



the value of biodiversity and ecosystem services

Arguments for biodiversity as expressed in the literature

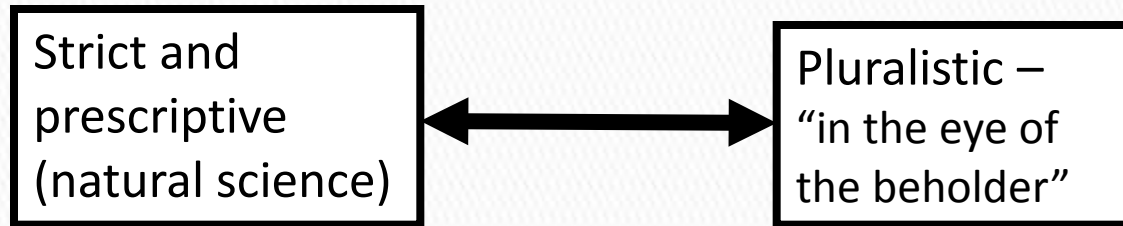
Bruce Howard



'Biodiversity' meanings



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*Based on Maclaurin
and Sterelny (2008)*



Maffi (2012)



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Literature review - approach

To sample the literature (not exhaustive)

- **What? terms** – biodiversity, biological diversity
- **Why? terms** – argument, conserv*, protect*, reason*, why

• EN

THOMSON REUTERS
WEB OF KNOWLEDGESM

Google
scholar

Google

Stakeholder websites

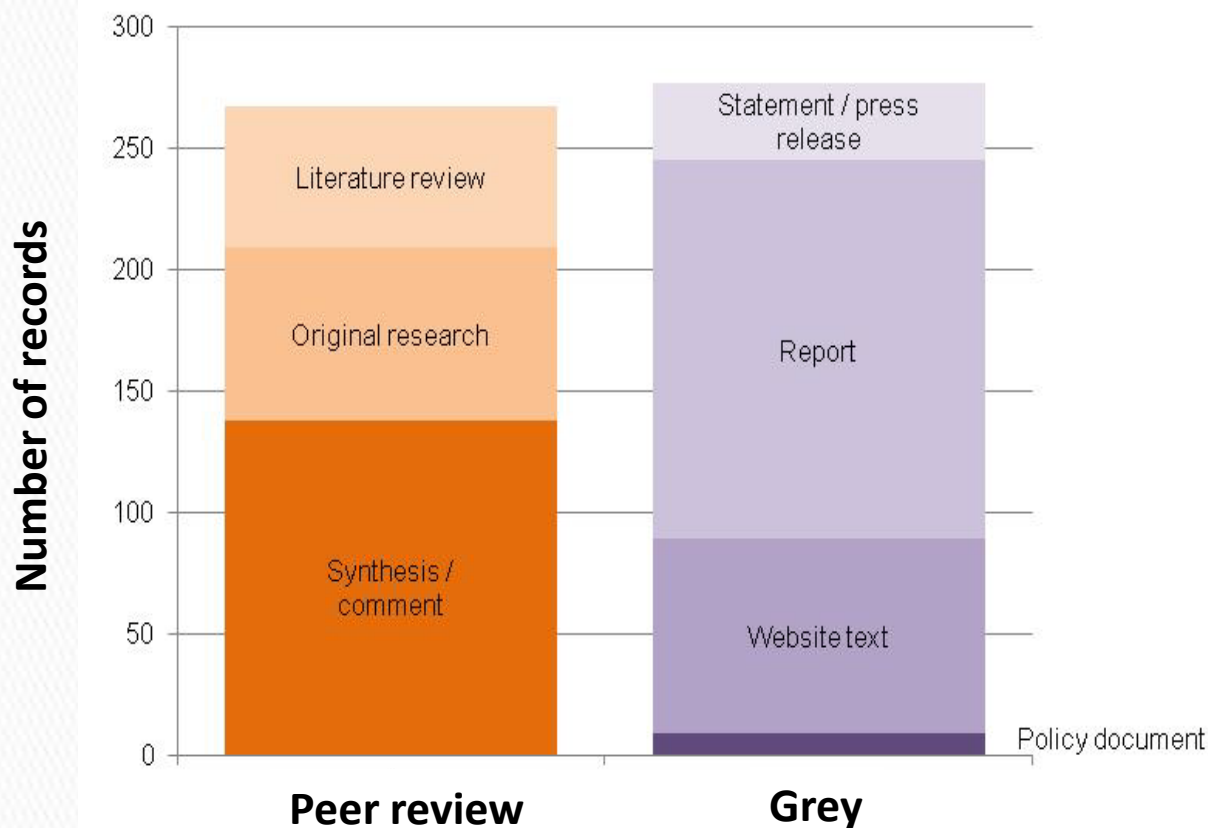
• FR, DA, FL, DE, NO, PL, RO, SE





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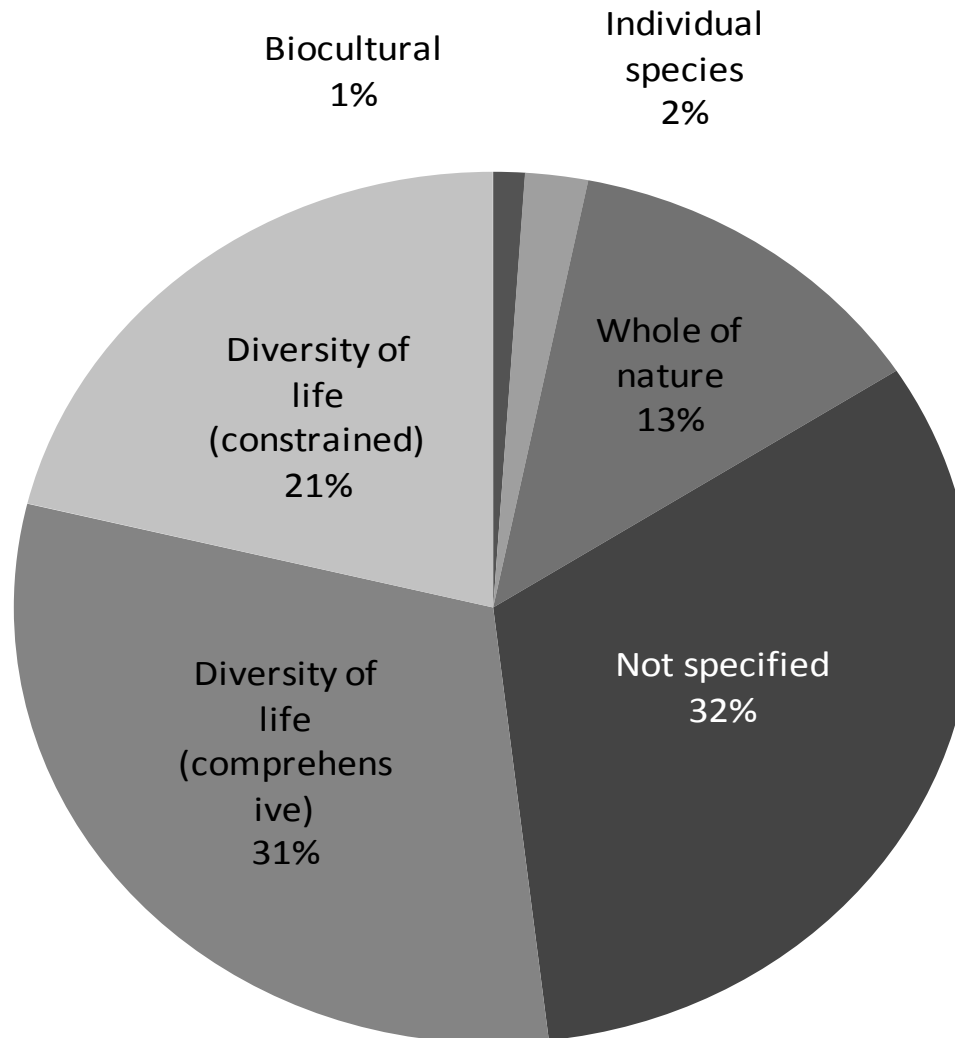
Literature review - database





Results – ‘biodiversity’ meanings

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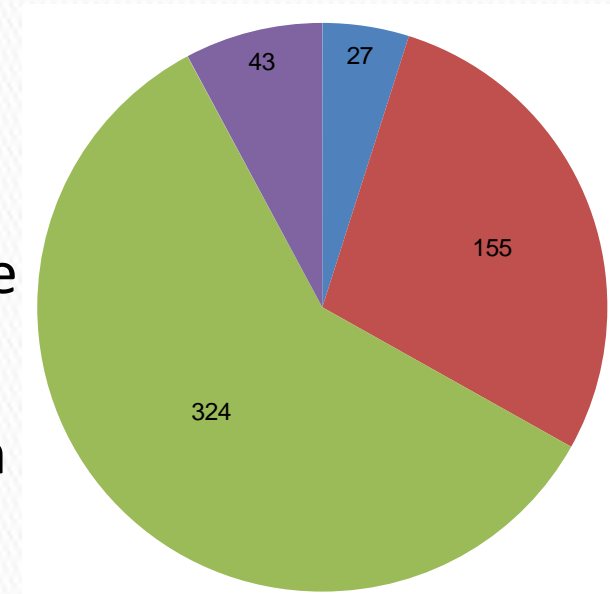


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Categories of literature

Categories of texts:

-  1. Describing argumentation for biodiversity
-  2. Information about more than one argument, some explanation about the basis
-  3. Information about one argument, with some back up information
-  4. Reference to one argument, no supporting discussion





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Category 1 examples

Reviews of arguments – examples from Category 1

Paxton George
(1988)

Attempts to ground
our moral concern for
biodiversity

- Intrinsic worth
 - Aesthetic
 - Ecological
 - Evolutionary
 - Economic utility
-

Eser (2009)

Moral questions
about the
preservation of
biocultural diversity

- Prudence
 - Justice
 - Virtue
-





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Components in the literature

Component	Focal point
Descriptive premise	<Biodiversity> causes, delivers, begets, <(dis)benefit>
Normative premise	This <benefit> has <value> for <beneficiaries>
Logical in-between conclusion	Therefore, <biodiversity> has <value> for <beneficiaries>
Real conclusion	Therefore, <protective action> is needed to preserve <biodiversity>
Consideration of opportunity costs	Therefore, <protective action> should be taken over and above <other course of action / inaction>
Moral framework	Benefits to <benefit receiving entities> are more important than the costs to <cost bearing entities>



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Results – premise statements

General



Specific

Conferring rights / values on
nature itself, for itself

Economic

Option value – future
requirement

Sustainable development /
poverty alleviation

Regulating climate / carbon
sequestration

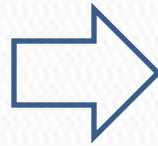




Premise statement classification

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Statement 1



Instrumental

Non-instrumental

Statement 31

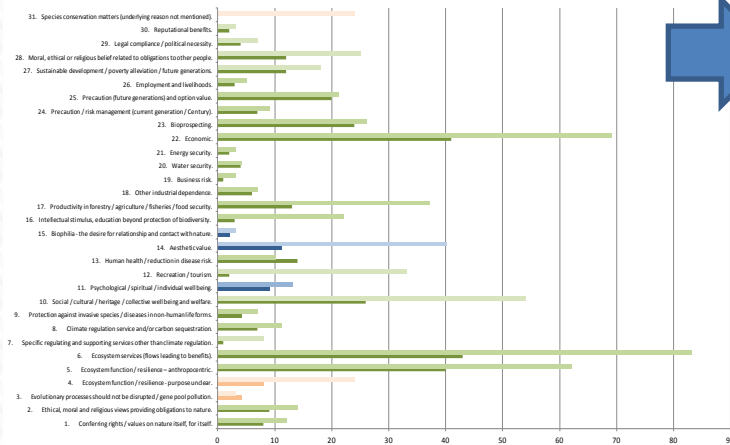




Premise statement frequency

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(See handout)



Top 6 premises in Category 2 literature

- *Ecosystem services (flows leading to benefits)*
- *Ecosystem function – anthropocentric*
- *Economic*
- *Social / cultural / heritage / collective well being and welfare*
- *Aesthetic value*
- *Productivity in forestry, agriculture , fisheries or food security*

Others identified

- *Legal compliance*
- *Intellectual stimulus*

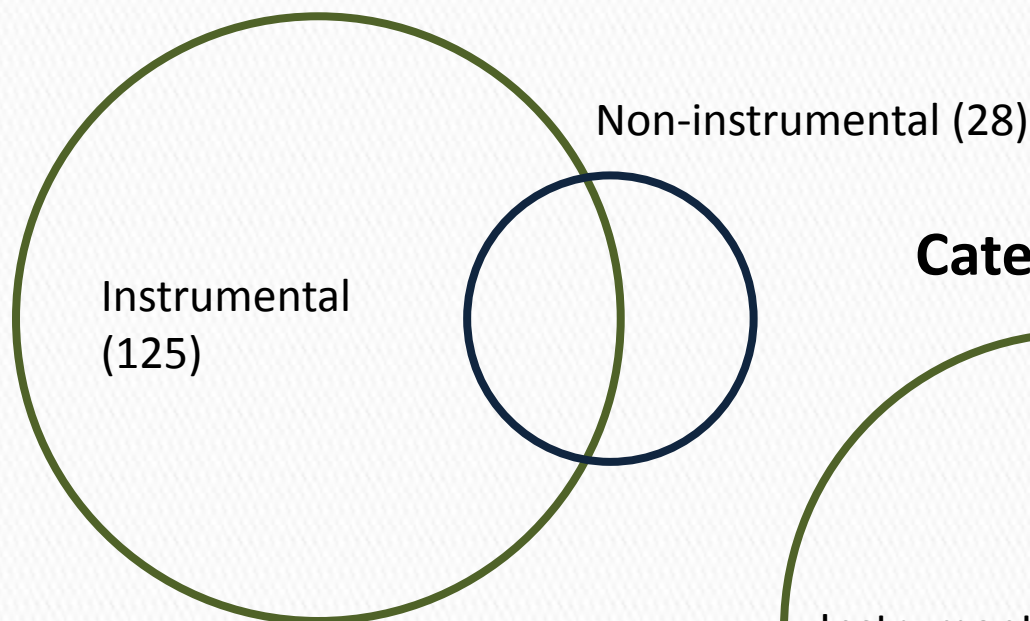


Use of multiple arguments

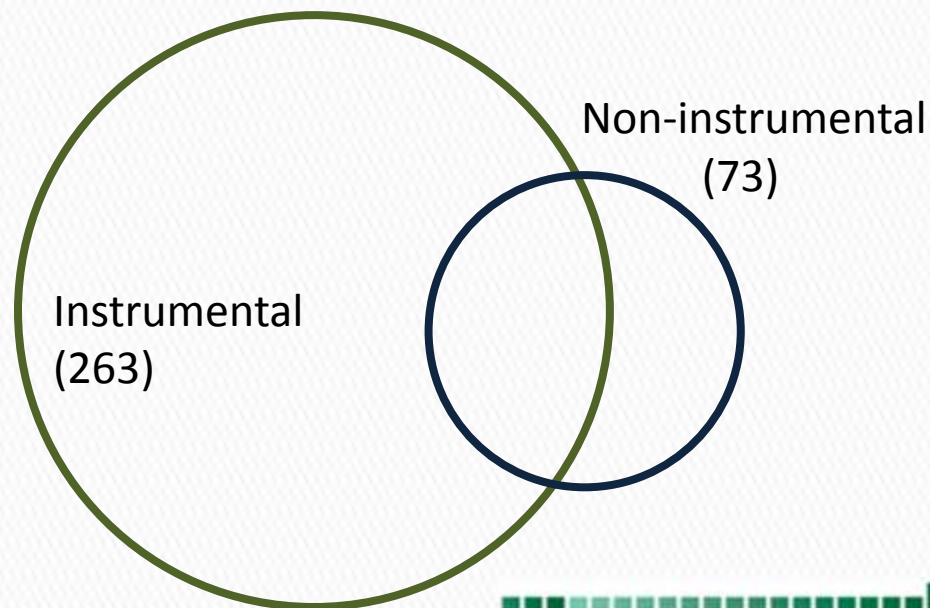


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Category 2 literature



Category 3 literature



www.besafe-project.net

Summary of observations



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- Arguments for the protection of biodiversity vary greatly in their level of specificity:

Generic moral viewpoints



Particular functions of a select group of organisms in delivering a particular benefit.

- A flexible approach to describing arguments for biodiversity is most appropriate (over-structured classifications soon become outdated).

Your input invited



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- Nominations of literature that illustrates the spectrum of arguments and how they are used.
- Comments on the list of premise statements.

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