



Nested Ecosystem Services

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Arts & Humanities Research Council



Project aim

Maximise positive socio-cultural and ecological values of wetlands for wellbeing and reduce negative attitudes

Conceptual work and Methods: 12 case studies (3 in depth)

- WP 1: Conceptual approaches
- WP2:
 - Case studies (coastal managed realignment, arable reversion, urban wetlands, wet woodlands)
 - Ecological surveys
 - Economic valuation (e.g. questionnaire, interviews)
 - Sense of place / wellbeing (interviews, focus groups, community-voice, artistic lens (modified photo-elicitation), historical survey (e.g. oral histories, maps, texts).
- WP3: Information guidance production



Overwintering mosquitoes munitions tunnel Cliffe Kent 2014 C 2016 Frances Hawkes

Conceptual Framework

Key issues driving development

- Understanding values and disvalues
- Thinking critically about the relationship between nature and culture
- Draw existing insights about CES but think about this in relation to supporting, provisioning and regulating services
- Incorporating more sophisticated ideas of wellbeing
- Producing a framework that reflects epistemology as well as ontology



Existing frameworks



"These complex connections *(between ecosystems and humans)* are poorly represented by a linear 'cascade', which assumes simple linkages and effects" (Constanza 2017, pg. 5)

Fig. 2. Cascade diagram: from structure to functions, to services to benefits to value (Potschin and Haines-Young, 2017).

"... the concept of ecosystem services makes it clear that the whole system matters, both to humans and to the other species we are interdependent with. If anything, the ecosystem services concept is a 'whole system aware' view of humans embedded in society and embedded in the rest of nature. 'Centric' with any prefix doesn't really describe this complex interdependence" (Constanza 2017, pg. 3).

Existing frameworks

"Trade-offs between the beneficial and detrimental effects of organisms and ecosystems are not unusual and they need to be understood within the context of the bundles of multiple effects provided by them within specific contexts. For example, wetland ecosystems provide water purification and flood regulation but they can also be a source of vector-borne disease".



Figure I Analytical conceptual framework

Existing frameworks

R. Fish et al.

Ecosystem Services xx (xxxx) xxxx-xxxx

Cultural Values

Norms and expectations influencing and influenced by services, benefits and their biophysical context

"Cultural ecosystem services are understood here not as part of subject-object ontology - as a priori products of nature that people utilise for a particular benefit to well-being - but rather as relational processes and entities that people actively create and express through interactions with ecosystems" (pg. 4).



Fig. 1. A conceptual framework for cultural ecosystem services.

Rethinking ecosystem services

Key ideas

- Relational socio-ecological networks
- Co-constructed
- Actants
- Process
- Social wellbeing
- Interdisciplinary
- Plural values
- Narratives



Nested
Ecosystem
Services

	Local to Global			
	Supporting / Regulating services	[Biophysical domain, ecosystem processes and functions]		
Past to Future				
[Beyond nature]				





Nested Ecosystem	Local to Global			
Services	Past to Future	Supporting / Regulating services	[Biophysical domain, ecosystem processes and functions]	
		[Bey	ond nature]	







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