

Social-ecological fisheries science



Prof. Dr. Robert Arlinghaus

Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) in the Forschungsverbund Berlin e.V. (FVB) & Humboldt-Universität zu Berlin

Research focus

Human dimensions and bio-economics of recreational fisheries, inter- and transdisciplinary fisheries research, fish and fisher behavioural ecology

1. Contact

Department of Biology and Ecology of Fishes, IGB, Müggelseedamm 310, 12587 Berlin & Division of Integrative Fisheries Management, Faculty of Life Sciences and Integrative Research Institute for the Transformation of Human-Environment Systems, Humboldt-Universität zu Berlin, Philippstrasse 13, Haus 7, 10115 Berlin, Germany : arlinghaus@igb-berlin.de

2. Websites

Personal web: www.besatz-fisch.de
Google Scholar: www.scholar.google.com/citations?user=Slto_gcAAAAJ&hl=en
Research Gate: www.researchgate.net/profile/Robert_Arlinghaus

3. Education

2004: PhD in Agricultural Sciences with a speciality in the Human Dimensions of Fisheries, Humboldt-Universität zu Berlin.

2000: Master in Science in Ichthyology, Humboldt-Universität zu Berlin.

4. Appointments

2013 – today: Professorship (W-2-S) for Integrative Fisheries Management at Faculty of Life Sciences, Humboldt-Universität zu Berlin & Senior Scientist for Fish Biology and Fisheries at IGB

2006 – 2012: Junior-Professorship (W-1-S) for Inland Fisheries Management at Faculty of Agriculture and Horticulture, Humboldt-Universität zu Berlin

2004 – 2006: Post Doc for Inland Fisheries at IGB

5. Externally funded research projects (selection)

2015 – 2018 Impress: Improved production technological for the restoration of migratory freshwater species, EU Horizon 2020, ITN, PI.

2014 – 2016 Salmolnvaade: Causes and consequences of invasions of ecosystems by salmonids, PanEuropean BiodivERsA , German Science Foundation, PI

2013 – 2015: BTypes: Ecological and managerial consequences of fish behavioural types, Leibniz-Competition, PI

2010 – 2014: Besatzfisch: Fish stocking and aquatic biodiversity conservation from an inter- and transdisciplinary perspective, German Ministry for Education and Research, leader of young research group and PI

2006 – 2009: Adaptfish: Adaptive dynamics of coupled social-ecological systems exemplified by recreational fisheries, Leibniz-Competition, leader of young research groups and PI

5. Three important

- Identification that angling-induced selection mainly operates on behavioral traits, rather than on size, (Uusi-Heikkilä et al. 2008, TREE
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**scientific
discoveries
and
associated
papers**

- 23:419-421), which may cause a timidity syndrome (Arlinghaus et al., TREE, in press)
- Optimal harvest regulations are strongly dependent on explicitly including dynamic responses of anglers to ecological and managerial changes (Johnston et al. 2010, CJFAS 67:1507-1531)
 - Fish behavioural types consistent with personality exists in a wild population of northern pike (Kobler et al. 2009, Oecologia 161:837-847)

**6. Scientific
service**

Organization of Conferences & Symposia (selection)

2014: Symposium on recreational fisheries as complex adaptive system at SESYNC, USA

2014: Co-Convenor FSBI Annual Meeting in Hull, UK

2011: Organizer and Chair of the 6th World Recreational Fishing Conference held at Humboldt-Universität zu Berlin in August 2011 (300 attendees of 33 countries)

2011: Organizer of Symposium on Fish Stocking held at the American Fisheries Society Conference.

2008: Co-organizer of Human Dimensions of Fish and Wildlife Management Conference 2008 in Colorado

Key notes (selection)

Arlinghaus, R., Riepe, C., Pagel, T., Beardmore, B., Hilberg, J. 2014. Social and economic dimension of fish stocking. 2014 Annual Symposium of The Fisheries Society of the British Isles, 7.-14. July 2014. Hull, UK.

Arlinghaus, R., Riepe, C. 2014. Social value change and sustainable fisheries. Key Note at 7th World Recreational Fishing Conference, 1.-4. September 2014, Campinas, Brazil.

Arlinghaus, R., Johnston, F., Matsumura, S. 2010. Managing recreational fisheries with heterogenous anglers. Key Note at International Conference on the Dynamics of Inland Fisheries: Towards a synthesis of objectives, models and data analysis for sustainable management, 15.09.2010, Cjeske Budejovice, Czech Republic.

Arlinghaus, R. 2009. Social-ecology of natural resource use to manage for sustainability: examples from recreational fishing. Key Note at 15th International Symposium on Society and Resource Management, July 2009, Vienna.

Arlinghaus, R. 2008. Fish welfare and recreational fishing. Key Note at Fish Welfare Symposium, 5th World Fisheries Congress, 20.-24.10.2008, Yokohama, Japan.

Review activities (selection)

Journals:

Aquatic Sciences, Animal Behaviour, Ambio, Biology Letters, Canadian Journal of Fisheries and Aquatic Sciences, Ecology, Ecological Applications, Evolutionary Applications, Environmental Management, Fisheries, Fisheries Management and Ecology, Journal of Fish Biology,

Land Economics, Limnologica, Leisure Sciences, Human Dimensions of Wildlife, North American Journal of Fisheries Management, Plos One, Transactions of the American Fisheries Society, PNAS

Granting bodies:

BMBF, DFG, DAAD, German Environmental Foundation, Germany Committee for Science in Germany, international: NSF in the USA, NSERC in Canada, Finnish Academy of Sciences, Norwegian Academy of Sciences, Romanian Academy of Sciences, European Research Council, pool or reviewers for biodiversa calls

Structural activities:

2015 - 2016: Foundation of the Virtual Centre for the Reality Mining of Animal-Human Systems within strategic partnership of Princeton University and Humboldt-Universität zu Berlin

2010 – 2011: Consultant and Lead Author of the Technical Guidelines for Responsible Fisheries: Recreational Fisheries for FAO in Rome

7. Student supervision

BSc (17 completed, 1 ongoing), MSc (21 completed, 2 ongoing), PhD (8 completed, 4 ongoing), Post-docs (4 completed, 4 ongoing).

8. Awards

2014: Award by German UNESCO Commission for outstanding project on Education for Sustainable Development

2012: Medal by FSBI for a young scientist < 40 for exceptional advancements in fish science

2008: Award of Excellence in Fisheries Management, American Fisheries Society, Fisheries Management Section

2007: Elected into the Young Elite of 40 young researchers younger than 40 in Germany by Capital

2006: Teaching Award by the Faculty of Agriculture and Horticulture for best evaluated lecture

2006: Dream-Team of German Young Scientists (Stiferverband and Bild der Wissenschaft)

2005: Nomination for René Descartes Award in Science Communication by the EU

2004: Leibniz-Young Researcher Award for outstanding doctoral thesis

2004: Albrecht-Daniel-Thaer Dissertation Award

2004: Bscher-Media Award for excellence in popular science communication

2003: „Writer of the Year“ by 1000 readers of the angling magazine „Carp Connect“

2001: Humboldt-Preis for outstanding master thesis

2001: Award by VDFF for master thesis “particularly beneficial for German fisheries”

2001: Award by Ministry for Agriculture, Environment and Rural Planning of Brandenburg for outstanding masters thesis

9. Papers

Summary statistics

Number of peer-reviewed papers: 162

Books, edited volumes: 16

Number of citations: 4.900 citations (Google Scholar)

H-index: 37 (Google Scholar)

12 most important papers

1. Alós J, Puigrós A, Díaz-Gil C, Palmer M, Rosselló R, Arlinghaus R (2015) Empirical Evidence for Species-Specific Export of Fis Naïveté from a No-Take Marine Protected Area in a Coastal Recreational Hook and Line Fishery. PLoS ONE 10(8): e013534
 2. Alós, P., M. Palmer, Arlinghaus, R. 2015. Recreational angling intensity correlates with alteration of vulnerability to fishing in a carnivorous coastal fish species. Canadian Journal of Fisheries and Aquatic Sciences, 72:217-225.
 3. Baktoft, H., Zajicek, P., ... Arlinghaus, R. (2015). Performance assessment of two whole-lake acoustic positional telemetry systems - Is reality mining of free-ranging aquatic animals technologically possible? PLoS ONE, 10(5): e0126534.
 4. Johnston, F.D., Arlinghaus, R., U. Dieckmann. 2013. Life history, angler behaviour, and optimal management of recreational fisheries. Fish and Fisheries, 14:554-579.
 5. Krause, J., S. Krause, Arlinghaus, R., I. Psorakis, S. Roberts, C. Rutz. 2013. Reality mining of animal social systems. Trends in Ecology and Evolution, 28:441-451.
 6. Alós, J., Arlinghaus, R. 2013. Impacts of partial marine protected areas on coastal fish communities exploited by recreational angling. Fisheries Research, 137, 88-96.
 7. Sutter, D.A.H., C.D. Suski, ... Arlinghaus, R. (2012). Recreational fishing selectively captures individuals with the highest fitness potential. PNAS, 109: 20960-20965.
 8. van Poorten, B.T., Arlinghaus, R., Daedlow, K., Haertel-Borer, S.S. (2011). Social-ecological interactions, management panaceas, and the future of wild fish populations. PNAS, 108: 12554-12559.
 9. Hunt, L., Arlinghaus, R., Lester, L., Kushneriuk, R. 2011. The effects of regional angling effort, angler behaviour, and harvesting efficiency on landscape patterns of overfishing. Ecological Applications, 21:2555-2575.
 10. Dorow, M., B. Beardmore, W. Haider, Arlinghaus, R. 2010. Winners and losers of conservation policies for European eel (*Anguilla anguilla* L.): an economic welfare analysis for differently specialised anglers. Fisheries Management and Ecology, 17:106-125.
 11. Matsumura, S., Arlinghaus, R., U. Dieckmann. 2010. Foraging on spatially distributed resources with sub-optimal movement, travelling costs, and imperfect information: departures from the ideal free distribution. Oikos, 119:1469-1483.
 12. Jørgensen, C., K.Enberg, E. Dunlop, Arlinghaus, R. et al. 2007. Managing evolving fish stocks. Science, 318:1247-1248.
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