SOCIAL - ECOLOGICAL FISHERIES RESEARCH

Leibniz-Institute of Freshwater Ecology and Inland Fisheries

Five Steps of Policy Reform in Recreational Fisheries: An Opinion

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OPINION

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Governing the recreational dimension of global fisheries

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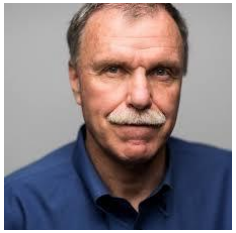



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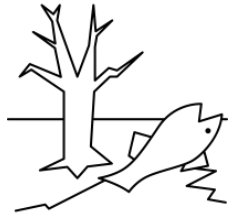
Key issues for sustainability in recfish

1. Race to fish and (unrealistic) expectations

2. Reduced productivity due to environmental change



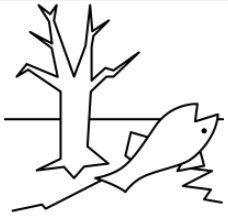
3. Heterogeneity and diffuseness of people

4. Difficult and widespread lack of monitoring

Invisible „collapse“? (Post et al. 2002, Fisheries)

Scarcity & typical management response

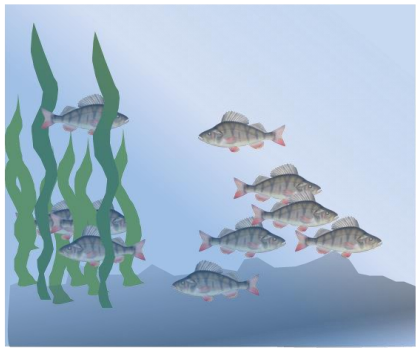
1. Fish



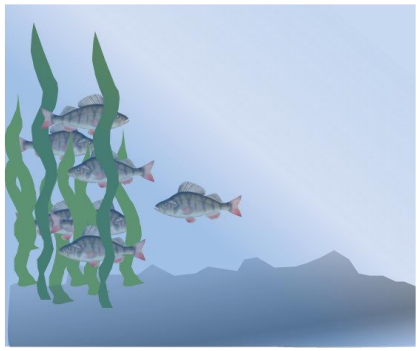
2. Angling sites

3. Catchability

Without fishing



With fishing



Prototypical management response

1. Open access annual effort with some size/bag-limit
2. Stocking (in freshwater)

5 Steps for Policy Reform

Arlinghaus et al. (2019), PNAS

PR 1: Specify and always consider goals and objectives for recreational fisheries

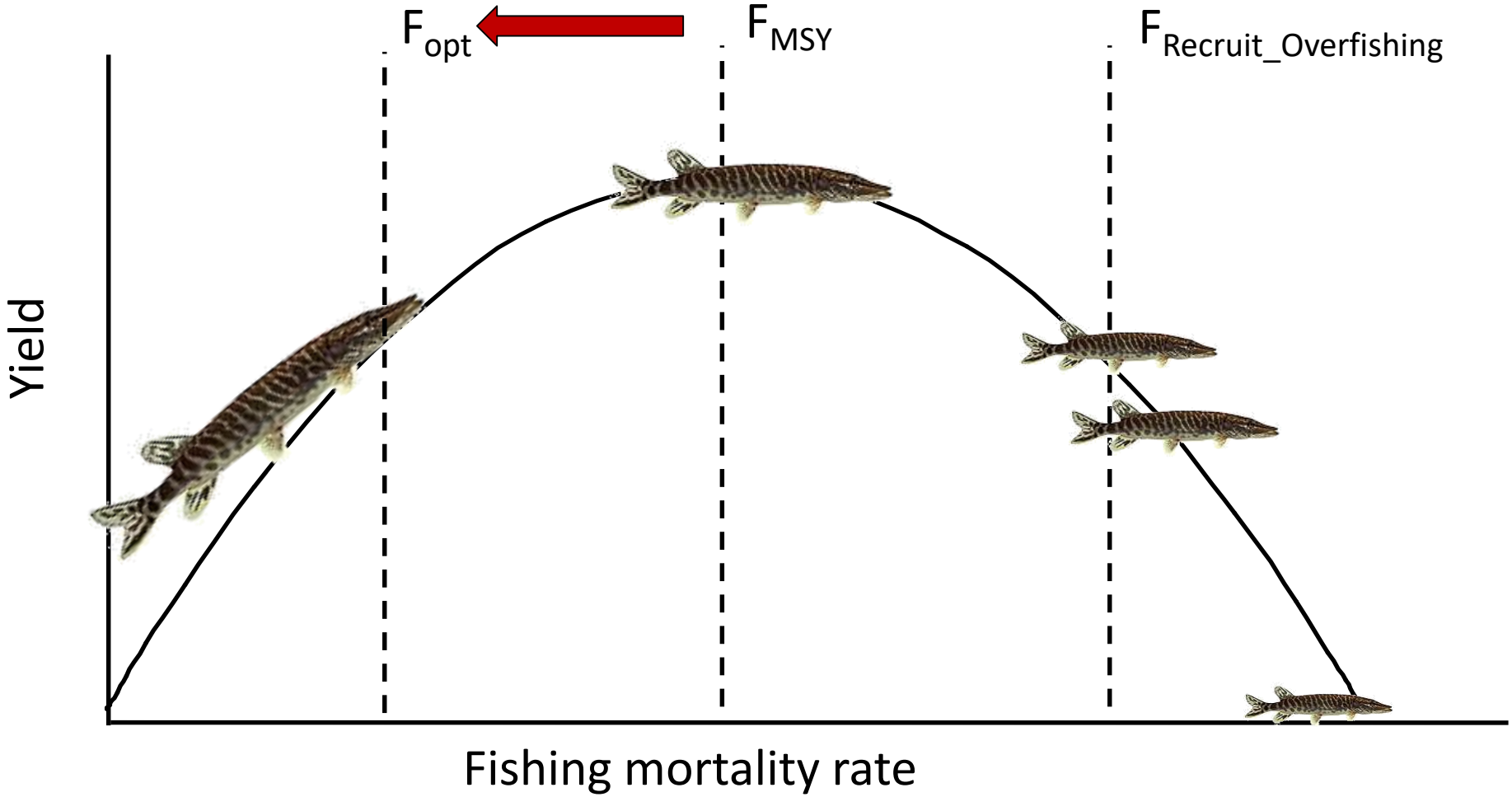
1. Be explicit, stakeholder-inclusive and transparent

2. Integrate goals and objectives across different sectors (recreational, commercial, conservation, catchment and water management)

3. Allow divergent objectives within recreational fisheries representing different angler types

4. Some objectives must be measurable to allow adaptive management

$F_{opt\_rec} < F_{MSY=opt\_com}$ in most recreational fisheries



PR 2: Built, involve and strengthen angler organizations

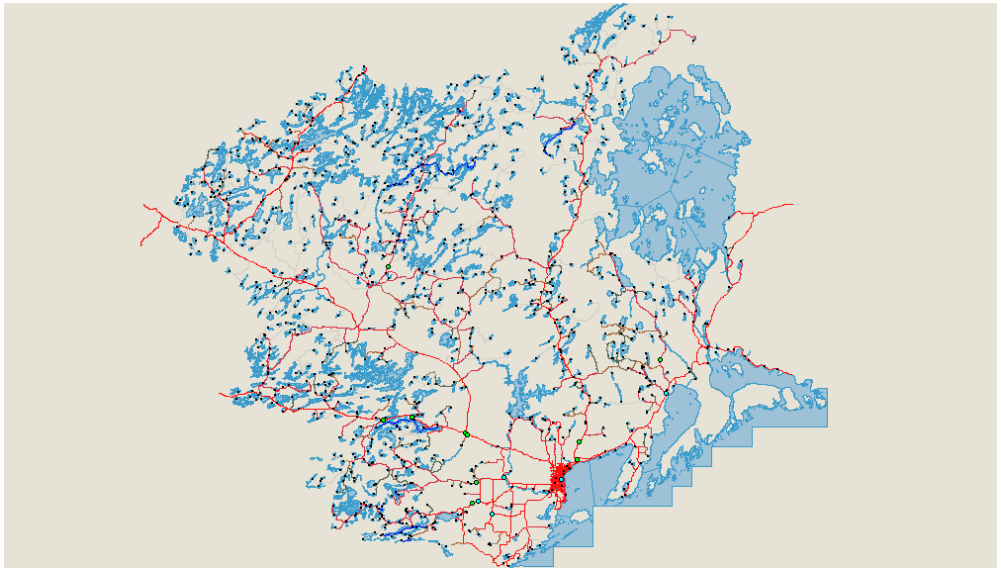
1. To have angler interest on the table while holding them accountable through the organization

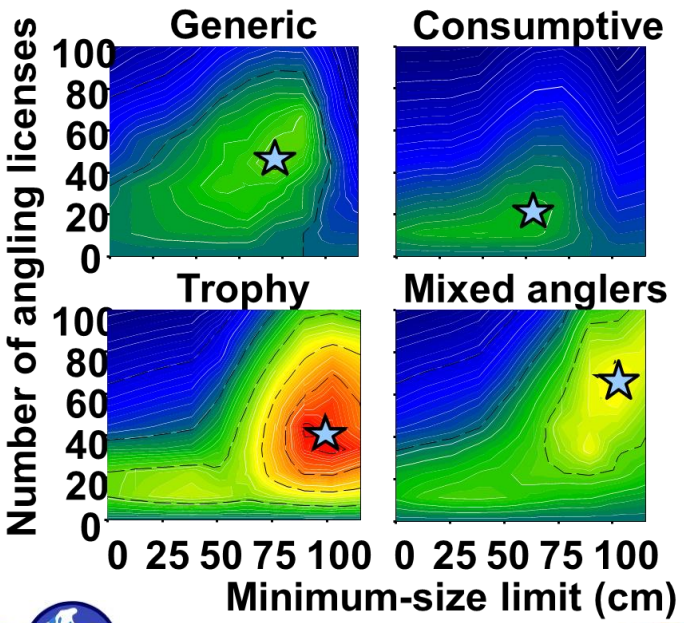
2. Give angler organizations some form of management sovereignety

- To incentive local collective action
- To allow for local rule making that matches local ecological scales
- To move from reactive to proactive mode
- To coordinate data collection and improve communication

PR 3: Diversity management and building resilience at multiple levels

1. To maintain genetic, age-structure, population, habitat and ecosystem diversity
2. Policy diversity rather than one size fits all
3. To offer a diversity of fishing opportunities for „self-organization“ of the system





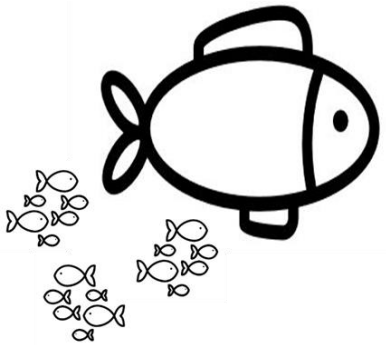
Johnston et al. (2010), CJFAS

PR4: Right incentives to the individual, including costly signalling where needed

1. Under open access, constraining onself by saving fish from harvest is economically irrational

2. To get the incentives right, those that enjoy more of the depletable common good should also pay corresponding costs

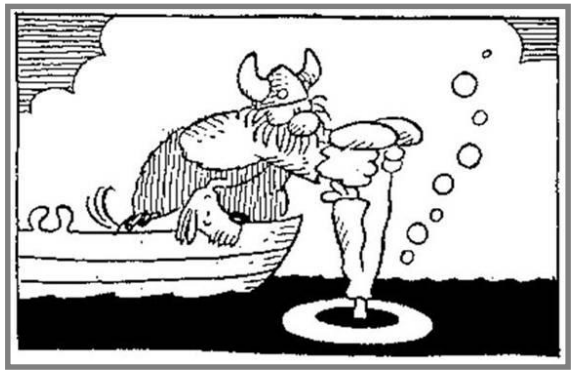
3. The rarer and more desired a good (e.g., large fish, pristine site), the more „costly“* it should be to obtain



*Time, effort, money (e.g., pay per fish)

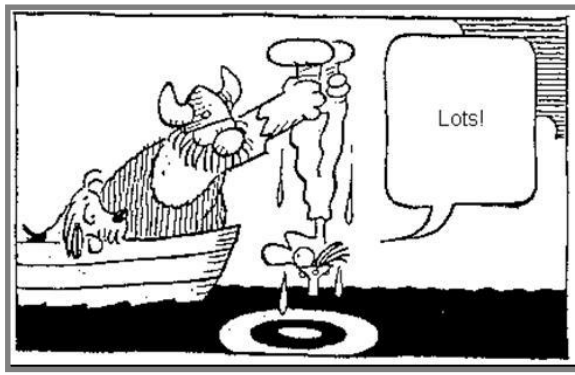
PR5: Improve monitoring

1. Need to assess changes and outcomes



2. Need to move beyond just assessing yield (effort, catch, size, welfare)

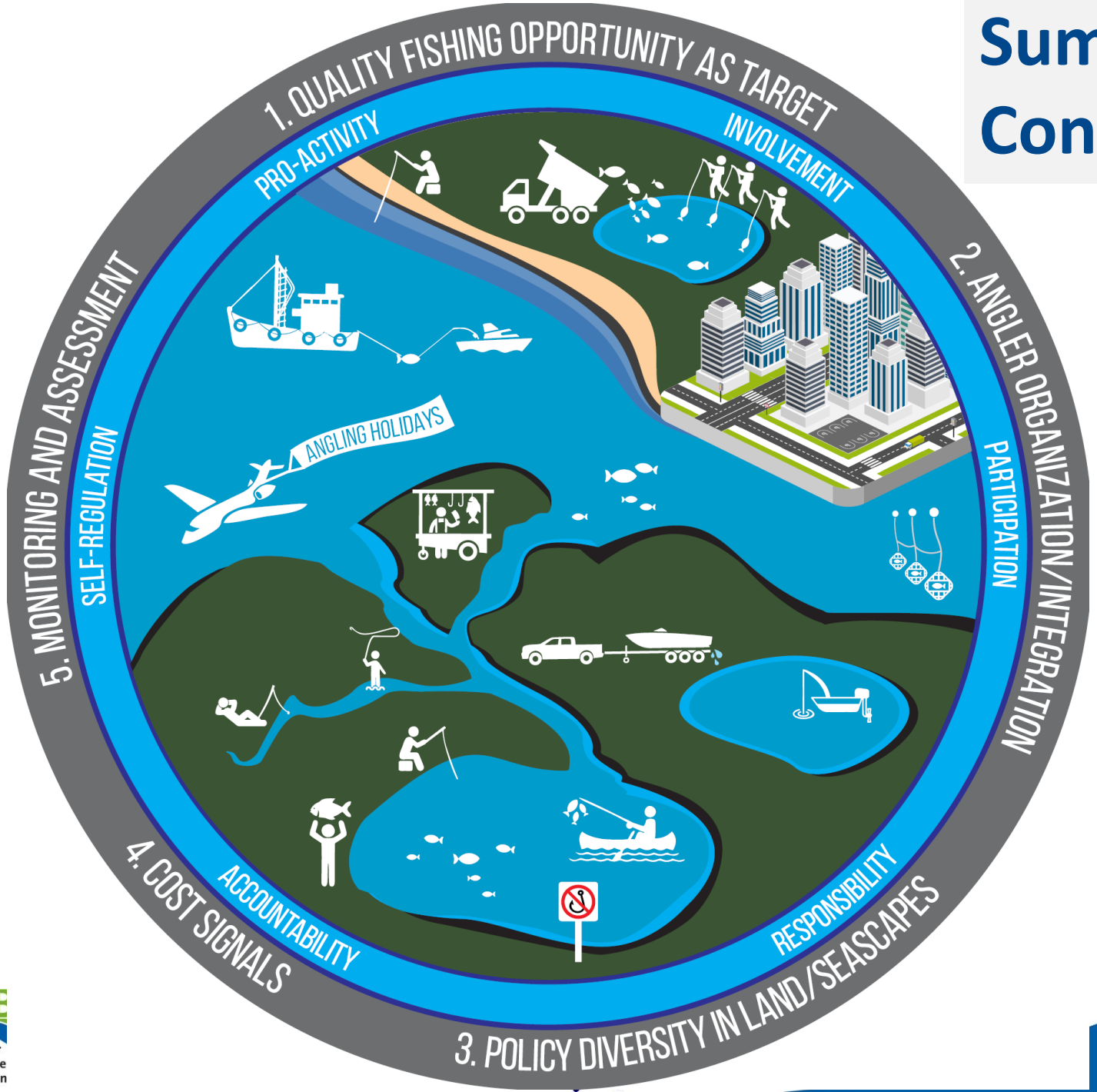
3. Need to further develop and apply data-poor assessment methods



4. Modern technology offers elegant ways

5. Ultimately, responsibility of the anglers

Summary & Conclusion



Arlinghaus et al. (2019), PNAS