

Publications - Prof. Dr. Gerhard Gerold (since 2006 – peer reviewed)

- KLOSE, M., GRUBER, D., DAMM, B., GEROLD, G. (2014): Landslide susceptibility modeling on regional scales: the case of Lower Saxony, NW Germany. In: Sassa, K., Canuti, P., Yueping, Y. (Eds.): Landslide Science for a Safer Geoenvironment, Vol. 2: Methods of Landslide Studies, Springer, Berlin, pp. 437–442.
- KLOSE, M., GRUBER, D., DAMM, B., GEROLD, G. (2014): Spatial databases and GIS as tools for regional landslide susceptibility modeling. Zeitschrift für Geomorphologie NF 58(1): 1–36.
- GUZHA, A., NOBREGA, R., KOVACS, K., REBOLA-LICHTENBERG, J., AMORIM, R., GEROLD, G. (2014): Characterizing rainfall runoff signatures from micro catchments with contrasting land cover characteristics in Southern Amazonia. Hydrological Processes, DOI:10.1002/hyp.10161
- NOBREGA, R.; BERTAO, N.; GUZHA, A.; AMORIM, R.; GEROLD, G.; COUTO, E. (2013): Instrumentação e modelagem hidrológica em microbacias na Amazônia: uma proposta sustentável para gestão do uso do solo e dos recursos hídricos. Proceedings of XX Simpósio Brasileiro de Recursos Hídricos, Bento Gonçalves, Brazil. ABRH. November 2013. 7 p.
- NOBREGA, R.; GUZHA, A.; FREIRE, P.; SANTOS, C.; GEROLD, G. (2013): Understanding the relationship between rainfall and river discharge: trends in an Amazonian watershed. EGU General Assembly 2013, Vienna, Austria. Geophysical Research Abstracts, v. 15, EGU2013-949-3, April 2013. 1 p.
- GUZHA, A.C., NOBREGA, R., KOVACS, K., AMORIM, R.S.S., GEROLD, G. (2013): Quantifying impacts of agro-industrial expansion in Mato Grosso, Brazil, on hydrological fluxes and water related ecosystem service provision using the Soil and Water Assessment Tool (SWAT) model. Proceedings of MODSIM: Int. Congress on Modelling and Simulation, Adelaide December 2013, 7 p.
- GUZHA, A.C., NOBREGA, R., CELSO, S., GEROLD, G. (2013): Investigating discharge and rainfall variability in an Amazonian watershed: do any trends exist? Proceedings of IAHS conference, Gothenburg July 2013, IAHS Publ., 6 p.
- GUZHA, A.C., NOBREGA, R., GEROLD, G. (2013): Investigation of the hydrological controls of rainfall-runoff responses for selected micro catchments in Southern Amazonia, Brazil. Postersession in Landau, Ecohydrology.
- KRÜGER, J.P., BECKEDAHL, H., GEROLD, G., JUNGKUNST, H. (2013): Greenhouse gas emission peaks following natural rewetting of two wetlands in the southern Ukhahlamba.Drakensberg Park, South Africa. African Geographical Journal, DOI:10.1080/03736245.2013.847798
- KÖHLER, S., JUNGKUNST, H., ERASMI, S., GEROLD, G. (2013): The effects of land use change on atmospheric nutrient deposition in Central Sulawesi. ERDKUNDE, 67 (2), 109-122
- HOSSEINI, S.Z., KAPPAS, M., ZARE CHAHOUKI, M.A., GEROLD, G., ERASMI, S., RAFIEI EMAM, A. (2013): Modelling potential habitats for *Artemisia sieberi* and *Artemisia aucheri* in Poshtkouh area, central Iran using the maximum entropy model and geostatistics. Ecological Informatics 18, 61-68
- TRUONG, X.V., HEITKAMP, F., JUNGKUNST, H., REIMER, A., GEROLD, G. (2013): Simultaneous measurement of soil organic and inorganic carbon: evaluation of a thermal gradient analysis. J. Soils Sediments 8 p.; DOI 10.1007/s11368-013-0715-1
- MÜLLER, R., PISTORIUS, T., RHODE, S., GEROLD, G., PACHECO, P. (2013): Policy options to reduce deforestation based on a systematic analysis of drivers and agents in lowland Bolivia. Land Use Policy, Vol.30,1, 895-907
- MICHAEL KESSLER, M., HERTEL, D., JUNGKUNST, H., KLUGE;J., ABRAHAMCZYK, S., BOS, M., BUCHORI, D., GEROLD, G., GRADSTEIN, S.R., KÖHLER, S., LEUSCHNER, CH., MOSER, G., PITOPANG, R., SALEH, S., SCHULZE, CH., SPORN, S., STEFFAN-DEWENTER, I., TJITROSOEDIRDJO, SRI S., TSCHARNTKE, T. (2012) Can Joint Carbon and Biodiversity Management in Tropical Agroforestry Landscapes Be Optimized? Plos One 7,10 – e47192
- FADER, M., BÖHNER, J., GEROLD, G. (2012): Precipitation variability and landscape degradation in Rio Negro (Argentina). GEO-ÖKO 1-2: 05-33

KRÜGER, J.P., GEROLD, G., BECKEDAHL, H., JUNGKUNST, H. (2012): Effect of environmental conditions on methane and nitrous oxide fluxes of two South African wetlands. GEO-ÖKO 1-2: 66-88

KÖHLER, S., JUNGKUNST, H.F., GUTZLER, C., HERRERA, R., GEROLD, G. (2012): Atmospheric Ionic Deposition in tropical sites of Central Sulawesi determined by ion exchange resin collectors and bulk water collector. Water, Air & Soil Pollution, DOI 10.1007/s11270-012-1211-8

HEITKAMP, F., WENDLAND, M., OFFENBERGER, K., GEROLD, G. (2012): Implications of input estimation, residue quality and carbon saturation on the predictive power of the Rothamsted Carbon Model. Geoderma 170, 168-175

KLOSE, M., DAMM, B., GEROLD, G. (2012): Analysis of Landslide Activity and Soil Moisture in Hillslope Sediments using a Landslide Database and a Soil Water Balance Model. GEOÖKO 33/3-4: 204–231.

KLOSE, M., DAMM, B., TERHORST, B., SCHULZ, N., GEROLD, G. (2012): Wirtschaftliche Schäden durch gravitative Massenbewegungen. Entwicklung eines empirischen Berechnungsmodells mit regionaler Anwendung. 12th Congress INTERPRAEVENT Grenoble, Proceedings 12 p.

GEROLD, G. (2012): Wasserhaushalt in Regenwaldeinzugsgebieten – regionale Folgen von Landnutzungsänderung und „climate chnage“. In: Fassmann, H./Glade, Th. (Hrsg) Geographie für eine Welt im Wandel. 57. Dt. Geogr. Tag Wien, 255-281

GEROLD, G., JUNGKUNST, H. (2011): Landscape ecosystem analyses – Research challenges in the light of “global change”. GEO-ÖKO 1-2: 41-68

GIAMBELLUCA, TH.W., GEROLD, G. (2011): Hydrology and Biogeochemistry of Tropical Montane Cloud Forests. In: Levia, D.F., Carlyle-Moses, D., Tanaka, T. (Eds.) Forest Hydrology and Biogeochemistry. Springer, Ecological Studies 216: 221-260

MÜLLER, R., MÜLLER, D., SCHIERHORN, F., GEROLD, G., PACHECO, P. (2011): Proximate causes of deforestation in the Bolivian lowlands – am analysis of spatial dynamics. Regional Environmental Change: DOI: 10.1007/s10113-011-0259-0

MÜLLER, R., MÜLLER, D., SCHIERHORN, F., GEROLD, G. (2011): Spatiotemporal modeling of the expansion of mechanized agriculture in the Bolivian lowland forests. Applied Geography 31 (2): 631-640

GEROLD, G. (2010): Soil and Water Degradation following forest conversion in the humid tropics (Indonesia). In: Land Degradation and Desertification: Assessment, Mitigation and Remediation by Zdruli P, Pagliai M, Kapur S, Faz Cano A. Springer-Verlag, Berlin, 267-283

GEROLD, G., LEEMHUIS, C. (2010): Effects of „ENSO-events“ and rainforest conversion on river discharge in Central Sulawesi (Indonesia). In: Tscharntke, T., Leuschner, Ch., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (Eds.) Tropical Rainforests and Agroforests under Global Change. Springer, Berlin, 327-350

GUTZLER, C., KOEHLER, S., GEROLD, G. (2010): A comparision of throughfall rate and nutrient fluxes in rainforest and cacao plantation in Central Sulawesi, Indonesia. In: Tscharntke, T., Leuschner, Ch., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (Eds.) Tropical Rainforests and Agroforests under Global Change. Springer, Berlin, 309-326

HOHNWALD, ST., DE ABRÉU, E.M.A., KRUMMEL, T., TRAUTWEIN, J., DA VEIGA, J.B., WOLLNY, C.B.A., DE AZEVEDO, M.B.C., GEROLD, G. (2010): Degraded pasture distribution and woody enrichment strategies for pasture fertility preservation in the Bragantina region, Northe-Eastern Amazon. ERDKUNDE, 64, 17-31

JUHRBANDT, J., DUWE, TH., BARKMANN, J., GEROLD, G., MARGGRAF, R. (2010): Structure and management of cocoa agroforestry systems in Central Sulawesi across an intensification gradient. In: Tscharntke, T., Leuschner, Ch., Veldkamp, E., Faust, H., Guhardja, E., Bidin, A. (Eds.) Tropical Rainforests and Agroforests under Global Change. Springer, Berlin, 115-140

ERASMI, S., MAURER, F., PETTA, R.A., GEROLD, G., BARBOSA, M.P. (2009): Inter-annual variability of the Normalized difference vegetation index over Northeast Brazil and its relation to rainfall and El Nino southern oscillation. GEO-ÖKO 30, 185-206

GARRIDO-PEREZ, E.I., GEROLD, G. (2009): Land-use history and the origins and effects of lianas on tree communities. ERDKUNDE 63(3): 211-227

GEROLD, G. (2009): Different Land Use Impacts in Tropical Rainforests – Soil degradation and consequences for Land Rehabilitation. Advances in GeoEcology 40, 109-118

SCHINDLER, M., GEROLD, G., GERKEN, R., FISCHER, E. (2009): Überprüfung der gewässertypologischen Leitbildzuordnung der Fintau im Kontext der EG-Wasserrahmenrichtlinie. GEO-ÖKO 30, 1-18

Barkmann, J.; Glenk, K.; Keil, A.; Leemhuis, C.; Dietrich, N.; Gerold, G.; Marggraf, R. (2008) Confronting unfamiliarity with ecosystem functions: The case for an ecosystem service approach to environmental valuation with stated preference methods. Ecological Economics 65:48-62.

FISCHER, E., BOCK, M., GEROLD, G. (2008): Nutrient in- and output Fluxes of an agroforested Sub-Catchment of the Hana at the border of Tai National Park, Côte d'Ivoire. Hamburger Beiträge zur Physischen Geographie und Landschaftsökologie, 19, 49-58

GARRIDO-PEREZ, E.I., DUPUY, J.M., DURAN-GARCIA, R., UCAN-MAY, M., SCHNITZER, S., GEROLD, G. (2008): Effects of lianas and Hurricane Wilma on tree damage in the Yucatan Peninsula, Mexico. Journal of Tropical Ecology, 24, 559-562

GEROLD, G., SCHAUWE, M., BACH, K. (2008): Hydrometeorologic, Pedologic and Vegetation Patterns along an elevational transect in the montane forest of the Bolivian Yungas. DIE ERDE 139, 141-168

GEROLD, G., LEEMHUIS, C. (2008): Modelling the effects of ENSO-events and rainforest conversion on river discharge in Central Sulawesi (Indonesia) – problems and solutions for coarse spatial parameter distribution. Int. Congress on Environmental Modelling and Software Integrating Sciences and Information Technology for Environmental Assessment and Decision Making, Barcelona, 553-565

GEROLD, G. (2008): Soil, climate and vegetation of tropical montane forests – a case study from the Yungas, Bolivia. In: Gradstein, Homeier & Gansert (eds.), The tropical mountain forest. Biodiversity and Ecology Series 2, 137-162

GEROLD, G. (2008): Agrarkolonisation – Entwicklungschancen durch Globalisierung oder Raubbau natürlicher Ressourcen. Kieler Geogr. Schr., 23-52

GLATZEL, S., FORBRICH, I., KRÜGER, C., LEMKE, S., GEROLD, G. (2008): Environmental controls of greenhouse gas release in a restoring peat bog in NW Germany. Biogeosciences 5, 1-30

GUCKLAND, A., GLATZEL, ST., GEROLD, G. (2008): Dissolved organic carbon dynamics in a restored peat bog in Northwest Germany. GEO-ÖKO, 1-2, 73-88

HEITKAMP, F., GLATZEL, St., MICHALZIK, B., FISCHER, E., GEROLD, G. (2008): Soil microbiochemical properties as indicators for success of heathland restoration after military disturbance. Land Degradation and Development, 19, 408-420

SCHAWE, M., GEROLD, G., BACH, K., GRADSTEIN, S.R. (2008): Hydrometeorological patterns in relation to forest structure and plant species diversity along an elevational gradient in a montane cloud forest in the Yungas, Bolivia. - Proc. of Sec. Int. Symposium "Mountains in the Mist", Hawaii, 16 p. (in press)

BARKMANN, J., DE VRIES, K., DIETRICH, N., GLENK, K., GEROLD, G., KEIL, A., LEEMHUIS, C., MARGGRAF, R. (2008): Confronting unfamiliarity with ecosystem functions: The case for an ecosystem service approach to environmental valuation with stated preference methods. Ecological Economics, 65, 48-62

GEROLD, G., MARKUSSEN, M. (2007): Waldkonversion, Bodendegradation und Naturschutz in Bergnebelwaldgebieten Guatemalas. *Geogr. Rdsch.* 59, 51-57

LEEMHUIS, C. ERASMI, S., TWELE, A., KREILEIN, H., OLTCHEV, S., GEROLD, G. (2007): Rainforest conversion in Central Sulawesi, Indonesia – Recent development and consequences for river discharge and water resources. *ERDKUNDE*, 61, 284-293

RENNER, S., MARKUSSEN, M., MÜHLENBERG, M., GEROLD, G. (2007): Human impact on biodiversity of a tropical montane cloud forest in Alta Verapaz, Guatemala. *GEO-ÖKO* Bd. 28, 54-71

SCHAUWE, M., GLATZEL, S., GEROLD, G. (2007): Soil development along an altitudinal transect in a Bolivian tropical montane rainforest: Podzolization vs. hydromorphy. *Catena*, 69, 83-90

STEFFAN-DEWENTER, I., KESSLER, M., BARKMANN, J., BOS, M.M., BUCHORI, D., ERASMI, S., FAUST, H., GEROLD, G., GLENK, K., GRADSTEIN, S.R., GUHARDJA, E., HARTZEVELD, M., HERTEL, D., HÖHN, P., KAPPAS, M., KÖHLER, St., LEUSCHNER, Chr., MAERTENS, M., MARGGRAF, R., MIGGE-KLEIAN, S., MOGEA, J., RAMADHANIEL, P., SCHAEFER, M., SCHWARZE, St., SPORN, S.G., STEINGREBE, A., TJITROSOEDIRDJO, S.S., SOEKISMAN, T., TWELE, A., WEBER, R., WOLTMANN, L., ZELLER, M., TSCHARNTKE, T. (2007): Tradeoffs between income, biodiversity, and ecosystem functioning during tropical rainforest conversion and agroforestry intensification. *PNAS*, 104, 4973-4978

CONRAD, O., KRÜGER, J.-P., BOCK, M., GEROLD, G., BÖHNER, J. (2006): Soil degradation risk assessment integrating terrain analysis and soil spatial prediction methods. – *GEO-ÖKO* Bd. 28, H. 3-4, 165-174

GLATZEL, St., LEMKE, S., GEROLD, G. (2006): Short term effects of an exceptionally hot and dry summer on decomposition of surface peat in a restoring temperate bog. *European Journal of Soil Biology*, 42, 219-229

KRÜGER, J.-P., GEROLD, G. (2006): The impact of mechanized tillage on soil compaction in Eastern Bolivia. *GEO-ÖKO* Bd. 27, H. 1-2, 101-110

LEEMHUIS, C., GEROLD, G. (2006): The impact of ENSO events on water resource availability in tropical catchments. *Advances in Geoscience*, ADGEO: www.cosis.net/members/journals/df/volumes.php