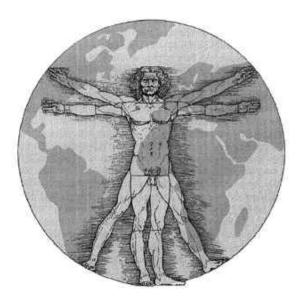
Abstracts

LIMITS TO THE ANTHROPOCENE

What are the boundaries of human intervention into nature?

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Towards a responsible Anthropocene society: Using citizen science and other forms of participation for biodiversity conservation and use

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Considering Man as a part of nature rather than an external factor will put a much stronger responsibility on every human being for how we shape and use our future world. Hence, a global sustainable world must arise from "glocalized" responsabilities and respective actions. However, basis for this is a knowledgeable Anthropocene society. Misunderstandings in the science process or even hostility towards science are therefore among the main obstacles on the path to a future cross-generationally just world. Unfortunately, citizen sceptizism is, in part, facilitated by propagating "simple" sectoral technical adaptation or mitigation solutions, disregarding their potential systemic influence on the Earth System.

Biological diversity - by itself strongly threatened and in heavy need for being better monitored, understood and taken care of - offers a great opportunity for involving citizens in the scientific process. Changes in biological diversity, when observed over time series, may be used as an early warning system for a great variety of harmful impacts to the environment. Monitoring may at first only highlight symptoms, but may also hint to causes such as changes in temperature, moisture, nutrients, chemicals, or land use. Monitoring of biological diversity by NGOs and laymen already has a strong tradition. Better standardization and joint-activities with scientists, repetitive campains to gain time series data, availability of data by storing them in open source databases, and integration with other monitoring data (including historical data, e.g. from museum collections) not only will help biodiversity science, but has the potential to greatly raise acceptance for transformative actions based on science-derived knowledge. An outstanding example for fruitful citizen participation in science is "Reef Check" which runs since 15 years: every year groups of sport divers led by reef researchers monitor the status of coral reefs worldwide by using standardized, easy-to-use scientific methods. Resulting data are merged with other monitoring data, are used for scientific articles, and provide the empiric framework for regular status reports to UN bodies. On land, the implementation of a participative biodiversity monitoring station network as a joint-venture by schools, scientists, NGOs and dedicated companies would have a great potential not only for a higher resolution monitoring, but also for responsibility-raising integration of citizens into the science process. Empiric data as gained by some pilot cultural projects, such as the participative biodiversity fast film festival on occasion of CBD COP 9 in Bonn also provide encouraging results for creating attitude shifts.

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