

CURRICULUM VITAE

Mag. Dr. Christoph Plutzer, MAS (GIS)



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PERSONAL INFORMATION

Date of birth 8. September 1966
Place of birth Vienna, Austria
Citizenship Austria
Address Pyrkergrasse 2c/6
A-1190 Vienna
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EDUCATION

05.07.2010 Graduation: Doctor phil.
2009 - 2010 „Biodiversität und Gesellschaft: Mensch-Natur-Interaktionen auf unterschiedlichen maßstäblichen Ebenen“
„Biodiversity and Society: Interactions between mankind and nature on different scales“
Dissertation at the Alpen-Adria University Klagenfurt-Wien-Graz
20.01.2000 Graduation: Master of Advanced Studies (MAS 'GIS')
1996 - 1998 UNIGIS-university course at the University of Salzburg
17.07.1996 Graduation: Magister rer.nat.
1993 - 1996 „Darstellung der potentiellen Verbreitung der Lacertiden (Sauria: Reptilia) Ostösterreichs anhand klimatischer Parameter: eine GIS-gestützte Analyse“
„Visualization of the potential distribution of lizards in Eastern Austria using climatic variables: a GIS-based study“
Diploma thesis at the Austrian Research Centres Austria (ARCS)
1985 - 1996 Biology/zoology studies at the University of Vienna
12.06. 1985 School-leaving examination
1976 - 1985 High school
1972 - 1976 Elementary school

WORK HISTORY

since 05/2016	<p>Division of Conversation Biology, Vegetation Ecology and Landscape Ecology (CVL) Department of Botany & Biodiversity Research University of Vienna</p> <p>Main focus: Geographic information systems, biodiversity research, vegetation database, landscape ecology</p> <p>Selected project:</p> <ul style="list-style-type: none">• <i>LUBIO</i> - Land use, climate change and biodiversity in cultural landscapes: Assessing feedbacks and promoting land-use strategies towards a viable future
since 10/2008	<p>Institute of Social Ecology IFF - Faculty for Interdisciplinary Studies of Austrian Universities Alpen-Adria-University Klagenfurt-Wien-Graz</p> <p>Main focus: Geographic information systems, spatial analytics, land system science, human appropriation of net primary production, biodiversity research, wilderness assessment</p> <p>Selected projects:</p> <ul style="list-style-type: none">• <i>Analysing global HANPP</i> – patterns, dynamics and impacts of global human appropriation of net primary production• <i>“Buch der Wildnis”</i>: a wilderness vision for Austria• <i>LUISE</i> - An integrated socioecological approach to land-use intensity: Analysing and mapping biophysical stocks/flows and their socioeconomic drivers• <i>VOLANTE</i> – Visions for land use transitions in Europe <p>Since 2011: Lecturer (without tenure) Seminar: Naturwissenschaftliche Grundlagen der Sozialen Ökologie (Natural-scientific basics in Social Ecology), in German Seminar: Analytical Methods in Social Ecology, in English</p>
01/2004 – 06/2010	<p>VINCA (Vienna Institute for Nature Conservation & Analyses)</p> <p>Main focus: Geographic information systems, spatial analytics, biodiversity research, conservation biology</p> <p>Selected projects:</p> <ul style="list-style-type: none">• <i>ECOCHANGE</i> - Challenges in assessing and forecasting biodiversity and ecosystem changes in Europe• <i>FLORALP</i> - Ecological versus historical determinants of plant

	<ul style="list-style-type: none"> species distribution in the Austrian Alps • <i>HANNA</i> - Prioritization of nature conservation indicators in Lower Austria
06/2003 - 12/2003	<p><i>HANPP and the diversity of birds in Austria: Societal interventions in the productivity of ecosystems as determinate of avian diversity in Austria</i></p> <p>Project employee at the University of Vienna, Division of Conservation Biology, Vegetation Ecology and Landscape Ecology</p> <p>Project management: Alpen-Adria-University Klagenfurt-Wien-Graz, Institute of Social Ecology</p> <p>Tasks: Developing a spatially explicit model of HANPP in Austria, correlation analysis with diversity of Austrian breeding birds.</p>
03/2003 - 06/2003	<p><i>WWF „A Biodiversity Vision for the Alps“</i></p> <p>Client: WWF – Germany</p> <p>Tasks: GIS-support and providing maps for the project.</p>
10/2002 - 12/2003	<p><i>Assessment of the B17 bypass project on the stone curlew population (Burhinus oedicnemus) in the Steinfeld region (Lower Austria)</i></p> <p>Client: :Niederösterreichische Straßenbaugesellschaft</p> <p>Project co-ordination: Dipl. Ing. Markus Grössinger</p> <p>Tasks: Development of a GIS-based habitat model for the stone curlew population in the Steinfeld region. Estimation of the impact of different pipe routes of the planned bypass on the stone curlew population.</p>
09/2002 - 03/2003	<p><i>GLORIA – Global Research Initiative in Alpine Environments</i></p> <p>Project employee at the University of Vienna, Division of Conservation Biology, Vegetation Ecology and Landscape Ecology</p> <p>Tasks: Support of the project database and homepage.</p>
03/2002 - 09/2002	<p><i>WWF „A Biodiversity Vision for the Alps“</i></p> <p>Client: WWF – Switzerland</p> <p>Tasks: GIS-support and providing maps for the project.</p>
01/2002 - 06/2002	<p><i>Spatial allocation of human population activities and modelling of future trends</i></p> <p>Project employee at the International Institute for Applied System Analyses (IIASA) / Laxenburg</p> <p>Tasks: Spatial allocation of population trends using night luminosity data.</p>
06/2001 - 08/2001	<p><i>Young Scientist Summer Programme (YSSP)</i></p> <p>at the International Institute for Applied System Analyses IIASA / Laxenburg</p>
06/2001 - 03/2002	<p><i>Human impacts on species diversity: Linking patterns of production ecology and biodiversity</i></p> <p>Project employee at the University of Vienna, Division of Conservation</p>

	<p>Biology, Vegetation Ecology and Landscape Ecology Project management: Alpen-Adria-University Klagenfurt-Wien-Graz, Institute of Social Ecology Tasks: Compilation of spatially explicit data sets of biomass production and appropriation and correlation analysis with biodiversity data.</p>
04/2001 - 12/2001	<p><i>Feeding ecology and habitat selection of colonial herons in the Lake Neusiedl area</i> Client: KLIVV - Konrad Lorenz Institute of Ethology / Austrian Academy of Science Tasks: GIS based analysis of the feeding behaviour of the egret (<i>Casmerodius albus</i>) at Lake Neusiedl.</p>
03/2001 - 10/2001	<p><i>SINUS – Spatial Indices for Landuse Sustainability</i> Project employee at the University of Vienna, Division of Conservation Biology, Vegetation Ecology and Landscape Ecology Tasks: Development of a fuzzy logic-based system to assess ecological sustainability of Austrian landscapes.</p> <p><i>ENVIP – Landscape topology and indicators for nature protection</i> Project employee at the University of Vienna, Division of Conservation Biology, Vegetation Ecology and Landscape Ecology National coordination: Institute of Surveying, Remote Sensing and Land Information (IVFL), University of Life Sciences, Vienna Tasks: Spatial habitat modelling of breeding birds for the test regions Sumava (CZ) and Schneeberg/Rax (A).</p>
01/2001 - 08/2002	<p><i>WWF „A Biodiversity Vision for the Alps“</i> Client: WWF – Austria Tasks: GIS-support and providing maps for the project.</p>
08/2000 - 09/2000	<p><i>GIS-based analysis of the potential distribution of the birds under the protection of the European Birds Directive for Lower Austria</i> Client: Birdlife Austria Tasks: Habitat modelling of the EBD birds for Lower Austria, needed for the delineation of Natura 2000 areas.</p>
06/2000 - 09/2000	<p><i>GIS-based analysis of the potential distribution of the genus Bombina and Triturus for Lower Austria</i> Client: Natural History Museum Vienna Tasks: Habitat modelling of fire-bellied toads and newts for Lower Austria, needed for the delineation of Natura 2000 areas.</p>
08/1998 - 03/2009	<p><i>Homepage of Zoo Vienna</i> Client: Schönbrunner Tiergarten GmbH Tasks: Technical support and maintenance of the Schönbrunner Tiergarten homepage.</p>
06/1998 - 12/2000	<p><i>BD1 – Biodiversity in Cultural Landscapes</i></p>

	Project employee at the University of Vienna, Division of Conservation Biology, Vegetation Ecology and Landscape Ecology Tasks: Estimation of potential distribution of Austrian breeding birds and compilation of an avian species diversity assessment.
05/1998 - 11/1998	<i>Atlas of the amphibians and reptiles of Austria</i> Client: Natural History Museum Vienna Tasks: Statistical analysis, preparation of figures and graphs.
10/1996 - 05/1998	Geologic Dr. Benedikt (www.geologic.at) Freelancer Tasks: Spatial analysis, GIS, application of fuzzy logic approaches.
06/1996 - 09/1996	<i>Digitization of the draw-shafts of the City of Vienna</i> Client: Department 14 of the City of Vienna Tasks: Digitization of maps showing the draw-shafts using ArcInfo.
FURTHER TRAINING	
02.07.2015- 04.07.2015	<i>Introduction to the Natural Capital Project Approach, InVEST, & RIOS</i> Université de Genève, Genf
07/2011 – 07/2011	<i>Geoprocessing using Python</i> UNIGIS Module, Z_GIS Department of Geoinformatics (University Salzburg)
25.03.2008- 28.03.2008	<i>Modelling Patterns and Dynamics of Species Occurrence</i> Centre d'Ecologie Fonctionnelle & Evolutive, Montpellier
11.01.08	<i>Geoprocessing using Python</i> Z_GIS, Department of Geoinformatics (University Salzburg)
10/2006-02/2007	<i>Studium Integrale – provision</i> Research project study of the research program "proVision - provision for nature and society". IFF - Faculty for Interdisciplinary Studies of Austrian Universities
10.06.1999- 11.06.1999	<i>Geo-statistics in practice</i> Z_GIS, Department of Geoinformatics (University Salzburg)
27.03.1998- 29.03.1998	<i>Distribution maps using ArcView 3.0 and Biomapper</i> Z_GIS, Department of Geoinformatics (University Salzburg)
01.10.1997- 03.10.1997	<i>GIS-based applications using ArcView-Avenue</i> Z_GIS, Department of Geoinformatics (University Salzburg)

19.06.1997- *Using GPS in forestry, biology and ecology*
20.06.1997 ZGIS – Zentrum für Z_GIS, Department of Geoinformatics (University Salzburg)

27.02.1997- *Networks and GIS*
28.02.1997 Department of Geoinformatics (University Salzburg)

SKILLS

Languages:

German: native language

English: fluent in written and spoken

Geographic Information Systems:

ESRI (ArcGIS 10.x, ArcView 3.x, ArcInfo) ***, QGIS ** Idrisi **, SAGA GIS **, Surfer *, Manifold *

Statistical packages:

SPSS **, R **, Statistica *, S+ *, CrimeStat *

Databases:

MS Access **, SQL **

Programming languages:

Python **, HTML **

Image processing:

GIMP **, Adobe Photoshop **

Office:

MS Office ***, Libre Office **

Remote sensing:

ERDAS Imagine *

Operating systems:

Windows ***, Linux **

Driving license A and B

*** ... excellent / ** ... good / * ... basic

REVIEW

Reviewer for:

Diversity and Distributions, Ecological Indicators, Ecological Modelling, Environmental Science and Policy, Journal of Land Use Science, Land, Landscape Ecology, Sustainability, Herpetozoa, Journal of Cleaner Production, Regional Environmental Change, Journal of Remote Sensing

PUBLICATIONS

- (1) Erb KH, Kastner T, Plutzer C, Bais AL, Carvalhais N, Fetzel T, Gingrich S, Haberl H, Lauk C, Niedertscheider M, Pongratz J, Thurner M, Luysaert S (2018):
Unexpectedly large impact of forest management and grazing on global vegetation biomass.
Nature 553: 73-76
doi:10.1038/nature25138
- (2) Stadler K, Wood R, Bulavskaya T, Södersten CJ, Simas M, Schmidt S, Usubiaga A, Acosta-Fernández J, Kuenen J, Bruckner M, Giljum S, Lutter S, Merciai S, Schmidt JH, Theurl MC, Plutzer C, Kastner T, Eisenmenger N, Erb KH, de Koning A, Tukker A (2018):
EXIOBASE 3 Developing a Time Series of Detailed Environmentally Extended Multi-Regional Input-Output Tables.
Journal of Industrial Ecology
DOI: 10.1111/jiec.12715
- (3) Kohler B, Enzenhofer K, Plutzer C, Zika M (2016):
Wildnis in Österreich – auf der Suche nach den letzten unerschlossenen, abgelegenen und naturnahen Räumen der Ostalpen.
Acta ZooBot Austria 153, 1–27.
- (4) Plutzer, C (2016):
Methodik der Studie.
In: WWF Österreich (Ed.): Buch der Wildnis - Wildnispotenziale in Österreich. WWF Österreich. pp 35-37.
- (5) Kitzes J, Berlow E, Conlisk E, Erb KH, Iha K, Martinez N, Newman EA, Plutzer C, Smith AB, Harte J (2016):
Consumption-Based Conservation Targeting: Linking Biodiversity Loss to Upstream Demand through a Global Wildlife Footprint: Global Wildlife Footprint.
Conservation Letters, November. doi:10.1111/con4.12321.
- (6) Plutzer, C, Erb, KH, Gaube, V, Haberl, H, Krausmann, F (2016):
Of Birds and Bees: Biodiversity and the Colonization of Ecosystems
In: Haberl, H, Fischer-Kowalski, M, Krausmann, F, Winiwarter, V (Eds.), Social Ecology. Society-Nature Relations across Time and Space. Springer Cham, pp. 375–388.
- (7) Plutzer, C, Kroisleitner, C, Fetzel, T, Erb, KH (2016):
Method Précis: Using Geographic Information Systems in Social Ecology.
In: Haberl, H, Fischer-Kowalski, M, Krausmann, F, Winiwarter, V (Eds.), Social Ecology. Society-Nature Relations across Time and Space. Springer Cham, pp. 311–313.
- (8) Erb KH, Fetzel T, Plutzer C, Kastner T, Lauk C, Mayer A, Niedertscheider M, Korner, Haberl H (2016):
Biomass Turnover Time in Terrestrial Ecosystems Halved by Land Use.
Nature Geosci 9, no. 9: 674–78.
- (9) Kuemmerle T, Levers C, Erb KH, Estel S, Jepsen MR, Müller D, Plutzer C, Stürck J, Verkerk PJ, Verburg PH, Reenberg A (2016):
Hotspots of Land Use Change in Europe.

- Environmental Research Letters 11, no. 6: 64020.
- (10) Plutzer C, Enzenhofer K, Hoser F, Zika M, Kohler B (2016):
Is There Something Wild in Austria?
In: Carver SJ & Fritz S (eds.): Mapping Wilderness. Concepts, Techniques and Applications. Springer.
- (11) Niedertscheider M, Kastner, T, Fetzl T, Haberl H, Kroisleitner C, Plutzer C, Erb KH (2016):
Mapping and Analysing Cropland Use Intensity from a NPP Perspective.
Environmental Research Letters 11, no. 1 (2016): 014008.
- (12) Levers C, Müller D, Erb KH, Haberl H, Rudbeck Jepsen M, Metzger MJ, Meyfroidt P, Plieninger T, Plutzer C, Stürck J, Verburg PH, Kümmerle T (2015):
Archetypical patterns and trajectories of land systems in Europe.
Regional Environmental Change, doi: 10.1007/s10113-015-0907-x [online].
- (13) Plutzer C, Kroisleitner C, Haberl H, Fetzl T, Bulgheroni C, Beringer T, Hostert P, Kastner T, Kümmerle T, Lauk C, Levers C, Lindner M, Moser D, Müller D, Niedertscheider M, Paracchini ML, Schaphoff S, Verburg PH, Verkerk PJ, Erb KH (2015):
Changes in the spatial patterns of human appropriation of net primary production (HANPP) in Europe 1990–2006.
Regional Environmental Change. doi:10.1007/s10113-015-0820-3
- (14) Mouchet M, Levers C, Zupan L, Kümmerle T, Plutzer C, Erb KH, Lavorel S, Thuiller W, Haberl H (2015):
Testing the Effectiveness of Environmental Variables to Explain European Terrestrial Vertebrate Species Richness across Biogeographical Scales .
PLoS ONE 10, e0131924. doi:10.1371/journal.pone.0131924
- (15) Dullinger S, Dendoncker N, Gattlinger A, Leitner M, Mang T, Moser D, Múcher CA, Plutzer C, Rounsevell M, Willner W, Zimmermann NE, Hülber K (2015):
Modelling the effect of habitat fragmentation on climate-driven migration of European forest understorey plants.
Diversity and Distributions n/a–n/a. doi:10.1111/ddi.12370
- (16) Kohler B, Enzenhofer K, Plutzer C & Zika, M (2015):
Wildnis in Österreich. Zum Status eines gefährdeten Schutzguts.
Natur und Landschaft, 9/10: 430-435.
- (17) Eitzinger J, Haberl H, Amon B, Blamauer B, Essl F, Gaube V, Habersack H, Jandl R, Klik A, Lexer M, Rauch W, Tappeiner U, Zechmeister-Boltenstern S, Amon T, Bodner G, Cech T, Friedel J, Glauning J, Gschwantner T, Kreuzinger N, Oberforster M, Plutzer C, Pötsch E, Schlatzer M, Schmidt J, Schmutz S (2014):
Kapitel 2: Land- und Forstwirtschaft, Wasser, Ökosysteme und Biodiversität.
In: Kromp-Kolb H, Nakicenovic N, Steininger K, Gobiet A, Formayer H, Köppl A, Prettenhaler F, Stötter J, Schneider J (eds.): Österreichischer Sachstandsbericht Klimawandel 2014: 771-856.

- (18) Plutzer C, Hejjas F, Zika M & Kohler B (2013):
Linking the wilderness continuum concept to protected areas.
5th Symposium for Research in Protected, Mittersil/Austria, Conference
Volume: 587 – 590
- (19) Kuemmerle T, Erb KH, Meyfroidt P, Müller P, Verburg PH, Estel S, Haberl H, Hostert P, Jepsen MR, Kastner T, Levers C, Lindner M, Plutzer C, Verkerk PJ, van der Zanden EH & Reenberg A (2013):
Challenges and opportunities in mapping land use intensity globally.
Current Opinion in Environmental Sustainability, 5: 1-10.
- (20) Krausmann, F, Erb, KH, Gingrich, S, Haberl, H, Bondeau, A, Gaube, V, Lauk, C, Plutzer, C & Searchinger, TD (2013):
Global human appropriation of net primary production doubled in the 20th century.
Proc. Natl. Acad. Sci. USA (PNAS), doi/10.1073/pnas.1211349110
- (21) Coelho, ST, Agbenyega, O, Agostini, A, Erb, KH, Haberl, H, Hoogwijk, M, Rattan, L, Dos Santos Lucon, O, Maser, O, Moreira, JR, Björklund, G, Krausmann, F, Msangi, S, & Plutzer, C (2012):
Land and Water: Linkages to Bioenergy.
In: Gomez-Echeverri, L et al. (Eds.): Global Energy Assessment: Toward a Sustainable Future. IIASA and Cambridge University Press, Laxenburg, Cambridge, UK, pp. 1459-1526
- (22) Dullinger, S, Gattlinger, A, Thuiller, W, Moser, D, Zimmermann, NE, Guisan, A, Willner, W, Plutzer, C, Leitner, M, Mang, T, Caccianiga, M, Dirnböck, T, Ertl, S, Fischer, A, Lenoir, A, Svenning, JC, Psomas, A, Schmatz, DR, Silc, U, Vittoz, P, & Hülber, K (2012):
Extinction debt of high-mountain plants under 21st century climate warming.
Nature Climate Change 2, 619–622.
- (23) Dullinger, S, Willner, W, Plutzer, C, Englisch, T, Schratt-Ehrendorfer, L, Moser, D, Ertl, S, Essl, F & Niklfeld, H (2012):
Postglacial migration lag restricts range filling of plants in the European Alps.
Global Ecology and Biogeography 21, 829-840.
- (24) Erb, KH, Haberl, H & Plutzer, C (2012):
Dependency of global bioenergy crop potentials in 2050 on food systems, yields, biodiversity conservation and political stability.
Energy Policy, doi: 10.1016/j.enpol.2012.04.066.
- (25) Fetzel, T, Niedertscheider, M, Erb, KH, Gaube, V, Gingrich, S, Haberl, H, Krausmann, F, Lauk, C, & Plutzer, C (2012):
Human Appropriation of Net Primary Production in Africa: Patterns, trajectories, processes and policy implications.
Report commissioned by UNCTAD. Geneva: UNCTAD
- (26) Haberl, H, Erb, KH, Lauk, C, & Plutzer, C (2012):
Menschliche Aneignung von Nettoprimärproduktion in Europa: Schlussfolgerungen für Bioenergiepotentiale
In: Leopoldina (Ed.): Bioenergy - Chances and Limits. Halle: Leopoldina - nationale Akademie der Wissenschaften, pp. 102-118.

- (27) Haberl, H, Steinberger, JK, Plutzer, C, Erb, KH, Gaube, V, Gingrich, S & Krausmann, F (2012):
Natural and socioeconomic determinants of the embodied human appropriation of net primary production and its relation to other resource use indicators.
Ecological Indicators 23, 222-231.
- (28) Erb, KH, Mayer, A, Krausmann, F, Lauk, C, Plutzer, C, Steinberger, JK & Haberl, H (2011):
The interrelations of future global bioenergy potentials, food demand and agricultural technology.
In: Gasparatos, A & Stromberg, P (eds.). Socioeconomic and environmental impacts of biofuels: Evidence from developing nations. Cambridge University Press, Cambridge UK, pp. 27-52.
- (29) Essl, F, Dullinger, S, Plutzer, C, Willner, W & Rabitsch, W (2011):
Imprints of glacial history and current environment on correlations between endemic plant and invertebrate species richness.
Journal of Biogeography 38: 604-616.
- (30) Haberl, H, Erb KH, Krausmann, K, Bondeau, A, Lauk, C, Müller, C, Plutzer, C & Steinberger, JK (2011):
Global bioenergy potentials from agricultural land in 2050: Sensitivity to climate change, diets and yields.
Biomass and Bioenergy 35: 4753-4769.
- (31) Erb, KH, Gaube, V, Haberl, H & Plutzer, C (2010):
Carbon Danube. Assessing ecological carbon sink potentials in Engelhartzell and along the Danube. A feasibility study.
Research report of the Institute of Social Ecology, commissioned by the Austrian Academy of Sciences. Vienna: Institute of Social Ecology.
- (32) Erb, KH, Haberl, H, Krausmann, F, Lauk, C, Plutzer, C, Steinberger, JK, Mueller, C, Bondeau, C, Waha, K & Pollack, G (2009):
Feeding and fuelling the world sustainably, fairly and humanely. A scoping study.
Commissioned by Compassion in World Farming and Friends of the Earth UK. Institute of Social Ecology and PIK Potsdam, Vienna, Potsdam, 133 pp.
- (33) Haberl, H, Erb, KH, Krausmann, F, Gaube, V, Gingrich, S & Plutzer, C (2009):
Quantification of the intensity of global human use of ecosystems for biomass production.
Background note to the World Development Report 2010 "Development and Climate Change", 9 pp.
- (34) Haberl, H, Gaube, V, Díaz-Delgado, R, Krauze, K, Neuner, A, Peterseil, J, Plutzer, C, Singh, SJ & Vadineanu, A (2009):
Towards an integrated model of socioeconomic biodiversity drivers, pressures and impacts. A feasibility study based on three European long-term socio-ecological research platforms.
Ecological Economics 68: 1797-1812.
- (35) Plutzer, C, Pollheimer, M & Sauberer, N (2008):
Diversitätsmuster der Brutvögel Österreichs.

- In: Sauberer, N, Moser, D & Grabherr, G (eds.) Biodiversität in Österreich. Räumliche Muster und Indikatoren der Arten- und Lebensraumvielfalt. Zürich, Bristol-Stiftung; Bern, Stuttgart, Wien, Haupt. 313 pp.
- (36) Erb, KH, Gaube, V, Krausmann, F, Plutzer, C, Bondeau, A & Haberl, H (2007):
A comprehensive global 5 min resolution land-use data set for the year 2000 consistent with national census data.
Journal of Land Use Science 2(3): 191-224.
- (37) Haberl, H, Erb, KH, Krausmann, F, Gaube, V, Bondeau, A, Plutzer, C, Gingrich, S, Lucht, W & Fischer-Kowalski, M (2007):
Quantifying and mapping the human appropriation of net primary production in the Earth's terrestrial ecosystems.
Proc. Natl. Acad. Sci. USA (PNAS), 104:12942–12947.
- (38) Haberl, H, Erb, KH, Plutzer, C, Fischer-Kowalski, M & Krausmann, F (2007):
Human appropriation of net primary production (HANPP) as indicator for pressures on biodiversity.
In: Hák, T, Moldan, B, Dahl, AL (eds.): Sustainability Indicators - A Scientific Assessment. SCOPE 67, Island Press.
- (39) Haberl, H, Plutzer, C, Erb, KH, Gaube, V, Pollheimer, M & Schulz, NB (2005):
Human Appropriation of Net Primary Production as Determinant of Avifauna Diversity in Austria.
Agriculture, Ecosystems and Environment, 110/3-4: 119-131.
- (40) Moser, D, Dullinger, S, Englisch, T, Niklfeld, H, Plutzer, C, Sauberer, N, Zechmeister, H-G & Grabherr, G (2005):
Environmental determinants of vascular plant species richness in the Austrian Alps.
Journal of Biogeography, 32: 1117-1127.
- (41) Nemeth, E, Bossew, P & Plutzer, C (2005):
A distance-dependent estimation of foraging ranges of neighbouring bird colonies.
Ecological Modelling, 182: 67-73.
- (42) Reiter, K, Wrba, T, Englisch, T, Plutzer, C & Grabherr, G (2005):
Die ökologische Komplexität - ein Beitrag zum biologischen Porträt Österreichs.
In: Borsdorf, A (ed.) Das neue Bild Österreichs: 65-66. Verlag der Österreichischen Akademie der Wissenschaften.
- (43) Erb, KH, Gaube, V, Haberl, H, Plutzer, C, Pollheimer, M, Schulz, NB & Smetschka, B (2004):
HANPP und Avifauna-Diversität in Österreich, Gesellschaftliche Eingriffe in die Produktionsökologie von Ökosystemen als Determinante der Vielfalt der österreichischen Avifauna.
Final report for the research projekt GZ 25.028/1-VI/ Wien. 103 pp.
- (44) Haberl, H, Plutzer, C, Erb, KH, Fischer-Kowalski, M, Krausmann, F, Loibl, W, Pollheimer, M, Sauberer, N, Schulz, NB & Weisz, H (2004):

- Der Einfluss des Menschen auf die Artenvielfalt - Gesellschaftliche Aneignung von Nettoprimärproduktion als Pressure-Indikator für den Verlust von Biodiversität.*
IFF Social Ecology Working Papers, 66. 33 pp.
- (45) Haberl, H, Schulz, NB, Plutzer, C, Erb, KH, Krausmann, F, Loibl, W, Moser, D, Sauberer, N, Weisz, H, Zechmeister, H-G & Zulka, P (2004):
Human appropriation of net primary production and species diversity in agricultural landscapes.
Agriculture, Ecosystems and Environment, 102/2: 213-218.
- (46) Peterseil, J, Wrba, T, Plutzer, C, Schmitzberger, I, Kiss, A, Szerencsits, E, Reiter, K, Schneider, W, Suppan, F & Beissmann, H (2004):
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