### **Curriculum Vitae**

### Social-Ecological Fisheries Science



#### **Prof. Dr. Robert Arlinghaus**

Humboldt-Universität zu Berlin, Germany and Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB)

\*August, 05, 1975 in Lohne (Südoldenburg), two children (\*2015, \*2012)

#### **Research focus**

Fisheries science, sustainability science, social-ecology, limnology, coastal ecology, aquatic conservation, biodiversity science

#### 1. Contact

Work

Faculty of Life Sciences and Integrative Research Institute on Transformations of Human-Environment Systems (IRI THESys) Humboldt-Universität zu Berlin Philippstrasse 13, Haus 7 10115 Berlin, Germany, Tel. +49(0)30-64181-653

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#### Private

Alfred-Siggel-Weg 57, 10118 Berlin, Germany, Tel. +49(0)1745916356, arlinghaus@igb-berlin.de

#### 2. WWW

Lab: www.ifishman.de

Research Gate: www.researchgate.net/profile/Robert Arlinghaus

Orcid-Account: <a href="https://orcid.org/0000-0003-2861-527X">https://orcid.org/0000-0003-2861-527X</a>

Google Scholar:

https://scholar.google.com/citations?user=8hjr2SAAAAAJ&hl=en

Twitter/X RArlinghausFish, Facebook and Instagram @Ifishman.science

#### 3. Education

**2004**: Dr. rer. agr., Humboldt-Universität zu Berlin with a thesis on the human dimensions of fisheries (*summa cum laude*)

**2000**: Master of Science in Aquatic Ecosystem Management and Fisheries, Humboldt-Universität zu Berlin (with distinction, grade 1.0, 1.0 = best grade)

#### 4. Appointments

**2013 – today**: Tenured W-2-S Professor of Integrative Fisheries Management at Faculty of Life Sciences, Humboldt-Universität zu Berlin & Senior Scientist in the Department of Fish Biology, Fisheries and Aquaculture at Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB)

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

**2004 – 2006**: Post Doc for Fish and Fisheries Ecology at IGB, during this phase long-term guest scientist stays at Carleton University in Canada (with aquatic ecologist Prof. Dr. Steven Cooke) and International Institute of Applied Systems Analysis (IIASA) in Laxenburg, Austria (with system scientist and modeller PD Dr. Ulf Dieckmann)

# 5. Calls for professorships and listings

2017 Associate Professorship in Global Inland Fisheries Michigan State University, USA

2015 Ranked 3<sup>rd</sup> Tenured Professorship in Limnology, Universität of Vienna

2009 Assistant Professorship in Zoology/Limnology, University of Wisconsin, USA

# 6. Externally funded research projects (selection)

2022 – 2025 **Zebrafisch**: Fisheries revolution and cognition, DFG, Science of Intelligence Cluster, PI

2023 – 2025 **MarEEchange**: transformation and regime shift of the fishery for western Baltic cod (*Gadus morhua*), BMBF, PI

2019 – 2023 **Boddenhecht**: Understanding and managing northern pike (*Esox lucius*) in the inner coastal waters of Mecklenburg-Vorpommern, EU and state of M-V, coordinator and PI

2019 -2023 marEEshift: Tipping points in western Baltic cod (*Gadus morhua*), BMBF, PI

2016 – 2022 **Baggersee**: Improving biodiversity and ecosystem services in gravel pit lakes through habitat enhancement, BMBF, coordinator and PI

2019 – 2022 **Aquatag**: Disturbance-ecology of recreational activities in freshwaters, BMBF, PI

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

2014 – 2016 **SalmoInvade**: 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, BMBF, coordinator, leader of young research group and PI

2006 – 2009 **Adaptfish**: Social-ecological dynamics in recreational fisheries. Leibniz Pact of Innovation and Research, coordinator of young research group and PI

Cumulative grant income to the lab: > 13 million €

#### 7. Teaching

Masters of Fish Biology, Fisheries & Aquaculture and Masters of Natural Resource Management, Humboldt-Universität zu Berlin, including these two key courses:

- Integrative fisheries management
- Sampling and data analysis in fish biology and fisheries

#### 8. Scientific service

#### **Handling Editor**

Fish and Fisheries

#### **Editor-in-Chief and Founder**

Zeitschrift für Fischerei (www.zeitschrift-fischerei.de)

#### Assistant Editorships (previously held for multiple years)

Human Dimensions of Wildlife, Journal of Outdoor Recreation and Tourism, Journal of Applied Ecology, Aquatic Living Resources, North American Journal of Fisheries Management, Frontiers in Behavioural and Evolutionary Ecology, Peer J

#### Scientific advisory boards and committees

- Board of Integrative Research Institute on Transformations of Human Environment Systems (IRI THESys) at Humboldt-Universität zu Berlin
- Scientific and Technical Committee of the European Inland Fisheries and Aquaculture Advisory Commission (EIFAAC) to the Food and Agricultural Organization of the United National
- Member of the German Inland Fisheries and Aquaculture Research Committee
- Scientific Board of German Fisheries Association
- Advisory Board Open Humboldt Humboldt's Strategy for Science Communication, Humboldt-Universität zu Berlin

#### Other functions

- Speaker of Centre for the Reality Mining of Animal-Human Systems of Princeton-University and Humboldt-Universität zu Berlin
- Equal Opportunity Committee at IGB

#### **Organization of Conferences and Symposia** (selection)

2021: International Symposium on Baltic Pike (held virtually)

2017: Human Dimensions of Recreational Fisheries, 8th World Recreational Fishing Conference in Victoria, Canada

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. 2022. Inter- und transdisziplinäre Fischereiforschung. Leibniz Institut für Ostseeforschung, Küste im Wandel, November 2022, Hamburg.

Arlinghaus, R. 2022. Dysfunctional information feedbacks cause emergence of stocking as a panacea. EIFAAC International Symposium, June, 2021, Ireland.

Arlinghaus, R. 2021. Five steps for policy reform in recreational fisheries. World Fisheries Congress, Adelaide, May, 2021.

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, Ambio, Biology Letters, Canadian Journal of Fisheries and Aquatic Sciences, Ecological Economics, Ecological Applications, Evolutionary Applications, Environmental Management, Fisheries, Fisheries Management and Ecology, Fisheries Research, Journal of Fish Biology, Journal of Environmental Management, Land Economics, Limnologica, Leisure Sciences, Human Dimensions of Wildlife, Nature Sustainability, Nature, North American Journal of Fisheries Management, People and Ecosystems, Plos One, Science Advances, Society and Natural

Resources, Transactions of the American Fisheries Society, PNAS, Proceedings of the Royal Society B

#### **Granting bodies:**

BMBF, DFG, DAAD, German Environmental Foundation, international: NSF in the USA, NSERC in Canada, Finnish Academy of Sciences, Norwegian Academy of Sciences, Romanian Academy of Sciences, European Research Council, EU, Academy of Sciences Isreal

#### Scientific Institutes:

Thünen Institute of Baltic Sea Fisheries within an evaluation by the Wissenschaftsrat

EWAG external evaluator and review

#### Policy advisor on a global level

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

## 9. Supervision and mentoring

BSc (19 finished, 1 running), MSc (28 finished, 3 running), PhD (12 finished, 2 running), Postdocs (12 finished, 4 running).

## 10. Awards (selection)

2025: Frontiers Planet Prize for Radinger et al. (2023), Science

2024: Leibniz Award Research and Responsibility

2022: Circle U Prize for inter- and transdisciplinary research by 9 research universities of Europe

2020: Communicator Award by DFG and Stifterverband for Excellence in Science Communication

2020: Exemplary Project for Biodiversity Conservation by UNESCO

2018: Best Paper Award by Spring Simulation Multi-Conference ANSS for Lavin et al. (2018)

2018: Best Paper Award by the German Limnological Society for Monk et al. (2018) in Ecology Letters

2016: Cultura-Prize by Alfred-Töpfer-Foundation for excellence in sustainability science in land use

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

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

2001: Award by Ministry for Agriculture, Environment and Rural Planning of Brandenburg for outstanding master's thesis of relevance to the state

2001: Award by VDFF for a master thesis particularly beneficial to German fisheries

2001: Humboldt Award for excellent diploma thesis at Humboldt-Universität zu Berlin

## 11. The five most important scientific contributions so far

- Ecosystem management co-designed with stakeholders conserves aquatic biodiversity more effectively than species or structure-oriented interventions (Radinger et al. 2023, Science).
  Fish stocking usually fails (Johnston et al. 2018, Ecol. Appl.; Hühn et al. 2023, Fish. Res.), but this outcome remains cryptic to many (Arlinghaus et al. 2022, JORT)
- Trait-selective fishing triggers genetically encoded evolutionary changes in exploited fish stocks (Jørgensen et al. 2007, Science; Uusi-Heikkilä et al. 2015, Evol. Appl.), which leads to the accumulation of small fish with low fitness (Sutter et al. 2012, PNAS; Monk et al. 2021, PNAS; Sbragaglia et al. 2022, Am. Nat.)
- 3. Wild fish show personality and individuality (Kobler et al. 2009, Oecologia; Nathan et al. 2022, Science), where the more active and aggressive individuals are selectively captured; this in turn renders the survivors to become shyer and less catchable (Sutter et al. 2012, PNAS; Arlinghaus et al. 2017, Fish Fish.; Monk et al. 2021, PNAS)
- 4. Large fish play a paramount social (Arlinghaus et al. 2014, J. Fish Biol., Beardmore et al. 2015, CJFAS) and ecological role, such that their conservation pays large conservation benefits (Arlinghaus et al. 2010, Biol. Cons.; Gwinn et al. 2015, Fish Fish.; Ahrens et al. 2020, Fish Fish.; Marshall et al. 2021, PNAS).
- Co-production of knowledge with stakeholders
   (transdisciplinary) changes the mental models, norms, and
   behaviors of people involved in the process more effectively
   than passive consumption of scientific knowledge (Fujitani et al.
   2017, Science Advances)

#### 12. Publications

See separate list for details

**Summary statistics:** 

Number of peer-reviewed papers: > 370

Total publication number: > 720 (Research Gate)

Books and editorships: 28 Cites: > 26.200 (Google Scholar) Papers with > 200 cites: 28

#### H-index: 88 (Google Scholar)

Berlin, November, 11, 2024

Prof. Dr. Robert Arlinghaus

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