MARIO ANGST

Sustainability Governance | Networks | Data Analysis | Policy in the Anthropocene

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EMPLOYMENT HISTORY

Postdoctoral researcher 75%
University of Zurich

📅 from 08/2021   ♦ Zürich

Research: Urban sustainability transformations, digitalization, Actor networks, SDG implementation, participatory modeling, Gamification, network interventions

Postdoctoral researcher 50/70%
Eawag aquatic research

📅 02/2021-05/2021 | 03/2019-06/2020   ♦ Dübendorf

Research: Social-ecological networks, integrated network models, participatory systems mapping, ecosystem governance, environmental policy, energy policy, policy instrument choice

Postdoctoral researcher 70%
Swiss Federal Institute for Forest, Snow and Landscape Research WSL

📅 04/2020 to 12/2020   ♦ Birmensdorf

Research: Sustainability transformations, sufficiency policy, governance in rural regions, causal loop diagramming, multi-level network analysis methods, policy forums

PhD Student 70-100%
Eawag aquatic research

📅 08/2015 to 03/2019   ♦ Dübendorf

Research: Governance and policy networks, governance subsystems, water governance, policy integration

Civil Service, Landscape Quality and Ecosystem Services
Swiss Federal Office for the Environment

📅 12/2014 to 05/2015   ♦ Ittigen

Conceptual assistance in a pilot project aiming to integrate landscape perspectives into spatial development objectives

Communication/ Marketing
restorm.com

📅 01/2011 to 11/2011   ♦ Zürich

Bike Messenger
Genossenschaft Veloblitz

📅 since 01/2021 | 03/2009 to 11/2017   ♦ Zürich

Radio Journalist (trainee), 30%
toxic.fm

📅 08/2009 to 09/2010   ♦ St.Gallen

(*only employment longer than four months shown)

CORE COMPETENCES

Sustainability Governance and Policy
Sustainability governance and the development of policy in the Anthropocene happens in the interaction of state, private and civil society organizations. I investigate the nuts and bolts of it

Complex Governance Systems
I develop and apply innovative methods to investigate complex systems by untangling problem structure and governance networks at the same time - to find and support conditions for successful outcomes

Networks
From governance networks to social-ecological networks and integrated networks of actors and causal models

Data Analysis
Network analysis, Bayesian data analysis with a focus on (multi-level) regression models and causal inference, data visualizations.

EDUCATION

2015-2019
PhD in Political Science

🎓 University of Bern   ♦ Bern

Summa cum laude

2012-2014
Master of Science in Sustainable Development

🎓 University of Basel   ♦ Basel

2008-2012
Bachelor of Arts in Political Science/ Environmental Science

🎓 University of Zürich   ♦ Zürich

ACADEMIC VISITS

Stockholm Resilience Centre

📅 06/2019 to 10/2019   ♦ Stockholm

Development of integrated network models for ecosystem governance.

PUBLICATIONS

Peer-reviewed articles

- Angst, Mario and Laurence Brandenberger (2021). "Information exchange in governance networks - Who brokers across political divides?" In: *Governance*, early view. DOI: 10.1111/gove.12601.

- Angst, Mario, Jack Mewhirter, Danielle McLaughlin, and Manuel Fischer (2021). "Who joins a forum – and who does not? Evaluating Drivers of Forum Participation in Polycentric Governance Systems". In: *Public Administration Review*, early view. DOI: https://doi.org/10.1111/puar.13427.

- Hileman, Jacob D., Mario Angst, Tyler A. Scott, and Emma Sundström (2021). "Recycled Text and Risk Communication in Natural Gas Pipeline Environmental Impact Assessments". In: *Energy Policy* 156, p. 112379. DOI: 10.1016/j.enpol.2021.112379.

- Angst, Mario (2020). "Bottom-Up Identification of Subsystems in Complex Governance Systems". In: *Policy Studies Journal* 48.3, pp. 782–805. DOI: 10.1111/psj.12301.

- Kammermann, Lorenz and Mario Angst (2020). "The Effect of Beliefs on Policy Instrument Preferences: The Case of Swiss Renewable Energy Policy". In: *Policy Studies Journal* early view. DOI: 10.1111/psj.12393.

- Metz, Florence, Mario Angst, and Manuel Fischer (2020). "Policy integration: Do laws or actors integrate issues relevant to flood risk management in Switzerland?" In: *Global Environmental Change* 61, p. 101945. DOI: https://doi.org/10.1016/j.gloenvcha.2019.101945.

- Angst, Mario (2019). "Networks of Swiss Water Governance Issues. Studying Fit between Media Attention and Organizational Activity". In: *Society & Natural Resources* 32.12, pp. 1416–1432. DOI: 10.1080/08941920.2018.1535102.

- Fischer, Manuel, Mario Angst, and Simon Maag (2019). "Co-participation in the Swiss water forum network". In: *International Journal of Water Resources Development* 35.3, pp. 446–464. DOI: 10.1080/07900627.2017.1374929.

- Angst, Mario, Alexander Widmer, Manuel Fischer, and Karin Ingold (2018). "Connectors and coordinators in natural resource governance: insights from Swiss water supply". In: *Ecology and Society* 23.2. DOI: 10.5751/ES-10030-230201.

- Angst, Mario and Christian Hirschi (2017). "Network Dynamics in Natural Resource Governance: A Case Study of Swiss Landscape Management". In: *Policy Studies Journal* 45.2, pp. 315–336. DOI: 10.1111/psj.12145.

Software

- Angst, Mario and Tim Seppelt (2020). *motifr: Motif analysis in multi-level networks*. R package version 1.0.0.

Book chapters

- Angst, Mario and Manuel Fischer (2020). "Identifying Subsystems and Crucial Actors in Water Governance: Analysis of Bipartite Actor—Issue Networks". In: *Networks in Water Governance*. Ed. by Manuel Fischer and Karin Ingold. 1st ed. Palgrave Macmillan. Chap. 5, pp. 115–143. DOI: 10.1007/978-3-030-46769-2.

Reports and Practitioner Journals

- Andri, Bryner, Angst Mario, Manuel Fischer, and Stefan Vollenweider (2021). *Wasserpolitischer Jahresrückblick 2020 (transl: Review of Swiss Water Politics 2020)*. Aqua & Gas 5/2021.

- Andri, Bryner, Angst Mario, Manuel Fischer, and Stefan Vollenweider (2020). *Wasserpolitischer Jahresrückblick 2019 (transl: Review of Swiss Water Politics 2019)*. Aqua & Gas 5/2020.

- Andri, Bryner, Angst Mario, Manuel Fischer, and Stefan Vollenweider (2019). *Wasserpolitischer Jahresrückblick 2018 (transl: Review of Swiss Water Politics 2018)*. Aqua & Gas 4/2020.

- Angst, Mario (2012). *Integration of nature protection in Swiss forest policy*. INTEGRATE country report. Swiss Federal Research Institute for Forest, Snow and Landscape WSL, Birmensdorf.

TEACHING

Main instructor

(*sole instructor if no other person is mentioned)

Sustainability transformations

📅 Fall Semester 2020   📍 University of Bern

BA level seminar, 6 ECTS, 30 participants

Smartphone democracy

📅 Spring Semester 2020   📍 University of Bern

BA level seminar, 6 ECTS, 30 participants

Concepts, analytical approaches and tools for network analysis

📅 2019/05/07   📍 ETH Zurich

Workshop for development economics research group, 12 participants

Social network analysis. A primer

📅 2018/04/18 to 2018/04/19   📍 University of Bern

Intensive introductory workshop for PhD students, with Laurence Brandenberger, 7 participants

Governance networks

📅 Spring Semester 2017   📍 University of Bern

BA level seminar, 6 ECTS, 30 participants

Teaching contributions

Research data management

📅 2019/11/22   📍 University of Bern

Guest talk in PhD and master colloquium

Social-ecological networks in swiss wetlands

📅 2018/04/18   📍 University of Bern

Guest lecture in course Policy Analysis III (Prof. Karin Ingold)

Identifying overlapping policy subsystems

📅 2017/03/21   📍 University of Bern

Guest lecture in course Environmental Policy Analysis (Prof. Karin Ingold)

Social network analysis. An Introduction.

📅 2017/03/21   📍 Eawag

Co-teaching in internal workshop at Eawag

Identifying policy issue involvement of actors in an interactive survey

📅 2016/05/10   📍 University of Bern

Guest talk in course Governance (PD Manuel Fischer)

(Co-)supervision of junior researchers

Ongoing

- Pham-Truffert, Myriam. Potential of gamified participatory modeling to support urban sustainability governance. (PhD) - with Maria J. Santos
- Huber, Martin. Ecosystem governance and social-ecological networks in Switzerland: bringing politics back in. (PhD) - with Manuel Fischer
- Widmer, Seraina. Civic tech in sustainability transformations. (BA)
- Golob, Julian. Liquid Democracy und transformative journalism in sustainability transformations. (BA)

Finished

- Tommaso, Lavinia. The Wetlands project: towards a socioecological network. 2020. (MA) - with Manuel Fischer and Frédéric Varone
- Thees, Oscar. Gathering data from hyperlink networks for the study of political networks. 2019. (BA) - with Laurence Brandenberger
- Rohn, Camille. Critical consumption as a form of political participation in Bern. 2018. (BA)
- Grünholz Mirjam. Analysis of political decision-making in Swiss cantons based on the multiple streams appoach. 2017. (BA) - with Karin Ingold

Teaching example

I ran two week-long "book club" courses for the fall semester 2019 and spring semester 2020. In these courses, 25 students were encouraged to deeply engage with popular science books on digital democracy (2019) and sustainability transformations (2020), juxtaposed with scientific articles. The courses aimed at enhancing the ability of the students to embrace the complexity of difficult topics. Students evaluated both courses as highly effective both for acquiring knowledge and sparking interest in the topic (example 2019: scores for course content: 4.6/5; for commitment of the lecturer: 4.83/5).

(I liked) "the freedom for reading and thinking. Every idea is given enough space in this course."
(2020 participant evaluation statement, translated from German)

"It was a great format and I really liked acquiring knowledge as a group. (...) Mario is an incredibly engaged, down-to-earth and comprehensible teacher with great expertise and social skills."
(2019 participant evaluation statement, translated from German)

CONFERENCE PRESENTATIONS

Hyperlink networks between organizations - the next frontier in policy network studies or a hopeless mess? Fresh evidence for an ongoing debate Angst, Mario and Laurence Brandenberger

5th European Conference on Social Networks

📅 2021/09/21   📍 Naples (virtual)

Why Do Actors Choose to Participate in Forums, and in Which Ones? Angst, Mario, Jack Mewhirter and Manuel Fischer

ECPR General Conference

📅 2020/08/28   📍 Innsbruck (virtual)

What makes ecosystem governance successful? A comparative study of twelve Swiss wetlands combining social network analysis and causal loop diagramming. Angst, Mario, Manuel Fischer and Martin Huber

Sunbelt Conference

📅 2020/07/16   📍 Paris (virtual)

Policy belief differences as obstacles to information exchange in natural resource governance. Angst, Mario and Laurence Brandenberger

ECPR Joint Sessions

📅 2019/04/09   📍 Mons

Cross-Sectoral Policy Integration. Metz, Florence, Mario Angst and Manuel Fischer

Sunbelt Conference

📅 2017/09/08   📍 Utrecht

Advantage or Coordination? Why Actors are Involved in Multiple Policy Subsystems. Angst, Mario

ECPR General Conference

📅 2017/09/08   📍 Oslo

Overcoming fragmentation: Core-periphery brokerage and central coordination in natural resource governance. Angst, Mario, Alexander Widmer, Manuel Fischer and Karin Ingold

SPSA Swiss Political Science Association Conference

📅 2017/01/11   📍 Bern

(*presentations by others with a listing as co-author but no presentation given not shown)

PANELS

Panel Chair: Adaptive Water Governance in Social-Ecological Systems

ECPR General Conference

📅 2020/08/25   📍 Innsbruck (virtual)

Dialogue Session Input: Scales and Scaling in Transitions

International Sustainability Transitions Conference

📅 2020/08/20   📍 Vienna (virtual)

REVIEWING

Completed reviews for:

- Policy Studies Journal
- Politics and Governance
- Policy Sciences
- PS: Political Science and Politics
- Ecology and Society
- Environmental Conservation
- Environmental Management
- Journal of Environmental Studies and Sciences
- Forest Policy and Economics
- SAGE Open
- Europ. Computational Social Science Conference
- International Journal of Social Economics
- Arabian Journal of Geosciences

INSTITUTIONAL WORK

- Elected member of the internal ecology team at Eawag (responsible for sustainable management of energy, consumables and other resources)
- Founding member of internal Eawag group FlyAware for climate-friendly mobility. Development and submission of policy recommendations based on staff survey, multiple workshops.

SCIENTIFIC SOCIETIES

- Member of multi-national scientific network headed by Mark Lubell (UC Davis, USA) and Örjan Bodin (SRC Stockholm, SWE) to coordinate data gathering and databases on social-ecological networks.
- Member of ECPR (European Consortium for Political Research) standing groups on Environmental Policy and Political Networks
- Member of INSNA International Network for Social Network Analysis
- Member of the Swiss Political Science Organization

OUTREACH

Service outside academia

- Elected board member of Veloblitz (urban logistics enterprise, ca. 100 employees). Focus on corporate social impact, sustainability and potential for improvements in data analysis and business analytics

Science communication

- Communication of published research findings on blogs and communication outlets targeted at practitioners (defacto.expert, Eawag News)
- Creation of homepage to communicate research findings on network development in regional nature park Thal. Findings were used in successful re-application of park for federal funding.

FUNDING HISTORY

Digital Society Initiative Postdoc Call

📅 06-10/2019   💳 742'000 CHF   🏛 University of Zurich

Project funding for a four-year postdoc project (open call), including a PhD student and two research assistants.

Scientific exchange grant

📅 06-10/2019   💳 9500 CHF   🏛 Swiss National Science Foundation

Development of integrated network models for ecosystem governance. Research visit at the Stockholm Resilience Center

Postdoc Academy for Transformational Leadership

📅 2019 to 2021   💳 ca. CHF 2000 ongoing   🏛 Robert Bosch Foundation

2-year postdoc academy for selected group of 20 European Postdocs working in inter- and transdisciplinary sustainability science. Grant from the Robert Bosch Foundation covering travel and workshop expenses. Possibility to apply for seed funding for group projects.

Development of motifr R package

📅 03/2020   💳 ca. 4000 CHF   🏛 University of Bern

Early-career researcher grant for support (salary of research assisstant) in the development of motifr R package.

Total

📅 2019-2020   💳 CHF 757'500

SKILLS

Data Gathering

Survey Design — ●●●●●
Participatory system mapping — ●●●●●
Standardized interviews — ●●●●○
Text mining — ●●●●○
Semi-structured interviews — ●●●○○
Webscraping — ●●●○○

Analysis

Network analysis/ ERGM — ●●●●●
(Multi-level) regression/ GLMs — ●●●●○
Bayesian data analysis — ●●●●○
Quantitative text analysis — ●●●●○
Causal graphs — ●●○○○
Machine learning — ●●○○○

Computer Skills

R — ●●●●●
Shiny — ●●●●●
Python — ●●●○○
HTML/ CSS — ●○○○○
Javascript/ D3 — ●●●●○
Hugo, blogdown — ●●●●○
Git — ●●○○○
Make — ●○○○○
Inkscape — ●●●●○
Gephi — ●●●●○
Audio editing — ●●●●○
LaTeX — ●●●●○

Languages

German — ●●●●●
English — ●●●●●
French — ●●●○○
Spanish — ●○○○○

BEYOND WORK

First and foremost father.
Beyond this avid bikepacker, solo and band musician, sometimes writer.