

Marie L. Fujitani

Leibniz Center for Tropical Marine Research
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EDUCATIONAL EXPERIENCE

Arizona State University	Tempe, Arizona
Doctor of Philosophy , Environmental Life Sciences (Interdisciplinary degree program) Conservation Biology and Environmental Economics	May 2014
Master of Science , Biology	May 2010
University of California at Davis	Davis, California
Bachelor of Science , Animal Biology with a Behavioral emphasis	June 2003

PROFESSIONAL AND RESEARCH EXPERIENCE

Leibniz Centre for Tropical Marine Ecology	Bremen, Germany
Junior Research Group Leader	June 2019-Present
• Transdisciplinary science for sustainable tourism – a mixed-method integrated social and natural science research project on participation, deliberation, and decision-support to meet the challenge of wastewater management for small-scale nature-based tourism communities in the tropics	

Leibniz Centre for Tropical Marine Ecology	Bremen, Germany
Post-Doctoral Researcher	July 2016-Dec 2018
• Led project on perceptions of wastewater impacts on the economy, environment, and human health	
• Willingness to pay and mental models of wastewater management of the tourism sector in Costa Rica	

Leibniz-Institute for Freshwater Ecology and Inland Fisheries	Berlin, Germany
Post-Doctoral Researcher	Mar 2014-June 2016
• Empirically modeled how institutional and environmental context affects sustainable decision making by natural resource managers in Germany and France	
• Analyzed learning and behavioral outcomes from a large-scale transdisciplinary experiment involving angling stakeholders participating in cooperative adaptive management	

NOAA National Marine Fisheries Service Office of Aquaculture	Silver Spring, Maryland
Knauss Marine Policy Fellow	Feb 2013- Jan 2014
• Highly selective Fellowship placing early career scientists at policy positions in the Federal government.	
• Managed Federal research granting programs, interagency working groups, prepared outreach materials, and supported U.S. bilateral relationships with Japan, Canada and the E.U.	
• Served as NOAA representative and logistics coordinator for the U.S. panel of the annual bilateral science exchange with Japan (Hokkaido, Japan) and business meeting (Yokohama, Japan).	

Arizona State University	Tempe, Arizona
Research Assistant	2010-2012
• NOAA Saltonstall-Kennedy funded bio-economic modeling of recreational anglers in Mexico	

Prescott College Kino Bay Field Station
Visiting Researcher

Bahia Kino, Mexico
Summer 2009

- Conducted an interdisciplinary project assessing biological and human use changes in response to a marine reserve.
- Collaborated and conducted outreach with recreational anglers and the Mexican government,
- According to the director of a local NGO, my research and outreach influenced policy:
“Your research... help(ed) managers to take decisions, in my experience in very very few examples I see a perfect line from a scientific result to management application.”

Centro Interdisciplinario de Ciencias Marinas / Arizona State University
Field Assistant

Various, Mexico
2008

- Teamwork for weeks in remote desert island environments monitoring California sea lions
- Captured, measured, tagged, and released California sea lion pups, conducted population surveys; used an ethogram; biopsied with a sampling crossbow and processed samples for genetic analysis

Osaka University of Commerce Sakai High School (Berufsschule)
English as a Foreign Language Teacher

Osaka, Japan
2006- 2008

- Designed the curriculum for the school’s first listening course for college entrance exams
- Full responsibility for class content and student evaluation in nine classes

Japanese Exchange and Teaching Program (JET)

Fukuoka, Japan

English as a Foreign Language Teacher, Chikusui High School (Berufsschule)

2003-2006

- Conceived and implemented original lesson plans, projects and exams;
assistant-supervised the school’s inaugural international student exchange program
- Selected to present at a national training conference, repeat invited speaker at training events

PUBLICATIONS

Riepe, C., Meyerhoff, J., **Fujitani**, M., Aas, O., Radinger, J., Kochalski, S., and R. Arlinghaus. 2019. Managing river fish biodiversity generates substantial economic benefits in four European countries. *Environmental Management* 63:759–776

Partelow, S., **Fujitani**, M., Soundarajan, V., and A. Schlüter. 2019. Transforming the social-ecological systems framework into a knowledge exchange and deliberation tool for comanagement. *Ecology and Society* 24:1

Kochalski, S., Riepe, C., **Fujitani**, M., Aas, Ø., and R. Arlinghaus. 2019. Public perception of river fish biodiversity in four European countries. *Conservation Biology* 33:164-175

Sánchez Jiménez, A., **Fujitani**, M., MacMillan, D., Schlüter, A., and M. Wolff. 2019. Connecting a Trophic Model and Local Ecological Knowledge to Improve Fisheries Management: The Case of Gulf of Nicoya, Costa Rica. *Frontiers in Marine Science* 6:126

Fujitani, M. L., L. R. Gerber, J. Torre, and E. P. Fenichel. Synthesizing ecological and human use information to understand and manage coastal change. *Ocean and Coastal Management*. 162:100-109.

Schlüter, A., Partelow, S., and M. **Fujitani**. Coastal systems in transition: From a 'natural' to an 'anthropogenically modified' state. *Ocean and Coastal Management*. 162:1-5.

- Fujitani, M.**, Solano, S. Schlüter, A. 2018. Tourism and Wasterwater: A Field Study in Montezuma, Costa Rica. In: Hempel, G., Hempel, K., Hornidge A-K., eds. Scientific Partnership for a Better Future – Bremen’s Research Along Tropical Coasts, Edition Falkenberg. pp. 401-414. ISBN 978-3-95494-151-3
- Goldbach, C., M.L. **Fujitani**, A. Schlüter. 2018. Analyzing potential effects of migration on coastal resource conservation in Southeastern Ghana. *Journal of Environmental Management*. 209:475-483
- Fujitani, M. L.**, McFall, A, Randler, C., and Arlinghaus, R. 2017. Participatory adaptive management leads to environmental learning outcomes extending beyond the sphere of science. *Science Advances* 3: e1602516
- Riepe, C., M. L., **Fujitani**, T. Pagel, J. Cucherousset, and R. Arlinghaus. 2017. What determines the behavioral intention of local-level fisheries managers to alter fish stocking practices in freshwater recreational fisheries of two European countries? *Fisheries Research* 194:173-187
- Arlinghaus, R., J. Alos, B. Beardmore, K. Daedlow, M. Dorow, M. **Fujitani**, D. Huhn, W. Haider, L. M. Hunt, B. M. Johnson, F. Johnston, T. Klefoth, S. Matsumura, C. Monk, T. Pagel, J. R. Post, T. Rapp, C. Riepe, H. Ward, and C. Wolter. 2017. Understanding and managing freshwater recreational fisheries as complex adaptive social-ecological systems. *Reviews in Fisheries Science and Aquaculture* 25:1-41.
- Theis, S., Riepe, C., **Fujitani**, M., Arlinghaus, R. 2017. Typisierung von Angelvereinen in Bezug auf den Einsatz von Hegemaßnahmen. *AFz-Fischwaid*, 3/2017, 18-20
- Fujitani, M. L.**, McFall, A, Randler, C., and Arlinghaus, R. 2016. Efficacy of lecture-based environmental education for biodiversity conservation: A robust controlled field experiment with recreational anglers engaged in self-organized fish stocking. *Journal of Applied Ecology* 53:25-33
- Fujitani, M.L.**, R.C. Jones, M.B. Rust. 2015. First annual report on aquaculture and policy in the United States of America for the 2013 UJNR panel. *Bulletin of Fisheries Research Agency* 40:21-31
- Arlinghaus, R., Cyrus, E.-M., Eschbach, E., **Fujitani**, M., Hühn, D., Johnston, F., Pagel, T., Riepe, C. 2015. Hand in Hand für eine nachhaltige Angelfischerei: Ergebnisse und Empfehlungen aus fünf Jahren praxisorientierter Forschung zu Fischbesatz und seinen Alternativen. (Hand in hand for sustainable recreational fisheries: results and recommendations from five years of practical research on fish stocking and its alternatives. *Reports of the IGB*, Issue 28.
- Fujitani, M. L.** 2014. Marine reserves with fisheries management: regulations aimed at people to hit biological targets. Ph.D. Dissertation. Arizona State University, Tempe, Arizona.
- Rust, M., P. Olin, A. Bagwill, and M.L. **Fujitani** (editors). 2013. Hatchery Technology for High Quality Juvenile Production: Proceedings of the 40th U.S.-Japan Aquaculture Panel Symposium, Honolulu, Hawaii, October 22-23, 2012. U.S. Dept. Commerce, NOAA Tech. Memo. NMFS-F/SPO-136.
- Fujitani, M. L.**, E. P. Fenichel, J. Torre, and L. R. Gerber. 2012. Implementation of a marine reserve

has a rapid but short-lived effect on recreational angler use. *Ecological Applications* 22(2):597-605

Fujitani, M. L. 2010. The rapid assessment of a new marine reserve in the Gulf of California, Mexico. Master's Thesis. Arizona State University.

In Review or Preparation

Fujitani, M. L., C. Riepe, T. Pagel, J. Cucherousset, and R. Arlinghaus. Applying the Ostrom social-ecological systems framework to understand voluntary investments into renewable natural resources. In review, *Global Environmental Change*.

Fujitani, M. L., J. K. Abbott, E. P. Fenichel. Marine reserves and the role of pre-existing management institutions. In prep, *Reviews in Fisheries Science and Aquaculture*.

Fujitani, M.L., J. Meyerhoff, J. Sagebiel, A. Schlüter. Eco-tourism and the triple bottom line: willingness to pay for wastewater management by the tourism sector on the Nicoya Peninsula, Costa Rica. In prep, *Journal of Environmental Management*

Sánchez-Jiménez, A., MacMillan, D., Wolff, M., Schlüter, A., and M. Fujitani. The importance of values-beliefs-norms of small scale fishers in supporting conservation of marine life and ecosystems. A Costa Rican case study (Gulf of Nicoya). In prep, *Ocean and Coastal Management*.

Engel, J., J. Almonacid, Breckwoldt, A., Grey, S., and M. Fujitani. The impact of tourism on artisanal and illegal fisheries - a case study. In prep, *Conservation Letters*.

Mora, N.C., Mejía-Falla, P.A., Reuter, H., and M. Fujitani. Citizen science for elasmobranch research in Colombia. In prep, *Conservation Biology*

ORAL PRESENTATIONS

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| 2018 | Pathways Human Dimensions. "Voluntary investments by civilians into Salmonid stocking and habitat" Goslar, Germany |
| 2016 | ECSA 56: "Public willingness to pay for biodiversity of migratory fishes – A four-country discrete choice experiment" Bremen, Germany |
| 2016 | Pathways Kenya. "Transdisciplinary science and stakeholder engagement: A before-after-impact-control study on learning for sustainable stocking in German recreational fisheries" Nanyuki, Kenya |
| 2015 | EIFAAC Symposium. "Engaging with stakeholders for sustainable inland fisheries: A before-after-impact-control study on learning for sustainable stocking in German recreational fisheries" Lillehammer, Norway |
| 2014 | 7 th World Recreational Fishing Conference. "A randomized experiment of lecture-based instruction on recreational angler knowledge and attitude shifts in relation to fish stocking" Campinas, Brazil |
| 2014 | 7 th World Recreational Fishing Conference. "Costs imposed and functional fines: Tracking recreational angler responses to a marine reserve" Campinas, Brazil |
| 2014 | 20 th International Symposium on Society and Resource Management. "Seeing is believing?" A randomized experiment of angler knowledge and attitude shifts in relation to fish stocking from lecture-based instruction" Hannover, Germany |

- 2014 Leibniz Institute for Freshwater Ecology and Inland Fisheries. “Protecting protected areas: Using data on angler behavior to determine a functional fine” Berlin, Germany
- 2013 41st Scientific Symposium of the US-Japan Natural Resources Aquaculture Panel. “The First Annual US Report on Aquaculture and Policy” Sapporo, Japan
- 2013 26th International Congress for Conservation Biology. “Using changes in recreational angler site demand to infer the cost imposed by a marine reserve in the central Gulf of California, Mexico” Baltimore, MD
- 2013 (invited) NOAA Central Library. “Marine reserves, an economic approach: using data on behavior to recommend a fine” Silver Spring, MD
- 2012 Integrating Human Dimensions into Fisheries and Wildlife Management. “The effect of a marine reserve on changes in fishing site demand for recreational anglers in the central Gulf of California, Mexico” Breckenridge, CO
- 2011 The Wildlife Society’s 18th Annual Conference. “Marine reserves protect fish from people: Assessing the effects of conservation policy on human use” Waikoloa, HI
- 2011 American Fisheries Society 141st Annual Meeting. “The performance of quasi-experimental BACI studies of fish populations in coupled human-environmental systems” Seattle, WA
- 2010 (invited) Sustainable Finance for Isla San Pedro Mártir. “Recreational Angler Use of Isla San Pedro Mártir” La Paz, Mexico
- 2010 Integrating Human Dimensions into Fisheries and Wildlife Management. “Evaluating human use: Do anglers have a rapid and lasting response to a marine reserve?” Estes Park, CO
- 2010 (invited) Bahia Kino Club Deportivo. “The Isla San Pedro Mártir Biosphere Reserve – Biology and Human Use” Bahia Kino, Mexico
- 2010 Graduate Students in Earth, Life, and Social Sciences Research Symposium “The effect of a marine reserve with a no-take component on recreational angler visitation” Tempe, AZ

RESEARCH EXPEDITIONS

2009-2010	Mexico	Studied recreational use and environmental impact of a marine reserve
2017	Costa Rica	Led a team of research assistants on a project studying deliberative valuation of wastewater management in the Gulf of Nicoya
2017	Costa Rica	Supervised PhD/MSc students in the field on projects concerning artisanal fisheries

AWARDS AND FELLOWSHIPS

2018 BMBF FONA SÖF Junior Research Group	1,957,589 €
2016 ZMT Postdoctoral Research Grant	5,000 €
2013 Knauss Marine Policy Fellowship	\$56,500
2013 ASU School of Life Sciences Completion Award	\$10,484
2010-12 Arizona State University Travel Grants	\$3,000
2011 American Fisheries Society, Equal Opportunities Section Travel Grant	\$500
2006 Japan Intercultural Academy of Municipalities Translation and Interpretation Course Scholarship	

UNIVERSITY TEACHING

2018	Experimental Methods and Statistics ISATEC Master’s Programme, University of Bremen (40 hours)
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Development Economics: Impact Assessment

Jacobs University Bremen (3 hours)

2015 **Advanced Statistics: Generalized Linear Mixed Models**

IGB Doctoral Program (32 hours)

2008-2010 **BIO 187/188 General and Honors Biology Lab for Natural Science Majors**

School of Life Sciences, Arizona State University, Tempe, Arizona, USA

(6 hours a week for 5 semesters; 30 semester week hours)

PROFESSIONAL MEMBERSHIPS AND SERVICE

American Fisheries Society, Society for Conservation Biology, Association for Women in Science

Assistant Organizer American Fisheries Society 141st Annual Meeting Symposium Sept 2011

Assistant Organizer Recreational Fisheries and Angler Behavior Workshop Feb 2011

Supervising and Mentoring:

Lead Co-Supervisor Leibniz Chair University of Bremen PhD Student 2016-2018

Supervisor Three University of Bremen ISATEC Master's Theses 2016-2018

Supervisor Jacobs University B.Sc. student thesis 2016-2017

Thesis Co-Advisor Two Humboldt University B.Sc. student theses 2015

Thesis Co-Advisor Two School of Life Sciences Undergraduate Research theses 2009-2014

Manuscript Review

Biological Conservation, Conservation Letters, Ecological Applications, Ecology and Society, Ecosystem Services, Fisheries Management and Ecology, Fisheries Research, Global Environmental Change, Journal of Outdoor Recreation and Tourism, Canadian Journal of Fisheries and Aquatic Sciences, North American Journal of Fisheries Management

OUTREACH

Popular Science Writing and Outreach

2013-2018

Ongoing presentation of research to the public: Marine subject matter expert for popular outreach program Ask A Biologist (askbiologist.asu.edu), engaging research summaries for a general audience (Project Besatzfisch, IGB), magazine articles for non-academic stakeholders (e.g. AFz-Fischwaid, 3/2017), produced web content on scientific breakthroughs and policy developments for a lay audience (FishWatch.gov, NOAA), Birds n' Beer Seminar series contributor of humorous wildlife talks (Arizona Audubon Society)

Careers in Science Youth Outreach

North Phoenix Prevention Alliance (NOPAL)

Organizer

April 2012

Conceived, organized, and ran a science outreach and games booth emphasizing minority involvement in scientific careers; over 200 children aged 7-18 attended the community event

Guest Speaker

2011-2014

Invited speaker to primary and secondary school groups and classes on careers in science

LANGUAGE PROFICIENCIES

English: Native speaker

Japanese: High speaking and listening, intermediate reading comprehension

Formal study: University of California at Davis 2000-2003; Japanese Council of Local Authorities for International Relations Japanese Courses 2003-2005, Japan Intercultural Academy of Municipalities Translation and Interpretation Course (scholarship) 2006

German: Current coursework at level B1

Spanish: Intermediate reading, basic speaking and writing

Chinese (Mandarin), Bahasa Indonesia, Kiswahili: Basic

SKILLS AND CERTIFICATIONS

- Proficient in **R, STATA, WinBUGS, Excel (and VB), Word, Powerpoint**
- **Certified Scientific Diver** – American Academy of Underwater Sciences (2010)
- **3rd degree black belt – Iaido** Fourteen years, cultural demonstrations and exchange