

Tobias Kuemmerle

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RESEARCH INTERESTS

Land use is a principal forcing of global environmental change and a major driver of biodiversity decline. *The overarching goal of my research is to improve our understanding of where and why land use changes, how that affects species' habitats and populations, and what characterizes sustainable land systems that balance biodiversity conservation and humanity's resource needs.* My interdisciplinary and highly collaborative research approach bridges land use science, landscape ecology, conservation biology, and biogeography to address these issues at broad geographic scales. Besides its scientific goals, my research is strongly motivated by informing conservation and land use planning to help transition towards sustainable futures for land systems.

CAREER PATH

Since 2012	Associate Professor for Biogeography & Conservation Biology at the Geography Department, Humboldt-University Berlin, Germany (funded by the Einstein Foundation Berlin)
Since 2011	Research group leader at the Geography Department, Humboldt-University Berlin, Germany
Since 2010	Postdoctoral Fellow at the Potsdam Institute for Climate Impact Research, Germany Research Domain I: Earth System Analysis
2008 – 2010	Postdoctoral Fellow at the Department of Forest and Wildlife Ecology, University of Wisconsin-Madison, USA
2007 – 2008	Postdoctoral researcher at the Geography Department, Humboldt-University Berlin, Germany
2003 – 2007	Research assistant at the Geography Department, Humboldt-University Berlin, Germany

EDUCATION

2003 – 2007	PhD in Land Use Science and Remote Sensing Geography Department, Humboldt-University Berlin, Germany <i>Thesis: Post-socialist land use change in the Carpathians. Advisor: Patrick Hostert</i>
2005, 2006	Visiting scholar at the Department of Forest and Wildlife Ecology, University of Wisconsin-Madison, USA
1997 – 2003	Diplom (MSc equivalent) in Applied Environmental Sciences Remote Sensing Department, University of Trier, Germany <i>Thesis: Investigating grazing and its effects on biological diversity using remote sensing and GIS. Advisors: Joachim Hill and Paul Müller</i>
2000 – 2001	Visiting student at the Departments of Geography and Ecology, University of Lund, Sweden

AWARDS AND FELLOWSHIPS

2013	Member of the Young Academy of Science of Germany
2011	Einstein Junior Fellowship by the Einstein Foundation
2010	Return Fellowship by the Alexander von Humboldt Foundation
2009	International Network of Research on Coupled Human and Natural Systems (CHANS-Net) Fellow
2008 – 2010	Feodor Lynen Fellowship by the Alexander von Humboldt Foundation
2008	German Academic Exchange Service (DAAD) Postdoctoral Fellowship (declined)
2007	Travel award by the German Research Foundation (DFG)
2005	German Academic Exchange Service (DAAD) Research Fellowship
2001 – 2009	e-fellows.net Fellow
2000 – 2001	ERASMUS/Sokrates Fellowship (undergraduate studies abroad)

PEER-REVIEWED JOURNAL ARTICLES (74 TOTAL + 19 IN REVIEW)

In review

- 93 Stürck, J., Levers, L., van der Zanden, E. H., Schulp, C. J. E., Verkerk, P. H., **Kuemmerle, T.**, Helming, J., Lotze-Campen, H., Popp, A., Schrammeijer, and Verburg, P.H. (2015): Simulating and visualizing future land change trajectories in Europe. Submitted to *Regional Environmental Change*.
- 92 Plieninger, T., Levers, C., Mantel, M., Costa, A., Schaich, H., & **Kuemmerle, T.** (2015): Patterns and drivers of scattered tree loss in agricultural landscapes: Orchard meadows in Germany (1968-2009). Submitted to *Landscape Ecology*.
- 91 **Kuemmerle, T.**, Kaplan, J.E., Prishchepov, A.V., Rylskyy, I., Chaskovskyy, O., Tikunov, V.S., & Müller, D. (2014): Forest transitions in Eastern Europe and their effects on carbon budgets. Submitted to *Global Change Biology*.
- 90 Dorresteijn, I., Schultner, J., Ritchie, E. G., Nimmo, D., Hanspach, J., **Kuemmerle, T.**, Kehoe, L., & Fischer, J. (2015): Incorporating human influence into trophic ecology: predator-prey interactions in a human-dominated landscape. Submitted to *Philosophical Transactions of the Royal Society B*.
- 89 Jepsen, M. R., **Kuemmerle, T.**, Müller, D., Erb, K., Verburg, P. H., Haberl, H., Vesterager, J.P., Andrič, M., Antrop, M., Austrheim, G., Björn, I., Bondeau, A., Bürgi, M., Bryson, J., Caspar, G., Cassar, L.F., Conrad, E., Chromý, P., Daugirdas, V., Van Eetvelde, V., Elena-Rosselló, R., Gimmi, U., Izakovicova, Z., Jančák, V., Jansson, U., Kladnik, D., Kozak, J., Konkoly-Gyuró, E., Krausmann, F., Mander, Ü., McDonagh, J., Pärn, J., Maria Niedertscheider, Nikodemus, O., Ostapowicz, K., Pérez-Sobaa, M., Pinto-Correia, T., Ribokas, G., Rounsevell, M., Schistou, D., Schmit, C., Terkenli, T.S., Tretvik, A.M., Trzepacz, P., Vadineanu, A., Walz, A., Zhllima, E., and Reenberg, A. (2015): Transitions in European land-management regimes between 1800 and 2010. Submitted to *Land Use Policy*.
- 88 Gasparri, N. I., **Kuemmerle, T.**, Meyfroidt, P., Le Polain Waroux, Y., & Kreft, H. (2015): The emerging soybean production frontier in Southern Africa: conservation challenges and the role of south-south telecouplings. Submitted to *Conservation Letters*.
- 87 Bragina, E., Radeloff, V.C., Baumann, M., Wendland, K., **Kuemmerle, T.**, Pidgeon, A.M. (2015): Effectiveness of protected areas in the Western Caucasus before and after the transition to post-socialism. Submitted to *Biological Conservation*.
- 86 Butsic, V. and **Kuemmerle, T.** (2015): A framework for mitigating trade-offs between biodiversity conservation and agricultural production while minimizing species loss. Submitted to *Ecological Applications*.
- 85 Kraemer, R., Prishchepov, A.V., Dara, A., **Kuemmerle, T.**, Müller, D., Radeloff, V.C., Terekhov, A., and Frühauf, M. (2015): Long-term agricultural land-cover change reveals limited potential for cropland expansion in the former Virgin Lands area of Kazakhstan. Submitted to *Environmental Research Letters*.
- 84 Mouchet, M. A., Levers, C., Zupan, L., **Kuemmerle, T.**, Plutzer, C., Erb, K.-H., Lavorel, S., Thuiller, W., and

- Haberl, H. (2015): Testing species richness hypotheses across scales with European terrestrial vertebrates. Submitted to *Journal of Biogeography*.
- 83 Plutzer, C., Kroisleitner, C., Haberl, H., Fetzl, T., Bulgheroni, C., Beringer, T., Hostert, P., Kastner, T., **Kuemmerle, T.**, Lauk, C., Lindner, M., Moser, D., Müller, D., Niedertscheider, M., Paracchini, M., Schaphoff, S., Verburg, P., Verkerk, P., and Erb, K. (2015): Changes in the spatial patterns of human appropriation of net primary production (HANPP) in Europe 1990-2006. Submitted to *Regional Environmental Change*.
- 82 Plieninger, T., Kizos, T., Le Du-Blayo, L., Bieling, C., Budniok, M.-A., Bürgi, M., Crumley, C. L., Girod, G., Howard, P., Kolen, J., **Kuemmerle, T.**, Milcinski, G., Palang, H., Trommler, K., and Verburg, P.H., (2015): Exploring cultural landscapes through an ecosystem-change and society lens: A conceptual framework and the way forward. Submitted to *Ecology & Society*
- 81 Estel, S., **Kuemmerle, T.**, Alcantara, C., Levers, C., Prishchepov, A.V., and Hostert, P. (2015): Mapping farmland abandonment and recultivation across Europe using MODIS NDVI time series. Submitted to *Remote Sensing of Environment*.
- 80 Kehoe, L., **Kuemmerle, T.**, Meyer, C., Vaclavik, T and Kreft, H. (2015): Global patterns of land-use intensity and biodiversity. Submitted to *Global Ecology & Biogeography*.
- 79 Piquer-Rodriguez, M., Torrella, S., Gavier-Pizarro, G., Volante, J., Somma, D., Ginzburg, R., and **Kuemmerle, T.** (2015): Effects of past and future land conversions on forest connectivity in the Argentine Chaco. Submitted to *Landscape Ecology*.
- 78 Van der Zanden, E., Levers, C., Verburg, P. & **Kuemmerle, T.** (2015): A European typology of agricultural landscapes. Submitted to *Landscape and Urban Planning*.
- 77 Butsic, V., Radeloff, V.C., Lewis, D., & **Kuemmerle, T.** (2015): Quasi-experimental methods to infer causality using observational data: an introduction for ecologists. Submitted to *Ecography*.
- 76 Butsic, V., Baumann, M., Shortland, A., Walker, S., and **Kuemmerle, T.** (2015): Conservation and conflict in the Democratic Republic of Congo: the impacts of warfare, mining, and protected areas on deforestation. Submitted to *Biological Conservation*.
- 75 Sonnenschein, R., **Kuemmerle, T.**, Kennedy, R., Cohen, W.B., and Hostert, P. (2015): Analyzing dense Landsat time series to assess the relationship between fire and grazing in Crete (Greece). Submitted to *Remote Sensing of Environment*.
- Published or in press*
- 74 Sutcliffe, L. M. E., Batáry, P., Kormann, U., Báldi, A., Dicks, L. V., Herzon, I., Kleijn, D., Tryjanowski, P., Apostolova, I., Arlettaz, R., Aunins, A., Aviron, S., Balezentiene, L., Čierna-Plassmann, M., Fischer, C., Gabrielová, C., Halada, L., Hartel, T., Helm, A., Hristov, J., Jelaska, S. D., Kaligarič, M., Kamp, J., Klimek, S., Koorberg, P., Kovács-Hostyánszki, A., **Kuemmerle, T.**, Leuschner, C., Lindborg, R., Loos, J., Maccherini, S., Marja, R., Máthé, O., Proença, V., Rey-Benayas, J., Sans, F.X., Seifert, C., Stalenga, J., Timaeus, J., Török, P., van Swaay, C., Viik, E., and Tschardtke, T. (2014): Where the wild things are: harnessing the biodiversity value of Central and Eastern European farmland. *Diversity & Distributions*, in press.
- 73 Baumann, M., Radeloff, V.C., Avedian, V. and **Kuemmerle, T.** (2014): Local and displaced land-use change in the Caucasus during and after the Nagorno-Karabakh conflict. *Regional Environmental Change*, in press.
- 72 Bragina, E.V., Ives, A.R., Pidgeon, A.M., **Kuemmerle, T.**, Baskin, L.M., Gubar, Y.P., Piquer-Rodriguez, M., Keuler, N.S., and Radeloff, V.C. (2014): Rapid declines of large mammal populations after the collapse of the Soviet Union. *Conservation Biology*, accepted.
- 71 Brandt, J., Butsic, V., Schwab, B., **Kuemmerle, T.**, and Radeloff, V. C. (2015): The effectiveness of protected areas, sacred sites and logging bans to protect forests from logging in southwest China *Biological Conservation*, 181, 1-8.
- 70 Hanspach, J., Hartel, T., Milcu, A., Mikulcak, F., Dorresteijn, I., Loos, J., von Wehrden, H., **Kuemmerle, T.**, Abson, D.J., Kovács-Hostyánszki, A., Báldi, A., and Fischer, J. (2014): A holistic approach to studying social-ecological systems and its application to Southern Transylvania. *Ecology & Society*, 19, 32.
- 69 Ziólkowska, E., Ostapowicz, K, Radeloff, V.C., and **Kuemmerle, T.** (2014): Effects of different matrix representations and connectivity measures on habitat network assessments *Landscape Ecology*, 29,

- 1551-1570.
- 68 Munteanu, C., **Kuemmerle, T.**, Boltziar, M., Butsic, V., Gimmi, U., Halada, L., Kaim, D., Király, G., Konkoly-Gyuró, E., Kozak, J., Lieskovsky, J., Mojses, M., Müller, D., Ostafin, K., Ostapowicz, K., Shandra, O., Štych, P., Walker, S., and Radeloff, V.C. (2014): Forest and agricultural land change in the Carpathian region – a meta-analysis of long-term patterns and drivers of change. *Land Use Policy*, 38, 685–697 .
- 67 Niedertscheider, M., **Kuemmerle, T.**, Müller, M., and Erb, K.H. (2014): Exploring the roles of institutional and political shocks on land system change in Germany between 1883 and 2007. *Global Environmental Change*, 28, 98–108.
- 66 Griffiths, P., **Kuemmerle, T.**, Baumann, M., Radeloff, V.C., Abrudan, I.V., Lieskovsky, J., Munteanu, C., Ostapowicz, K., and Hostert, P. (2014): Forest disturbances, forest recovery, and changes in forest types across the Carpathian ecoregion from 1985 to 2010 based on Landsat image composites. *Remote Sensing of Environment*, 151, 72–88.
- 65 Stefanski, J., **Kuemmerle, T.**, Chaskovskyy, O., Griffiths, P., Havryluk, V., Knorn, J., Korol, N., Sieber, A., and Waske, B. (2014): Mapping land management regimes in Western Ukraine using optical and SAR data. *Remote Sensing*, 6, 5279-5305.
- 64 **Kuemmerle, T.**, Baskin, L.M., Leitao, P., Prishchepov, A.V., Thonicke, K., and Radeloff, V.C. (2014): Distribution of reindeer calving grounds in Russia and potential threats from oil and gas development and climate change. *Diversity and Distributions*, 20, 416-429.
- 63 Fischer, J., Abson, D., Butsic, V.; Chappell, M., Ekroos, J., Hanspach, J., **Kuemmerle, T.**, Smith, H., and von Wehrden, H. (2014): Land sparing versus land sharing: moving forward. *Conservation Letters*, 7, 149-157.
- 62 Levers, C., Verkerk, P.J., Müller, D., Verburg, P., Butsic, V., Leitao, P., Lindner, M., and **Kuemmerle, T.** (2014): Drivers of forest harvesting intensity patterns in Europe. *Forest Ecology and Management*, 315, 160–172.
- 61 Luysaert, S., Jammet, M., Stoy, P.C., Estel, S., Pongratz, J., Ceschia, E., Churkina, G., Don, A., Erb, KH, Ferlicoq, M., Gielen, B., Grünwald, T., Houghton, R.A., Klumpp, K., Knohl, A., Kolb, T., **Kuemmerle, T.**, Laurila, T., Lohila, A., Loustau, D., Meyfroidt, P., Moors, E.J., Novick, K., Otto, J., Pilegaard, K., Pio, C.A., Rambal, S., Rebmann, C., Ryder, J., Suyker, A. E., Varlagin, A., Wattenbach, M., and Dolman, A.J. (2014): Land management and land-cover change have impacts of similar magnitude on surface temperature . *Nature Climate Change*, 4, 389–393.
- 60 St-Louis, V., **Kuemmerle, T.**, Sonnenschein, R., Pidgeon, A., Radeloff, V.C., Locke, B.A., Bash, D. and Hostert, P. (2014): Modelling avian biodiversity using raw, unclassified satellite imagery. *Philosophical Transactions of the Royal Society B*, 369, 1471-2970.
- 59 Schierhorn, F., Müller, D., Beringer, T., Prishchepov, A.V., **Kuemmerle, T.**, and Balmann, A. (2013): Post-Soviet cropland abandonment and carbon sequestration in European Russia, Ukraine and Belarus. *Global Biogeochemical Cycles*, 27, 1-11.
- 58 Griffiths, P., Müller, D., **Kuemmerle, T.**, and Hostert, P. (2013): Agricultural land change in the Carpathian ecoregion after the breakdown of socialism and expansion of the European Union. *Environmental Research Letters*, 8 045024.
- 57 Václavík, T., Lautenbach, S., **Kuemmerle, T.**, Seppelt, R. (2013): Mapping global land system archetypes. *Global Environmental Change*, 23, 1637–1647.
- 56 Erb, K.H., Kastner, T., Luysaert, S., Houghton, R.A., **Kuemmerle, T.**, Olofsson, P., and Haberl, H. (2013): Bias in the attribution of forest carbon sinks. *Nature Climate Change*, 3, 854–856.
- 55 **Kuemmerle, T.**, Erb, K.H., Meyfroidt, P., Müller, D., Verburg, P. H., Estel, S., Haberl, H., Hostert, P., Kastner, T., Levers, C., Lindner, M., Rudbeck Jepsen, M., Plutzar, C., Verkerk, P. J., van der Zanden, E. H., and Reenberg, A. (2013): Challenges and opportunities in mapping land use intensity globally. *Current Opinion on Environmental Sustainability*, 5, 484–493.
- 54 Erb, K.H., Haberl, H., Rudbeck Jepsen, M., **Kuemmerle, T.**, Lindner, M., Müller, D., Verburg, P. H., and Reenberg (2013): A conceptual framework for analysing and measuring land-use intensity. *Current Opinion on Environmental Sustainability*, 5, 464–470.
- 53 Grau H. R., **Kuemmerle, T.**, and Macchi, L. (2013): Beyond land sparing vs. land sharing: environmental heterogeneity, globalization and the balance between agriculture and nature conservation. *Current Opinion in Environmental Sustainability*, 5, 477-483.

- 52 Alcantara, C., **Kuemmerle, T.**, Baumann, M., Bragina, E.V., Griffiths, P., Hostert, P., Knorn, J., Müller, D., Prishchepov, A. V., Schierhorn, S., Sieber, A., and Radeloff, V.C. (2013): Mapping the extent of abandoned farmland in Central and Eastern Europe using MODIS time series satellite data. *Environmental Research Letters*, 8, 035035.
- 51 Roy, E. D., Morzillo, A. T., Seijo, F., Walsh, S. M., Rhemtulla, J. M., Milder, J. C., **Kuemmerle, T.**, and Martin, S. L. (2013): The elusive pursuit of integrative interdisciplinarity: perspectives from researchers working at the human-environment interface. *BioScience*, 93, 745-753.
- 50 Sieber, A., **Kuemmerle, T.**, Prishchepov, A. V., Wendland, K. J., Baumann, M., Radeloff, V. C., Baskin, L. M., and Hostert, P. (2013): Landsat-based mapping of post-Soviet land-use change to assess the effectiveness of the Oksky and Mordovsky protected areas in European Russia. *Remote Sensing of Environment*, 133, 38-51.
- 49 Griffiths, P., van der Linden, S., **Kuemmerle, T.**, and Hostert, P. (2013): A pixel-based Landsat compositing algorithm for large area land cover mapping. *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, 99, 1-14.
- 48 Knorn, J., **Kuemmerle, T.**, Radeloff, V.C., Keeton, W.S., Gancz, V., Biriş, I.-A., Svoboda, M., Griffiths, P., Hagatis, A., Hostert, P. (2013): Continued loss of temperate old-growth forests in the Romanian Carpathians despite an increasing protected area network. *Environmental Conservation*, 40, 182-193.
- 47 Brandt, J., Haynes, M., **Kuemmerle, T.**, Waller, D.M., and Radeloff, V.C. (2013): Regime shift on the roof of the world: Alpine meadows converting to shrublands in the southern Himalayas. *Biological Conservation*, 158, 116–127.
- 46 Radeloff, V. C., Beaudry, F. C., Brooks, T. M., Butsic, V., Dubinin, M., **Kuemmerle, T.**, and Pidgeon, A. M. (2012): Hot moments for biodiversity conservation. *Conservation Letters*, 6, 58–65.
- 45 **Kuemmerle, T.**, Hickler, T., Olofsson, J., Schurgers, G., and Radeloff, V. C. (2012): Refugee species conservation: which historic baseline should inform conservation planning? *Diversity & Distributions*, 18, 1258–1261.
- 44 Piquer-Rodriguez, M., **Kuemmerle, T.**, Alcaraz-Segura, D., Zurita-Milla, R., Cabello, J. (2012): Future land use effects on the connectivity of protected area networks in Southeastern Spain. *Journal of Nature Conservation*, 20, 326– 336.
- 43 Butsic, V., Radeloff, V.C., **Kuemmerle, T.**, and Pidgeon, A., (2012): Analytical solutions to trade-offs between size of protected areas and land-use intensity. *Conservation Biology*, 26, 883-893.
- 42 Gavier-Pizarro, G. I., **Kuemmerle, T.**, Hoyos, L. E., Stewart, S. I., Huebner, C. D., Keuler, N. S., and Radeloff, V. C. (2012): Monitoring the invasion of an exotic tree (*Ligustrum lucidum*) from 1983 to 2006 with Landsat satellite data and a support vector machine in Córdoba, Argentina. *Remote Sensing of Environment*, 122, 134-145.
- 41 Alix-Garcia, J., **Kuemmerle, T.**, Radeloff, V.C. (2012): Prices, land tenure institutions, and geography: A matching analysis of farmland abandonment in post-Socialist Eastern Europe. *Land Economics*, 88, 425-443.
- 40 Alcantara, C., Radeloff, V.C., Prishchepov A.V., and **Kuemmerle, T.** (2012): Mapping abandoned agriculture with multi-temporal MODIS satellite data. *Remote Sensing of Environment*, 124, 334–347.
- 39 Baumann, M., Ozdogan, M., **Kuemmerle, T.**, Wendland, K. J., Esipova, E., Radeloff, V.C. (2012): Using the Landsat record to detect forest-cover changes during and after the collapse of the Soviet Union in the temperate zone of European Russia. *Remote Sensing of Environment*, 124, 174-184.
- 38 Prishchepov A.V., Radeloff, V.C., Baumann, M. and **Kuemmerle, T.** (2012): Effects of institutional changes on land use: agricultural land abandonment during the transition from state-command to market-driven economies in post-Soviet Eastern Europe. *Environmental Research Letters*, 7, 024021.
- 37 Fischer, J., Hartel, T., and **Kuemmerle, T.** (2012): Conservation policy in traditional farming landscapes. *Conservation Letters*, 5, 167–175.
- 36 von Wehrden, H., Fischer, J., Brandt, P., Wagner, K., Kümmerer, K., **Kuemmerle, T.**, Nagel, A., Olsson, O., and Hostert, P. (2012): Consequences of nuclear accidents for biodiversity and ecosystem services. *Conservation Letters*, 5, 81-89.
- 35 Griffiths, P. **Kuemmerle, T.**, Kennedy, R.E., Abrudan, I.V., Knorn, J., and Hostert, P. (2012): Using annual

- time-series of Landsat images to assess the effects of forest restitution in post-socialist Romania. *Remote Sensing of Environment*, 118, 199-214.
- 34 Brandt, J., **Kuemmerle, T.**, Haomin, L., Guopeng, R., Jianguo, Z., and Radeloff, V.C. (2012): Using Landsat imagery to map forest change in southwest China in response to the national logging ban and ecotourism development. *Remote Sensing of Environment*, 121, 358-369.
- 33 Estes, A., **Kuemmerle, T.**, Kushnir, H., Radeloff, V.C. and Shugart, H. H. (2012): Land-cover change and human population trends in the Serengeti ecosystem, Tanzania from 1984-2003. *Biological Conservation*, 147, 255-263.
- 32 Rounsevell, M.D.A., Pedroli, B., Erb, K.-H., Gramberger, M., Gravsholt Busck, A., Haberl, H., Kristensen, S., **Kuemmerle, T.**, Lavorel, S., Lindner, M., Lotze-Campen, H., Metzger, M. J., Murray-Rust, D., Popp, A., Pérez-Soba, M., Reenberg, A., Vadineanu, A., Verburg, P., and Wolfslehner, B. (2012): Challenges for land system science: a European perspective. *Land Use Policy*, 29, 899-910.
- 31 Ziólkowska, E., Ostapowicz, K., **Kuemmerle, T.**, Perzanowski, K., Radeloff, V.C., and Kozak, J. (2012): Potential habitat connectivity of European bison (*Bison bonasus*) in the Carpathians. *Biological Conservation*, 146, 188-196.
- 30 Knorn, J., **Kuemmerle, T.**, Szabo, A., Mindrescu, M., Keeton, W.S., Radeloff, V.C., Abrudan, I., Griffiths, P., Gancz, V., and Hostert, P. (2012): Forest restitution and the protected area effectiveness in post-socialist Romania. *Biological Conservation*, 146, 204-212.
- 29 **Kuemmerle, T.**, Hickler, T., Olofsson, J., Schurgers, G., and Radeloff, V. C. (2011): Reconstructing range dynamics and range fragmentation of European bison for the last 8000 years. *Diversity & Distributions*, 18, 47-59.
- 28 Pflugmacher, D., Krankina, O.N., Cohen, W.B., Friedl, M.A., Sulla-Menashe, D., Kennedy, R.E., Nelson, P., Loboda, T., **Kuemmerle, T.**, Dyukarev, E., Elsakov, V., and Kharuk, V.I. (2011): Comparison and assessment of coarse resolution land cover maps for Northern Eurasia. *Remote Sensing of Environment*, 115, 3539-3553.
- 27 Fischer, J., Batary, P., Brussaard, L., Chappell, M. J., Clough, Y., Daily, G.C., Dorrough, J., Hartel, T., Jackson, L. E., Klein, A. M., Kremen, C., **Kuemmerle, T.**, Lindenmayer, D. B., Perfecto, I., Philpott, S. M., Tschardtke, T., Vandermeer, J., Wanger, T. C., and von Wehrden, H. (2011): Conservation: Limits to land sparing. *Science*, 334, 593.
- 26 Hostert, P., **Kuemmerle, T.**, Prishchepov, A., Sieber, A., Lambin, E.F., and Radeloff, V.C (2011): Rapid land use changes after socioeconomic disturbances: Chernobyl and the collapse of the Soviet Union. *Environmental Research Letters*, 6, 045201.
- 25 **Kuemmerle, T.**, Radeloff, V.C, Perzanowski, K., Kozlo, P., Sipko, T., Khoyetskyy, P., Bashta, A.-T., Chikurova, E., Parnikoza, I., Baskin, L., Angelstam, P. and Waller, D. M. (2011): Predicting potential European bison habitat across its former range. *Ecological Applications*, 21, 830-843.
- 24 Schueler, V., **Kuemmerle, T.** and Schroeder, H. (2011): Impacts of surface gold mining on land use systems in Western Ghana. *Ambio*, 40, 528-539.
- 23 Olofsson, P., **Kuemmerle, T.**, Griffiths, P., Knorn, J., Baccini, A., Gancz, V., Blujdea, Houghton, R.A., Abrudan, I.A., and Woodcock, C.E. (2011): Carbon implications of the forest transition in post-socialist Romania. *Environmental Research Letters*, 6, 045202.
- 22 Sonnenschein, R., **Kuemmerle, T.**, Udelhoven, T., Stellmes, M. and Hostert, P. (2011): Differences in Landsat-based trend analyses in drylands due to the choice of vegetation estimate. *Remote Sensing of Environment*, 115, 1408-1420.
- 21 Baumann, M., **Kuemmerle, T.**, Elbakidze, M., Ozdogan, M., Radeloff, V.C., Keuler, N., Prishchepov, A.V., Kruhlov, I., Hostert, P. (2011): Patterns and drivers of post-socialist farmland abandonment in Western Ukraine. *Land Use Policy*, 28, 552-562.
- 20 **Kuemmerle, T.**, Olofsson, P., Chaskovskyy, O., Baumann, M., Ostapowicz, K., Woodcock C., Houghton, R. A., Hostert, P., Keeton, W. S., and Radeloff, V.C. (2011): Post-Soviet farmland abandonment, forest recovery, and carbon sequestration in western Ukraine. *Global Change Biology*, 17, 1335-1349.
- 19 **Kuemmerle, T.**, Perzanowski, K., Akçakaya, H.R., Beaudry, F., van Deelen, T.R., Parnikoza, I., Khoyetskyy, P., Waller, D.M., and Radeloff, V.C. (2011): Cost-effectiveness of different conservation strategies to establish a European bison metapopulation in the Carpathians. *Journal of Applied Ecology*, 48, 317-329.

- 18 Hoyos, L., Gavier-Pizarro, G., **Kuemmerle, T.**, Bucher, E.H., Radeloff, V.C. and Tecco, P. (2010): Invasion of glossy privet (*Ligustrum lucidum*) and native forest loss in the Sierras Chicas of Córdoba, Argentina. *Biological Invasions*, 12, 3261-3275.
- 17 Dannenberg, P. and **Kuemmerle, T.** (2010): Farm size and land use pattern changes as indicators of structural change in Poland. *Professional Geographer*, 62, 1-14.
- 16 **Kuemmerle, T.**, Perzanowski, K., Chaskovskyy, O., Ostapowicz, K., Halada, L., Bashta, A.-T., Hostert, P., Waller, D.M. and Radeloff, V.C. (2010): European bison habitat in the Carpathian Mountains. *Biological Conservation*, 143, 908-916.
- 15 Björnsen Gurung, A., Bokwa, A., Chelmicki, W., Elbakidze, M., Hirschmugl, M., Hostert, P., Ibsch, P., Kozak, J., **Kuemmerle, T.**, Matei, E., Ostapowicz, K., Pociask-Karteczka, J., Schmidt, L., van der Linden, S. and Zebisch, M. (2009): Global Change Research in the Carpathian Mountain Region. *Mountain Research and Development*, 29, 3.
- 14 Main-Knorn, M., Hostert, P., Kozak, J. and **Kuemmerle, T.** (2009): How pollution legacies and land use histories shape post-socialist forest cover trends in the Western Carpathians. *Forest Ecology and Management*, 258, 60-70.
- 13 **Kuemmerle, T.**, Chaskovskyy, O., Knorn, J., Kruhlov, I., Radeloff, V.C., Keeton, W.S. and Hostert, P. (2009): Forest cover change and illegal logging in the Ukrainian Carpathians in the transition period from 1988 to 2007. *Remote Sensing of Environment*, 113, 1194-1207.
- 12 Knorn, J., Janz, A., Radeloff, V.C., **Kuemmerle, T.** and Hostert, P. (2009): Land cover mapping of large areas using chain classification of neighboring Landsat satellite images. *Remote Sensing of Environment*, 113, 957-964.
- 11 **Kuemmerle, T.**, Hostert, P., St-Louis, V. and Radeloff, V.C. (2009): Using image texture to map field size in Eastern Europe. *Journal of Land Use Science*, 4, 85-107.
- 10 Müller, D., **Kuemmerle, T.**, Rusu, M. and Griffiths, P. (2009): Lost in transition. Determinants of cropland abandonment in postsocialist Romania. *Journal of Land Use Science*, 4, 109-129.
- 9 **Kuemmerle, T.**, Kozak, J., Radeloff, V.C. and Hostert, P. (2009): Differences in forest disturbance rates among land ownership types in Poland during and after socialism. *Journal of Land Use Science*, 4, 73 - 83.
- 8 **Kuemmerle, T.**, Müller, M., Rusu, M. and Griffiths, P. (2009): Land use change in southern Romania after the collapse of socialism. *Regional Environmental Change*, 4, 85-107.
- 7 **Kuemmerle, T.**, Hostert, P., Radeloff, V.C., Perzanowski, K. and Kruhlov, I. (2008): Post-socialist farmland abandonment in the Carpathians. *Ecosystems*, 11, 614-628.
- 6 **Kuemmerle, T.**, Damm, A. and Hostert, P. (2008): A method to detect and correct single-band missing pixels in Landsat TM and ETM+ data. *Computers and Geosciences*, 34, 445-455.
- 5 **Kuemmerle, T.**, Hostert, P., Radeloff, V.C., Perzanowski, K. and Kruhlov, I. (2007): Post-socialist forest disturbance in the Carpathian border region of Poland, Slovakia, and Ukraine. *Ecological Applications*, 15, 1279-1295.
- 4 Röder, A., **Kuemmerle, T.**, Hill, J., Papanastasis, V. and Tsiourlis, G. (2007): Adaptation of a grazing gradient concept to heterogeneous Mediterranean rangelands using cost surface modelling. *Ecological Modeling*, 204, 387-398.
- 3 **Kuemmerle, T.**, Radeloff, V.C., Perzanowski, K. and Hostert, P. (2006): Cross-border comparison of land cover and landscape pattern in Eastern Europe using a hybrid classification technique. *Remote Sensing of Environment*, 103, 449-464.
- 2 **Kuemmerle, T.**, Röder, A. and Hill, J. (2006): Separating grassland and shrub vegetation by multivariate pixel-adaptive spectral mixture analysis. *International Journal of Remote Sensing*, 27, 3251-3271.
- 1 Röder, A., **Kuemmerle, T.** and Hill, J. (2005): Extension of retrospective datasets using multiple sensors; an approach to radiometric intercalibration of Landsat TM and -MSS Data. *Remote Sensing of Environment*, 95, 195-210.

Book chapters

- 6 Haberl, H., Mbow, C., Deng, X., Irwin, E.G., Kerr, S., **Kuemmerle, T.**, Mertz, O., Meyfroidt, P., and Turner II, B.L. (2014): Finite Land Resources and Competition, 35-69. In Seto, K. C. and Reenberg, A. (2014) Rethinking Global Land Use in an Urban Era. Strüngmann Forum Reports, vol. 14, J. Lupp, series ed.

Cambridge, MA: MIT Press.

- 5 Estes, A. B., **Kuemmerle, T.**, Kushnir, H., Radeloff, V. C and Shugart, H. H. (2013): Agricultural expansion and human population trends in the Greater Serengeti Ecosystem from 1984-2003. In: Sinclair, A. R.E., Metzger, K. L., Fryxell, J. M., and Mduma, S. A.R. (eds.): Serengeti III. University of Chicago Press, Chicago.
- 4 Taff, G.N., Müller, D., **Kuemmerle, T.**, Ozdeneral, E. and Walsh, S.J. (2010): Reforestation in Central and Eastern Europe after the breakdown of socialism. In: Nagendra, H. and Southworth, J. (eds.): Reforesting Landscapes: Linking Pattern and Process, Springer, Amsterdam, New York, Berlin: 121-147.
- 3 Röder, A., Hill, J., **Kuemmerle, T.**, del Barrio, G., Papanastasis, V.P. and Tsiourlis, G.M. (2009): Geomatics-based characterization of spatial and temporal trends in heterogeneous Mediterranean rangelands of Northern Greece. In: Roeder, A. and Hill, J. (eds.): Recent Advances in Remote Sensing and Geoinformation Processing for Land Degradation Assessment. CRC Press, Boca Raton, London, New York, Leiden: 281-300.
- 2 Müller, D. and **Kuemmerle, T.** (2008): Cropland abandonment during the postsocialist transition in Southern Romania. In: Groisman, P.Y. and Ivanov, S.V. (eds): Regional aspects of climate-terrestrial-hydrologic interactions in non-boreal Eastern Europe. Springer, NATO Science Series, New York: 205-214.
- 1 Röder, A., **Kuemmerle, T.** and Hill, J. (2004): Extending Time-Series of Satellite Images by Radiometric Intercalibration. In: Smits, P. and Bruzzone, L. (eds): Analysis of multi-temporal remote sensing images, Series of Remote Sensing 3, World Scientific: 21-30.

ACTIVE GRANTS

TOTAL FUNDING RECEIVED AS PRINCIPAL INVESTIGATOR: 1,152,000 EUR

As Principal Investigator

- 2013 - 2016 HERCULES: Sustainable futures for Europe's HERitage in CULTural landscapES: Tools for understanding, managing, and protecting landscape functions and values (*European Commission FP7*, 3,000,000 EUR PI: Tobias Plieninger– University of Copenhagen, Denmark & myself). *I am also the PI for Humboldt-University Berlin (370,000 EUR, work package lead)*
- 2013 - 2014 Identifying potential reintroduction sites for wisents (*Bison bonasus*) in Germany (*World Wildlife Fund*, 42,000 EUR).
- 2012 - 2015 Biodiversity impacts of future land use trajectories (*Einstein Foundation*, 280,000 EUR).
- 2010 - 2015 VOLANTE: Visions of Land Use Transitions in Europe (*European Commission FP7*, 7,000,000 EUR PI: Bas Pedroli – Wageningen University, The Netherlands). *I am the PI for Humboldt-University Berlin (460,000 EUR, work package lead)*.

As Co-Principal Investigator

- 2011 - 2014 200 years of land use and land cover changes and their driving forces in the Carpathian basin in Central Europe (*NASA Land Cover and Land Use Change Program*, 300,000 US\$, PI: Volker C. Radeloff - University of Wisconsin-Madison)
- 2011 - 2014 Synthesis of studies on institutional change and LCLUC effects on carbon, biodiversity, and agriculture after the collapse of the Soviet Union (*NASA Land Cover and Land Use Change Program*, 1,100,000 US\$, PI: Volker C. Radeloff - University of Wisconsin-Madison).

PAST RESEARCH PROJECTS

As Principal Investigator

- 2008 - 2011 Land use effects on habitat suitability and metapopulation dynamics of the European bison (*Alexander von Humboldt Foundation* and *NASA Land Cover and Land Use Change Program*, 120,000 EUR)

As collaborator

- 2009 - 2012 Land use change, protected areas and biodiversity in European Russia (*German Research Foundation*, 110,000 EUR, PI: Patrick Hostert - Humboldt-University Berlin)
- 2009 - 2012 Land use change, protected areas, and biodiversity in the Caucasus and Ural Mountains

	(NASA Land Cover and Land Use Change Program, 120,000 US\$, PI: Volker C. Radeloff - University of Wisconsin-Madison)
2009 - 2011	Contribution to Studies of LCLUC in Northern Eurasia (NASA Land Cover and Land Use Change Program, PI: Olga Kankina – Oregon State University)
2004 - 2011	Post-socialist land use change in the Carpathians (Humboldt-University Berlin, European Science Foundation, PI: Patrick Hostert – Humboldt-University Berlin)
2004 - 2009	DeSurvey: A Surveillance System for Assessing and Monitoring of Desertification (European Commission, PI: Juan Puigdefabregas - Estacion Experimental de Zonas Aridas, Spain)
2006 - 2008	Northern Eurasia Land Dynamics Analysis (NASA Land Cover and Land Use Change Program, PI: Olga Kankina – Oregon State University)
2003 - 2008	Postsocialist Land Relations (German Research Foundation, Emmy Noether-Programme, PI: Thomas Sikor – University of East Anglia)
2004 - 2007	Post-Socialist land use change in Eastern Europe (NASA Land Cover and Land Use Change Program, PI: Volker C. Radeloff - University of Wisconsin-Madison)
2001 - 2004	Geomatics in the Assessment and Sustainable Management of Mediterranean Rangelands (European Commission, PI: Joachim Hill – University of Trier)

PROFESSIONAL SERVICE

Reviewer for (selection)	<i>Acta Theriologica, Advances in Engineering Software, Biogeosciences, Biological Conservation, Conservation Biology, Conservation Letters, Computers & Geosciences, Diversity & Distributions, Ecological Applications, Ecological Economics, Ecology Letters, Ecosystems, Environmental Management, Environmental Modeling & Software, Environmental Research Letters, Environment & Planning C: Government & Policy, European Journal of Forest Research, Forest Ecology and Management, Geophysical Research Letters, Global Ecology & Biogeography, IEEE Journal of Selected Topics in Earth Observation and Remote Sensing, International Forestry Review, International Journal of Applied Earth Observation and Geoinformation, International Journal of Remote Sensing, Journal of Applied Geography, Journal of Environmental Management, Journal of Maps, Land Degradation & Development, Landscape Ecology, Land Use Policy, Mountain Research and Development, PLOS One, Regional Environmental Change, Remote Sensing of Environment</i>
Editorial board member	<i>Journal of Land Use Science, Regional Environmental Change</i>
Since 2014	Member of the doctoral studies board (<i>Promotionsausschuß</i>) at the Faculty of Science, Humboldt-University Berlin
Since 2013	Member of the examination board (<i>Prüfungsausschuß</i>) at the Geography Department, Humboldt-University Berlin
Since 2012	Scientific steering committee of the Science for the Carpathians (S4C) Network
Since 2012	Ombudsman for doctoral students at the Geography Department, Humboldt-University Berlin
2012-2014	Member of the scientific steering committee of the IGPB/IHDP Global Land Project Open Science Meeting 2014
2006 - 2008	Elected member of the institutional board at the Geography Department, Humboldt-University Berlin
Selection committees	Junior Professorship Global Environmental Change (2012, Geography Department, HU Berlin); Junior Professorship Geoinformatics (2007, Geography Department, HU Berlin)
2000 - 2008	Co-founder and member of CubicWorld.org e.V. (non-profit society for the advancement of young scientists in Remote Sensing and GIS)

CONFERENCE CONTRIBUTIONS & OTHER PRESENTATIONS

Organization of Symposia, Sessions, or Workshops

- 2015 Organization of a session “*Regime shifts in land systems*” at the IALE US Meeting, July 2015, Portland, US (Together with Van Butsic and Daniel Müller).
- 2014 Organization of the joint EARSel Special Interest Group Land Use/Cover Change & NASA Land-Cover & Land-Use Change Program Conference “*Frontiers in Earth Observation for Land System Science*” (Together with Sebastian van der Linden).
- 2014 Organization of a session “*Beyond land sparing vs. land sharing*” at the Global Land Project Open Science Meeting, March 2014, Berlin, Germany (Together with Ricardo Grau).
- 2014 Organization of a session “*Global land use datasets*” at the Global Land Project Open Science Meeting, March 2014, Berlin, Germany (Together with Karlheinz Erb).
- 2013 Organization of a session “*Land system change impacts on European landscapes*” at the IALE Europe conference September 2013, Manchester, UK (together with Peter Verborg).
- 2012 Organization of a session “*Global land use intensity patterns*” at the IAMO Forum 2012: Potentials and Solutions Between Abandonment and Land Grabbing. June 2012, Halle (Saale), Germany (together with Karlheinz Erb).

Invited talks

- 4 Kuemmerle, T., (2014): Observing land cover change and land system transitions. Invited keynote talk. 2nd Open Science Meeting of the IHDP/IGBP Global Land Project. March 2014, Berlin, Germany.
- 3 Kuemmerle, T., (2013): Land observations: Land use and land management changes. Invited talk. Joint GLP/iLEAPS/AIMES workshop on “*Interactions among Managed Ecosystems, Climate, and Societies (IMECS)*”. September 2013, Amsterdam, The Netherlands.
- 2 Kuemmerle, T., (2013): Analyzing land system dynamics across scales. Invited talk. Workshop on “*The Scale Problem in Earth System Science*”. May 2013, Lund, Sweden.
- 1 Kuemmerle, T., (2012): Post-Soviet land use change in Eastern Europe: opportunities for European bison conservation? Invited talk. Workshop on “*Conservation management of European bison - challenges for the future*”. October 2012, Bialowieza, Poland.

Plus numerous seminar talks at a range of universities and research institutions.

Conference presentations

Total number: 115 conference contributions, 26 first-authored

Kuemmerle, T., Baumann, M., Butsic, V., Shortland, A., Radeloff, V.C., & Brueck, T. (2014): Warfare effects on land system dynamics. 2nd Open Science Meeting of the IHDP/IGBP Global Land Project. March 2014, Berlin, Germany. Oral presentation.

Kuemmerle, T., (2014): Observing land cover change and land system transitions. Invited keynote talk. 2nd Open Science Meeting of the IHDP/IGBP Global Land Project. March 2014, Berlin, Germany. Oral presentation.

Kuemmerle, T. (2013): Recent and long-term land change in the Carpathians. 1st Conference on Forest cover changes in mountainous regions (FORECOM). March 2013, Krakow, Poland, Oral Presentation.

Kuemmerle, T. (2013): Post-socialist land use change in Eastern Europe - Challenge or opportunity for nature conservation? East-West Göttingen – Kuemmerle East meets West: Transferring conservation approaches between Eastern and Western European landscapes. February 2013, Göttingen, Germany. Oral presentation.

Kuemmerle, T., Mueller, D., Olofsson, P., Schierhorn, F., Prishchepov, A.V., Alcantara, C., Woodcock, C., Radeloff, V.C. and Houghton, R.A. (2012): Long-term and recent land use change and their effects on carbon fluxes in Eastern Europe. *IAMO Forum 2012: Potentials and Solutions Between Abandonment and Land Grabbing*. June 2012, Halle (Saale), Germany. Oral presentation.

Kuemmerle, T., Mueller, D., Olofsson, P., Schierhorn, F., Prishchepov, A.V., Alcantara, C., Woodcock, C., and Radeloff, V.C. (2012): Carbon implications of socialist and post-socialist land use change in Eastern Europe and the former Soviet Union. *Planet under Pressure Conference*, London, United Kingdom, March 2012. Oral presentation.

Kuemmerle, T., Hickler, T., Olofsson, J., Schurgers, G., and Radeloff, V.C. (2012): Coupling species distribution and dynamic vegetation models to reconstruct Holocene range dynamics of European bison. 3rd Annual Meeting of the Special Interest Group Macroecology of the German Association of Ecology (GfÖ), Frankfurt, Germany, February 2012, Oral presentation.

- Kuemmerle, T.**, Perzanowski, K., Akcakaya, H.R., van Deelen, T.R., and Radeloff, V.C. (2011): Future land use and conservation priority sites for southeastern Spain. *IALE-D Annual Meeting*, Berlin, Germany, October 2011, Oral presentation
- Kuemmerle, T.**, Olofsson, P., Baumann, M., Chaskovskyy, O., Radeloff, V.C., Woodcock, C., and Hostert, P. (2011): Land use changes during the Soviet and post-Soviet era and their effects on carbon fluxes in Western Ukraine. *Fourth EARSeL SIG Land-Use & Land-Cover Workshop*, Prague, Czech Republic, June 2011. Poster presentation
- Kuemmerle, T.**, Olofsson, P., Chaskovskyy, O., Baumann, M., Ostapowicz, K., Woodcock C., Houghton, R. A., Hostert, P., Keeton, W. S., and Radeloff, V.C. (2010): Post-Soviet farmland abandonment and carbon storage potential in Western Ukraine. *First Global Land Project Open Science Meeting*, Phoenix, USA, October 2010. Oral presentation.
- Kuemmerle, T.**, Mueller, D., Prishchepov, A. V., Rylskiy, Tikonov, V.S., Basin, L., and Radeloff, V.C. (2010): Forest transition patterns in Eastern Europe and the former Soviet Union. *First Global Land Project Open Science Meeting*, Phoenix, USA, October 2010. Poster presentation.
- Kuemmerle, T.** (2010): Using a syndromes approach to describe archetypes of land use transitions. *First Global Land Project Open Science Meeting*, Phoenix, USA, October 2010. Oral presentation.
- Kuemmerle, T.**, Perzanowski, K., Akçakaya, H.R., and Radeloff, V.C. (2010): European bison habitat suitability and metapopulation viability in the Carpathians. *First Forum Carpaticum*, Krakow, Poland, September 2010. Oral presentation.
- Kuemmerle, T.**, Olofsson, P., Chaskovskyy, O., Baumann, M., Ostapowicz, K., Woodcock C., Houghton, R. A., Hostert, P., Keeton, W. S., and Radeloff, V.C. (2010): Logging and land abandonment in Western Ukraine: effects on carbon fluxes and future carbon storage potential. *First Forum Carpaticum*, Krakow, Poland, September 2010. Oral presentation.
- Kuemmerle, T.** (2010): Socio-economic transformations and land use change: Patterns and processes of land use change in Central and Eastern Europe. *NASA Land-Cover and Land-Use Science Team Meeting*, Tartu, Estonia, August 2010. Oral presentation.
- Kuemmerle, T.** Knorn, J., Rabe, A., van der Linden, S., Radeloff, V.C. and Hostert, P. (2009): Support Vector Machines and Chain Classification for mapping forest disturbance across large areas. *Third EARSeL SIG Land-Use & Land-Cover Workshop*, Germany, November 2009. Poster presentation.
- Kuemmerle, T.**, Radeloff, V.C., Perzanowski, K., Sipko, T. and Baskin, L. (2009): Changes in European bison habitat availability and connectivity in the Carpathians due to land use change after the breakdown of socialism. *US-IALE Annual Meeting 2009*, Snowbird, USA, April 2009. Oral presentation.
- Kuemmerle, T.**, Kozak, J., Müller, D., Radeloff, V.C. and Hostert, P. (2009): Post-socialist land use change, land ownership patterns, and land reforms in the Carpathians. *Seventh IHDP Open Meeting*, Bonn, Germany, April 2009. Oral presentation.
- Kuemmerle, T.**, Radeloff, V.C., Knorn, J., Rabe, A., van der Linden, S., Ozdogan, M. and Hostert, P. (2009) Support Vector Machines and Chain Classification for large-area forest disturbance mapping in the Carpathians. *NASA Land-Cover and Land-Use Science Team Meeting*, Maryland, USA, April 2009. Oral presentation.
- Kuemmerle, T.**, Knorn, J., Chaskovskyy, O., Radeloff, V.C. and Hostert, P. (2008): Forest cover change and illegal logging in the post-socialist transition time in the Ukrainian Carpathians. *93rd ESA Annual Meeting*, Milwaukee, USA, August 2008. Oral presentation.
- Kuemmerle, T.**, Radeloff, V.C., Hostert, P., Kozak, J. and Vogt, P. (2008): Changes in forest fragmentation due to reforestation, abandoned farmlands in Eastern Europe. *US-IALE Annual Meeting 2008*, Madison, USA, April 2008. Oral presentation.
- Kuemmerle, T.**, Müller, D., Kozak, J., Knorn, J. and Hostert, P. (2008): High-resolution earth observation for monitoring post-socialist land use change in the Carpathian Ecoregion. *Impact Assessment of Land Use Changes*, Berlin, Germany, April 2008. Oral presentation.
- Kuemmerle, T.**, Knorn, J., Main, M., Müller, D., van der Linden, S. and Hostert, P. (2007): Mapping post-socialist farmland abandonment and forest cover change in the Carpathian ecoregion. *Second EURAC Workshop on Applied Remote Sensing in Mountain Regions*, Bolzano, Italy, March 2008. Oral presentation.
- Kuemmerle, T.**, Hostert, P., Lakes, T. and Müller, M. (2007): Transboundary assessments of post-socialist land use change in the Carpathians. *Third Land System Science Workshop: Handling complex series of natural and*

socio-economic processes, Tune, Denmark, October 2007. Poster presentation.

Kuemmerle, T., Radeloff, V. C. and Hostert, P. (2005): Landscape response to post-socialist transformation processes: a cross-border study in the Carpathians. *Sixth IHDP Open Meeting*, Bonn, Germany, October 2005. Oral presentation.

Kuemmerle, T. (2005): Cross-border monitoring and simulation of land use change in Eastern Europe. *First Workshop of Spatial Statistical Analysis for Environmental Issues*, Berlin, Germany, January 2005. Oral presentation.

Kuemmerle, T., Röder, A., and Hill, J. (2004): Optimized green vegetation derivation for the quantification of grazing impact. *First EARSeL SIG Land-Use & Land-Cover Workshop*, Dubrovnik, Croatia, May 2004. Oral presentation.

PROFESSIONAL AFFILIATIONS

Association of Geographers at German Universities (VGDH)

Ecological Society of America (ESA)

Ecological Society of Germany, Austria and Switzerland (GfÖ)

IGPB/IHDP Global Land Project (GLP)

International Association of Landscape Ecology (IALE-US and IALE-D)

Integrative Research Institute on Transformations in Human-Environment Systems (IRI THESys)
at Humboldt-Universität zu Berlin

Committee on Earth Observation Satellites (CEOS) Biodiversity Group

TEACHING EXPERIENCE

Graduate level

2014	Ecosystem Services and Biodiversity (Humboldt-University Berlin, 32h)
2011, 12, 13, 14	Land System Science (Humboldt-University Berlin, 32h)
2012	Field course in the Carpathians on advanced mapping techniques (Humboldt-University Berlin, 16h)
2011	Remote Sensing and the Global Carbon cycle (Humboldt-University Berlin, seminar on carbon book-keeping modeling, 4h)
2009	Digital Image Processing (University of Wisconsin-Madison, lecture on SVM, 2h)
2008	Land Use Science (Humboldt-University Berlin, lecture, 20h)
2006, 07	Monitoring Land Use Change (Humboldt-University Berlin, seminar, 32h)
2004, 05, 06	Spatial Problem Solving with GIS (Humboldt-University Berlin, seminar, 32h)
2005	Assessing Land Degradation with Remote Sensing and GIS (HU Berlin, seminar, 16h)
2004, 05	Distributed Geoinformation Services and Webmapping (HU Berlin, seminar, 32h)

Undergraduate level

2012, 13, 14	Module Biogeography (Humboldt-University Berlin, 52h)
2012, 14	Field course on field-based mapping methods (Humboldt-University Berlin, 16h)
2010	Global Ecology (University of Potsdam, lecture on global biosphere monitoring, 2h)
2010	Wildlife Habitat Relationships (University of Wisconsin-Madison, lecture on broad-scale habitat modeling, 2h)
2008	Introduction to Geography (Humboldt-University Berlin, lecture on spatial ecology, 2h)
2007	Digital Image Processing (Humboldt-University Berlin, lecture on geometric rectification, 2h)
2007	Geospatial modeling (Humboldt-University Berlin, lecture on modeling concepts, 2h)
2005, 06, 07, 08	Introduction to Geography (Humboldt-University Berlin, lecture on geomatics, 2h)
2003, 04, 05, 06	Statistics for Geographers (Humboldt-University Berlin, seminar, 32h)

ADVISING & SUPERVISION

Postdoc advisor	Van Butsic (2011-13), Patrick Culbert (2013 -), Matthias Baumann (2014 -)
PhD advisor	Stephan Estel, Christian Levers, Maria Piquer-Rodriguez, Anika Sieber, Laura Kehoe
Committee member	<i>At HU Berlin:</i> He Yin (2104), Christoph Reyer (2013), Magdalena Main-Knorn (2012), Florian Elmer (2012) <i>Elsewhere:</i> Catalina Munteanu (ongoing, UW-Madison, USA)
MSc & Diplom thesis	Annika Niepoth (ongoing), Max Schneider (ongoing), Verena Fehlenberg (ongoing), Christoph Israel (ongoing), Martin Mantel (2014), Benjamin Blehyl (2014), Stephan Gollombeck (2014), Oreas Kotschi (2014), Miron Thylmann (2013)*, Marlen Hauschild (2012)*, Maria Cierpinski (2011), Friederike Wirth (2011), Matthias Baumann (2009), Anika Sieber (2009), Vivian Schüler (2008), Frank Grumm (2007) * = co-supervision
BSc thesis	Martina Müller (ongoing), Florian Poetzschner (ongoing), Hendrik Bluhm (ongoing), Florian Kestel (2014), Carina Schuchardt (2013), Stephan Gollombeck (2011), Milenka Hampel (2011), Christoph Israel (2011)

OTHER PUBLICATIONS

Conference proceedings

- 6 Hostert, P., **Kuemmerle, T.** and Main, M. (2007): Post-socialist forest disturbance in the Polish Carpathians. Proceedings of the FORESTSAT 2007 Conference, November 2007, Montpellier, France. [<http://forestsat.teledetection.fr>].
- 5 **Kuemmerle, T.**, Hostert, P., Radeloff, V.C. and Perzanowski, K. (2007): Effectiveness of protected areas in the Carpathians differs among countries in post-socialist times. In: Bunce, R.H.G., Jongman, R.G.H., Hojas, L. and Weel, S. (Eds.): Proceedings of the 7th IALE World Congress, July 2007, Wageningen, The Netherlands, p. 1101-1102.
- 4 **Kuemmerle, T.**, Radeloff, V.C. and Hostert, P. (2006): A transborder assessment of forest cover change in the Carpathians. In: Braun, M. (ed): Proceedings of the 2nd EARSeL SIG Land-Use & Land-Cover Workshop, September 2006, Bonn, Germany [http://www.zfl.uni-bonn.de/earsel/ws2006_bn.html].
- 3 **Kuemmerle, T.**, Radeloff, V.C. and Hostert, P. (2006): Mapping post-socialist agricultural fragmentation in Eastern Europe using texture measures. In: Braun, M. (ed): Proceedings of the 2nd EARSeL SIG Land-Use & Land-Cover Workshop, September 2006, Bonn, Germany. [http://www.zfl.uni-bonn.de/earsel/ws2006_bn.html].
- 2 **Kuemmerle, T.**, Hostert, P., Damm, A. and Radeloff, V., (2005): Cross-border monitoring of landscape dynamics in Eastern Europe. In: Erasmi, S., Cyffka, B. and Kappas, M. (eds): 1st Göttingen GIS and Remote Sensing Days. Environmental Studies, Göttingen, October. Goltze Verlag, Göttingen, Germany, p.24-30.
- 1 Röder, A., **Kuemmerle, T.**, Hill, J., Del Barrio, G., Tsiourlis, G. and Papanastasis, V. (2005): Assessing rangeland degradation in heterogeneous Mediterranean environments. A case study in the County of Lagadas/Greece. In: Röder, A. and Hill, J. (eds): Proceedings of the 1st International Conference on Remote Sensing and Geoinformation Processing in the Assessment and Monitoring of Land Degradation and Desertification (RGLDD), Trier, September, 2005. CD publication.

Miscellaneous publications

- 8 Prishchepov, A. V., Radeloff, V. C., Baumann, M., **Kuemmerle, T.**, and Müller, D. (2012): Impact of institutional and socio-economic changes after the collapse of the USSR on agricultural land use in Eastern Europe. (In Russian). Earth from Space – the Most Effective Solutions. 14, 7-14.
- 7 Hostert, P., **Kuemmerle, T.**, Prishchepov, A., Sieber, A., Lambin, E., and Radeloff, V.C. (2012): Land systems after socio-economic disturbances: the collapse of the Soviet Union versus Chernobyl. In: Verburg, P., Espindola, G., Nolasco, C., and Migliaccio, C.G. (eds). Newsletter of the Global Land Project International Project Office, GLP News NO. 8, Copenhagen, Denmark.
- 6 Hostert, P., **Kuemmerle, T.**, and Baumann, M. (2010): The Carpathian Mountains in transformation. In:

Greenwood G. (eds). MRI Newsletter, N° 5, Bern, Switzerland.

- 5 Hostert, P., **Kuemmerle, T.**, Radeloff, V.C. and Müller, D. (2008): Post-socialist land-use and land-cover change in the Carpathian Mountains. In: Rechkemmer, A., Litre, G., and Drexler, C. (eds). IHDP Update, N°. 2, Bonn, Germany.
- 4 Hostert, P., **Kuemmerle, T.**, Müller, D. and Lakes, T. (2008): Post-socialist land-use and land-cover change in the Carpathians. In: Reenberg, A., Langanke, T., and Jorgensen, L. (eds). Newsletter of the Global Land Project International Project Office, GLP News NO. 3, Copenhagen, Denmark.
- 3 **Kuemmerle, T.** (2008): Post-socialist Land Use Change in the Carpathians. Doctoral Thesis, Humboldt-University Berlin.
- 2 **Kuemmerle, T.** (2003): Investigating the Impact of Livestock Grazing by Means of Remote Sensing and GIS; A Case Study in Northern Greece Using Multi-Date Spectral Mixture Analysis and Cost Surface Modelling. Diplom Thesis, University of Trier, Germany.
- 1 Buddenbaum, H. and **Kuemmerle, T.** (2001): Spatial Patterns in Opium Poppy Growing and Non-Growing Villages in Laos, In: ICMP Annual Opium Poppy Survey for Lao PDR, United Nations Drug Control Programme, Vienna, Austria.