

LIST OF PUBLICATIONS

MARTIN WORBES

Cites

Web of science > 1500
h-index 19
Research Gate > 2000

Peer review papers and book chapters

1. Wagner, F.H., Herault, B., ..., Worbes, M. et al. (2016) Climate seasonality limits leaf carbon assimilation and wood productivity in tropical forests. *Biogeosciences*, 13, 2537-2562.
2. Kacholi, D.S., Whitbread, A.M., Worbes, M. (2015) Diversity, abundance and structure of tree communities in the Uluguru forests in the Morogoro region, Tanzania. *J. Forestry Research* (DOI) [10.1007/s11676-015-0078-0](https://doi.org/10.1007/s11676-015-0078-0)
3. Tupitsa, A., Lamers, J.P.A, Khamzina, A., Botman, E., Worbes, M., Martius, C., Vlek, P.L.G. (2014) Adaptation of photogrammetry for tree hedgerow and windbreak assesment in the irrigated croplands of the Khorezm region. In: Lamers, J.P.A. et al.: Restructuring land allocation, water use and agricultural value chains. Bonn University Press: 135-152.
4. Newbery D.M., van der Burgt, X.M., Worbes, M. & Chuyong, G.B. (2013) Transient dominance in a central African rain forest. *Ecological Monographs* 83 (3): 339-382
5. Orikiriza, J.L.B., Agaba, H., Eilu, G., Kabasa, J.D., Worbes, M. & A. Hüttermann (2013) Effects of hydrogels in tree seedling performance in temperate soils before and after water stress. *Journal of Environmental Protection* 4: 713-721.
6. Worbes, M., Blanchart, S., Fichtler, E. (2013). Relations between water balance, wood traits and phenological behavior of tree species from a tropical dry forest in Costa Rica - a multifactorial study. *Tree Physiology* 33:527-536.
7. Worbes, M., Raschke, N. (2012). Carbon allocation in a Costa Rican dry forest derived from tree ring analysis. *Dendrochronologia*. 231-238
8. Fichtler, E., Worbes M. (2012): Wood anatomical variables in tropical trees and their relation to site conditions and individual tree morphology. *IAWA Journal*. 33: 119-140.
9. Agaba, H. et al.; (2011): Hydrogel Amendment to Sandy Soil Reduces Irrigation Frequency and Improves the Biomass of *Agrostis stolonifera*. *Agricultural Sciences* 2(4) 544-550.
10. Getzin, S., Worbes, M., Wiegand, T., Wiegand, K. (2011): Size dominance regulates tree spacing more than competition within height classes in tropical Cameroon. *Journal of Tropical Ecology* 27: 93-102.
11. Fichtler, E., Helle, G., Worbes, M. (2010): Stable-carbon isotope time series from tropical tree rings indicate a precipitation signal. *Tree-Ring Research*. 66: 35-49.
12. Worbes, M., Fichtler, E. (2010): Wood anatomy, tree ring structure of the stem and their importance for tropical dendrochronology. In: Junk, W.J., Piedade, M.F.T., Parolin, P., Wittmann, F., Schöngart, J. (eds.): *Central Amazonian Floodplain Forests - Ecophysiology, Biodiversity and Sustainable Management*. *Ecological Studies*: 329-346.
13. Schöngart, J., Wittmann, F., Worbes, M. (2010): Biomass and NPP of Central Amazonian floodplain forests. In: Junk, W.J., Piedade, M.F.T., Parolin, P., Wittmann, F. Schöngart,

- J. (eds.): Central Amazonian Floodplain Forests. Ecophysiology, Biodiversity and Sustainable Management. Ecological Studies: 347-388.
14. Gebrekirstos, A., Worbes, M., Teketay, D., Fetene, M., Mitlöhner, R. (2009): Stable carbon isotope ratios in tree rings of co-occurring species from semi-arid tropics in Africa: patterns and climate signals. *Global and Planetary Change* 66: 253-260
 15. Gebrekirstos, A., Mitlöhner, R., Teletay, T., Worbes, M. (2008): Climate–growth relationships of the dominant tree species from semi-arid savanna woodland in Ethiopia. *Trees – Structure and Function*. DOI 10.1007/s00468-008-0221-z
 16. Schöngart, J., Wittmann, F., Worbes, M., Piedade, M.T.F., Krambeck, H.J. & W.J. Junk (2007) Management criteria for *Ficus insipida* Willd. (Moraceae) in Amazonian white-water floodplain forests defined by tree-ring analysis. *Ann. For. Sci.* 64: 657-664.
 17. Khamzina, A., Lamers, J.P.A., Martius, C., Worbes, M., Vlek, P.L.G. (2006): Potential of nine multipurpose tree species to reduce saline groundwater tables in the lower Amu Darya River region of Uzbekistan. *Agroforest Syst* 68 (2). 151-165.
 18. Khamzina, A., Lamers, J.P.A., Worbes, M., Botman, E., Vlek, P.L.G. (2006): Assessing the potential of trees for afforestation of degraded landscapes in the Aral Sea Basin of Uzbekistan. *Agroforest Syst* 66 (2). 129-141.
 19. Lamers, J.P.A., Khamzina, A., Worbes, M. (2006): The analyses of physiological and morphological attributes of 10 tree species for early determination of their suitability to afforest degraded landscapes in the Aral Sea Basin of Uzbekistan. *Forest Ecol Manag* 221. 249-259.
 20. Ortiz, J., Hernández, L., Worbes, M. (2006): Crecimiento radial de Tachigali y Terminalia en bosques de tierra baja al sureste de Venezuela. *Acta Bot Ven* 29 (2). 211-234.
 21. Schöngart, J., Orthmann, B., Hennenberg, K.J., Porembski, S., Worbes, M. (2006): Climate-growth relationships of tropical tree species in West Africa and their potential for climate reconstruction. *Global Change Biology* 12 (7). 1139-1150.
 22. Wittmann, F., Schöngart, J., Montero, J.C., Motzer, T., Junk, W.J., Piedade, M.T.F., Queiroz H.L., Worbes, M. (2006): Tree species composition and diversity gradients in white-water forests across the Amazon Basin. *J Bio Geogr* 33 (8). 1334-1347.
 23. Wittmann, F., Schöngart, J., Parolin, P., Worbes, M., Piedade, M.T.F., Junk, W.J. (2006): Wood specific gravity of trees in Amazonian white-water forests in relation to flooding. *IAWA J* 27 (3): 255-268.
 24. Schöngart, J., Piedade, M.T.F., Wittmann, F., Junk, W.J., Worbes, M. (2005): Wood growth patterns of *Macrolobium acaciifolium* (Benth.) Benth. (Fabaceae) in Amazonian black-water and white-water floodplain forests. *Oecologia* 145. 454-461.
 25. Fichtler, E., Trouet, V., Beeckman, H., Coppin, P., Worbes, M. (2004): Climate signals in tree rings of *Burkea africana* and *Pterocarpus angolensis* from semiarid forests in Namibia. *Trees-Structure and Function* 18. 442-451.
 26. Worbes, M. (2004): Tree ring Research. In: Burley, J., Evans, J., Youngquist, J.A. (Hrsg.): *Encyclopedia of Forest Sciences*. Academic Press, Elsevier Science, New York. 586-599.
 27. Schöngart, J., Junk, W.J., Piedade, M.T.F., Hüttermann, A., Worbes, M. (2004): Teleconnection between forest growth in the Amazonian floodplains and El Niño-Southern Oscillation effect. *Global Change Biology* 10. 683-693.
 28. Fichtler E., Clark, D.A., Worbes, M. (2003): Age and long-term growth of trees in an old-growth tropical rain forest, based on analyses of tree rings and ¹⁴C. *Biotropica* 35. 306-317.
 29. Worbes, M., Staschel, R., Roloff, A., Junk, W.J. (2003): Tree Ring Analysis Reveals Age Structure, Dynamics and Wood Production of a Natural Forest Stand in Cameroon. *Forest Ecology and Management* 173. 105-123
 30. Menezes, M., Berger, U., Worbes, M. (2003): Annual Growth Rings and long-term Growth Patterns of Mangrove Trees from the Braganca Peninsula, Northern Brazil. *Wetlands Ecology and Management* 11. 233-242.
 31. Dezzeo, N., Worbes, M., Ishil, I., Herrera, R. (2003): Growth rings analysis of four tropical tree species in seasonally flooded forest of the Mapiro River, a tributary of the lower Orinoco River, Venezuela. *Plant Ecology*. 165-175

32. Worbes, M. (2002): One Hundred Years of Tree ring Research in the Tropics.- A Brief History and an Outlook to Future Challenges. *Dendrochronologia* 20/1-2. 217-231.
33. Schöngart, J., Piedade, M.F.T., Ludwigshausen, S., Horna, V., Worbes, M. (2002): Phenology and stem-growth periodicity of tree species in Amazonian floodplain forests. *Journal of Tropical Ecology* 18. 581-597
34. Piedade, M.T.F., Worbes, M., Junk, W.J. (2001): Geo-ecological controls on elemental fluxes in communities of higher plants in Amazonian floodplains. In: McClain, M. E., Victoria, R. L., Richey, J. E. (eds): *The Biogeochemistry of the Amazon Basin* Oxford University Press. 209-234.
35. Parolin, P., Worbes, M. (2000): Wood Density of Trees in Black Water Floodplains of Rio Jaú National Park, Amazonia. *Acta Amazonica* 30,3. 441-448.
36. Worbes, M. (1999): Annual growth rings, rainfall dependent growth and long-term growth patterns of tropical trees from the Forest Reserve Caparo in Venezuela. *Journal of Ecology* 87. 391-403.
37. Worbes, M. (1999): Degradación e historia de la vegetación boscosa de la Gran Sabana. *Scientia Guaianae* 9. 84-107.
38. Worbes, M., Junk, W.J. (1999): How old are Tropical Trees? The persistence of a myth. *IAWA Journal* 20,3. 255-260.
39. Hua, Q., Barbetti, M., Worbes, M., Head, J., Levchenko, V.A. (1999): Review of Radiocarbon Data from Atmospheric and Tree Ring Samples for the Period 1950-1977 AD. *IAWA Journal* 20,3. 261-284.
40. Worbes, M. (1997): The Forest Ecosystems of the Floodplains. In: Junk, W.J. (ed.): *The Amazonian Floodplains. Ecology of a Pulsing System.* Ecological Studies 126. Springer. 223-265.
41. Worbes, M. (1996): Untersuchungen zur Besiedlungsgeschichte und Sukzessionsdynamik von Gebüsch auf ehemaligen Halbtrockenrasen. *Verhandlungen Gesellschaft für Ökologie* 26. 189-196.
42. Staschel, R., Worbes, M., Roloff, A. (1996): Wachstumsdynamik von *Triplochiton scleroxylon* (K. Schum.) in einem halbimmergrünen Naturwald in Kamerun. *Verhandlungen der Gesellschaft für Ökologie* 26. 183-188.
43. Worbes, M. (1995): How to measure growth dynamics in tropical trees. - A review -. *IAWA Journal* 16. 337-351.
44. Worbes, M., Bonn, S., Riemer, T. (1995): Methoden zur Erfassung von Zuwachsverlusten und mögliche Einflußfaktoren auf das Jahresringbild von Bäumen in geschädigten Waldbeständen. *Forstwissenschaftliches Centralblatt* 114. 313-325.
45. Klinge, H., Adis, J., Worbes, M. (1995): The Vegetation of a seasonal várzea forest in the lower Solimoes River, Amazon Region of Brazil. *Acta Amazonica* 25 (3/4). 201-220.
46. Worbes, M., Klosa, D., Lewark, S. (1995): Rohdichtestruktur von Jahresringen tropischer Hölzer aus zentralamazonischen Überschwemmungswäldern. *Holz als Roh- und Werkstoff* 53. 63-67.
47. Worbes, M., Hofmann, M., Roloff, A. (1992): Wuchsdynamik der Baumschicht in einem Seggen-Kalkbuchenwald in Nordwestdeutschland (Huckstein). *Dendrochronologia* 10. 91-106.
48. Worbes, M., Staschel, R. (1992): Jahresringchronologie von Fichten aus dem Harz. *Holz als Roh- und Werkstoff* 50/3. 124.
49. Worbes, M., Klinge, H., Revilla, J.D., Martius, C. (1992): On the dynamics, floristic subdivision and geographical distribution of várzea forests in Central Amazonia. *Journal of Vegetation Science* 3. 553-564.
50. Worbes, M. (1990): Site and sample selection in tropical forests. In: Cook, E.R., Kairiukstis, L.A. (eds.): *Methods of Dendrochronology*, Kluwer Academic Publishers. 35-40.
51. Worbes, M. (1989): Growth rings, increment and age of trees in inundation forests, savannas and a mountain forest in the Neotropics. *IAWA Bull. n.s.* 10 (2). 109-122.
52. Worbes, M., Junk, W.J. (1989): Dating tropical trees by means of ¹⁴C from bomb tests. *Ecology* 70 (2). 503-507.

53. Worbes, M. (1988): Variety in structure of annual growth zones in *Tabebuia barbata* (E. Mey) Sandw., Bignoniaceae, a tropical tree species from Central Amazonian inundation forests. *Dendrochronologia* 6. 71-89.
54. Worbes, M. (1985): Structural and other adaptations to long-term flooding by trees in Central Amazonia. *Amazoniana* 9. 459-484.
55. Worbes, M. (1984): Periodische Zuwachszonen an Bäumen zentralamazonischer Überschwemmungswälder. *Naturwissenschaften* 71. 157-158.
56. Worbes, M. (1983): Vegetationskundliche Untersuchungen zweier Überschwemmungswälder in Zentralamazonien - vorläufige Ergebnisse. *Amazoniana* 8. 47-65.

Other journals

1. Worbes, M., Botman, E., Khamzina, A., Tupitsa, A., Martius, M., Lamers, P.A. (2006): Scope and constraints for tree planting in the irrigated landscapes of the Aral Sea Basin. Case studies in Khorezm Region, Uzbekistan. ZEF Discussionpaper on Development Policy Bonn. 49 pp.
2. Worbes, M. (2004): Jahresringe als retrospektive Bioindikatoren in Beweissicherungsverfahren in Wasserentnahmegebieten. *Fachliche Berichte, Hamburger Wasserwerke*. 78-82.
3. Arbeitsgruppe Forstlicher Beweissicherung (2004): Auswirkungen von Grundwasserentnahmen auf die forstliche Nutzung. Teil 1: Rechtliche Rahmenbedingungen und Voruntersuchungen. *Geofakten* 15. Niedersächsisches Landesamt für Bodenforschung. 1-8.
4. Arbeitsgruppe forstliche Beweissicherung (2004): Auswirkungen von Grundwasserentnahmen auf die forstliche Nutzung. Teil 2: Forstliches Beweissicherungsverfahren. *Geofakten* 16. Niedersächsisches Landesamt für Bodenforschung. 1-8
5. Naumer, E., Worbes, M., Stallknecht, P. (2003): Daten für den Regenwald - Bilddatenbank zur Erfassung tropischer Jahrringstrukturen. *Bioforum* 7-8. 443-445.
6. Schöngart, J., Piedade, M.F.T., Worbes, M. (2002): Successional differentiation in structure, floristic composition and wood increment of whitewater floodplain forests in Central Amazonia. In: Lieberei, R., Bianchi, H., Böhm, V., Reisdorff, C. (eds.): *Neotropical Ecosystems-Proceedings of the German-Brazilian Workshop Hamburg, 2000*. 589-606.
7. Worbes, M., Schöngart, J. (2001): Holzwirtschaft im Mamirauá-Projekt zur nachhaltigen Entwicklung einer Region im Überschwemmungsbereich des Amazonas. *Forstarchiv* 72/5. 188-200.
8. Worbes, M., Hillmann, M. (2001): Jahresringe zeigen Grundwasserabsenkungen im norddeutschen Flachland. *AFZ*. 190-192.
9. Worbes, M. (2000): Übersetzung von Teilen des Lehrbuches: *Biologie der Pflanzen* (Raven, Evert & Eichhorn) 3. Auflage ins Deutsche.
10. Worbes, M., Artmeyer, L. (1998): Dendro-ökologische Analyse von Schadstoffeinwirkungen und Schadensverlauf an Buchen und Eichen im Nahbereich eines Kaliwerkes in Ostthüringen. *Berichte des Forschungszentrum Waldökosysteme, Reihe A, Bd 154*. 43-63.
11. Worbes, M. (1997): Investigation of growth dynamics in inundation forests with tree-ring-analysis as a base for long-term and sustainable use of tropical forests, 45/46. *Plant Research and Development*. 54-75.
12. Worbes, M. (1996): Rhythmisches Wachstum und anatomisch-morphologische Anpassungen an Lebensstrategien von Bäumen in zentralamazonischen Überschwemmungswäldern. *Mitt. Deutsche Dendrologische Gesellschaft* 82. 155-172.
13. Worbes, M. (1994): Bestimmung der Holzproduktion in neotropischen Waldbeständen mit Hilfe von Jahresringuntersuchungen. *Angewandte Botanik Berichte* 5, Hamburg. 31-35.
14. Worbes, M. (1992): Occurance of seasonal climate and tree ring research in the tropics. *Lundqua Report* 34. 338-342.

15. Makowka, I., Riemer, T., Stickan, W., Worbes, M. (1992): Dendroclimatological studies on beech-trees (*Fagus sylvatica* L.) and the changing influence of climate on radial growth. *Lundqua Report* 34. 217-221.
16. Bonn, S., Worbes, M. (1991): Klimaeinfluß und abrupte Zuwachsschwankungen von Fichten und Kiefern verschiedener Höhenstufen Niedersachsens. *Berichte des Forschungszentrum Waldökosysteme*. Reihe B, Bd 30. 68 S.
17. Makowka, I., Stickan, W., Worbes, M. (1991): Jahrringbreitenmessung an Buchen (*Fagus sylvatica* L.) im Sollig; Analyse des Klimaeinflusses auf den jährlichen Holzzuwachs. *Berichte des Forschungszentrums Waldökosysteme*. Reihe B, Bd. 18. 83-159.
18. Worbes, M. (1990): Dendrochronologische Untersuchungen an Tropenbäumen. *Brasilien Dialog* 1/2. 86-94.
19. Worbes, M. (1990): Dendrochronological studies on tropical trees. *Plant Research and Development* 32. 86-98.
20. Worbes, M. (1990): Buchbesprechung: Perry D.R. (1988): *Leben im Dach des Dschungels. Ein Forscher in den Kronen des Regenwaldes*. *Spektrum der Wissenschaften* 2. 127.
21. Worbes, M. (1989): Abrupte Zuwachsreduktionen an Fichten aus dem Harz. *Forst und Holz* 10. 254-259.
22. Worbes, M. (1988): Dendrochronologische Untersuchungen an Tropenbäumen. *Forstarchiv* 6. 231-235.
23. Worbes, M., Leuschner, H.-H. (1987): Annual rings of trees from Central Amazonian inundation forests. *Proceedings Internat. Symp. Ecol. Aspects of tree-ring analysis*. 272-280.
24. Worbes, M. (1986): Lebensbedingungen und Holzwachstum in zentral-amazonischen Überschwemmungswäldern. *Scripta Geobotanica* 17. 1-112.
25. Worbes, M. (1985): Vegetation und Lebensbedingungen in der Fulda. *Philippia* 5. 206-235.