

CURRICULUM VITAE

Martin F. Quaas

EDUCATION

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| 2004 | PhD, Economics, University of Heidelberg (summa cum laude) |
| 1998 | Diplom (MSc), Physics, University of Duisburg |
| 1993 | Abitur, Helmholtz-Gymnasium, Essen |

POSITIONS

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|------------|---|
| since 2018 | Professor of Biodiversity Economics, Faculty of Economics, Leipzig University and German Centre for Integrative Biodiversity Research (iDiv) |
| 2007-2018 | Professor of Environmental, Resource-, and Ecological Economics, Department of Economics, Christian-Albrechts-University of Kiel. 2007–2010 junior professor; 2010–2015 associate professor (W2, tenured); 2015–2018 full professor (W3, tenured) |
| 2004-2007 | Postdoc, Department of Ecological Modelling, Helmholtz Centre for Environmental Research – UFZ, Leipzig |
| 2006 | Postdoc, CentER for Economic Research, Department of Economics, Tilburg University, The Netherlands (January–August) |
| 2002-2004 | Research and Teaching Assistant, Interdisciplinary Institute of Environmental Economics, University of Heidelberg (Coordination of PhD Program <i>Environmental and Resource Economics</i>) |
| 2001 | Visiting Scholar, Indira Ghandi Institute for Development Research, Mumbai, India (February–March) |
| 2000 | Research and Teaching Assistant, Alfred Weber Institute, University of Heidelberg |

FIELD OF RESEARCH

Ecological, Environmental and Natural Resource Economics

EXTERNALLY FUNDED RESEARCH PROJECTS

2020–2021	ValuGaps – Towards a comprehensive valuation of natural capital in Germany: Methods and approaches to deal with limited information and uncertainty (German Federal Ministry of Education and Research, BMBF, Wertschätzung und Sicherung von Biodiversität in Politik, Wirtschaft und Gesellschaft)
2021–2023	CO2Meso – Mesopelagic resources, stressors and protection: a first risk assessment (German Federal Ministry of Education and Research, BMBF, MARE:N)
2020-2023	BaltADAPT – Adaptation of the Western Baltic Coastal Fishery to Climate Change (German Federal Ministry of Education and Research, BMBF, MARE:N)
2020–2023	GRAMORES – Changing risks and mobile common pool resources: Economic analysis of resource-user behavior and policy instruments for sustainability (German Research Foundation DFG, Franco-German Call in Humanities and Social Sciences, Collaboration with Nicolas Querou, Montpellier)
2019–2022	SOMBEE – Scenarios Of Marine Biodiversity and Evolution under Exploitation and climate change (BELMONT Forum, coordinated by Yunne Shin, IRD, France)
2019–2022	FOCUS – Food security and sustained coastal livelihoods through linking land and ocean (German Federal Ministry of Education and Research, BMBF, Bioeconomy program)
2017–2022	marEEshift – Marine ecological-economic systems in the Western Baltic Sea and beyond: Shifting the baseline to a regime of sustainability (funded by German Federal Ministry of Education and Research, BMBF, BioTip program)
2017–2022	Humboldt-Tipping – Tipping points of the Humboldt Current Upwelling System and Economic Repercussions (funded by German Federal Ministry of Education and Research, BMBF, BioTip program)
2019–2026	ROOTS – Social, Environmental, and Cultural Connectivity in Past Societies (Cluster of Excellence, Kiel University; Co-Applicant)
2016–2020	LEAC II – LEarning About Cloud modification under risk and uncertainty: Investigation of feasibility, traceability, Incentives and decentralised governance of limited-area climate engineering (German Research Foundation, DFG priority programme 1689 Climate Engineering: Risks, Challenges, Opportunities?)
2015–2018	KoBeFish – Nachhaltiger Konsum und Bewirtschaftung von Meeresfischen (Sustainable consumption and management of marine fisheries; German Federal Ministry of Education and Research, BMBF)
2012–2017	Phase II of Future Ocean, Cluster of Excellence
2013–2016	LEAC – Learning about cloud brightening under risk and uncertainty: Whether, when and how to do field experiments (German Research Foundation, DFG priority programme 1689 Climate Engineering: Risks, Challenges, Opportunities?)
2013-2017	AWA – Ecosystem Approach to the management of fisheries and the marine environment in West African waters (German Federal Ministry of Education and Research, BMBF)

- 2012–2015 BIOACID II – Biological Impacts of Ocean Acidification (German Federal Ministry of Education and Research, BMBF)
- 2012–2015 ECCUITY – Economics of Climate Change: Distribution, Efficiency, and Policy under Uncertainty (German Federal Ministry of Education and Research, BMBF)
- 2012–2015 MYFISH – Maximising yield of fisheries while balancing ecosystem, economic and social concerns (European Commission)
- 2012–2015 SOCIOEC – Socio economic effects of management measures of the future CFP (European Commission)
- 2010–2013 EIGEN – Efficient inter- and intragenerationally just use of ecosystem services (German Federal Ministry of Education and Research, BMBF)
- 2010–2012 FACTS – Foraging Fish Interactions (European Commission)
- 2009–2012 BIOACID – Biological Impacts of Ocean Acidification (German Federal Ministry of Education and Research, BMBF)
- 2007–2011 Junior Research Group *Living Resources and Overfishing* within the Kiel Cluster of Excellence *Future Ocean*
- 2007–2010 Sustainable Use of Ecosystem Services under Uncertainty (German Federal Ministry of Education and Research, BMBF)

PUBLICATIONS IN PEER-REVIEWED INTERNATIONAL JOURNALS

- 100 articles in peer-reviewed international journals since 2007
- h Index 25, 2438 citations (Web of Science, 1 January 2022)
- h Index 27, 2850 citations (Scopus, 1 January 2022)
- h Index 34, 5427 citations (Google Scholar, 1 January 2022)
- ORCID: 0000-0003-0812-8829
- ResearcherID: C-4220-2012
- Google Scholar: WDLkZJQAAAAJ
- SCOPUS Author ID: 22958134600

forthcoming

[100] Voss R, Quaas MF, Neuenfeldt S (2022). Robust, ecological-economic multispecies management of Central Baltic fishery resources. *ICES Journal of Marine Science* doi 10.1093/icesjms/fsab251

[99] Voss R, Quaas MF (2021). Fisheries management and tipping points: Seeking optimal management of Eastern Baltic cod under conditions of uncertainty about the future productivity regime. *Natural Resource Modeling* doi 10.1111/nrm.12336.

2021

[98] Quaas MF, Meya, JN, Schenk, H, Bos, B, Drupp, MA, Requate, T (2021). The Social Cost of Contacts: Theory and Evidence for the first wave of the COVID-19 Pandemic in Germany. *PLOS ONE* **16** (3): 1–29.

[97] Bertram C, Quaas MF, Reusch TBH, Vafeidis AT, Wolff C, Rickels W (2021). The blue carbon wealth of nations. *Nature Climate Change* **11**: 704–709.

[96] Blenckner T, Möllmann C, Lowndes JS, Griffiths JR, Campbell E, De Cervo A, Belgrano A, Boström C, Fleming V, Frazier M, Neuenfeldt S, Niiranen S, Nilsson A, Ojaveer H, Olsson J, Palmlov CS, Quaas MF, Rickels W, Sobek A, Viitasalo M, Wikström SA, Halpern BS (2021). The Baltic Health Index (BHI): Assessing the social–ecological status of the Baltic Sea *People and Nature* **3**(2):359–375.

[95] Bronnmann J, Stoeven MT, Quaas MF, Asche F (2021). Measuring motivations for choosing ecolabeled seafood: Environmental concerns and warm glow. *Land Economics* **97**(3): 641–654.

[94] Dipu S, Quaas J, Quaas MF, Rickels W, Mülmenstädt, Boucher O(2021). Substantial Climate Response outside the Target Area in an Idealized Experiment of Regional Radiation Management. *Climate* **9**(4): 66.

[93] Li Q, Bronnmann J, Karasik R, Quaas MF, Smith M (2021). An Age-structured Backward-bending Supply of Fish: Implications for Conservation of Bluefin Tuna *Journal of the Association of Environmental and Resource Economists* **8**(1): 165–192.

[92] Meier FD, Quaas MF (2021). Booming gas – A theory of endogenous technological change in resource extraction *Journal of Environmental Economics and Management* **107**: 102447

[91] Möllmann C, Cormon X, Funk S, Otto SA, Schmidt JO, Schwermer H, Sguotti C, Voss R, Quaas MF (2021). Tipping point realized in cod fishery. *Scientific Reports* **11**: 14259.

[90] Stoeven MT, Diekert FK, Quaas MF (2021). Should fishing quotas be measured in terms of numbers? *Marine Resource Economics*. **36**(2): 133–153.

2020

[89] Quaas MF, Baumgärtner S, Drupp MA, Meyer M (2020). Intertemporal utility with heterogeneous goods and constant elasticity of substitution. *Economics Letters* **191**: 109092

[88] Bos B, Drupp MA, Meya JA, , Quaas MF (2020). Moral Suasion and the Private Provision of Public Goods: Evidence from the COVID-19 Pandemic. *Environmental and Resource Economics* **76**: 1117–1138.

[87] Drupp MA, Baumgärtner S, Meyer M, Quaas MF, von Wehrden H (2020). Between Ostrom and Nordhaus: The research landscape of sustainability economics. *Ecological Economics* **172**: 106620

[86] Hänsel MC, Schmidt JO, Stiasny MH, Stöven MT, Voss R, Quaas MF (2020). Ocean warming and acidification may drag down the commercial Arctic cod fishery by 2100. *PLoS ONE* **15**(4): e0231589

[85] Okonkwo JU, Quaas MF (2020). Welfare Effects of Natural Resource Privatization: A Dynamic Analysis. *Environment and Development Economics*. **25**: 205–225.

[94] Rickels W, Quaas MF, Ricke K, Quaas J, Moreno-Cruz J, Smulders S (2020). Who turns the global thermostat and by how much? *Energy Economics* **91**: 104852

2019

[83] Quaas MF, Tahvonen O (2019). Strategic Harvesting of Age-Structured Populations. *Marine Resource Economics* **34**(4): 291–309.

[82] Quaas MF, Baumgärtner S, De Lara M (2019). Insurance value of natural capital. *Ecological Economics* **165**: 106388.

[81] Drupp MA, Khadjavi M, Quaas MF (2019). Truth-Telling and the Regulator. Experimental Evidence from Commercial Fishermen. *European Economic Review* **120** article 103310.

[80] Doyen L, Armstrong C, Baumgärtner S, Béné C, Blanchard F, Cissé AA, Cooper RR, Dutra LXC, Eide A, Freitas D, Gourguet S, Gusmao F, Hardy PY, Jarre A, Little LR, Macher C, Quaas MF, Regnier E, Sanz N, Thébaud (2019). From no whinge scenarios to viability tree. *Ecological Economics* **163**: 183–188.

[79] Lancker K, , Quaas MF (2019). Increasing marginal costs and the efficiency of differentiated feed-in tariffs. *Energy Economics* **83**: 104–118.

[78] Mengis N, Keller DP, Rickels W, Quaas MF, Oschlies A (2019). Climate engineering-induced changes in correlations between Earth system variables—implications for appropriate indicator selection. *Climatic Change* **153**(3):, pp. 305–322.

[77] Riekhof MC, Regnier E, Quaas MF (2019). Economic growth, international trade, and the depletion or conservation of renewable natural resources. *Journal of Environmental Economics and Management* **97**: 116–133.

[76] Voss R, Quaas MF, Stiasny ME, Hänsel M, Pinto GASJ, Lehmann A, Reusch TBH, Schmidt JO (2019). Ecological-economic sustainability of the Baltic cod fisheries under ocean warming and acidification. *Journal of Environmental Management* **238**: 110–118

2018

[75] Quaas MF, Smulders S (2018). Brown Growth, Green Growth, and the Efficiency of Urbanization. *Environmental and Resource Economics* **71**(2): 529–549.

[74] Quaas MF, Stoeven M, Klauer B, Schiller J, Petersen T (2018). Windows of opportunity for sustainable fisheries management: The case of Eastern Baltic cod. *Environmental and Resource Economics* **70**(2): 323–341.

[73] Braack M, Quaas MF, Tews B, Vexler B (2018). Optimization of Fishing Strategies in Space and Time as a Non-convex Optimal Control Problem. *Journal of Optimization Theory and Applications* **178**(3): 950–972.

[72] Drupp MA, Meya JN, Baumgärtner S, Quaas MF (2018). Economic Inequality and the Value of Nature. *Ecological Economics* **150**: 340–345.

[71] Froese R, Winker H, Coro G, Demirel N, Tsikliras AC, Dimarchopoulou D, Scarcella G, Quaas MF, Matz-Lück N (2018). Status and rebuilding of European fisheries. *Marine Policy* **93**: 159–170.

[70] Hänsel M, Quaas MF (2018). Intertemporal Distribution, Sufficiency, and the Social Cost of Carbon. *Ecological Economics* **146**: 520–535.

[69] Nielsen JR, Thunberg E, Holland DS, Schmidt JO, Fulton EA, Bastardie F, Punt AE, Allen I, Bartelings H, Bertignac M, Bethke E, Bossier S, Buckworth R, Carpenter G, Christensen A, Christensen V, Da-Rocha JM, Deng R, Dichmont C, Doering R, Esteban A, Fernandes JA, Frost H, Garcia D, Gasche L, Gascuel D, Gourguet S, Groeneveld RA, Guillén J, Guyader O, Hamon KG, Hoff A, Horbowy J, Hutton T, Lehuta S, Little LR, Leonart J, Macher C, Mackinson S, Mahevas S, Marchal P, Mato-Amboage R, Mapstone B, Maynou F, Merzéréaud M, Palacz A, Pascoe S, Paulrud A, Plaganyi E, Prellezo R, van Putten EI, Quaas MF, Ravn-Jonsen L, Sanchez S, Simons S, Thébaud O, Tomczak MT, Ulrich C, van Dijk D, Vermard Y, Voss R, Waldo S (2018). Integrated ecological-economic fisheries models—evaluation, review and challenges for implementation. *Fish and Fisheries* **19**(1): 1–29.

[68] Noack F, Riekhof MC, Quaas MF (2018). Development in a Dual Economy: The Importance of Resource-Use Regulation. *Journal of the Association of Environmental and Resource Economists* **5**(1): 233–263.

[67] Rickels W, Reith F, Keller D, Oschlies A, Quaas MF (2018). Integrated Assessment of Carbon Dioxide Removal. *Earth's Future* **6**(3): 565–582.

[66] Tahvonen O, Quaas MF, Voss R (2018). Harvesting selectivity and stochastic recruitment in economic models of age-structured fisheries. *Journal of Environmental Economics and Management*. **92**: 659–676.

[65] Voss R, Quaas MF, Schmidt JO, Stoeven MT, Francis TB, Levin PS, Armitage DR, Cleary JS, Jones RR, Lee LC, Okamoto DK, Silver JJ, Thornton TF, Dressel SC, MacCall AD, Punt AE (2018). Quantifying the benefits of spatial fisheries management – An ecological-economic optimization approach. *Ecological Modelling* **385**: 165–172.

2017

[64] Quaas MF, Quaas J, Rickels W, Boucher O (2017). Are there reasons against open-ended research into solar radiation management? A model of intergenerational decision-making under uncertainty. *Journal of Environmental Economics and Management* **84**: 1–17

[63] Baumgärtner S, Drupp M, Meya J, Munz J, Quaas MF (2017). Income inequality and willingness to pay for environmental public goods. *Journal of Environmental Economics and Management*. **85**:35–61

[62] Baumgärtner S, Drupp M, and Quaas MF (2017). Subsistence, substitutability and sustainability in consumption. *Environmental and Resource Economics* **67**(1):47–66

[61] Bertram C, and Quaas MF (2017). Biodiversity and Optimal Multi-species Ecosystem Management. *Environmental and Resource Economics*. **67**: 321–350.

[60] Oschlies A, Held H, Keller D, Keller K, Mengis N, Quaas MF, Rickels W, Schmidt H (2017). Indicators and Metrics for the Assessment of Climate Engineering. *Earth's Future* **5**(1): 49–58.

[59] Pascual U, Balvanera P, Díaz S, Pataki G, Roth E, Stenseke M, Watson RT, Dessane EB, Islar M, Kelemen E, Maris V, Quaas MF, Subramanian SM, Wittmer H, Adlan A, Ahn S, Al-Hafedh YS, Amankwah E, Asah ST, Berry P, Bilgin A, Breslow SJ, Bullock C, Cáceres D, Daly-Hassen H, Figueroa E, Golden CD, Gómez-Baggethun E, González-Jiménez D, Houdet J, Keune H, Kumar R, Ma K, May PH, Mead A, O'Farrell P, Pandit R, Pengue W, Pichis-Madruga R, Popa F, Preston S, Pacheco-Balanza D, Saarikoski H, Strassburg BB, van den Belt M, Verma M, Wickson F, Yagi N (2017). Valuing nature's contributions to people: the IPBES approach. *Current Opinion in Environmental Sustainability* **26–27**: 7–16.

[58] Voss R, Quaas MF, Stoeven MT, Schmidt JO, Tomczak MT, Möllmann C (2017). Ecological-Economic Fisheries Management Advice—Quantification of Potential Benefits for the Case of the Eastern Baltic COD Fishery. *Frontiers in Marine Science* **4**: 209.

2016

[57] Quaas MF, Reusch T, Schmidt JO, Tahvonen O, Voss R (2016). It is the economy, stupid! Projecting the fate of fish populations using ecological-economic modeling. *Global Change Biology* **22**(1): 264-270.

[56] Groeneveld RA, and Quaas MF. Promoting selective fisheries through certification? An analysis of the PNA unassociated-sets purse seine fishery. *Fisheries Research* **182**: 69-78.

[55] Hoffmann J, and Quaas MF (2016). Common Pool Politics and Inefficient Fishery Management *Environmental and Resource Economics*. **63**(1): 79-93.

[54] Olbrich R, Quaas MF, Baumgärtner S (2016). Characterizing commercial cattle farms in Namibia: Risk, management and sustainability. *African Journal of Agricultural Research* **11**(41): 4109-4120.

[53] Opitz S, Hoffmann J, Quaas MF, Matz-Lück N, Binohlan C, Froese R (2016). Assessment of MSC-certified fish stocks in the Northeast Atlantic. *Marine Policy* **71**: 10-14.

[52] Quaas J, Quaas MF, Boucher O, Rickels W (2016). Regional climate engineering by radiation management: Prerequisites and prospects. *Earth's Future* **4**: 618-625.

[51] Rickels W, Dovert J, Hoffmann J, Quaas MF, Schmidt JO, Visbeck M (2016). Indicators for Monitoring Sustainable Development Goals: An Application to Oceanic Development in the European Union. *Earth's Future* **4**(5): 252-267.

[50] Rickels W, Dovert J, Quaas MF (2016). Beyond fisheries: Common-pool resource problems in oceanic resources and services. *Global Environmental Change* **40**: 37-49.

2015

[49] Aswathy VN, Boucher O, Quaas MF, Niemeier U, Muri H, Mülmenstädt J, Quaas J (2015). Climate extremes in multi-model simulations of stratospheric aerosol and marine cloud brightening climate engineering, *Atmos. Chem. Phys.* **15**: 9593-9610.

[48] Blenckner T, Llope M, Möllmann C, Voss R, Quaas MF, Casini M, Lindegren M, Folke C, Stenseth N (2015). Climate and fishing steer ecosystem regeneration to uncertain economic futures. *Proceedings of the Royal Society B* **282**: 2014-2809.

[47] Jakoby O, Quaas MF, Baumgärtner S, Frank K (2015). Adapting livestock management to spatio-temporal heterogeneity in semi-arid rangelands. *Journal of Environmental Management* **162**: 179-189.

[46] Lade SJ, Niiranen S, Hentati-Sundberg J, Blenckner T, Boonstra WJ, Orach K, Quaas MF, Österblom H, Schlüter M (2015). An empirical model of the Baltic Sea reveals the importance of social dynamics for ecological regime shifts. *PNAS* **112** (35): 11120-11125.

[45] Voss R, Quaas MF, Schmidt JO and Kapaun U (2015). Ocean acidification may aggravate social-ecological trade-offs in coastal fisheries. *PLoS ONE* **10**(3): e0120376.

2014

[44] Dovert J, Quaas MF, and Rickels W (2014). The rich, the clean, and the kind - a comprehensive wealth index for cities applied to the case of Germany. *Ecological Indicators* **41**:79–86.

[43] Jakoby O, Quaas MF, Müller B, Baumgärtner S, and Frank K (2014). How do individual farmers' objectives influence their evaluation of rangeland management strategies under a variable climate? *Journal of Applied Ecology* **51**(2):483–493.

[42] Lukomska N, Quaas MF, Baumgärtner S (2014). Bush encroachment control and risk

management in semi-arid rangelands. *Journal of Environmental Management* **145**(1):24–34.

[41] Narita D, and Quaas MF (2014). Adaptation to Climate Change and Climate Variability: Do It Now or Wait and See? *Climate Change Economics* **05**(04):1450013.

[40] Olbrich R, Quaas MF, Baumgärtner S (2014). Personal Norms of Sustainability and Farm Management Behavior. *Sustainability* **6**(8), 4990-5017.

[39] Papaioannou EA, Vafeidis AT, Quaas MF, Schmidt JO, Strehlow H (2014). Using indicators based on primary fisheries data for assessing the development of the German Baltic small-scale fishery and reviewing its adaptation potential to changes in resource abundance and management during 2000–09. *Ocean & Coastal Management* **98**:38–50.

[38] Rickels W, Quaas MF, Visbeck M (2014). How healthy is the human-ocean system? *Environmental Research Letters* **9** 044013.

[37] Thébaud O, Doyen L, Innes J, Lample M, Macher M, Mahévas S, Mullon C, Planque B, Quaas MF, Smith T, Vermard Y (2014). Building ecological-economic models and scenarios of marine resource systems: Workshop report. *Marine Policy* **43**:382–386.

[36] Visbeck M, Kronfeld-Goharani U, Neumann B, Rickels W, Schmidt JO, van Doorn E, Matz-Lück N, Ott K, Quaas MF (2014). Securing Blue Wealth: The Need for a Special Sustainable Development Goal for the Ocean and Coasts. *Marine Policy* **48**:184–191.

[35] Voss R, Quaas MF, Schmidt JO, and Hoffmann J (2014). Regional trade-offs from multi-species maximum sustainable yield (MMSY) management options. *Marine Ecology Progress Series* **498**:1–12.

[34] Voss R, Quaas MF, Schmidt JO, Tahvonen O, Lindegren M, Möllmann C (2014). Assessing Social-Ecological Trade-Offs to Advance Ecosystem-Based Fisheries Management. *PLoS ONE* **9**(9): e107811.

2013

[33] Quaas MF, van Soest D, and Baumgärtner S (2013). Complementarity, impatience, and the resilience of natural-resource-dependent economies. *Journal of Environmental Economics and Management* **66**(1):15–32.

[32] Quaas MF and Requate T (2013). Sushi or Fish Fingers? Seafood Diversity, Collapsing Fish Stocks, and Multi-species Fishery Management. *Scandinavian Journal of Economics* **115**(2):381–422.

[31] Quaas MF, Requate T, Ruckes K, Skonhøft A, Vestergaard N, and Voss R (2013). Incentives for Optimal Management of Age-Structured Fish Populations. *Resource and Energy Economics* **35**(2):113–134.

[30] Derissen S and Quaas MF (2013). Combining performance-based and action-based payments to provide environmental goods under uncertainty. *Ecological Economics* **85**:77–84.

[29] Froese R and Quaas MF (2013). Rio+20 and the Reform of the Common Fisheries Policy in Europe. *Marine Policy* **39**:53–55.

[28] Kapaun U and Quaas MF (2013). Does the optimal size of a fish stock increase with environmental uncertainties? *Environmental and Resource Economics* **54**(2):293–310.

[27] Tahvonen O, Quaas MF, Schmidt JO, Voss R (2013). Optimal harvesting of an age-structured schooling fishery. *Environmental and Resource Economics* **54**(1):21–39.

2012

[26] Quaas MF, Froese R, Herwartz H, Requate T, Schmidt JO, and Voss R (2012). Fishing Industry Borrows from Natural Capital at High Shadow Interest Rates. *Ecological Economics* **82**:45–52.

Reviewed in *Science for Environment Policy*, European Commission DG Environment News

Alert Service (2012), Issue 309.

[25] Quaas MF and Baumgärtner S (2012). Optimal grazing management rules in semi-arid rangelands with uncertain rainfall. *Natural Resource Modeling* **25**(1):364–387.

[24] Baumgärtner S, Glotzbach S, Hoberg N, Quaas MF and Stumpf KH (2012). Economic analysis of trade-offs between justices. *Intergenerational Justice Review* 2012(1):4–9. Translated in German and reprinted as: Ökonomische Analyse der Trade-Offs zwischen Gerechtigkeiten, *Journal für Generationengerechtigkeit* **14**(1):10–18.

[23] Froese R and Quaas MF (2012). Mismanagement of the North Sea cod by the Council of the European Union. *Ocean & Coastal Management* **70**:54–58.

[22] Olbrich R, Quaas MF, Baumgärtner S (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.

[21] Papaioannou EA, Vafeidis AT, Quaas MF, and Schmidt JO (2012). The development and use of a spatial database for the determination and characterization of the state of the German Baltic small-scale fishery sector. *ICES Journal of Marine Science* **69**(8):1480–1490.

[20] Schlüter M, McAllister RRJ, Arlinghaus R, Bunnefeld N, Eisenack K, Hölker F, Milner-Gulland EJ, Müller B, Nicholson E, Quaas MF, and Stöven M (2012). New horizons for managing the environment: A review of coupled social-ecological systems modeling. *Natural Resource Modeling* **25**(1):219–272.

[19] Skonhoft A, Vestergaard, N and Quaas MF (2012). Optimal harvest in an age structured model with different fishing selectivity. *Environmental and Resource Economics* **51**(4), 525–544.

[18] Villasante S, Rodriguez D, Antelo M, Quaas MF, and Österblom H (2012). The Global Seafood Market Performance Index: A theoretical proposal and potential empirical applications. *Marine Policy*, **36**(1):142–152.

2011

[17] Baumgärtner S, Derissen S, Quaas MF, and Strunz S (2011). Consumer preferences determine resilience of ecological-economic systems. *Ecology & Society* **16**(4): Article 9.

[16] Derissen S, M.F. Quaas, and S. Baumgärtner (2011). The relationship between resilience and sustainable development of ecological-economic systems. *Ecological Economics*, **70**:1121–1128.

[15] Froese R, T.A. Branch, A. Proelß, M.F. Quaas, K. Sainsbury, and C. Zimmermann (2011). Generic Harvest Control Rules for European Fisheries. *Fish and Fisheries*, **12**(3):340–351.

[14] Froese, R and Quaas MF (2011). Three Options for Rebuilding the Cod Stock in the Eastern Baltic Sea. *Marine Ecology Progress Series*, **434**:197–200.

[13] Müller B, Quaas MF, Frank K, and Baumgärtner S (2011). Pitfalls and potential of institutional change: Rain-index insurance and the sustainability of rangeland management. *Ecological Economics*, **70**:2137–2144.

[12] Voss R, Hinrichsen HH, Quaas MF, Schmidt JO, and Tahvonen O (2011). Temperature change and Baltic sprat: from observations to ecological-economic modeling. *ICES Journal of Marine Science*, **68**(6):1244–1256.

2010

[11] Baumgärtner S and Quaas MF (2010). What is Sustainability Economics? *Ecological Economics*, **69**:445–450.

[10] Baumgärtner S and Quaas MF (2010). Sustainability economics - general versus specific, and conceptual versus practical. *Ecological Economics*, **69**:2056–2059.

- [9] Baumgärtner S and Quaas MF (2010). Managing Increasing Environmental Risks Through Agro-biodiversity and Agri-environmental Policies. *Agricultural Economics* **41**(5):483–493.
- [8] Jöst F and Quaas MF (2010). Environmental and Population Externalities. *Environment and Development Economics*, **15**(01):1–19.
- [7] Lange A and Quaas MF (2010). Analytical characteristics of the core-periphery model. *International Regional Science Review*, **33**(4):437–455.

2009

- [6] Baumgärtner S and Quaas MF (2009). Ecological-economic Viability as a Criterion of Strong Sustainability under Uncertainty. *Ecological Economics*, **68**:2008–2020.

2008

- [5] Quaas MF and Baumgärtner S (2008). Natural vs. Financial Insurance in the Management of Public-good Ecosystems. *Ecological Economics* **65**:397–406.
- [4] Baumgärtner S, Becker C, Frank K, Müller B and Quaas MF (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.

2007

- [3] Quaas MF, Baumgärtner S, Becker C, Frank K and Müller B (2007). Uncertainty and Sustainability in the Management of Rangelands, *Ecological Economics* **62**:251–266. Reprinted in C. Perrings (ed.), *Ecological Economics*, Sage Publications, Thousand Oaks:229–260.
- [2] Quaas MF (2007). Pollution-reducing Infrastructure and Urban Environmental Policy, *Environment and Development Economics* **12**(2):213–234.
- [1] Lange A and Quaas MF (2007). Economic Geography and the Effect of Environmental Pollution on Agglomeration, *The B.E. Journal of Economic Analysis & Policy* 7(1, Topics), Article 52.

ORGANISATION OF INTERNATIONAL SCIENTIFIC CONFERENCES

- 2018 International Workshop in Sustainability Economics: *Responsibility for the Sustainable Management of the Global Commons* (co-organized with Stefan Baumgärtner and Moritz Drupp)
- 2017 International Workshop in Sustainability Economics: *Marine ecological-economic systems in the Western Baltic Sea and beyond: Shifting the baseline to a regime of sustainability* (co-organized with Christian Möllmann and Stefan Baumgärtner)
- 5th Workshop on Age-structured models in Natural Resource Economics (co-organized with Max Stoeven, Anders Skonhøft, Olli Tahvonen, Niels Vestergaard)
- International Workshop *Climate Engineering Regulation and Liability*, Kiel (co-organized with Johannes Quaas)
- 2015 EAERE 2015 Helsinki pre-conference workshop: *Economic-ecological models in resource economics* (co-organized with Olli Tahvonen, University of Helsinki)
- International Workshop in Sustainability Economics: *Experiments on Inter-*

- generational Justice under Uncertainty* (co-organized with Stefan Baumgärtner, University of Freiburg)
- 2014 International Workshop in Sustainability Economics: *Intergenerational Equity and Efficiency under Uncertainty*, Camp Reinsehlen (co-organized with Stefan Baumgärtner, University of Freiburg)
- 2012 International Workshop in Sustainability Economics: *Responsibility for Sustainability. Combining the Perspectives of Economics and Philosophy*, Camp Reinsehlen (co-organized with Stefan Baumgärtner, University of Freiburg)
- International Workshop on *Managing Genetic Diversity of Fishes?* List, Sylt
- 2010 ICES Workshop on *Introducing coupled ecological-economic modelling and risk assessment into management tools (WKIMM)*, Kiel
- 2008 International workshop in Sustainability Economics: *Conceptualizing Sustainability under Uncertainty*, Camp Reinsehlen (co-organized with Stefan Baumgärtner, University of Freiburg)
- Session on Marine Life and Biodiversity, 2nd Bi-Annual Symposium: *The Future Ocean*, Kiel
- 2007 7th Conference of the European Society for Ecological Economics: *Integrating Natural and Social Sciences for Sustainability*, Leipzig (member of Scientific and local organizing committee)
- 2004 International workshop *Environment and Network Industries*, University of Heidelberg
- 2003 Member of the scientific committee, Conference *New blood in ecotoxicology*, Society of Environmental Toxicology and Chemistry, University of Heidelberg
- 2003 International workshop *Spatial Environmental Economics*, University of Heidelberg

REVIEWER FOR INTERNATIONAL JOURNALS

298 review reports on articles for 77 different international scientific journals, including: Agricultural Economics; American Journal of Agricultural Economics; Biological Conservation; Canadian Journal of Economics; Canadian Journal of Fisheries and Aquatic Sciences; Conservation Biology; Ecological Economics; Ecological Modelling; Environment and Development Economics; Environmental and Resource Economics; Environmental Conservation; Environmental Modelling & Software; European Economic Review; European Review of Agricultural Economics; Fish and Fisheries; Fisheries Research; Global Change Biology; Global Environmental Change; ICES Journal of Marine Sciences; Journal of the Association of Environmental and Resource Economists; Journal of Applied Ecology; Journal of Cleaner Production; Journal of Economic Dynamics and Control; Journal of Economic Geography; Journal of Economic Growth; Journal of Environmental Economics and Management; Journal of Environmental Management; Journal of Mathematical Biology; Journal of Regulatory Economics; Journal of Theoretical Biology; Journal of Urban Economics; Marine Resource Economics; Methods in Ecology and Evolution; Natural Resource Modeling; Nature Climate Change; Nature Ecology and Evolution; Nature Sustainability; Papers in Regional Science; PLOS One; PNAS; Proceedings of the Royal Society B; Rangeland Ecology and Management; Regional Science and Urban Economics; Regional Environmental Change; Resource and Energy Economics; Scandinavian Journal of Economics; Science Advances

REVIEWER FOR FUNDING AGENCIES

board: German Academic Exchange Service (DAAD) postdoc-fellowships/PRIME program (2008–2020); German Academic Exchange Service (DAAD) PhD fellowships for Africa (2012–2017)

ad hoc: European Research Council (ERC); German Research Foundation (DFG); German Federal Ministry of Education and Research (BMBF); German National Academic Foundation; Agence Nationale de la Recherche française (ANR); Austrian Science Fund (FWF); Czech Science Foundation; Netherlands Organization for Scientific Research (NWO); Research Council of Norway; U.S.–Israel Binational Science Foundation

COMMITTEES/EDITORIAL BOARDS/HONOURS

2021	first prize for special commitment in supervision of early-career researchers, Association of Friends and Sponsors of the Leipzig University
since 2021	editorial board, Review of Environmental Economics and Policy (University of Chicago Press)
since 2020	International Advisory Board, German Marine Research Alliance (DAM)
since 2019	Scientific Advisory Board, RWI – Leibniz Institute for Economic Research, Essen
since 2019	DFG Komitee für Nachhaltigkeitsforschung in Future Earth
since 2019	co-editor, Journal of Environmental Economics and Management (Elsevier)
since 2018	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), lead author for deliverable 3(d) – methodological assessment regarding the diverse conceptualization of multiple values of nature and its benefits
since 2018	associate editor, Marine Resource Economics (University of Chicago Press)
since 2016	member of the board of Resource Modeling Association
2016–2018	member of editorial board, Journal of Environmental Economics and Management (Elsevier)
since 2016	member of editorial board, Natural Resource Modeling (Wiley)
2015–2017	DFG Senatskommission Agroecosystem Research
2014–2016	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), expert for deliverable 3(d) – scoping for an assessment and guide on methodologies regarding diverse conceptualization of values of biodiversity and nature's benefits to people
2013–2018	associate editor, Environment and Development Economics (Cambridge University Press)
2012–2016	DFG Senatskommission Biodiversity Research

UNIVERSITY ADMINISTRATION

2019–2020	speaker of economists, Faculty of Economics and Management Science, University of Leipzig
2015–2018	elected member of the Konvent, Faculty of Economics and Social Sciences
2014–2018	member of the steering committee of Kiel University's Graduate Center
2013–2018	head of PhD Program <i>Quantitative Economics</i> , Faculty of Economics, Business and Social Sciences, Kiel University
2013–2018	member of the steering committee of Kiel University's research priority area Kiel Marine Science (KMS)
2012–2018	speaker for research area <i>Ocean Sustainability</i> , Cluster of Excellence <i>Future Ocean</i>
2011–2018	member of steering committee for E-Learning at the Kiel University

FINISHED PHD STUDENTS

10 principal supervisor; 18 secondary supervisor; 11 committee member at foreign universities

2020	Felix Meier (Kiel University; principal supervisor) Jennifer Okonkwo (Kiel University; principal supervisor) Florence Briton (University of Brest; member of committee) Robbert Schaap (University of Heidelberg; reviewer)
2019	Jussi Lintunen (Aalto University, Helsinki, Finland, Opponent)
2018	Martin Hänsel (Kiel University; principal supervisor) Kira Lancker (Kiel University; principal supervisor) Michael Holtkamp (Kiel University, secondary supervisor) François Bareille (Comue University Bretagne Loire; président du jury)
2017	Moritz Drupp (Kiel University; principal supervisor) Gunnar Dreßler (University of Osnabrück, Environmental Systems Research; secondary supervisor) Dionysios Karavidas (Kiel University; secondary supervisor) Martina Stiasny (GEOMAR Kiel, marine Biology; member of committee)
2016	Christine Merk (Kiel University; secondary supervisor) Luu Duc Thi (Kiel University; secondary supervisor) Nadine Mengis (GEOMAR Kiel, Biogeochemistry; member of committee)
2015	Lorena Fricke (Kiel University; principal supervisor) Julia Hoffmann (Kiel University; principal supervisor) Christine Bertram (Kiel University; secondary supervisor) Sven Offick (Kiel University; secondary supervisor)

2014	Max T. Stöven (Kiel University; principal supervisor) Sandra Derissen (Kiel University; secondary supervisor) John-Oliver Engler (Leuphana University; secondary supervisor) Eva Papaioannou (Kiel University; Geography; secondary supervisor) Marie Catherine Riekhof (Kiel University; secondary supervisor) Esther Regnier (University of Paris I; rapporteur and member of committee)
2013	Ute Kapaun (Kiel University; principal supervisor) Frederik Noack (Kiel University; principal supervisor) Lena Döpke (Kiel University; secondary supervisor) Andre-Rene Wolf (Kiel University; secondary supervisor) Diana van Dijk (Wageningen University; member of committee) Asle Gauteplass (Norwegian University of Science and Technology, Trondheim; member of committee) Sophie Gourguet (University of Tasmania and Université de Bretagne Occidentale, Brest; president of committee)
2011	Oliver Jakoby (University of Osnabrück; secondary supervisor) Wilfried Rickels (Kiel University; secondary supervisor) Sebastian Strunz (Leuphana University of Lüneburg; secondary supervisor) Jaba Ghonghaze (Kiel University; secondary supervisor) Anderies Richter (Wageningen University; member of committee)
2009	Thomas Lontzek (Kiel University; secondary supervisor)

CURRENT PHD STUDENTS AS PRIMARY SUPERVISOR

Isha Dube
Sophie Harzer
Claudia Kelsall
Lennard Kröger

HOSTING OF POSTDOCS

2020–2021	Dr. Jennifer Uju Dim (nee Okonkwo), now Economist at the World Bank, Environmental and Natural Resource, Energy Economics and Development
2019–	Dr. Patricia Grasse, Dr. Veronika Liebelt, Dr. Jasper N. Meya, Dr. Nadja Rüger, Dr. Hanna Schenk
2019-2020	Dr. Jürgen Groeneveld, now at Helmholtz Centre for Environmental Research (UFZ)
2018–	Dr. Kira Lancker
2018–2019	Dr. Martin Hänsel, now Postdoc at PIK
2017–2020	Prof. Dr. Julia Bronnmann, now assistant professor (tenure track) of environmental economics, University of Southern Denmark, Esbjerg
2017–2018	Prof. Dr. Moritz Drupp, now Juniorprofessor (tenure track), Department of Economics, University of Hamburg

2017–2018; 2020	Dr. Martina Stiasny, now Lecturer at University of Southampton
2016–2019	Dr. Max Stöven, now employee of Ministry of Finance, Federal State of Schleswig-Holstein
2016–2018	Dr. Julia Hoffmann, now personal assistant to the Minister of Finance, German Federal State of Schleswig Holstein
2014–2017	Dr. Lorena Fricke, now Referentin für Wirtschaft und Energie bei einem Industrieverband
2014–2015	Dr. Linda Kleemann, now Consultant Data Scientist, ICT4D, M&E GFA Consulting Group, Hamburg
2014–2015	Prof. Dr. Marie-Catherine Riekhof, now Associate Professor (tenured) of Political Economy of Marine and Coastal Resource Management, Kiel University, Germany
2014–2016	Dr. Esther Regnier, now maitre de conference (tenured), University of Brest, France
2014–2016	Dr. Wilfried Rickels, now head of research area <i>The Environment and Natural Resources</i> , Kiel Institute for the World Economy
2013	Prof. Dr. Frederik Noack, now assistant professor of Environmental and Resource Economics, University of British Columbia, Vancouver, Canada
2009–2018	Dr. Jörn O. Schmidt, now tenured senior scientist, Kiel University, and scientific chair of the International Council for the Exploration of the Seas (ICES)
2008–	Dr. Rudi Voss

THESES SUPERVISED

- 47 Master theses supervised
- 42 Bachelor theses supervised
- 26 Diploma theses supervised

COURSES TAUGHT

- Winter 2020/2021 Natural Resource Use and Conservation Economics [Master Economics, Joint International Master Programme in Sustainable Development, Leipzig University]; Advanced Microeconomics, Central German Doctoral Programme in Economics
- Summer 2020 Environmental and Biodiversity Economics [Master Economics, Joint International Master Programme in Sustainable Development, Leipzig University]
- Winter 2019/2020 Natural Resource Use and Conservation Economics [Master Economics, Joint International Master Programme in Sustainable Development, Leipzig University]
- Summer 2019 Environmental and Biodiversity Economics [Master Economics, Joint International Master Programme in Sustainable Development, Leipzig University]
- Winter 2018/2019 Sustainability analysis of energy transformation [Joint International Master Programme in Sustainable Development, Leipzig University]

- Summer 2018 Theories of Distributive Justice and Sustainability [Master Economics; Master Environmental and Resource Economics]; Spatial Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]; Seminar Urban Economics [Bachelor Economics]
- Winter 2017/2018 Environmental Economics [Master Economics; Master Environmental and Resource Economics]; Economic Growth [Master Economics; Master Environmental and Resource Economics]; Urban Economics [Bachelor Economics]
- Winter 2016/2017 Environmental Economics [Master Economics; Master Environmental and Resource Economics]; Theories of Distributive Justice and Sustainability [Master Economics; Master Environmental and Resource Economics]; Seminar Resource Economics [Master Economics]; Urban Economics [Bachelor Economics]; Sustainability Economics [Bachelor Economics, Master Sustainability, Society and the Environment]
- Summer 2016 Resource Economics [Master Environmental and Resource Economics; Master Economics]; Spatial Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]
- Winter 2015/2016 Environmental Economics [Master Economics; Master Environmental and Resource Economics]; Theories of Distributive Justice and Sustainability [Master Economics; Master Environmental and Resource Economics]; Seminar Resource Economics [Master Economics]; Urban Economics [Bachelor Economics]; Sustainability Economics [Bachelor Economics, Master Sustainability, Society and the Environment]
- Summer 2015 Resource Economics [Master Environmental and Resource Economics; Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]; Seminar Environmental Economics [Bachelor Economics]; Seminar Urban Economics [Bachelor Economics]
- Winter 2014/2015 Environmental Economics [Master Economics; Master Environmental and Resource Economics]; Theories of Distributive Justice and Sustainability [Master Economics; Master Environmental and Resource Economics]; Seminar Resource Economics [Master Economics]; Urban Economics [Bachelor Economics]; Sustainability Economics [Bachelor Economics, Master Sustainability, Society and the Environment]
- Summer 2014 Resource Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]
- Winter 2013/2014 Environmental Economics [Master Economics]; Theories of Distributive Justice [Master Economics]; Seminar Resource Economics [Master Economics]; Urban Economics [Bachelor Economics]; Sustainability Economics [Bachelor Economics, Master Sustainability, Society and the Environment]
- Summer 2013 Environmental Economics [Master Economics]; Resource Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]; Urban Economics [Bachelor Economics]
- Summer 2012 Environmental Economics [Master Economics]; Resource Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]; Seminar Urban Economics
- Winter 2011/2012 Theories of Distributive Justice [Master Economics]; Seminar Resource Economics

Summer 2011 Resource Economics [Master Economics]; Spatial Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]; Seminar Urban Economics

Winter 2010/2011 Urban Economics [Bachelor Economics]; Theories of Distributive Justice [Master Economics]; Seminar Resource Economics

Summer 2010 Spatial Economics [Master Economics]; Seminar Resource Economics [joint with SDU Esbjerg]; Seminar Urban Economics

Winter 2009/2010 Urban Economics [Bachelor Economics]; Seminar Resource Economics

Summer 2009 Sustainability Economics [Bachelor Economics]; Seminar Resource Economics

Winter 2008/2009 Urban Economics [Bachelor Economics]; Seminar Resource Economics

Summer 2008 Resource Economics [Master Economics]; Seminar Resource Economics