

**Futures of Ecosystem Services  
Research Center  
(FuturES)**

**Annual Report 2013**



## **FuturES: Futures of Ecosystem Services**

The concept of ecosystem services—the benefits derived from human interactions with, and appropriation of, the physical structures and processes occurring in (natural and human dominated) ecosystems—has emerged as one of the most important new paradigms of the environmental and sustainability sciences in the last fifteen years. The notion of ecosystem services has the potential to act as a boundary object, capable of bringing together various scientific domains of knowledge that study the interactions and interdependencies between human society and nature. Synthesising such knowledge may provide vital and encompassing understandings, and inform sustainable management, of social-ecological systems.

FuturES, founded in 2012, brings together the diverse expertise of researchers at Leuphana University of Lüneburg across a wide range of disciplines such as communication science, ecology, economics, ethics, political science and management. FuturES seeks to foster genuinely interdisciplinary collaboration between a broad spectrum of the natural and social sciences, and the active involvement of stakeholders and policy makers in shaping research goals and methods (transdisciplinary approach) within the broader conceptual framework and societal goal of sustainability.

FuturES expands on the existing research in the field of ecosystem services by relating the (largely) descriptive concept of ecosystem services to the explicitly normative concept of sustainability. A particular emphasis is on trade-offs and conflicts between multiple services and the uncertainties inherent in the generation and appropriation of ecosystem services. In doing so FuturES seeks to develop new management and governance strategies for the management of ecosystem services with explicit regard to the goal of sustainability.

FuturES is the first research center in Germany that takes a truly encompassing and integrated approach to ecosystem services. This approach places it among a small number of institutions worldwide, seeking not simply to use the concept of ecosystem services within established research approaches, but to actively strengthen the concept as a new tool in the search for sustainability solutions.



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## Highlights

The most important events and developments of the past year for the FuturES research center included the following:

- In 2013 FuturES had over 60 members including 11 professors, 22 postdoctoral researchers and more than 30 PhD students, from a diverse range of scientific fields, providing a breadth of knowledge and understanding regarding many aspects of ecosystem services.
- In 2013, FuturES members produced 91 publications related to ecosystem services, 74 of which were international peer-reviewed journal articles, including publications in Science, PNAS, Ecological Economics, Ecology Letters, Conservation Letters, Proceeding of the Royal Society B, Environmental and Resource Economics and Biological Conservation.
- During 2013, FuturES researchers worked on ecosystem services related research projects with a combined value of €10.5 million. Among the newly awarded research grants is a prestigious ERC consolidator grant for Prof. Dr. Joern Fischer.
- There were 10 incoming lectures or research visits (to Leuphana University of Lüneburg) related to ecosystem services from international academics and 24 outgoing research visits from FuturES members to other research institutions.
- In the 2013 Leuphana research awards, FuturES members won best published researcher (Prof. Dr. Jörn Fischer), most cited researcher (Prof. Dr. Alexandra Klein) and best PhD (Dr. Stefanie Sievers-Glotzbach), showing that FuturES is defining top quality in research at this university.
- FuturES produced its first major co-authored research output “ecosystem services research for sustainability” (currently under review), which involved all principal investigators of the FuturES team and is programmatic for future research at FuturES.

In this Annual Report, the various achievements of the past year are described in more detail.



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## Research Projects

Basic funding for FuturES comes from Leuphana University of Lüneburg. In addition, FuturES research center members are undertaking externally funded research projects with a total value to Leuphana University of Lüneburg of approximately 10.5 million euros.

### Externally Funded Projects Completed

| <i>Project title</i>                                                                                                                                              | <i>Principal Investigators (at Leuphana)</i> | <i>Period</i> | <i>Source of funding</i>                                  | <i>Funding for Leuphana</i> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---------------|-----------------------------------------------------------|-----------------------------|
| Efficient inter- and intragenerationally just use of ecosystem services (EIGEN)-Sustainability-economic analysis of trade-offs in biodiversity and fishery policy | Baumgärtner, S.                              | 2010 - 2013   | German Federal Ministry of Education and Research (BMBF)  | €315,925                    |
| Experiment zur Ermittlung des Wirkungsschwellenwerts für den Stickstoffeintrag (empirischer Critical Load) in einem eutrophierungsgefährdeten Ökosystem           | Härdtle, W.                                  | 2011- 2013    | German Research Foundation (DFG)                          | ca €100,000                 |
| Plant-insect interactions, flower traits, and pollination along an experimental plant diversity gradient                                                          | Klein, A.M.                                  | 2010- 2013`   | German Research Foundation (DFG)                          | €205,526                    |
| Community-mediated mechanisms to stabilize pollination of agricultural production highly dependent on shrinking honey bee populations under global change         | Klein, A.M.                                  | 2009- 2013`   | German Research Foundation (DFG)                          | €234,000                    |
| Biodiversity and its role in the ecosystem services and dis-services concept in agricultural landscapes in Israel                                                 | Klein, A.M.                                  | 2009- 2013`   | Niedersächsisches Ministerium für Wissenschaft und Kultur | €220,000                    |
| Rapid Assessment of the Yale Framework and Adaptation Blueprint for the Pacific Coastal Temperate Rainforests                                                     | Von Wehrden, H.                              | 2012 - 2013   | Yale Framework                                            | €35,000                     |
|                                                                                                                                                                   |                                              |               | <b>Total</b>                                              | <b>ca €876,685</b>          |





## On-going Externally Funded Projects

| <i>Project title</i>                                                                                                                                                  | <i>Principal Investigators<br/>(at Leuphana)</i> | <i>Period</i>                | <i>Source of funding</i>                                     | <i>Funding for<br/>Leuphana</i> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|------------------------------|--------------------------------------------------------------|---------------------------------|
| Ökologische Funktion von halboffenen Verbundkorridoren                                                                                                                | Aßmann, T.<br>Härdtle, W.                        | 2012 - 2015                  | Bundesamt für Naturschutz, FKZ                               | €349,963                        |
| Population genetics meets landscape ecology in the biodiversity exploratories: a case study on genetic differentiation of ground beetle populations (PopGeneLand)     | Aßmann, T.                                       | 2011 - 2014                  | German Research Foundation (DFG)                             | €206,400                        |
| Functional effects of herbivores, predators and saproxylics (Subproject 8 of DFG research group BEF China)                                                            | Aßmann, T.                                       | 2011 - 2014                  | German Research Foundation (DFG)                             | €46,800                         |
| Distribution, efficiency and policy under uncertainty (ECCUITY) – WP2: Risk externalities, external moral hazard, and insurance                                       | Baumgärtner, S.                                  | 2012 - 2015                  | German Federal Ministry of Education and Research (BMBF)     | €343,576                        |
| COMTESS - Sustainable coastal land management: Trade-offs in ecosystem services; WP 6.2 (Economic risk analysis) and WP 8 (Trade-offs analysis of ecosystem services) | Baumgärtner, S.                                  | 2011 - 2015                  | German Federal Ministry of Education and Research (BMBF)     | €325,349                        |
| Fostering sustainable development in Eastern Europe: A case study of ancient agricultural landscapes in Central Romania                                               | Fischer, J.                                      | 2010 - 2015                  | Sofja-Kovalevskaja Award / Alexander von Humboldt Foundation | €1,500,000                      |
| Identifying Social-Ecological System Properties Benefiting Biodiversity and Food Security ( <a href="#">Grant awarded</a> , scheduled to start 2014)                  | Fischer, J.                                      | 2014 - 2019<br>(provisional) | ERC Consolidator Grant                                       | €1,800,000                      |
| Plant growth and demography; SP2 in the BEF-China research unit;                                                                                                      | Härdtle, W.                                      | 2011 - 2014                  | German Research Foundation (DFG)                             | €150,000                        |
| Ecological importance and functioning of semi-open corridors                                                                                                          | Härdtle, W.                                      | 2012 - 2015                  | Federal Agency for Nature Conservation                       | €350,000                        |
| Protection of the worldwide endangered species <i>Gagea spathacea</i> (WaldGloWan)                                                                                    | Härdtle, W.                                      | 2013 - 2019                  | BMBF                                                         | €450,000                        |
| Critical Loads for heathland ecosystems                                                                                                                               | Härdtle, W.                                      | 2012 - 2016                  | UBA                                                          | €170,000                        |



|                                                                                                     |                                                 |             |                                         |                   |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------|-------------|-----------------------------------------|-------------------|
| Ecological valuation of crop pollination in traditional Indonesian homegardens                      | Klein, A.M                                      | 2012 - 2015 | German Research Foundation (DFG)        | €227,213          |
| Global evaluation of bee attractiveness and apicultural relevance of agricultural crops             | Klein, A.M.                                     | 2012 - 2014 | BayerCrop Science                       | €180,550          |
| Aboveground plant-insect interaction webs and associated processes along a plant diversity gradient | Klein, A.M.                                     | 2013- 2016  | German Research Foundation (DFG)        | €147,200          |
| Ecological valuation of crop pollination in traditional Indonesian homegardens                      | Klein, A.M.                                     | 2012- 2015  | German Research Foundation (DFG)        | €227,213          |
| Aboveground multi-trophic plant-insect interactions in a Chinese subtropical forest                 | Klein, A.M.                                     | 2011- 2014  | German Research Foundation (DFG)        | €195,000          |
| Academic partnership for the conservation of biodiversity                                           | Michelsen, G.,<br>Rieckmann, M.,<br>Adomßent, M | 2011 - 2014 | German Academic Exchange Service (DAAD) | €113,350          |
| Multi-agri: Multifunctional agricultural land-use                                                   | Newig, J., Klein, A.M., Fischer, J.             | 2013- 2016  | RURAGRI ERA-NET (EU FP7)                | €300,000          |
| Leuphana research platform on sustainable biofuel production                                        | Schaltegger, S.,<br>Klein, A.M.                 | 2011- 2014  | EU                                      | €2,700,000        |
|                                                                                                     |                                                 |             | <b>Total</b>                            | <b>€9,632,614</b> |

## PhD Research

In 2013 there were 32 PhD students associated with FuturES, engaging in very diverse research related to ecosystem services. The research undertaken ranges from biodiversity and ecosystem function through governance, economics, justice and the impact of nuclear accidents on ecosystem service provision.

## PhD Theses Completed

Hirsch, H. Investigations on the invasion success of *Ulmus pumila* - a multi-continental survey. Supervisor: Henrik von Wehrden. 27.08.2013

Hoberg, N. Value trade-offs and sustainability policy: An economic analysis. Supervisor: Stefan Baumgärtner. 18.12.2013

Homburg, K. Effects of climate on diversity patterns in ground beetles: Case studies in macroecology. Supervisor: Thorsen Aßmann.

Münchow, J. Supervisor: Vegetationswandel entlang von Feuchtegradienten im ariden und stark ENSO-beeinflussten Norden Perus. Supervisor: Henrik von Wehrden. 12.12.2013



Pereira-Peixoto, M.H. Spillover of trap-nesting bees, wasps and their natural enemies in an urban-rural gradient.  
Supervisor: Alexandra-Maria Klein. 27.02.2013

## **PhD Theses On-going**

Bähring, A., Nitrogen (N) inputs in ecosystems endangered by eutrophication

Boutaud, E., Semi-open corridors: ground beetles

Dorresteyn, D., The Future of birds and large carnivores in Romania, Transylvania

Drescher, N., Plant-insect interactions and the ecology of social bees in temperate and (sub)tropical regions

Dudenhöffer, J.-H. Pollinator interaction networks along a trait-based experimental plant diversity gradient

Dziedek, C., Interactive effects of nitrogen deposition and drought on forest ecosystems

Eggers, J., Fragmentation effect and traffic intensity on populations flightless beetle species

Ehlers, D., Semi-open corridors: spiders and stenotopoic vertebrates

Engler, J.-O., Heterogeneity and decision making: some theoretical aspects from economics

Gralla, F., Sustainable perspective on nuclear energy and possible challenges

Groeneveld, J. How oil plant cultivation should be designed to safeguard ecosystem services and biodiversity

Gutiérrez, A., Effects of the quality and quantity of forest corridors on bee communities and pollination services in a heterogeneous landscape of Columbia

Hudewenz, A. Competition and resource use of honey bees and wild bees with emphasis of the Lüneburger Heath

Hülsmann, M., Faeces decomposition, biodiversity and ecosystem resilience

Kaluza, B. Diversity of plant resources for population dynamics of stingless bees in Australia

Laws, N., Tangible Sustainability Policy: Possibilities and constraints of the establishment of biodiversity as a cross-cutting issue on the German federal level

Li, Y., Tree growth and aboveground competition in subtropical forest ecosystem in southeast China

Loos, J., The future of plants and butterflies in Transylvania

Marcus, T., The effects of land use type and intensity on genetic diversity of ground beetles

Miczajka, V.L., Seed dispersal and seed predation as ecosystem functions

Milcu, A., Cultural ecosystem services and historical changes



Moser, C., Certification and sustainable development in bio-energy production

Mikulcak, F., Fostering sustainable development in Eastern Europe

Oyundari, C., Sustainable use of oases in the Gobi desert

Röllig, R., European Wood-pastures

Schäckermann, S., Biodiversity and its role in the ecosystem services and dis-services concept in agricultural landscapes in Israel

Schultze, S., Saproxylic insects in a hyperdivers woodland ecosystem

Staab, M., Multitrophic interaction-networks

Stumpf, K.H., Sustainability and justice. Conceptual foundations and case studies in the field of biodiversity and ecosystem services

Venjakob, C., Effects of plant biodiversity on plant-pollinator interactions and pollination

Zumstein, P., Decomposers and predators in the CSPs of BEF China

## **Publications**

Research results of FuturES have been published in a wide range of books and academic journals – 91 publications altogether, including 74 articles in international peer-reviewed journals. Many interdisciplinary publications have been written with co-authors from other academic disciplines and institutions.

### **International Peer-reviewed Journal Publications**

1. Abson, D.J., Fraser E.D.G., and Benton T.G. (2013). Landscape diversity and the resilience of agricultural incomes: a portfolio analysis of land use patterns and economic returns from lowland UK agriculture, *Agriculture and food security*. 2.2.
2. Abson, D.J. and Hanspach, J. (2013). Response to Turnhout et al.'s rethinking biodiversity: from goods and services to "living with". *Conservation letters*, early online.
3. Abson, D.J., Termansen, M., Pascual, U., Aslam, U., Fezzi, C., and Bateman, I. (2013). Valuing climate change effects upon UK agricultural GHG emissions: spatial analysis of a regulating ecosystem service. *Environmental and Resource Economics*, early online.

4. Allan, E., Bossdorf, O., Dormann, C.F., Prati, D., Gossner, M.M., Tschardtke, T., Blüthgen, N., Barto, K., Bellach, M., Birkhofer, K., Boch, S., Böhm, S., Börschig, C., Chatzinotas, A., Christ, S., Daniel, R., Diekoetter, T., Fischer, C., Friedl, T., Glaser, K., Hallman, C., Hodač, L., Hölzel, N., Jung, K., Klein, A.M., Klaus, V., Kleinebecker, T., Krauss, J., Lange, M., Müller, J., Nacke, H., Pašalić, E., Rillig, M., Rothenwöhrer, C., Schall, P., Scherber, C., Schulze, W., Socher, S., Steckel, J., Steffan-Dewenter, I., Türke, M., Weiner, C., Werner, M., Westphal, C., Wolters, V., Wubet, T., Gockel, S., Gorke, M., Hemp, A., Renner, S.C., Schöning, I., Pfeiffer, S., König-Ries, B., Buscot, F., Linsenmair, K.E., Schulze, E.D., Weisser, W.W., Fischer, M. (in press). Inter-annual variation in land-use intensity enhances grassland multidiversity. *Proceedings of the National Academy of Science*.
5. Allan, E., Weisser, W.W., Fischer, M., Schulze, E.D., Weigelt, A., Roscher, C., Baade, J., Barnard, R.L., Beßler, H., Buchmann, N., Buscot, F., Ebeling, A., Eisenhauer, N., Engels, C., Fergus, A.J.F., Gleixner, G., Gubsch, M., Habekost, M., Halle, S., Klein, A.M., König, S., Kowalski, E., Kreutziger, Y., Kertscher, I., Kummer, V., Kuu, A., Lange, M., Lauterbach, D., Le Roux, X., Marquard, E., Migunova, V.D., Milcu, A., Müller, R., Mwangi, P., Niklaus, P.A., Oelmann, Y., Petermann, J.S., Poly, F., Rottstock, T., Rosenkranz, S., Sabais, A., Scherber, C., Scherer-Lorenzen, M., Scheu, S., Schmitz, M., Schumacher, J., Soussana, J.F., Steinbeiss, S., Schwichtenberg, G., Temperton, V., Tschardtke, T., Voigt, W., Wilcke, W., Wirth, C., and Schmid, B. (2013). A comparison of the strength of biodiversity effects across multiple functions. *Oecologia*, early online.
6. Bateman, I.J., Harwood, A.R., Abson, D.J., Barnaby, A., Crowe, A., Dugdale, S., Fezzi, C., Foden, J., Hadley, D., Haines-Young, R., Hulme, M., Kontoleon, A., Munday, P., Pascual, U., Paterson, J., Perino, G., Sen, A., Siriwardena, G., and Termansen, M. (2013). Economic Analysis for the UK National Ecosystem Assessment: Synthesis and Scenario Valuation of Changes in Ecosystem Services. *Environmental and Resource Economics*, early online.
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## Other Publications

1. Abson, D., Pascual, U., and Termansen, M. (accepted). Chapter 17 Valuation approaches for soil carbon. In: *SCOPE Volume Benefits of Soil Carbon*. CABI.
2. Assmann, T., Buse, J., Dieker, P., Drees, C., Eggers, B., Harry, I., Homburg, K., Krause, R-H., Matern, A. Schuldt, A. and Taboada, A. (2013): Historisch alte Waldstandorte: Bedeutung und Wert von Lebensraumkontinuität für Tiere. *Naturschutz und Biologische Vielfalt* 131: 65-82.
3. Baumgärtner, S., H. Heinrichs, S. Hofmeister and T. Schomerus (2014). Öffentliche Nachhaltigkeitssteuerung, in: H. Heinrichs und G. Michelsen (eds.), *Nachhaltigkeitswissenschaften*, Springer-Verlag, Berlin, pp. 261–321.
4. Baumgärtner, S. M.A. Drupp and M.F. Quaas (2013), Subsistence and substitutability in consumer preferences, *University of Lüneburg Working Paper Series in Economics*, Working Paper No. 290, December 2013
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9. Fischer, J., Brittain, C., Klein, A.M. (2013). Biodiversity-friendly farming. In: Levin, S.A. (ed.) *Encyclopedia of Biodiversity*, 2nd Edition, Elsevier, New York, pp. 418-429.
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13. Klein, A.M., Boreux, V., Bauhus, J., Chappell, M.M., Fischer, J., Philpott, C.M. (accepted) Forest islands in an agricultural sea. In: Kettle, C.J., Pin-Koh, L. (eds) *Global Forest Fragmentation*. Earthscan.
14. Klein, A.M. 2013. Teamarbeit: Honigbienen können nur gemeinsam mit wildlebenden Insekten die Bestäubung von Kulturpflanzen sichern. *Deutsches Bienenjournal*, 5:12-14.
15. Pascual, U., Termansen, M., & Abson, D. (2014). Chapter 8 The economic value of soil Carbon. In: *SCOPE Volume Benefits of Soil Carbon*. CABI.
16. Stumpf, K.H. (forthcoming). Reconstructing the "biopiracy" debate from a justice perspective, in: D. Lanzerath and Friele, M. (eds) *Concepts and Values in Biodiversity*, Routledge Chapman & Hall.
17. Sutcliffe, L., Roellig, M. And Hartel, T. (2013). An analysis of local institutions governing common pasture use for biodiversity and society. In: Promotionsstudiengang Biodiversität und Gesellschaft, Universität Göttingen (Hrsg.) *Biodiversität und Gesellschaft - Gesellschaftliche Dimensionen von Schutz und Nutzung biologischer Vielfalt*. Universitätsverlag Göttingen. Göttingen.



## Conference Contributions

FuturES members contributed to 19 international conferences (only conferences with open calls and competitive selection of contributions are listed).

- *2nd International Federation for Phytosociology Conference, Rome, Italy, 11-13 April 2013*
- *10th International Conference of the European Society for Ecological Economics (ESEE), Lille, France, 18-21 June 2013*
- *11th INTECOL Congress, London, UK, August 18-23*
- *13th International Meeting, Association for Public Economic Theory (APET), Lisbon, Portugal, 5-7 July 2013*
- *13th European Heathland Workshop, Copenhagen, Denmark, 23-28 June 2013*
- *15th BIOECON Conference "Resource Economics, Biodiversity Conservation and Development", Cambridge, UK, 18-20 Sept 2013*
- *17th Annual Conference of the Asia-Pacific Risk and Insurance Association (APRIA), New York, USA, 28-31 July 2013*
- *17th Annual Meeting of the International Association for Environmental Philosophy (IAEP), Eugene, OR, USA, 26-28 Oct 2013*
- *20th Annual Conference of the European Association of Environmental and Resource Economists (EAERE), Toulouse, France, 26-29 June 2012*
- *28th European Economic Association (EEA) Meeting, Gothenburg, Sweden, 26-30 August 2013*
- *43th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Potsdam, Germany, 9-13 September 2013*
- *55th Annual Conference of the Western Social Science Association, Association for Institutional Thought (AFIT), Denver, CO, USA, 10-13 April 2013*
- *60th Annual North American Meetings of the Regional Science Association International, Atlanta, GA, USA, 12-16 Nov 2013*



- *Agriculture in Transition, Berlin, Germany, 16-17 Jan 2013*
- *Applied Environmental Economics Conference, The Royal Society, London, UK, 15 March 2013*
- *Cooperation or Conflict? Economics of Natural Resources and Food, Wageningen, The Netherlands, 29-31 May 2013*
- *European Public Choice Society Meeting (EPCS), Zurich, Switzerland, 3–6 April 2013*
- *Open Landscapes 2013 - Ecology, Management and Nature Conservation, Hildesheim, Germany, 29th September - 3rd October 2013*
- *Rethinking Agricultural Systems in the UK, British Ecological Society, Oxford, UK, 18-19 December 2013*



## Services to the Scientific Community

### Scientific Events Organized

Members of FuturES have organized, or served on the organizing committee of the following international conferences and workshops.

- Abson, D.J. and von Wehrden, H. (with Christine Wamsler of Lund University) Ecosystem services and sustainable urban planning, Lund, Sweden, 17-12 November 2013
- Baumgärtner, S. Workshop Responsibility for Sustainability, Lüneburg, Germany, 21 January 21/1 February 2013
- Klein, A.M. Symposium on pressures on pollinators and their functioning in ecosystems. 43th Annual Meeting of the Ecological Society of Germany, Austria and Switzerland, Potsdam, Germany, 9-13 September 2013
- Fischer J. (with M. Jahi Chappell of Washington State University and Hannah Wittman of University of British Columbia) Food Security, Equity, & Ecological Sustainability: A Multi-indicator, Process-oriented Framework for Food Systems Research SESYNC, Maryland, USA, 8-10 Oct 2013

### Editorial Services

FuturES members edited, or were co- or subject editors for, the following international peer-reviewed journals:

- Agriculture and Forest Entomology (Klein, A.M.)
- Biotropica (Klein, A.M.)
- Conservation Letters (Fischer, J.)
- Current Opinion in Environmental Sustainability (Martens, P.)
- Ecohealth: Human Health, Conservation Medicine, Ecosystem Sustainability (Martens, P.)
- Ecological Economics (Baumgärtner, S.)
- Ecology and Society (Fischer, J.)
- Environmental Science and Policy' (Martens, P.)
- Journal of Pollination Ecology (Klein, A.M.)
- Sustainability (Lang, D., Klein, A.M.)





- Sustainability Science, Practice & Policy (Martens, P.)
- Sustainability: The Journal of Record (Martens, P.)
- ZooKeys (Aßmann, T)

## **Advisory Services**

FuturES members sat on the following scientific steering committees, advisory boards, etc:

- Klein, A.M., German Research Foundation (DFG) advisory board for the field “Ecology of agricultural landscapes”
- Fischer, J., Expert scientific advisory committee to the Mihai Eminescu Trust, Romania
- Martens, P., Member Committee of Recommendation, Change Magazine.
- Martens, P., Scientific Review Committee of the National Socio-Environmental Synthesis Center (SESYNC),
- Martens, P., Member The Integrated Assessment Society (TIAS) Advisory Board
- Martens, P., Member Health Council, Advisory Council for the Dutch Government, Advisory Group Health and the Environment

## **Other Scientific Exchange**

### **Outgoing Research Visits**

- Baumgärtner, S., University of Bayreuth, 10 January 2013
- Baumgärtner, S., University of Kiel, 18 – 19 February 2013 and 20 – 22 November 2013
- Baumgärtner, S., UFZ – Helmholtz Center for Environmental Research Leipzig, 27 February – 1 March., 11 – 12 March., 11 – 12 June and 11 – 12 September 2013
- Baumgärtner, S., University of Basel, Switzerland, 7 – 8 March 2013
- Baumgärtner, S., University of Freiburg, 18 April 2013
- Baumgärtner, S., and Hussain, T., University of Potsdam, 24 – 25 October 2013



- Baumgärtner, S., University of Zürich, Switzerland, 29.September – 4 October 2013
- Fischer, J., SESYNC, Maryland, USA, 6. –10 October 2013
- Fischer, J., Stockholm University, 9 – 12 September 2013
- Klein, A.M., Universidade Federal da Paraíba (UFPB), Brazil, 26 – 28 February 2013
- Klein, A.M., Universidade de Vicosa, Brazil, 28 February – 4 March 2013
- Klein, A.M., Lund University, Sweden, March 2013,
- Klein, A.M., University of Freiburg, Germany, February 2013
- Klein, A.M., University of Würzburg, Germany, May 2013
- Klein, A.M., University of Jena, Germany, March 2013, April and October 2013
- Klein, A.M., University of Peking, China, September 2013
- Klein, A.M., Pennsylvania State University, USA,
- von Wehrden, H., University of Göttingen, Germany 11 February 2013
- von Wehrden, H., ETH Zuerich, Switzerland, 11 – 13 March 2013
- von Wehrden, H., UFZ Leipzig, Germany, 25 – 28 March 2013
- von Wehrden, H., Senckenberg Görlitz Forschungsinstitut und Naturmuseum, Germany, 12 – 14 July 2013
- von Wehrden, H., Martin-Luther-Universität Halle-Wittenberg, Germany, 27 – 28 August 2013
- von Wehrden, H., University of Maastricht, Netherlands, 3 – 5 September 2013
- von Wehrden, H., University of Lund, Sweden, 9 – 13 November 2013

## **Incoming Research Visits**

- Dr. Christian Becker (Pennsylvania State University, USA): 21– 23 May 2013
- Prof. Dr. Wolfgang Buchholz (University of Regensburg): 20 – 22 August 2013
- Prof. Dr. Moritz Drupp (London School of Economics, UK), 20 – 22 August 2013
- Dr. Bernd Klauer (UFZ – Helmholtz Center for Environmental Research Leipzig), 31 January – 1 February 2013



- Dr. Thanh Nguyen (University of Bayreuth): 25 – 26 February 2013
- Prof. Dr. Martin Quaas (University of Kiel), 31 January – 1 February and 20 – 22 August 2013
- Dr. Thomas Petersen (University of Heidelberg), 31 January – 1 February., 12 April and 4 December 2013
- Dr. Johannes Schiller (UFZ – Helmholtz Center for Environmental Research Leipzig), 31 January – 1 February., 12 April and 4 December 2013
- Dr. Garrath Williams (University of Lancaster, UK), 31 January - 1 February 2013

### **Invited Seminar Presentations by External Researchers**

- Prof. Dr. Stefanie Engel (ETH Zürich, Switzerland): Designing payments for ecosystem services (PES), 21 Jan 2013
- Dr. Thanh Nguyen (University of Bayreuth): Tradeoffs, efficiency, and payments for ecosystem services: case studies from South Korea and Vietnam, 25 Feb 2013
- Dr. Garrath Williams (University of Lancaster, UK): Philosophical approaches to prospective responsibility, 31 Jan 2013



## Looking ahead

Our **long-term goal** is to have an international impact through cutting-edge contributions in research and knowledge transfer in the area of ecosystem services. In view of this goal, in the **upcoming year** we will continue to add to the scientific community's knowledge and understanding of ecosystem services through peer-reviewed publications, research visits and conference presentations. We intend to further extend and strengthen our network of international scientific collaborations by seeking external international partners for FuturES.

Our intention is for FuturES to become an internationally recognised center of research excellence in the field of ecosystem service research, capable of helping shape the ecosystem services research agenda. Now, some 30 years after the term “ecosystem services” was first coined there is a pressing need for the scientific community to stop and reflect on the purpose and direction of ecosystem service research. In particular, there is a need to consider the role of the ecosystem services concept within the broader conceptual frameworks of sustainability science and the normative agenda of sustainability. With the submission of our first major joined research output (Ecosystem services for sustainability science) currently under review, FuturES and Leuphana University of Lüneburg are now placed in a strong position to engage in and shape these important debates.



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## Imprint

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