

Publications and Presentations

STEFAN BAUMGÄRTNER

June 2024

BOOKS

Lanzerath, D., J. Mutke, W. Barthlott, S. Baumgärtner, C. Becker and T.M. Spranger (2008), *Biodiversität* (Series: *Ethik in den Biowissenschaften – Sachstandsberichte des DRZE*, Band 5), Verlag Karl Alber, Freiburg and Munich.

[reviewed in *Frankfurter Allgemeine Zeitung* 21/05/2008]

Baumgärtner, S., M. Faber and J. Schiller (2006), *Joint Production and Responsibility in Ecological Economics. On the Foundations of Environmental Policy*, Edward Elgar, Cheltenham.

[reviewed in *Ecological Economics* 64(3): 674-675, 2008; *Environmental Politics* 17(5): 873-874, 2008; *Environmental Values* 17(1): 111-113, 2008; *Journal of Evolutionary Economics* 18(1): 111-114, 2008]

Baumgärtner, S. (2006), *Natural Science Constraints in Environmental and Resource Economics. Method and Problem*, University of Heidelberg Publications Online, Heidelberg (<http://www.ub.uni-heidelberg.de/archiv/6593>).

Baumgärtner, S. and C. Becker (eds) (2005), *Wissenschaftsphilosophie interdisziplinärer Umweltforschung*, Metropolis-Verlag, Marburg.

[reviewed in *Actualidad Bibliografica de Filosofía y Teología*, July-December 2006; *Forum Geoökologie*, 17(3), 67-68, 2006]

Baumgärtner, S. (2000), *Ambivalent Joint Production and the Natural Environment. An Economic and Thermodynamic Analysis*, Physica-Verlag, Heidelberg and New York.

ARTICLES IN PEER-REVIEWED JOURNALS

Stecher, M. and S. Baumgärtner (2024), Quantifying agents' causal responsibility in dynamical systems, *Ecological Economics* 217, 108086; [doi:10.1016/j.ecolecon.2023.108086](https://doi.org/10.1016/j.ecolecon.2023.108086).

Stecher, M. and S. Baumgärtner (2022), A stylized model of stochastic ecosystems with alternative stable states, *Natural Resource Modeling* 2022;e12345; [doi:10.1111/nrm.12345](https://doi.org/10.1111/nrm.12345).

Quaas, M.F., S. Baumgärtner, M.A. Drupp and J.N. Meya (2020), Intertemporal utility with heterogeneous goods and constant elasticity of substitution, *Economics Letters* 191, 109092; [doi:10.1016/j.econlet.2020.109092](https://doi.org/10.1016/j.econlet.2020.109092).

Drupp, M.A., S. Baumgärtner, M. Meyer, M.F. Quaas and H. von Wehrden (2020), Between Ostrom and Nordhaus: The research landscape of sustainability economics, *Ecological Economics* 172, 106620; [doi:10.1016/j.ecolecon.2020.106620](https://doi.org/10.1016/j.ecolecon.2020.106620).

Quaas, M.F., S. Baumgärtner, M. De Lara (2019), Insurance value of natural capital, *Ecological Economics* 165, 106388. [doi:10.1016/j.ecolecon.2019.106388](https://doi.org/10.1016/j.ecolecon.2019.106388).

Doyen, L., C. Armstrong, S. Baumgärtner, C. Béné, F. Blanchard, A.A. Cissé, R. Cooper, L.X.C. Dutra, A. Eide, D. Freitas, S. Gourguet, F. Gusmao, P.-Y. Hardy, A. Jarre, L.R. Little, C. Macher,

- M.F. Quaas, E. Regnier, N. Sanz, O. Thébaud (2019), From no whinge scenarios to viability tree, **Ecological Economics** 163, 183–188. [doi:10.1016/j.ecolecon.2019.04.011](https://doi.org/10.1016/j.ecolecon.2019.04.011).
- Engler, J.-O., H. von Wehrden and S. Baumgärtner (2019), Determinants of farm size and stocking rate in Namibian commercial cattle farming, **Land Use Policy** 81: 232–246. [doi:10.1016/j.landusepol.2018.10.009](https://doi.org/10.1016/j.landusepol.2018.10.009).
- Reyhanloo, T., S. Baumgärtner, M. Haeni, S. Quatrini, P. Saner, E. von Lindern (2018), Private-sector investors' intention and motivation to invest in Land Degradation Neutrality, **PLoS ONE** 13(12): e0208813; [doi: 10.1371/journal.pone.0208813](https://doi.org/10.1371/journal.pone.0208813).
- Drupp, M.A., J.N. Meya, S. Baumgärtner and M.F. Quaas (2018), Economic inequality and the value of nature, **Ecological Economics** 150: 340–345. [doi:10.1016/j.ecolecon.2018.03.029](https://doi.org/10.1016/j.ecolecon.2018.03.029).
- Baumgärtner, S., M.A. Drupp, J.N. Meya, J.M. Munz and M.F. Quaas (2017), Income inequality and willingness to pay for environmental public goods, **Journal of Environmental Economics and Management** 85: 35–61. [doi:10.1016/j.jeem.2017.04.005](https://doi.org/10.1016/j.jeem.2017.04.005).
- Baumgärtner, S., M.A. Drupp and M.F. Quaas (2017), Subsistence, substitutability and sustainability in consumption, **Environmental and Resource Economics** 67(1): 47–66. [doi:10.1007/s10640-015-9976-z](https://doi.org/10.1007/s10640-015-9976-z)
- Hoberg, N. and S. Baumgärtner (2017), Irreversibility and uncertainty cause an intergenerational equity-efficiency trade-off, **Ecological Economics** 131: 75–86. [doi:10.1016/j.ecolecon.2016.08.015](https://doi.org/10.1016/j.ecolecon.2016.08.015).
- Olbrich, R., M.F. Quaas and S. Baumgärtner (2016), Characterizing commercial cattle farms in Namibia: Risk, management and sustainability, **African Journal of Agricultural Research** 11(41): 4109–4120. [doi:10.5897/AJAR2016.10981](https://doi.org/10.5897/AJAR2016.10981).
- Stumpf, K.H., C.U. Becker and S. Baumgärtner (2016), A conceptual structure of justice – Providing a tool to analyse conceptions of justice, **Ethical Theory and Moral Practice** 19(5): 1187–1202, [doi:10.1007/s10677-016-9728-3](https://doi.org/10.1007/s10677-016-9728-3).
- Kahmann, B., K.H. Stumpf and S. Baumgärtner (2015), Notions of justice held by stakeholders of the Newfoundland fishery, **Marine Policy** 62: 37–50. [doi:10.1016/j.marpol.2015.08.012](https://doi.org/10.1016/j.marpol.2015.08.012).
- Jakoby, O., M.F. Quaas, S. Baumgärtner and K. Frank (2015), Adapting livestock management to spatio-temporal heterogeneity in semi-arid rangelands, **Journal of Environmental Management** 162: 179–189. doi: 10.1016/j.jenvman.2015.07.047.
- Stumpf, K.H., S. Baumgärtner, C.U. Becker and S. Sievers-Glotzbach (2015), The justice dimension of sustainability. A systematic and general conceptual framework, **Sustainability** 7(6): 7438–7472. doi:10.3390/su7067438.
- Baumgärtner, S., A.M. Klein, D. Thiel, K. Winkler (2015), Ramsey discounting of ecosystem services, **Environmental and Resource Economics** 61(2): 273–296. doi:10.1007/s10640-014-9792-x.
- Engler, J.-O. and S. Baumgärtner (2015), Model choice and size distribution: a Bayequentist approach, **American Journal of Agricultural Economics** 97(3): 978–997. doi:10.1093/ajae/aau034.
- Olbrich, R., M.F. Quaas and S. Baumgärtner (2014), Personal norms of sustainability and farm management behavior, **Sustainability** 6(8), 4990–5017. doi:10.3390/su6084990.
- Lukomska, N., M.F. Quaas and S. Baumgärtner (2014), Bush encroachment control and risk management in semi-arid rangelands, **Journal of Environmental Management** 145, 24–34.

- Abson, D.J., H. von Wehrden, S. Baumgärtner, J. Fischer, J. Hanspach, W. Härdtle, H. Heinrichs, A.M. Klein, D.J. Lang, P. Martens and D. Walmsley (2014), Ecosystem services as a boundary object for sustainability, **Ecological Economics** 103, 29–37.
- Baumgärtner, S. and S. Strunz (2014), The economic insurance value of ecosystem resilience, **Ecological Economics** 101, 21–31.
- Baumgärtner, S., S. Sievers-Glotzbach, N. Hoberg, M.F. Quaas und K.H. Stumpf (2014), Ökonomische Analyse der Trade-Offs zwischen Gerechtigkeiten, **Journal für Generationengerechtigkeit** 14(1), 10–18.
- Jakoby, O., M.F. Quaas, B. Müller, S. Baumgärtner and K. Frank (2014), How do individual farmers' objectives influence the evaluation of rangeland management strategies under a variable climate? **Journal of Applied Ecology** 51(2), 483–493.
- Quaas, M.F., D. van Soest and S. Baumgärtner (2013), Complementarity, impatience, and the resilience of natural-resource-dependent economies, **Journal of Environmental Economics and Management** 66(1), 15–32.
- Olbrich, R. M.F. Quaas and S. Baumgärtner (2012), A survey of commercial cattle farmers in semi-arid rangelands of Namibia on risk, sustainability and management, **Schmollers Jahrbuch / Journal of Applied Social Science Studies** 132(3), 463–471.
- Baumgärtner, S., S. Glotzbach, N. Hoberg, M.F. Quaas and K.H. Stumpf (2012), Economic analysis of trade-offs between justices, **Intergenerational Justice Review** 1/2012, 4–9.
- Glotzbach, S. and S. Baumgärtner (2012), The relationship between intragenerational and intergenerational ecological justice, **Environmental Values** 21(3), 331–355.
- Quaas, M.F. and S. Baumgärtner (2012), Optimal grazing management rules in semi-arid rangelands with uncertain rainfall, **Natural Resource Modeling** 25(2), 364–387.
- Baumgärtner, S., S. Derissen, M. Quaas and S. Strunz (2011), Consumer preferences determine resilience of ecological-economic systems, **Ecology and Society** 16(4), 9.
- Müller, B., M.F. Quaas, K. Frank and S. Baumgärtner (2011), Pitfalls and potential of institutional change: Rain-index insurance and the sustainability of rangeland management, **Ecological Economics** 70(11), 2137–2144.
- Derissen, S., M.F. Quaas and S. Baumgärtner (2011), The relationship between resilience and sustainability of ecological-economic systems, **Ecological Economics** 70(6), 1121–1128.
- Baumgärtner, S. and M.F. Quaas (2010), Sustainability economics – general versus specific, and conceptual versus practical, **Ecological Economics** 69(11), 2056–2059.
- Baumgärtner, S. and M.F. Quaas (2010), What is sustainability economics? **Ecological Economics** 69(3), 445–450.
- Baumgärtner, S. and M.F. Quaas (2010), Managing increasing environmental risks through agrobiodiversity and agri-environmental policies, **Agricultural Economics** 41(5), 483–496.
- Baumgärtner, S. and M.F. Quaas (2009), Ecological-economic viability as a criterion of strong sustainability under uncertainty, **Ecological Economics** 68(7), 2008–2020.
- Baumgärtner, S., F. Jöst and R. Winkler (2009), Optimal dynamic scale and structure of a multi-pollution economy, **Ecological Economics** 68(4), 1226–1238.

Baumgärtner, S., C. Becker, K. Frank, B. Müller and M.F. Quaas (2008), Relating the philosophy and practice of ecological economics. The role of concepts, models and case studies in inter- and transdisciplinary sustainability research, **Ecological Economics** 67(3), 384–393.

Quaas, M.F. and S. Baumgärtner (2008), Natural vs. financial insurance in the management of public-good ecosystems, **Ecological Economics** 65(2), 397–406.

Quaas, M.F., S. Baumgärtner, C. Becker, K. Frank and B. Müller (2007), Uncertainty and sustainability in the management of rangelands, **Ecological Economics** 62(2), 251–266.

[reprinted in: C. Perrings (ed.), *Ecological Economics*, Sage Publications, Thousand Oaks, 2008, pp. 229–260.]

Baumgärtner, S. (2007), The insurance value of biodiversity in the provision of ecosystem services, **Natural Resource Modeling** 20(1), 87–127.

Baumgärtner, S., C. Becker, M. Faber and R. Manstetten (2006), Relative and absolute scarcity of nature. Assessing the roles of economics and ecology for biodiversity conservation, **Ecological Economics** 59(4), 487–498.

Wätzold, F., M. Drechsler, C.W. Armstrong, S. Baumgärtner, V. Grimm, A. Huth, C. Perrings, H.P. Possingham, J.F. Shogren, A. Skonhøft, J. Verboom-Vasiljev and C. Wissel (2006), Ecological-economic modeling for biodiversity management: Potential, pitfalls, and prospects, **Conservation Biology** 20(4), 1034–1041.

Baumgärtner, S. (2005), Temporal and thermodynamic irreversibility in production theory, **Economic Theory** 26(3), 725–728.

Baumgärtner, S. (2004), Price ambivalence of secondary resources: joint production, limits to substitution, and costly disposal, **Resources, Conservation and Recycling** 43(1), 95–117.

Baumgärtner, S. (2004), The Inada conditions for material resource inputs reconsidered, **Environmental and Resource Economics** 29(3), 307–322.

Baumgärtner, S. (2004), Optimal investment in multi-species protection: interacting species and ecosystem health, **EcoHealth** 1(1), 101–110.

Baumgärtner, S. and J. de Swaan Arons (2003), Necessity and inefficiency in the generation of waste. A thermodynamic analysis, **Journal of Industrial Ecology** 7(2), 113–123.

Baumgärtner, S. and R. Winkler (2003), Markets, technology and environmental regulation: price ambivalence of waste paper in Germany, **Ecological Economics** 47(2–3), 183–195.

Baumgärtner, S. and R. Winkler (2003), Preisambivalenz von Altpapier. Eine ökonomische Konsequenz der deutschen Abfallgesetzgebung 1985 – 2000, **Zeitschrift für angewandte Umweltforschung – Journal of Environmental Research** 15/16(2), 239–255.

Baumgärtner, S., M. Faber and J. Proops (2002), How environmental concern influences the investment decision. An application of capital theory, **Ecological Economics** 40(1), 1–12.

Baumgärtner, S. (2001), Heinrich von Stackelberg on joint production, **European Journal of the History of Economic Thought** 8(4), 509–525.

Baumgärtner, S., H. Dyckhoff, M. Faber, J. Proops and J. Schiller (2001), The concept of joint production and ecological economics, **Ecological Economics** 36(3), 365–372.

[reprinted in: J. Martinez-Allier and I. Røpke (eds), *Recent Developments in Ecological Economics*, Edward Elgar, Cheltenham, 2008.]

Baumgärtner, S. and J. Schiller (2001), Vielfalt und Nachhaltigkeit. Der Einfluss von Beständen und des Zeithorizonts auf zukünftige ökonomische Wahlmöglichkeiten, **Zeitschrift für angewandte Umweltforschung – Journal of Environmental Research**, special issue 13/2001, 137–148.

Baumgärtner, S. and F. Jöst (2000), Joint production, externalities, and the regulation of production networks, **Environmental and Resource Economics** 16(2), 229–251.

Baumgärtner, S., H.J. Pirner, K. Königsmann and B. Povh (1996), How to determine the pion cloud of the constituent quark, **Zeitschrift für Physik A – Hadrons and Nuclei** 353, 397–409.

CONTRIBUTIONS TO BOOKS

Schiller, J. and S. Baumgärtner (2023), Joint production, in: E. Padilla Rosa and J. Ramos-Martín (eds), *Elgar Encyclopedia of Ecological Economics*, Edward Elgar, Cheltenham UK and Northampton, MA, USA, pp. 319–325.

Schaber, V., M.-C. Riekhof, M. Stecher, R. Voss and S. Baumgärtner (2023), Stakeholders' normative notions of sustainability. A survey for the co-design of a sustainable future of the Western Baltic fishery system, in: S. Gómez and V. Köpsel (eds.), *Transdisciplinary Marine Research – Bridging Science and Society*, Routledge, pp. 149–172.

Baumgärtner, S. (2017), Soziale und intergenerationelle Gerechtigkeit, in: U. Eser (Hrsg.), *Naturschutz und soziale Gerechtigkeit*, BfN-Skripten 469, Bundesamt für Naturschutz, Bonn, p. 48.

Baumgärtner, S. (2014), Öffentliche Nachhaltigkeitssteuerung: Ökonomik und Nachhaltigkeitssteuerung, in: H. Heinrichs und G. Michelsen (Hrsg.), *Nachhaltigkeitswissenschaften*, Springer-Verlag, Berlin, pp. 261–279.

Baumgärtner, S. (2012), Normative Begründung der Nachhaltigkeitsökonomie, in: Studierenden-Initiative Greening the University e.V. (Hrsg.), *Wissenschaft für nachhaltige Entwicklung! Multiperspektivische Beiträge zu einer verantwortungsbewussten Wissenschaft*, Metropolis-Verlag, Marburg, pp. 273–298.

Schröter, M., O. Jakoby, R. Olbrich, M. Eichhorn and S. Baumgärtner (2011), Remote sensing of bush encroachment on commercial cattle farms in semi-arid rangelands in Namibia, in: V. Olej, I. Obršálová and J. Krupka (eds), *Environmental Modeling for Sustainable Regional Development: System Approaches and Advanced Methods*, IGI Global, Hershey, pp. 327–343.

Barbier, E.B., S. Baumgärtner, K. Chopra, C. Costello, A. Duraiappah, R. Hassan, A.P. Kinzig, M. Lehman, U. Pascual, S. Polasky and C. Perrings (2009), The valuation of ecosystem services, in: S. Naeem, D.E. Bunker, A. Hector, M. Loreau and C. Perrings (eds), *Biodiversity, Ecosystem Functioning, and Human Wellbeing*, Oxford University Press, Oxford, pp. 248–262.

Perrings, C., S. Baumgärtner, W.A. Brock, K. Chopra, M. Conte, C. Costello, A. Duraiappah, A.P. Kinzig, U. Pascual, S. Polasky, J. Tschirhart and A. Xepapadeas (2009), The economics of biodiversity and ecosystem services, in: S. Naeem, D.E. Bunker, A. Hector, M. Loreau and C. Perrings (eds), *Biodiversity, Ecosystem Functioning, and Human Wellbeing*, Oxford University Press, Oxford, pp. 230–247.

Baumgärtner, S. and M.F. Quaas (2009), Agro-biodiversity as natural insurance and the development of financial insurance markets, in: A. Kontoleon, U. Pascual and M. Smale (eds), *Agrobiodiversity, Conservation and Economic Development*, Routledge, London, pp. 293–317.

Quaas, M., S. Baumgärtner, C. Becker, K. Frank and B. Müller (2008). Uncertainty and sustainability in the management of rangelands, in: C. Perrings (ed.), *Ecological Economics*, Sage Publications, Thousand Oaks, pp. 229–260.

[reprinted from *Ecological Economics* 62(2), 251–266 (2007)]

Baumgärtner, S., H. Dyckhoff, M. Faber, J. Proops and J. Schiller (2008). The concept of joint production and ecological economics, in: J. Martinez-Allier and I. Røpke (eds), *Recent Developments in Ecological Economics*, Edward Elgar, Cheltenham, pp. 90–97.

[reprinted from *Ecological Economics* 36(3), 365–372 (2001)]

Baumgärtner, S. and C. Becker (2008), Ökonomische Aspekte der Biodiversität, in: D. Lanzerath, J. Muthke, W. Barthlott, S. Baumgärtner, C. Becker und T.M. Spranger, *Biodiversität* (Series: *Ethik in den Biowissenschaften – Sachstandsberichte des DRZE*, Volume 5), Verlag Karl Alber, Freiburg and München, pp. 75–115.

Baumgärtner, S. (2007), Why the measurement of species diversity requires prior value judgments, in: A. Kontoleon, U. Pascual and T. Swanson (eds), *Biodiversity Economics. Principles, Methods and Applications*, Cambridge University Press, Cambridge, pp. 293–310.

Frank, K., S. Baumgärtner, C. Becker, B. Müller and M. Quaas (2006), Ecological-economic models for sustainable grazing in semi-arid rangelands: between concepts and case studies. In: H. Leser, (ed.), *The Changing Culture and Nature of Namibia: Case Studies*, Basler Afrika Bibliographien, Basel and Windhoek, pp. 69–89.

Becker, C. und S. Baumgärtner (2005), Einleitung, in: S. Baumgärtner und C. Becker (eds), *Wissenschaftsphilosophie interdisziplinärer Umweltforschung*, Metropolis-Verlag, Marburg, pp. 9–23.

Baumgärtner, S. (2004), Thermodynamic models, in: J. Proops and P. Safonov (eds), *Modelling in Ecological Economics*, Edward Elgar, Cheltenham, pp. 102–129.

Baumgärtner, S. (2003), Entropy, in: International Society of Ecological Economics (ed.), *Online Encyclopaedia of Ecological Economics* (http://www.ecoeco.org/education_encyclopedia.php).

Baumgärtner, S. (2003), Warum Messung und Bewertung biologischer Vielfalt nicht unabhängig voneinander möglich sind, in: J. Weimann, A. Hoffmann und S. Hoffmann (eds), *Messung und ökonomische Bewertung von Biodiversität: Mission impossible?* Metropolis-Verlag, Marburg, pp. 43–66.

Baumgärtner, S., H. Dyckhoff, M. Faber, J. Proops and J. Schiller (2003), Joint production, in: International Society of Ecological Economics (ed.), *Online Encyclopaedia of Ecological Economics* (http://www.ecoeco.org/education_encyclopedia.php).

Baumgärtner, S. (2002), Der ökonomische Wert der biologischen Vielfalt, in: Bayerische Akademie für Naturschutz und Landschaftspflege (ed.), *Grundlagen zum Verständnis der Artenvielfalt und ihrer Bedeutung und der Maßnahmen, dem Artensterben entgegen zu wirken* (Laufener Seminarbeiträge 2/02), Laufen/Salzach, pp. 73–90.

Baumgärtner, S. (2002), Thermodynamics of waste generation, in: K. Bisson and J. Proops (eds), *Waste in Ecological Economics*, Edward Elgar, Cheltenham, pp. 13–37.

Baumgärtner, S. and J. Schiller (2001), Kuppelproduktion – Ein Konzept zur Beschreibung der Entstehung von Umweltproblemen, in: F. Beckenbach, U. Hampicke, C. Leipert, G. Meran, J. Minsch, H.G. Nutzinger, R. Pfriem, J. Weimann, F. Wirl and U. Witt (eds), *Jahrbuch Ökologische Ökonomik, Band 2: Ökonomische Naturbewertung*, Metropolis, Marburg, pp. 353–393.

Faber, M., J. Proops and S. Baumgärtner (1998), All production is joint production - a thermodynamic analysis, in: S. Faucheux, J. Gowdy and I. Nicolai (eds), *Sustainability and Firms: Technological Change and the Changing Regulatory Environment*, Edward Elgar, Cheltenham, pp. 131–158.

Klauer, B. and S. Baumgärtner (1998), Operationalization of the concept of sustainable development on different time scales, in: S. Dwyer, U. Gansloßer and M. O'Connor (eds). *Life Science Dimensions – Ecological Economics and Sustainable Use*, Filander Press, Fürth, pp. 175–194.

Baumgärtner, S., M. Faber and J. Proops (1996), Entropy - A unifying concept for ecological economics, in: M. Faber, R. Manstetten and J.L.R. Proops, *Ecological Economics – Concepts and Methods*, Edward Elgar, Cheltenham, pp. 95–114.

Baumgärtner, S., M. Faber and J. Proops (1996), The use of the entropy concept in ecological economics, in: M. Faber, R. Manstetten and J.L.R. Proops, *Ecological Economics – Concepts and Methods*, Edward Elgar, Cheltenham, pp. 115–135.

BOOK REVIEWS, COMMENTS, OBITUARIES

Schröter, M., M. Groth and S. Baumgärtner (2009), Pigous Beitrag zur Nachhaltigkeit – Eine Würdigung zum 50. Todestag, **Wirtschaftsdienst – Zeitschrift für Wirtschaftspolitik** 2009/6, 419–424.

Baumgärtner, S. (2006), review of *The Ecological Economics of Biodiversity. Methods and Policy Applications* by P.A.L.D. Nunes, J.C.J.M. van den Bergh and P. Nijkamp, Edward Elgar, Cheltenham, 2003, **Ecological Economics** 59(1), 181–182.

Baumgärtner, S. (1999), review of *Economic Analysis and Moral Philosophy* by D. M. Hausman and M. S. McPherson, Cambridge University Press, Cambridge, 1996, **Dialektik – Enzyklopädische Zeitschrift für Wissenschaften und Philosophie**, 1999/3, pp. 167–171.

Baumgärtner, S. (1996), review of *Zeit. Von der Urzeit zur Computerzeit* by K. Mainzer, C.H. Beck, München, 1995, in: **Spektrum der Wissenschaft**, August 1996, pp. 119–120.

ABSTRACTS IN CONFERENCE PROCEEDINGS

Henselek, Y., A.-M. Klein, S. Baumgärtner (2016). How pollinator species diversity affects the probability distribution of pollination and of farm income. *Verhandlungen der Gesellschaft für Ökologie* 46, 376–377.

Henselek, Y., A.M. Klein and S. Baumgärtner (2015). The insurance effect of wild pollinators on almond farmers' income, *Verhandlungen der Gesellschaft für Ökologie* 45, 163.

Müller, B., M.F. Quaas, K. Frank and S. Baumgärtner (2009), Pitfalls of institutional change: rain-index insurance may impair rangeland's resilience, *Earth and Environmental Science* 6: 422009. doi:10.1088/1755-1307/6/2/422009

Baumgärtner, S. (2003), Measuring the diversity of what? And for what purpose? A comparison of ecological and economic biodiversity indices, *Verhandlungen der Gesellschaft für Ökologie* 33, 490.

Baumgärtner, S., C. Becker, M. Faber and R. Manstetten (2003), Relative and absolute scarcity of biodiversity. Assessing the roles of ecology and economics for nature conservation, *Verhandlungen der Gesellschaft für Ökologie* 33, 488.

Müller, B., M. Quaas, S. Baumgärtner, K. Frank and C. Wissel (2002), Grazing management in semi-arid regions. An ecological-economic analysis based on a simulation model, *Verhandlungen der Gesellschaft für Ökologie* 32, 385.

Pirner, H.J., S. Baumgärtner, B. Povh and K. Königsmann (1994), Untersuchung der komplexen Struktur des Konstituentenquarks in der semiinklusiven Elektroproduktion von Mesonen, *Verhandlungen der Deutschen Physikalischen Gesellschaft (Reihe VI)* 29, 1802.

CURRENT DISCUSSION PAPERS (AVAILABLE FROM <http://ssrn.com/author=363673>)

Measuring individual attitudes towards Knightian uncertainty: New evidence from an artifactual field experiment, <https://ssrn.com/abstract=4771596> (with S.K. Reich, C. Mittelstaedt)

Attribution of fish stock collapse to overfishing and climate change (with M. Stecher, C. Möllmann, M. Quaas)

Preference functions for Knightian uncertainty <https://ssrn.com/abstract=4306869> (with C. Mittelstaedt)

Attribution of collective causal responsibility to individual actors in a stochastic system, <http://ssrn.com/abstract=3967091> (with C. Mittelstaedt)

Responsibility for regime shifts in managed ecosystems, <http://ssrn.com/abstract=3752006>

Inequality and the value of public natural capital, *CESifo Working Paper* No. 8752, <https://www.cesifo.org/en/publikationen/2020/working-paper/inequality-and-value-public-natural-capital> (with J.N. Meya, M.A Drupp, M.F. Quaas)

Notions of climate-change-related uncertainty among stakeholders in the coastal region of Krummhörn, East Frisia, Germany (with M. Agthe, A. Ernst), <https://ssrn.com/abstract=3725515>

Proxy measures for the welfare change between risky income prospects, <https://ssrn.com/abstract=3683028>

The concept of responsibility: norms, actions, and their consequences (with T. Petersen, J. Schiller) DOI: [10.2139/ssrn.3157667](https://doi.org/10.2139/ssrn.3157667)

A utilitarian notion of responsibility for sustainability (with J. Fünfgelt)

Regulation of morally responsible agents with motivation crowding (with J. Fünfgelt)

Determinants and interactions of sustainability and risk management of commercial cattle farmers in Namibia (with J. Ingenillem, J. Merz)

Risk preferences of commercial cattle farmers in Namibia under heterogeneous environmental risk (with R. Olbrich, M.F. Quaas, A. Haensler)

Value pluralism, trade-offs and efficiencies (with N. Hoberg)

Measuring the diversity of what? And for what purpose? A conceptual comparison of ecological and economic biodiversity indices. DOI: [10.2139/ssrn.894782](https://doi.org/10.2139/ssrn.894782)

Lectures and Presentations

MAJOR INVITED CONFERENCE LECTURES

- 2024 Responsibility for regime shifts in managed stochastic ecosystems, Fourth International Conference *Environmental Economics: A Focus on Natural Resources*, Orléans (France)
- 2018 Is ecosystem resilience really an economic insurance? Workshop “Ecological-Economic Resilience of Ecosystems” of the *French Association of Environmental and Resource Economists*, Bordeaux (France)
- 2017 Natural insurance through ecosystem resilience and management, Panel session *Scarcity, resilience and collective action* at *Biodiversity and Economics for Conservation*, Tilburg (The Netherlands)
- 2014 Resilience and sustainability of natural, technical and socio-economic systems, *Sustainability Summit 2014*, Freiburg
Discounting – Uncertainty – Sustainability, Panel session *Climate change and ecosystem services* at *Biodiversity and Economics for Conservation*, Cambridge (UK)
- 2013 Intra- and intergenerational justice in the use and conservation of ecosystems and their services, *Science Congress of Plural Economics*, Hamburg
- 2000 Thermodynamic constraints in economic models of production – Conceptual implications for growth theory, 243th International WE-Heraeus-Conference *Economic Growth – Driving Forces and Constraints in the Perspective of Economics and the Sciences*, Bad Honnef

Der ökonomische Wert der biologischen Vielfalt, 5. Franz-Ruttner-Symposium *Warum brauchen wir einen flächendeckenden Biotopverbund? Grundlagen zum Verständnis der biologischen Mannigfaltigkeit, ihrer ökologischen Bedeutung und der Verpflichtung des Menschen, dem dramatischen Artensterben entgegen zu wirken*, Rosenheim
- 1999 Thermodynamics and economic modeling of production – The concept of joint production, 3rd Gordon Research Conference *Modern Developments in Thermodynamics*, Il Ciocco, Castelvechio Pascoli (Italy)

INVITED SEMINARS AND WORKSHOP CONTRIBUTIONS

- 2023 Université Paris 1 Panthéon-Sorbonne, Paris, France, Workshop Economics of the Transition to a Sustainable Society
- 2022 University of Exeter, UK, Land, Environment, Economics and Policy Institute (LEEP) seminar
Peking University, Beijing, China, Workshop of Economics of Ecology, Environment, and Climate
- 2021 National Academy of Sciences Leopoldina, Workshop Biodiversity and environment: Action areas for policy consulting and knowledge transfer
- 2020 Universität Leipzig, Economics Seminar
Universität Tübingen, Lecture Series Plural Economics

- Universität Hamburg, Environmental and Development Economics Seminar
- 2019 Workshop Sustainability Economics, Hertie School of Governance, Berlin
University of Mannheim, Lecture Series Environmental Economics
- 2018 Toulouse School of Economics (France), Environmental Economics Seminar
- 2017 Workshop Marine ecological-economic systems: Shifting the baseline to a regime of sustainability, Tilburg (The Netherlands)
Workshop Valuation of grassland species diversity and related ecosystem services in Europe, Zurich (Switzerland)
Symposium on Frontiers in Economics of Biodiversity, Leipzig
- 2015 Workshop The Economics of Ecosystems, Montpellier (France)
Workshop Human Well-Being and Ecosystem Services, Frauenchiemsee
- 2014 Humboldt University of Berlin, Resource Economics Colloquium
- 2013 University of Namur (Belgium), Economics Seminar
University of Freiburg, Environmental Economics and Research Management Colloquium
University of Bayreuth, Ecology and Environmental Research Colloquium
- 2012 University of Manchester (UK), Environmental and Resource Economics Seminar
Wageningen University (The Netherlands), Workshop Economics and Management of Biological Resources
University of Münster, Energy and Resource Economics Seminar
- 2011 University of Jena and Max-Planck Institute of Economics, Jena, Evolutionary Economics Seminar
Arizona State University, Tempe (USA), Environmental and Resource Economics Seminar
- 2009 University of Koblenz-Landau, Environmental Economics Colloquium
Technical University of Cottbus, Environmental Economics Colloquium
University of Hamburg, Sustainable Development Colloquium
- 2008 University of Kassel, Economics Colloquium
University of Graz (Austria), Systems Science Colloquium
University of Greifswald, Land Economy Colloquium
University of Jena and Max-Planck Institute of Economics, Jena, Evolutionary Economics Seminar
- 2007 University of Oldenburg, Economics Colloquium
University of Osnabrück, Systems Science Colloquium
University of Hamburg, Workshop Sustainability and Global Change

- DIVERSITAS, Paris (France), Workshop Economics of Ecosystem Services
- 2006 German Economic Association, Committee on Environmental and Resource Economics
- 2005 University of Duisburg-Essen, Interdisciplinary Studies Colloquium
University of Lüneburg, Sustainability Economics Colloquium
ETH Zurich (Switzerland), Environmental Policy and Economics Seminar
ETH Zurich (Switzerland), Department Management, Technology and Economics
- 2004 DIVERSITAS, Paris (France), Workshop Integrated Modelling of Economies and Ecologies
University of Karlsruhe, Economic Theory and Operations Research Seminar
German Institute for Economic Research (DIW), Berlin, Workshop Sustainability and Uncertainty
Technical University of Darmstadt, Applied Economics Colloquium
- 2002 University of Magdeburg, Workshop Measurement and Economic Valuation of Biodiversity
UFZ – Helmholtz Centre for Environmental Research, Leipzig, Workshop Ecological-Economic Modeling
- 2001 University of California, Berkeley (USA), Energy and Resources Colloquium
Delft University of Technology (The Netherlands), Workshop Sustainable Processes and Products
Technical University of Chemnitz, Economics Research Seminar
- 1999 Delft University of Technology (The Netherlands), Laboratory for Applied Thermodynamics and Phase Equilibria
RWTH University of Aachen, Environmental Management Seminar
- 1998 Centre for European Economic Research (ZEW), Mannheim, Environmental Economics and Management Seminar
Max-Planck Institute of Economics, Jena, Workshop Production Theory and Ecology

CONTRIBUTIONS TO CONFERENCES WITH PEER-REVIEW SELECTION

(* presentation by co-author)

- 2024 *Biodiversity and Economics for Conservation*, Cambridge, UK
Annual Conference, European Association of Environmental and Resource Economists, Leuven (Belgium) *
Sustainable Resource Use and Economic Dynamics, Ascona (Switzerland)
- 2023 *Biodiversity and Economics for Conservation*, Santiago de Compostela, Spain
World Conference on Natural Resource Modeling, Amsterdam, The Netherlands *

- 2022 *Biodiversity and Economics for Conservation*, Exeter, UK *
- Annual Conference, European Association of Environmental and Resource Economists, Rimini (Italy)
- World Conference on Natural Resource Modeling, Leipzig and online *
- Biannual Conference of the European Society for Ecological Economics, Pisa (Italy)
- Sustainable Resource Use and Economic Dynamics*, Ascona (Switzerland)
- 2021 *Biodiversity and Economics for Conservation*, Wyoming (USA)
- Annual Conference, European Association of Environmental and Resource Economists, online
- World Conference on Natural Resource Modeling, online
- 2020 *Sustainable Resource Use and Economic Dynamics*, Ascona (Switzerland)
- Annual Conference, European Association of Environmental and Resource Economists, Berlin
- 2019 *Biodiversity and Economics for Conservation*, Wageningen (The Netherlands)
- Annual Congress, European Economic Association, Manchester (UK) *
- Annual Conference, European Association of Environmental and Resource Economists, Manchester (UK)
- 2018 *Biodiversity and Economics for Conservation*, Cambridge (UK) *
- Annual Conference, German Economic Association, Freiburg
- World Conference of Environmental and Resource Economists, Gothenburg (Sweden)
- Foundations of Utility and Risk*, York (UK)
- Sustainable Resource Use and Economic Dynamics*, Ascona (Switzerland)
- 2017 *Biodiversity and Economics for Conservation*, Cambridge (UK) *
- Resilience 2017 – Resilience Frontiers for Global Sustainability*, Stockholm (Sweden) *
- Biennial Conference, European Society for Ecological Economics, Budapest (Hungary)
- World Congress of Natural Resource Modeling, Barcelona (Spain) *
- 2016 *Biodiversity and Economics for Conservation*, Cambridge (UK)
- Annual Meeting, Ecological Society of Germany, Austria, Switzerland, Göttingen *
- Foundations of Utility and Risk*, Coventry (UK) *
- Annual Conference, European Association of Environmental and Resource Economists, Zurich (Switzerland)
- Annual Meeting, European Public Choice Society, Freiburg
- envecon: Applied Environmental Economics Conference*, London (UK) *
- 2015 *Biodiversity and Economics for Conservation*, Cambridge (UK)
- Annual Meeting, Ecological Society of Germany, Austria, Switzerland, Göttingen *
- World Risk and Insurance Economics Congress, Munich *

- Biennial Conference, European Society for Ecological Economics, Leeds (UK) *
- World Congress of Natural Resource Modeling, Bordeaux (France)
- Plurality and Politics of Environmental Justice*, Norwich (UK) *
- Annual Conference, European Association of Environmental and Resource Economists, Helsinki (Finland)
- 2014 *Biodiversity and Economics for Conservation*, Cambridge (UK)
- Degrowth for Ecological Sustainability and Social Equity*, Leipzig *
- Biennial Conference, International Society for Ecological Economics, Reykjavik (Iceland) *
- Foundations of Utility and Risk*, Rotterdam (The Netherlands) *
- World Congress of Environmental and Resource Economists, Istanbul (Turkey)
- Sustainable Resource Use and Economic Dynamics*, Ascona (Switzerland)
- International Economic Association, Amman (Jordan) *
- 2013 Annual North American Meetings, Regional Science Association International, Atlanta, GA (USA) *
- Annual Meeting, International Association for Environmental Philosophy, Eugene, OR (USA) *
- Biodiversity and Economics for Conservation*, Cambridge (UK)
- Annual Meeting, European Economic Association, Gothenburg (Sweden) *
- Annual Conference, Asia-Pacific Risk and Insurance Association, New York (USA) *
- International Meeting, Association for Public Economic Theory, Lisbon (Portugal) *
- Annual Conference, European Association of Environmental and Resource Economists, Toulouse (France)
- Biennial Conference, European Society for Ecological Economics, Lille (France) *
- Cooperation or Conflict? Economics of Natural Resources and Food*, Wageningen (The Netherlands)
- European Public Choice Society Meeting, Zurich (Switzerland) *
- Applied Environmental Economics Conference, The Royal Society, London (UK) *
- 2012 Annual Conference, International Atlantic Economic Society, Montreal (Canada) *
- Biodiversity and Economics for Conservation*, Cambridge (UK)
- Annual Conference, Ecological Society of Germany, Austria and Switzerland, Lüneburg *
- Annual Conference, German Economic Association, Göttingen *
- International Sustainability Conference*, Basel (Switzerland)
- Annual Conference, European Association of Environmental and Resource Economists, Prague (Czech Republic) *
- Annual Conference, Association for Public Economic Theory, Taipei (Taiwan) *
- Sustainable Resource Use and Economic Dynamics*, Ascona (Switzerland)
- Research Conference on *Microinsurance*, Enschede (The Netherlands) *
- TEEB Conference: *Mainstreaming the Economics of Nature*, Leipzig
- World Congress, Public Choice Societies, Miami (USA) *

- 2011 *Payments for Ecosystem services and their Institutional Dimensions*, Berlin
 Biodiversity and Economics for Conservation, Geneva (Switzerland)
 Annual Conference, European Association of Environmental and Resource Economists, Rome (Italy)
 Biennial Conference, European Society for Ecological Economics, Istanbul (Turkey) *
 European Conference on Ecological Modelling, Riva del Garda (Italy) *
 Resilience, Innovation, and Sustainability: Navigating the Complexities of Global Change, Tempe (USA)
- 2010 *Risk Elicitation and Stated Preference Methods for Climate Change Research*, Trento (Italy) *
 Biodiversity and Economics for Conservation, Venice (Italy)
 Annual Conference, German Economic Association, Kiel
 Biennial Conference, International Society for Ecological Economics, Oldenburg/Bremen
 World Risk and Insurance Economics Congress, Singapore *
 World Congress of Environmental and Resource Economists, Montreal (Canada) *
 Foundations and Applications of Utility, Risk and Decision Theory, Newcastle (UK) *
 Sustainable Resource Use and Economic Dynamics, Ascona (Switzerland)
 Risk and Uncertainties in Environmental Decision Making, Ascona (Switzerland) *
- 2009 Annual Conference, German Economic Association, Magdeburg
 Biennial Conference, European Society for Ecological Economics, Ljubljana (Slovenia) *
 Annual Conference, European Association of Environmental and Resource Economists, Amsterdam (The Netherlands)
- 2008 *Biodiversity and Economics for Conservation*, Cambridge (UK) *
 Annual Conference, European Association of Environmental and Resource Economists, Gothenburg (Sweden)
 Sustainable Resource Use and Economic Dynamics, Ascona (Switzerland)
 Resilience, Adaptation and Transformation in Turbulent Times, Stockholm (Sweden)
- 2007 Annual Conference, German Economic Association, München
 Biodiversity and Economics for Conservation, Cambridge (UK)
 Annual Conference, European Association of Environmental and Resource Economists, Thessaloniki (Greece)
 Biennial Conference, European Society for Ecological Economics, Leipzig
 Sustainable Neighbourhood – from Lisbon to Leipzig through Research, Leipzig
- 2006 *Biodiversity and Economics for Conservation*, Cambridge (UK)
 World Congress of Environmental and Resource Economists, Kyoto (Japan)
 Sustainable Resource Use and Economic Dynamics, Ascona (Switzerland)
 Economics of Poverty, Environment and Natural Resource Use, Wageningen (The Netherlands)

- 2005 *Integrating Biodiversity Science for Human Well-Being*, DIVERSITAS, Oaxaca (Mexico)
 Annual Conference, German Economic Association, Bonn
Biodiversity and Economics for Conservation, Cambridge (UK)
 Annual Conference, European Association of Environmental and Resource Economists, Bremen
 Biennial Conference, European Society for Ecological Economics, Lisbon (Portugal)
 Annual Meeting, Swiss Society of Economics and Statistics, Zurich (Switzerland)
- 2004 Biennial Conference, International Society for Ecological Economics, Montreal (Canada)
 Annual Conference, European Association of Environmental and Resource Economists, Budapest (Hungary)
Sustainable Resource Use and Economic Dynamics, Ascona (Switzerland)
- 2003 Annual Congress, European Economic Association, Stockholm (Sweden)
 Annual Conference, Ecological Society of Germany, Austria and Switzerland, Halle
Frontiers 2: European Applications in Ecological Economics, European Society for Ecological Economics, Tenerife (Spain) *
- 2002 World Congress of Environmental and Resource Economists, Monterey, CA (USA)
 Annual Conference, Ecological Society, Cottbus *
Healthy Ecosystems, Healthy People – Linkages between Biodiversity, Ecosystem Health and Human Health, Washington, D.C. (USA)
 Biennial Conference, International Society for Ecological Economics, Sousse (Tunisia) *
- 2001 Annual Conference, European Association of Environmental and Resource Economists, Southampton (UK)
Frontiers 1: Fundamental Issues of Ecological Economics, European Society for Ecological Economics, Cambridge (UK)
Vom Wert der Vielfalt – Diversität in Ökonomie und Ökologie, Evangelischen Akademie Tutzing und Vereinigung für Ökologische Ökonomie, Tutzing
- 2000 Annual Conference, European Association of Environmental and Resource Economists, Rethymno (Greece)
 Biennial Conference, European Society for Ecological Economics, Vienna (Austria)
- 1999 Econometric Society European Meeting, Santiago de Compostela (Spain)
- 1998 World Congress of Environmental and Resource Economists, Venice (Italy)
The Scientific Life of Nicholas Georgescu-Roegen, Strasbourg (France)
 Biennial Conference, European Society for Ecological Economics, Geneva (Switzerland)
- 1997 Annual Conference, German Economic Association, Berne (Switzerland) *
- 1996 Annual Conference, German Economic Association, Kassel

Inaugural Conference, European Society for Ecological Economics, Versailles (France)

In the News

25.07.2020 Süddeutsche Zeitung
02.11.2017 The Guardian (online)
01.10.2016 ReSource – Fachzeitschrift für nachhaltiges Wirtschaften [with photo]
10.03.2012 Landeszeitung für die Lüneburger Heide [with photo]
16.11.2011 SWR 2
24.09.2011 DRS 2
17.09.2011 Frankfurter Allgemeine Zeitung
10.02.2011 Landeszeitung für die Lüneburger Heide [with photo]
09.02.2011 Ostsee-Zeitung
09.02.2011 Bild.de
28.04.2010 Der Kreisbote [title page]
28.04.2010 Lüneburg kompakt [title page]
21.03.2010 WDR 5
31.01.2009 Frankfurter Allgemeine Sonntagszeitung
31.05.2008 Tages-Anzeiger Zürich
30.05.2008 Landeszeitung für die Lüneburger Heide [with photo]
23.05.2008 Stuttgarter Zeitung
20.05.2008 Stuttgarter Zeitung
15.05.2008 Rheinischer Merkur
28.04.2008 Focus [with photo]
18.03.2008 Landeszeitung für die Lüneburger Heide
31.10.2006 Deutschlandfunk
14.01.2004 Rhein-Neckar-Zeitung