Volk, M., Lautenbach, S., Seppelt, R. (2011). Introductory lecture: Landscape Management and Landscape Modeling. RegioResources 2011. A cross-disciplinary dialogue on sustainable development of regional resources. Dresden, May 17-20, 2011 (<http://www.eli-web.com/index.php?article=news&lang=english>).

Volk, M. (2009): Zur Funktion des Waldes im Landschaftswasserhaushalt. Akademie der Sächsischen Landesstiftung Natur und Umwelt. Themenbereich „Wälder und Gewässer – wichtige Strukturelemente nachhaltiger Landschaften“. 28. March 2009, Neschwitz, Germany.

Volk, M. (2007): River Basin analysis and modelling as basis for the implementation of the European Water Framework Directive – Vision, Reality and Perspectives. The Fenner School Lecture, 18 December 2007, Centre for Resource and Environmental Studies, ANU, Canberra, Australia

Beiträge zu Workshops und Proceedings

1. **Volk, M.** (2018): Towards multifunctional agricultural landscapes: assessing and governing synergies between food production, biodiversity and ecosystem services. Landscape 2018: Frontiers of agricultural landscape research. Leibniz Centre for Agricultural Landscape Research (ZALF). 14. März 2018, Berlin.

2. Locher-Krause K., S. Lautenbach & **M. Volk** (2017): Quantifying and understanding spatio-temporal ecosystem services interactions in transformed forest landscapes: insights from a Patagonian biodiversity hotspot. 125th IUFRO Anniversary Congress 2017, Interconnecting Forest, Science and People, 19-22. September 2017, Freiburg.
3. Strauch, S., F. Witing, C. Schürz & **M. Volk** (2017): Towards multifunctional agricultural landscapes in Europe: SWAT as a key to assess synergies and trade-offs between ecosystem services and biodiversity. International SWAT Conference, 26.-30. Juni 2017, Warschau, Polen.
4. Guse, B., M. Pfannerstill, J. Kiesel, M. Strauch, **M. Volk** & N. Fohrer (2017): How do hydrological processes change in their spatio-temporal relevance under changing climatic conditions? International SWAT Conference, 26.-30. Juni 2017, Warschau, Polen.
5. Hagemann, N., **M. Volk**, B. Willaarts, A. Holzkämper, E. van der Zanden, C. Rutz & M. Schönhart (2017): From pledge to practical implementation: How to organise stakeholder integration in scenario development. ESEE Conference 2017, 21. Juni 2017, Budapest, Ungarn.
6. Guse, B., M. Pfannerstill, J. Kiesel, M. Strauch, **M. Volk** & N. Fohrer (2017): Analysing spatio-temporal dynamics of processes and parameters in a hydrological model to understand catchment similarities among different landscapes. Geophysical Research Abstracts Vol. 19, EGU2017-15382, 2017. EGU General Assembly 2017, Wien, Österreich..
7. Guse, B., M. Pfannerstill, J. Kiesel, M. Strauch, **M. Volk** & N. Fohrer (2017): Welche hydrologischen Prozesse in Modellen ändern sich in ihrer Relevanz und raum-zeitlichen Dynamik unter veränderten Bedingungen? Tag der Hydrologie, 23.-24. März 2017, Trier.
8. **Volk, M.**, A. Cord, M. Strauch & N.A. Coles (2016): Smart multifunctional landscapes - Assessing synergies and trade-offs between food and energy production, biodiversity, and ecosystem services. Stream 2-33, EcoSummit 2016, 29.08.-01.09.2016, Montpellier, Frankreich.
9. Strauch, M., A.F. Cord, A. Kaim, C. Pätzold, C. Schweitzer, R. Seppelt & **M. Volk** (2016): SeCoMOLA - A multi-objective land use optimization framework for exploring interactions between ecosystem services and biodiversity. Stream 6-73, EcoSummit 2016, 29.08.-01.09.2016, Montpellier, Frankreich.
10. Ziv, G., K. Mullin, B. Boeuf, W. Fincham, N. Taylor, G. Villalobos-Jimenez, L. von Vitorelli, C. Wolf, O. Fritsch, M. Strauch, R. Seppelt, **M. Volk**, M. Beckmann et. al. (2016): Does good water status enhance ecosystem services? The case of recreation in England. Session 59, EcoSummit 2016, 29.08.-01.09.2016, Montpellier, Frankreich.
11. Coles, N.A., Y. Wang, **M. Volk** & J. Wu (2016): Ecoservices and multifunctional landscapes: Balancing the benefits of integrated ES based water resources, agricultural and forestry production systems. Stream 6-73, EcoSummit 2016, 29.08.-01.09.2016, Montpellier, Frankreich..
12. Strauch, M., A. Cord, A. Kaim, C. Paetzold, C. Schweitzer, R. Seppelt & **M. Volk** (Präsentation von M. Volk vorgetragen) (2016): Towards Multifunctionality of Landscapes – A Multi-Objective Land Use Optimization Framework for Exploring Interaction between Ecosystem Services and Biodiversity. Session D10, iEMSs 2016, 10. - 14.07. 2016, Toulouse, Frankreich.
13. Kaim, A., A. Cord & **M. Volk** (2016): Optimal land use?! – A review on optimization techniques used in multi-criteria decision analysis. Session B1, iEMSs 2016, Toulouse, Frankreich, 10. - 14.07. 2016
14. Hagemann, N., N. Jürges, S. Bartke & **M. Volk** (2016) : Trade-offs and synergies between ecosystem services: Governance implications towards sustainable agricultural soil management. Presentation at the Scientific Forum 'Understanding the Water-Energy-Food Nexus and its Implications for Governance', 15.-16. Juni 2016, Osnabrück.
15. Guse, B., M. Pfannerstill, M. Strauch, D. Reusser, S. Lüttke, **M. Volk**, H. Gupta & Nicola Fohrer (2016): Advancing sensitivity analysis to precisely characterise temporal parameter dominances. EGU General Assembly 2016, Wien, Österreich, 17.-22.04. 2016.

16. **Volk, M.** et al. (2016): Towards multifunctional agricultural landscapes in Europe: Assessing and governing synergies between food production, biodiversity, and ecosystem services – TALE. EGU General Assembly 2016, Wien, Österreich, 17.-22.04. 2016
17. Rathjens, H., K. Bieger, I. Chaubey, J.G. Arnold, P.M. Allen, R. Srinivasan, D. Bosch & **M. Volk** (2016): Development of a landscape unit delineation framework to assess water transfers across landscape units using SWAT. AgroEnviron 2016: 10th International Symposium on Agriculture and the Environment – Purdue University, West Lafayette, IN, USA, May 23-27, 2016.
18. Rathjens, H., K. Bieger, I. Chaubey, J.G. Arnold, R. Srinivasan, D.D. Bosch, P. Allen & **M. Volk** (2015); Development of a landscape unit delineation framework for SWAT. Paper No. 152189799. ASABE Annual International Conference. New Orleans, LA. USA, July 2015.
19. Bieger, K., H. Rathjens, P. Allen, D.D. Bosch, I. Chaubey, R. Srinivasan, **M. Volk** & J.G. Arnold. Application of the new modular SWAT code to three watersheds in the United States. Paper No. 152189807. ASABE Annual International Conference. New Orleans, LA. July 2015.
20. **Volk, M.** & N. Hagemann (2015): Towards multifunctional agricultural landscapes in Europe: Assessing and governing synergies between food production, biodiversity, and ecosystem services – TALE. Presentation at the BiodivERsA Workshop Clustering Workshop: Improving the Science Policy Interface of BiodivERsA funded projects, June 2015, Brussels, Belgium.
21. Locher, K., S. Lautenbach & **M. Volk** (2015): Using continuous datasets to understand dynamic transformation of native ecosystems over time in the South of Chile. 9th IALE World Congress, July 5-10, 2015, Portland, OR, USA.
22. Strauch, M., R. Schweppe & **M. Volk** (2015): HRU aggregation and its effects on model outputs. 2015 International SWAT conference, June 24-26, 2015, Sardinia, Italy.
23. Julich, S., H. Rathjens, **M. Volk** & K.-H. Feger (2015): Application of the new grid-based SWAT landscape model in a small mountainous watershed in Germany. 2015 International SWAT conference, June 24-26, 2015, Sardinia, Italy.
24. Guse, B., M. Pfannerstill, D. Reusser, **M. Volk**, M. Strauch, & N. Fohrer (2015): Diagnostic tools to understand the hydrological processes in the SWAT model. SWAT 2015 Conference, June 24-26, 2015, Pula, Sardinia, Italy
25. **Volk, M.**, S. Lautenbach, M. Strauch, G.W. Whittaker & R. Seppelt (2015): Trade-offs of biogas production: comparing crop rotations under different climate conditions. ASABE 1st Climate Change Symposium: Adaptation and Mitigation. May 3-5, 2015, Chicago, IL, USA.
26. **Volk, M.**, U. Franko, F. Witing & G. Jäckel (2015): Large-scale identification of hot spots for soil carbon demand under climate change and bioenergy production. ASABE 1st Climate Change Symposium: Adaptation and Mitigation. May 3-5, 2015, Chicago, IL, USA.
27. Guse, B., M. Pfannerstill, M. Strauch, D. Reusser, **M. Volk** & N. Fohrer (2015): Maximising diagnostic information by relating temporal variations in parameter sensitivity to different segments of the flow duration curve. Geophysical Research Abstracts 17, EGU2015-5178, 2015. EGU General Assembly 2015 (<http://meetingorganizer.copernicus.org/EGU2015/EGU2015-5178.pdf>).
28. Franko, U., F. Witing, G. Jäckel & **M. Volk** (2014): Climate change induced carbon competition: bioenergy versus soil organic matter reproduction - an indicator based assessment. Workshop "Biomass for energy - lessons from the Bioenergy Boom", November 24 and 25, 2014, UFZ Leipzig, Germany.
29. Witing, F., J.A. Priess, M. Strauch, S. Wochele & **M. Volk** (2014): Definition and regionalization of agricultural crop production systems on large scales - an integrated approach for environmental modeling and assessment. Workshop "Biomass for energy - lessons from the Bioenergy Boom", November 24 and 25, 2014, UFZ Leipzig, Germany.
30. Lautenbach, S., **M. Volk**, M. Strauch, G. Whittaker & R. Seppelt (2014): Water related trade-offs of different crop production schemes for biogas production in a German case study. Workshop "Biomass for energy - lessons from the Bioenergy Boom", November 24 and 25, 2014, UFZ Leipzig, Germany.

31. Locher, K., S. Lautenbach, **M. Volk** & B. Waske (2014): Spatial-Temporal Analysis Of Forest Ecosystem Services In The South Of Chile. XXIV IUFRO World Congress "Sustaining Forests, Sustaining People: The Role of Research. October 5 – 11 2014, Salt Lake City, USA.
32. Strauch, M. & **M. Volk** (2014): Setting up SWAT for the Upper Amazon. SWAT 2014 Conference, 30 July – 01 August, 2014, Porto de Galinhas, Pernambuco, Brazil. Book of Abstracts: 6 (<http://swat.tamu.edu/media/99100/book-of-abstracts-final-2014-07-14.pdf>).
33. Schweppe, R., M. Strauch & **M. Volk** (2014): Minimizing spatial error in HRU aggregation. SWAT 2014 Conference, 30 July – 01 August, 2014, Porto de Galinhas, Pernambuco, Brazil. Book of Abstracts: 77 (<http://swat.tamu.edu/media/99100/book-of-abstracts-final-2014-07-14.pdf>).
34. Franko, U., **M. Volk**, F. Witing & G. Jäckel (2014): Pressure from bio-energy production and climate change on SOM reproduction. European Geosciences Union. General Assembly 2014. Vienna, Austria, 27 April – 02 May 2014.
35. **Volk, M.**, S. Lautenbach, M. Strauch, F. Witing & R. Seppelt (2013): Using an integrated river basin model and an optimization algorithm for quantifying ecosystem services and trade-offs in large river basins – Challenges and potential solutions. Session H12, 20th International Congress on Modeling and Simulation (MODSIM). Adapting to change: the multiple roles of modelling. December 1-6, 2013, Adelaide, Australia. Abstracts (Eds., Piantadosi, J., R.S. Anderssen & J. Boland): 417.
36. Lautenbach, S., **M. Volk**, M. Strauch, G. Whittaker & R. Seppelt (2013): Identifying trade-offs of increasing biogas crop production in a German watershed under climate change. Session H12, 20th International Congress on Modeling and Simulation (MODSIM). Adapting to change: the multiple roles of modelling. December 1-6, 2013, Adelaide, Australia. Abstracts (Eds., Piantadosi, J., R.S. Anderssen & J. Boland): 410.
37. Möller, M. & **M. Volk** (2013): Scale- and landscape-specific updating of German soil taxation's topsoil thickness. Soils in Space and Time. September 30th - October 5th 2013, Ulm, Germany.
38. Mühlner, S., F. Witing, S. Lautenbach & **M. Volk** (2013): Using SWAT for simulating trade-offs and synergies among ecosystem services related to afforestation in a Central German Watershed. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
39. Rathjens, H., N. Oppelt, **M. Volk** & J.G. Arnold (2013): Integration of the SWAT landscape model into agrid-based setup. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
40. Strauch, M., J.E.F.W. Lima, **M. Volk**, C. Lorz & F. Makeschin (2013): Sediment load responses to simulated conservation management practices – towards water and soil protection in a Central Brazilian catchment. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
41. Bosch, D.D., J.G. Arnold, **M. Volk** & P.M. Allen (2013): SWAT Application in Low-Gradient Coastal Plain Landscapes. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
42. Witing, F. & **M. Volk** (2013): Which parameter complexity is required for a sound simulation of agricultural river basins? Investigating SWAT model sensitivity to agricultural land cover and crop rotation parameterizations. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
43. Strauch, M. & **M. Volk** (2013): SWAT plant growth modification for improved modeling and vegetation dynamics (perennials) in the tropics. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>

44. Koch, F.J., F. Schierhorn, **M. Volk** & D. Müller (2013): A large-scale SWAT application for investigating crop production potentials in Russia, Kazakhstan and the Ukraine. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
45. **Volk, M.**, S. Lautenbach, M. Strauch, F. Witing & R. Seppelt (2013): Using SWAT and an optimization algorithm for quantifying ecosystem services and trade-offs in large river basins – Challenges and potential solutions. 2013 International SWAT Conference & Workshops, Toulouse, France, 17.-19. Juli 2013, Book of Abstracts: <http://swat.tamu.edu/media/81472/Book-of-Abstracts-Post-Conference.pdf>
http://conference2013.gwsp.org/uploads/media/Volk_Water_Resources_Management_and_Ecosystem_Services_Integrating_what_needs_to_be_integrated.pdf
46. Lautenbach, S., G. Whittaker & **M. Volk** (2012): What is a good index? Problems with statistically based indicators and the Malmquist index as alternative. . 6th International Congress on Environmental Modelling and Software (iEMSs), 1-5 July 2012, Leipzig, Germany. Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty.
47. Lautenbach, S., **M. Volk**, M. Strauch, G. Whittaker & G. Whittaker (2012): Quantifying Trade-offs between Bioenergy Production, Food Production, Water Quality and Water Quantity Aspects in a German Case Study. . 6th International Congress on Environmental Modelling and Software (iEMSs), 1-5 July 2012, Leipzig, Germany. Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty.
48. Hernandez-Santiago, C. & **M. Volk** (2012): Semi-automatic delineation of Buffer Zones for protected areas: A contribution from species distribution modelling . 6th International Congress on Environmental Modelling and Software (iEMSs), 1-5 July 2012, Leipzig, Germany. Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty.
49. Sojda, R., S.H. Chen, S. El Sawah, J. Guillaume, A. Jakeman, S. Lautenbach, B. McIntosh, A.E. Rizzoli, R. Seppelt, P. Struss, A. Voinov & **M. Volk** (2012): Identifying the decision to be supported: A review of papers from Environmental Modelling & Software. . 6th International Congress on Environmental Modelling and Software (iEMSs), 1-5 July 2012, Leipzig, Germany. Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty.
50. Hernandez-Santiago, C., **M. Volk** & J. Priess (2012): Impacts of human settlements on coastal landscapes. Case of Rio Verde Basin, Mexico. . 6th International Congress on Environmental Modelling and Software (iEMSs), 1-5 July 2012, Leipzig, Germany. Managing Resources of a Limited Planet: Pathways and Visions under Uncertainty.
51. **Volk, M.**, S. Lautenbach, M. Strauch & G.W. Whittaker (2012): Quantifying tradeoffs between water availability, water quality, food production and bioenergy production in a Central German Catchment. Geophysical Research Abstracts. Vol. 14, EGU2012-3364, 2012. EGU General Assembly 2012: <http://meetingorganizer.copernicus.org/EGU2012/EGU2012-3364.pdf>
52. Lautenbach, S., M. Strauch, G. Whittaker & **M. Volk** (2011): Wasserverfügbarkeit, Wasserqualität, Nahrungsmittelproduktion und Bioenergie – Quantifizierung von Zielkonflikten im Parthe-Einzugsgebiet. (Vortrag gehalten von M. Volk) 15. Workshop der Großskaligen Hydrologische Modellierung. 02. - 04. November 2011. Innsbruck-Igls (Österreich).
53. **Volk, M.** & A. Ullrich (2011): Changing land management practices during model calibration and evaluation periods – importance, impact and interpretation. 2011 International SWAT Conference & Workshops, 15-17 June 2011. Toledo, Spain. Book of Abstracts: 6 (<http://swatmodel.tamu.edu/media/41296/book-of-abstracts.pdf>)
54. Witing, F. & **M. Volk** (2011): Comparing Different Model Calibration Strategies for Improved Representation of Landscape Conditions in SWAT at the Example of a Large Heterogeneous Catchment. 2011 International SWAT Conference & Workshops, 15-17 June 2011. Toledo, Spain. Book of Abstracts: 84 (<http://swatmodel.tamu.edu/media/41296/book-of-abstracts.pdf>)
55. Lautenbach, S., **M. Volk**, M. Strauch & G. Whittaker (held by M. Volk, 2011): Quantifying trade-offs between bioenergy production, food production, water quality and water quantity aspects in a German case study. 2011 International SWAT Conference & Workshops, 15-17 June 2011. Toledo, Spain. Book of Abstracts: 45 (<http://swatmodel.tamu.edu/media/41296/book-of-abstracts.pdf>)

56. Strauch, M., **M. Volk**, C. Bernhofer, S. Koide, C. Lorz & F. Makeschin (2011): Using Precipitation Data Ensemble and Bayesian Model Averaging for Uncertainty Analysis in Hydrologic Modeling. 2011 International SWAT Conference & Workshops, 15-17 June 2011. Toledo, Spain. Book of Abstracts: 7 (<http://swatmodel.tamu.edu/media/41296/book-of-abstracts.pdf>)
57. Bonuma, N.B., J.G. Arnold, P.M. Allen, C.H.G. Rossi, **M. Volk** & J.M. Reichert (2011): Integration of a landscape sediment deposition routine into SWAT model. 2011 International SWAT Conference & Workshops, 15-17 June 2011. Toledo, Spain. Book of Abstracts: 88 (<http://swatmodel.tamu.edu/media/41296/book-of-abstracts.pdf>)
58. Strauch, M., A. Ullrich, C. Lorz & **M. Volk** (2010): Auswirkungen von Klimaänderungen und Energiepflanzenanbau auf den Wasser- und Stickstoffhaushalt im Parthe-Einzugsgebiet – Modellierung mit SWAT. In: Kaiser, K., J. Libra, B. Merz, O. Bens & R.F. Hüttl (Hrsg.), 2010. Aktuelle Probleme im Wasserhaushalt von Nordostdeutschland: Trends, Ursachen, Lösungen. Scientific Technical Report 10/10. Deutsches GeoForschungsZentrum, Potsdam.
59. Lautenbach, S., **M. Volk**, B. Gruber, C.F. Dormann, M. Strauch & R. Seppelt (2010): Quantifying Ecosystem Service Trade-Offs. International Environmental Modelling and Software Society (iEMSs) 2010 International Congress on Environmental Modelling and Software Modelling for Environment's Sake, Fifth Biennial Meeting, Ottawa, Canada David A. Swayne, Wanhong Yang, A. A. Voinov, A. Rizzoli, T. Filatova (Eds.) <http://www.iemss.org/iemss2010/index.php?n=Main.Proceedings> (Session S 06; PEER reviewed)
60. Strauch, M., A. Ullrich, C. Lorz & **M. Volk** (2009). Simulating the effects of climate change and energy crop production on catchment hydrology and water quality using SWAT. In: Twigg, K., C. Swyden & R. Srinivasan (Eds., 2009). 2009 International SWAT Conference. Conference Proceedings. August 5-7, 2009. University of Colorado at Boulder. Boulder, Colorado, USA. Texas Water Resources Institute Technical Report No. 356: 141-150. <http://swatmodel.tamu.edu/>
61. Lautenbach, S., **M. Volk**, A. Ullrich & R. Seppelt (2009). Quantifizierung von Ökosystemdienstleistungen in der integrierten hydrologischen Modellierung – Vision, Stand und Herausforderungen. Hydrologische Modellierung zur Bewertung von Ökosystemdienstleistungen und Landschaftsfunktionen. 13. Workshop der Großskaligen Hydrologischen Modellierung. 25. – 27. November 2009. Dresden: 11.
62. Ribarova, I., P. Ninov, **M. Volk**, F. Melone, T. Moramarco, E. Safiolea, Y. Panagopoulos, M. Zdralewicz, N. Berni & A. Ghinescu (2009). Comparison of eight rainfall-runoff models for Floyd simulations. In: Boxall, J. & C. Maksimovic (Eds.): Integrating Water Systems – Proceedings of the Tenth International Conference on Computing and Control in the Water Industry. Taylor and Francis, 755-761. ISBN: 978-0-415-54851-9
63. **Volk, M.** (2009). Influence of uncertainties in nitrate-N monitoring data on SWAT model calibration and evaluation. 2009 International SWAT conference. August 5-7, 2009. University of Colorado at Boulder. Boulder, Colorado, USA. Book of Abstracts: 52. http://www.brc.tamus.edu/swat/conf_5th.html
64. Arnold, J., P. Allen, **M. Volk**, C. Rossi, J. Williams & D. Bosch (2009). Simulation of Landscape Processes in SWAT. 2009 International SWAT conference. August 5-7, 2009. University of Colorado at Boulder. Boulder, Colorado, USA. Book of Abstracts: 61. http://www.brc.tamus.edu/swat/conf_5th.html
65. Bosch, D., J. Arnold & **M. Volk** (2009). Simulation of a Heavily Buffered Watershed using the SWAT Landscape Model. 2009 International SWAT conference. August 5-7, 2009. University of Colorado at Boulder. Boulder, Colorado, USA. Book of Abstracts: 62. http://www.brc.tamus.edu/swat/conf_5th.html
66. Willaarts, B.A., P.A. Aguilera, B. Martín-López & **M.Volk** (2008): Consecuencias eco-hidrológicas asociadas a los cambios en las coberturas de vegetación en paisajes adherados mediterráneos e implicaciones en el suministro de servicios de los ecosistemas. - VII Simposio del Agua en Andalucía (SIAGA), Baeza (Jaen), 28 a 30 Mayo de 2008 (Proceedings).
67. Liersch, S. & **M. Volk** (2008): A rainfall-runoff database to support flood risk assessment. iEMSs 2008: International Congress on Environmental Modelling and Software. In: M.

- Sánchez-Marrè, J. Béjar, J. Comas, A. Rizzoli and G. Guariso (Eds.): Proceedings of the iEMSs Fourth Biennial Meeting: International Congress on Environmental Modelling and Software (iEMSs 2008). International Environmental Modelling and Software Society, Barcelona, Catalonia, July 2008. Vol. 1: 494-502. ISBN: 978-84-7653-074-0. <http://www.iemss.org/iemss2008/uploads/Main/Vol1-iEMSs2008-Proceedings.pdf> (PEER reviewed).
68. Pause, M., **M. Volk** & K. Schulz (2008): Radar-based surface soil moisture retrieval over agricultural used sites – A multi-sensor approach. In: M. Sánchez-Marrè, J. Béjar, J. Comas, A. Rizzoli and G. Guariso (Eds.): Proceedings of the iEMSs Fourth Biennial Meeting: International Congress on Environmental Modelling and Software (iEMSs 2008). International Environmental Modelling and Software Society, Barcelona, Catalonia, July 2008. Vol. 1: 415-421. ISBN: 978-84-7653-074-0. <http://www.iemss.org/iemss2008/uploads/Main/Vol1-iEMSs2008-Proceedings.pdf> (PEER reviewed).
 69. Ullrich, U., **M. Volk** & G. Schmidt (2008): Influence of the uncertainties of monitoring data on model calibration and evaluation. In: M. Sánchez-Marrè, J. Béjar, J. Comas, A. Rizzoli and G. Guariso (Eds.): Proceedings of the iEMSs Fourth Biennial Meeting: International Congress on Environmental Modelling and Software (iEMSs 2008). International Environmental Modelling and Software Society, Barcelona, Catalonia, July 2008. Vol. 1: 544-552. ISBN: 978-84-7653-074-0. <http://www.iemss.org/iemss2008/uploads/Main/Vol1-iEMSs2008-Proceedings.pdf> (PEER reviewed).
 70. Ullrich, A. & **M. Volk** (2008): Influence of the parametrisation of land management practices and the uncertainty of monitoring data on SWAT model calibration and evaluation. - Geophysical Research Abstracts, Vol. 10, EGU2008-A-04581, EGU General Assembly 2008. <http://www.cosis.net/abstracts/EGU2008/04581/EGU2008-A-04581.pdf>
 71. **Volk, M.**, J.G. Arnold, D.D. Bosch, P.M. Allen & C.H. Green (2007): Watershed Configuration and Simulation of Landscape Processes with the SWAT Model. - In Oxley, L. and Kulasiri, D. (eds) MODSIM 2007 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2007, p. 2383-2389, ISBN: 978-0-9758400-4-7. http://www.mssanz.org.au/modsim07/papers/43_s47/Watersheds47_Volk_.pdf
 72. Liersch, S. & **M. Volk** (2007a): How realistic ist he Implementation of the European Water Framework Directive in River Basins Dominated by Agriculture? The Example of the Upper Ems River Basin (Germany). In: Srinivasan, R. (Eds., 2007): 4rd International SWAT Conference Proceedings, Delft, The Netherlands: 231-239.
 73. Liersch, S. & **M Volk** (2007b): Towards Empirical Knowledge as Additional Information in Data Based-flood Forecasting Techniques. - In Oxley, L. and Kulasiri, D. (eds) MODSIM 2007 International Congress on Modelling and Simulation. Modelling and Simulation Society of Australia and New Zealand, December 2007, p. 1603-1609. ISBN: 978-0-9758400-4-7. http://www.mssanz.org.au/MODSIM07/papers/24_s17/TowardsEmpirical_s17_Liersch_.pdf
 74. Bosch, D.D., J.G. Arnold & **M. Volk** (2007): SWAT Revisions for Simulating Landscape Components and Buffer Systems. – 2007 ASABE Annual International Meeting, June 17-20, 2007, Minneapolis, Minnesota. ASABE Meeting presentation. Paper number: 072175.
 75. Lorz, C., **M. Volk** & G. Schmidt (2006): Implementing Spatial Distribution and Functionality of Forests in Models for River Basin Management. - In: Fürst, C., V. Janecek, C. Lorz, F. Makeschin, V. Podrazky & H. Vacik (Eds., 2006): Future-oriented Concepts, Tools and Methods for Forest Management and Forest Research Crossing European Borders. Proceeding of the Virtual Conference ForwardFORESTS. – Forstwissenschaftliche Beiträge Tharandt 28: 241-248.
 76. **Volk, M.**, J.G. Arnold, P.M. Allen & P.-Y. Chen (2006): Towards a process-oriented HRU-concept in SWAT: Catchment-related control on base flow and storage of Landscape units in medium to large river basins. - In: Srinivasan, R., J. Jacobs, D. Day & K. Abbaspour (Eds., 2006): 3rd International SWAT Conference Proceedings, Zürich. Conference Book: 159-168.
 77. Schmidt, G. & **M. Volk** (2006): Effects of the input data resolution on SWAT simulations - A case study at the Ems River Basin (Northwestern Germany). - In: Srinivasan, R., J. Jacobs, D. Day & K. Abbaspour (Eds., 2006): 3rd International SWAT Conference Proceedings, Zürich. Conference Book: 241-250.

78. Petry, D., I. Bräuer, U. Franko, K. Hennrich, F. Hesser, B. Klauer, S. Morgenstern, M. Rode, J. Schiller, G. Schmidt, **M. Volk**, D. Wagenschein & G. Wenk (2005): Integrated Assessment for Setting Up Programmes of Measures Pursuant the WFD. In: EWRA European Water Resources Association (ed.): Sharing a common vision for our water resources, 6th International Conference, Menton, France, 7-10 September 2005, Conference Proceedings.
79. **Volk, M.**, J.G. Arnold, P.M. Allen & P.-Y. Chen (2005): Towards a process-oriented HRU-concept in SWAT: Catchment-related control on base flow and storage of Landscape units in medium to large river basins. – In: Abbaspour, K. & R. Srinivasan (Eds., 2005): 3rd International SWAT Conference, July 11-15, Zürich. Book of Abstracts: 43.
80. **Volk, M.**, G. Schmidt, K. Schulz, R. Seppelt, D. Haase & A. Ullrich (2005): The dilemma of modelling the environmental effects of land use in multifunctional river basins. – In: International Conference: Multifunctionality of Landscapes – Analysis, Evaluation, and Decision Support. May 18-19 2005, Justus-Liebig-University of Giessen, Germany Abstracts: 74.
81. Schmidt, G. & **M. Volk** (2005): Effects of the spatial resolution of input data on SWAT simulations. – In: Abbaspour, K. & R. Srinivasan (Eds., 2005): 3rd International SWAT Conference, July 11-15, Zürich. Book of Abstracts: 52.
82. **Volk, M.**, P.M. Allen & J.G. Arnold (2004): Topographic controls on storage of Landscape units in medium to large river basins. – In: Lowrance, R. (Ed., 2004): Proceedings of the American Water Resources Association 2004 Summer Specialty Conference. Riparian Ecosystems and Buffers: Multi-Scale Structure, Function, and Management, Olympic Valley, California, June 28-30th, 2004 (CD-ROM).
83. **Volk, M.** & G. Schmidt (2004): The model concept in the project FLUMAGIS: Scales, simulation and integration. – In: Srinivasan, R., J.H. Jacobs & R. Jensen (Eds., 2004): 2nd International SWAT Conference Proceedings. – TWRI Technical Reports 266: 236-248.
84. Schmidt, G., O. Gretzschel, **M. Volk** & M. Uhl (2004): Emissionsbilanzierung als Grundlage der Maßnahmeableitung im Projekt FLUMAGIS. – In: Bronstert, A., A. Thieken, B. Merz, M. Rode & L. Menzel (Hrsg., 2004): Forum für Hydrologie und Wasserwirtschaft 5, 04: 145-159.
85. Gretzschel, O., G. Schmidt, M. Uhl & **M. Volk** (2004): Der Umgang mit der Skalenproblematik bei der Modellierung des Wasserhaushaltes im Projekt FLUMAGIS. – In: Bronstert, A., A. Thieken, B. Merz, M. Rode & L. Menzel (Hrsg., 2004): Wasser- und Stofftransport in heterogenen Einzugsgebieten. – Forum für Hydrologie und Wasserwirtschaft 5, 04: 105-108.
86. Haase, D., D. Thormann, M. Rosenberg & **M. Volk** (2003): GIS-gestützte Erfassung und Bewertung des Landnutzungswandels unter Berücksichtigung ausgewählter Landschaftsfunktionen. – In: Wollkopf, H.-F. & R. Diemann (Hrsg., 2003): Historische Landnutzung im thüringisch-sächsisch-anhaltinischen Raum. – Peter Lang Verlag: 124-138.
87. Haase, D., T. Weichel & **M. Volk** (2003): Approaches towards the analysis and assessment of the disastrous floods in Germany in August 2002 and consequences for land use and retention areas. – CONGEO'03: 51-59.
88. Haase, D., **M. Volk** & S. Gerber (2003): Modelling and assessing acidification in arable and forest soils of large river basins. – In: Institut fuer Grundwasserwirtschaft & Institut fuer Geologie, Mineralogie und Geophysik der Ruhr-Universitaet Bochum (Eds., 2003): Diffuse Input of Chemicals into Soils and Groundwater – Assessment. – Workshop in Dresden, February 26 – 28, 2003: 175-187.
89. Schmidt, G., O. Gretzschel, **M. Volk** & M. Uhl (2002): Ein Konzept zur skalenspezifischen Modellierung des Wasser- und Stoffhaushaltes im Projekt FLUMAGIS. – Abstractband zum 6. Workshop zur großskaligen Modellierung in der Hydrologie, 28. bis 29.11.2002 in Magdeburg, UFZ-Umweltforschungszentrum Leipzig-Halle, Projektbereich Fluss- und Seenlandschaften.
90. Haase, D. & **M. Volk** (2002): Zur Bedeutung und Erfassung der landschaftlichen Regulationsfunktion in verschiedenen Landschaftstypen eines mesoskaligen Einzugsgebietes – das Beispiel der Saale. – In: Universität Potsdam, VGöD (2002): Landschaften im Wandel – eine Herausforderung für die Geoökologie. – Geoökon 2002, 4. Kongress für Geoökologie, 4. bis 6. Juli 2002, Universität Potsdam, Abstractband: 20-21 (http://www.uni-potsdam.de/u/Geoökologie/download/Abstract_Teil2.pdf)

91. Möller, M., B. Sonnabend & **M. Volk** (2002): Verfahren der digitalen Reliefanalyse zur Ableitung bodenkundlich relevanter Konturen auf verschiedenen Skalenebenen. – In: Balaske, P. & K.-J. Hartmann (Eds., 2002): Tagungsband zum 2. Workshop „Anwendung von Geodaten – Bedarf, Auswahl und Bereitstellung“, Halle/Saale, 05.-06. Juni 2002, AG Informationssysteme in der Bodenkunde der Deutschen Bodenkundlichen Gesellschaft und Landesamt für Geologie und Bergwesen Sachsen-Anhalt: 29.
92. **Volk, M.**, U. Steinhardt, A. Lausch, D. Haase, M. Möller, K. Frotscher & M. Rosenberg (2002): Land use and landscape pattern in mesoscale watersheds: Analysis and assessment of their interactions and impacts on processes with regard to the EU water framework directive. - Geophysical Research Abstracts, Volume 4, 2002, 27th General Assembly, European Geophysical Society (CD-ROM). ISSN:1029-7006.
93. Haase, D. & **M. Volk** (2001): An integrated nested approach for the assessment of landscape functions in mesoscale watersheds – The landscape's retention capability. – In: Hlavinkova, P. & J. Munzar (Eds., 2001): The 4th Moravian Geographical Conference CONGEO '01: Nature and society in regional context, 10. - 14. September 2001: 44-51, Tisnov, Czech Republic.
94. Schmidt, T., U. Franko & **M. Volk** (2001): Einfluß der Landnutzung auf die Nitrat-Konzentration im Sickerwasser. - Bericht über die 9. Lysimetertagung "Gebietsbilanzen bei unterschiedlicher Landnutzung", Gumpenstein, 24.-25.04.2001, Bundesanstalt für alpenländische Landwirtschaft, Irdning: 227-228.
95. Steinhardt, U. & **M. Volk** (2001a): Mesoscale landscape analysis on the base of investigations of water balance and water-bound material fluxes: Problems and hierarchical approaches for their resolution. – In: Mander, Ü., A. Printsman & H. Palang (Eds., 2001): IALE European Conference 2001: Development of European Landscapes. Conference Proceedings. Volume II – Publicationes Instituti Geographici Universitatis Tartuensis 92: 173-177.
96. Steinhardt, U. & **M. Volk** (2001b): Mesoskalige Landschaftsanalyse - Theorie und Wirklichkeit: Probleme und Lösungsansätze. – In: Beierkuhnlein, C., R. Biedermann, J. Breuste, F. Dollinger, M. Kleyer, C. Peppler-Liesbach, M. Potschin, B. Schröder, U. Steinhardt & R.-U. Syrbe (Eds., 2001): Landschaften als Lebensraum. Analyse-Bewertung-Planung-Management, Tagungsband der 2. Jahrestagung der IALE-Region Deutschland, 13.-15. September 2001, Oldenburg: 45-47.
97. **Volk, M.**, U. Steinhardt & S. Liersch (2001): Using ArcView-SWAT for integrated landscape analysis on different spatio-temporal scales. - International SWAT Conference, August 13-17, 2001 in Rauischholzhausen, Abstracts: 28.
98. **Volk, M.**, U. Franko, T. Schmidt, F. Herzog & M. Neubert (2001): Modelling the impact of land use changes on the groundwater quantity and quality as a base for multicriteria ecological-socioeconomic assessment in a mesoscale watershed. – In: Hlavinkova, P. & J. Munzar (Eds., 2001): The 4th Moravian Geographical Conference CONGEO '01: Nature and society in regional context, 10. - 14. September 2001: 160-168, Tisnov, Czech Republic.
99. Garcia, G.J., **M. Volk**, R. Krönert, & M. Rode (2000): An integrated approach for the investigation of impacts of land use changes on soil and water in the Corumbataí watershed, SP, Brazil. – In: German-Brazilian Workshop on Neotropical Ecosystems. Achievements and Prospects of Cooperative Research. Program and Abstracts: 47, Hamburg.
100. Steinhardt, U. & **M. Volk** (2000): Posterabstract: Von der Makropore zum Flußeinzugsgebiet – Hierarchische Ansätze zum Verständnis des landschaftlichen Wasser- und Stoffhaushaltes. – In: Beierkuhnlein, C., J. Breuste, F. Dollinger, R. Lenz, M. Potschin, U. Steinhardt & R.-U. Syrbe (Eds., 2000): Zukunft mitteleuropäischer Kulturlandschaften. Analyse – Bewertung – Planung – Management. Tagungsband mit Kurzfassungen der Beiträge zur 1. Jahrestagung der IALE-Region Deutschland, Nürtingen 20.-22.Juli 2000: 94-95.
101. Garcia, G.J., **M. Volk**, R. Krönert, F. Herzog & M. Rode (1999): Impact of land use on the water balance, soil erosion and water quality. - Workshop "Sustainable management of water resources in Brazil" in Hannover, 28. - 29.09.1999., Programme and Abstracts: 28-30.
102. Steinhardt, U. & **M. Volk** (1999): Skalenspezifische Ansätze zur Quantifizierung wassergebundener Stoffflüsse im mitteldeutschen Raum. – In: Flake, M., R. Seppelt & D. Söndgerath (Eds., 1999): Umweltanalyse. Dynamik natürlicher und anthropogener Systeme und ihre

Wechselwirkungen, Tagungsband GEOöKon '99, 14. bis 16. Oktober 1999, Braunschweig. - Landschaftsökologie und Umweltforschung 33: 327-331.

103. **Volk, M.** (1999a): Interactions between landscape balance and land use in the Dessau, region: An hierarchical approach. – In: Hlavinkova, P. & J. Munzar (Eds., 1999): Regional Prosperity and Sustainability. Proceedings of the 3rd Moravian Geographical Conference CON-GEO'99: 201-209. Slavkov u Brna, Czech Republic. (*reviewed*).
104. **Volk, M.** (1999b): GIS-gekoppelte Wasser- und Stoffhaushaltsmodellierung im mitteldeutschen Raum: Ein hierarchisches Verfahren. - Fachtagung: GIS im Natur- und Umweltschutz. - Schneverdingen, 13.10. bis 14.10.1999: Abstracts.
105. Steinhardt, U. & **M. Volk** (1998): Wasser- und Stoffhaushalt auf mesoskaliger Ebene: Modellierung, Bewertung und Visualisierung. - GEOSYSTEMS-Fachtagung 1998: Modellierung und Visualisierung von räumlichen dynamischen Prozessen, CD-ROM.
106. **Volk, M.** (1998a): Landscape development, landscape balance and integrated land use in the region Bitterfeld-Dessau-Wittenberg. - In: The Earth's Changing Land. GCTE-LUCC Open Science Conference on Global Change, Barcelona, Spain. 14-18 March 1998: 308.
107. **Volk, M.** (1998b): Integrated landscape development strategies for the Dessau region, Eastern Germany: concepts and cooperation with governmental authorities. - IGU Regional Conference 98, Commission „Geography and Public Administration: Restructuring and Reform of Local and Regional Services“, 31.08. - 02.09.1998, Lisbon, Portugal, Abstracts.
108. **Volk, M.** (1998c): Nutzung von GIS bei der Entwicklung von Konzepten zur regionalen Landschaftsentwicklung im Regierungsbezirk Dessau: Kooperation zwischen Forschung und Praxis. - Fachtagung: GIS im Natur- und Umweltschutz. - Schneverdingen, 07.10. bis 08.10.1998: Abstracts.
109. **Volk, M.** (1997): Geomorphology and dynamics of a glaciated coastal area, Liefde- and Bockfjorden, Northern Spitsbergen (Svalbard). - In: Program and Abstracts 27th Arctic Workshop 27.02 - 02.03.1997: 232-234, Ottawa, Kanada (*reviewed*).
110. **Volk, M.** & U. Steinhardt (1996): Erstellung und Anwendung von Digitalen Geländemodellen mit ERDAS Imagine und ARC/Info. - GUGM'96 – Geosystems User Group Meeting 1996 in Germering, 08.-10.10.1996, Abstracts.
111. King, L., **M. Volk**, E. Schmitt & J. Knies (1993a): Glazialmorphologie und -ökologie, Liefde- und Bockfjord, Nordwestspitzbergen. - In: Programm der Internationalen Polartagung in Obergurgl im September 1993.
112. King, L., **M. Volk**, E. Schmitt & J. Knies (1993b): Glazialmorphologie und -ökologie, Liefde- und Bockfjord, Nordwestspitzbergen. - In: Programm des Deutschen Geomorphologentages in Regensburg im September 1993.
113. King, L., E. Schmitt, **M. Volk**, D. Wollesen & J. Knies (1992): Poster abstract: Glacial geomorphology and ecology, Liefdefjord, Northwest Spitsbergen. - In: PONAM. Third annual workshop, Wildeshausen, Germany, 23.-26. November 1992. Programmes, Abstracts, European Science Foundation.
114. King, L., **M. Volk**, E. Schmitt & R. Glock (1991): Glazialmorphologie und Glazialökologie am Liefdefjorden, Nordspitzbergen: Formen, Prozesse, Mikroklima. - In: Programme of the 16th International Polarmeeeting, Göttingen, 10-13. April 1991. Deut. Ges. f. Polarforschung.