Human impacts on food webs – are there patterns across ecosystems?
An integration of species and size based approaches

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Research goals
1. Review methodologies used for measuring food web responses to human disturbance and their ecological relevance in different ecosystem domains (marine, freshwater, terrestrial).
2. Through meta-analysis, investigate whether there are general responses within and across marine, freshwater and terrestrial systems.
3. Cross-fertilisation: Apply different methodologies to existing data sets and ongoing projects.

Rationale for the research
Human activities such as exploitation, pollution and habitat modification are currently causing one of the greatest mass extinctions in the earth's history. There has been a longstanding focus on measuring how our actions are causing changes to ecological communities in terms of species diversity and composition.

However, ecologists are increasingly looking to quantify impacts on networks of feeding interactions within communities, which may best reflect the consequences for ecological functions and services. Numerous individual studies have investigated particular human impacts and their effects on ecological food webs. However there have been no integrative studies investigating whether the effects within and across ecosystem types are similar or system-specific.

A major hurdle to overcome for such a study is the great variety of methodologies and food web characteristics used to document impacts. The reasons behind this variety include different motivations for research, different traditions in different fields (ecosystem domains), data availability and dominance of different forms of human impact in different ecosystem domains (either real or in terms of research focus).

Anticipated outputs
Publications
Review of methodologies across ecological domains and their ecological meaning in different systems
Meta-analysis of human impact across ecological domains
(re)-Analyses of existing datasets applying different methodologies.

Provisional list of Participants
(key: terrestrial; marine; fresh water):

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