Appendix S1.

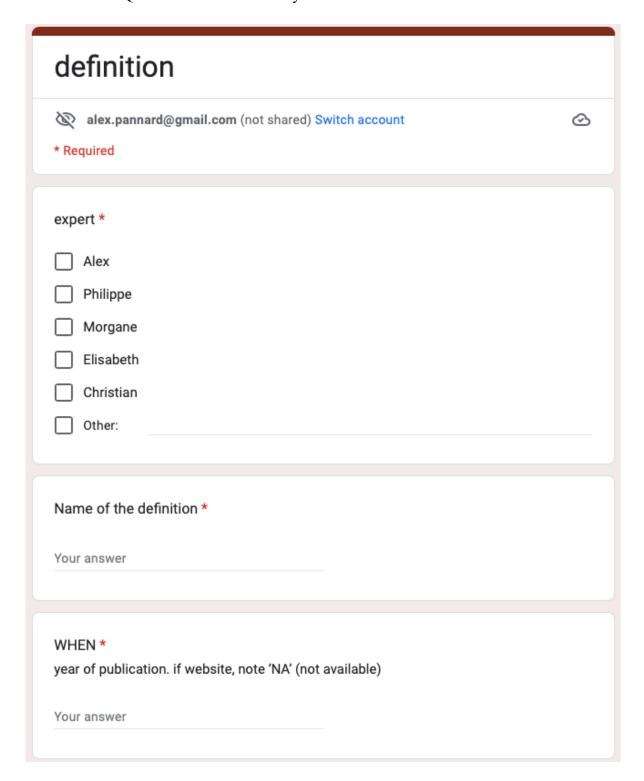
Why are there so many definitions of eutrophication?

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TABLE S1 Word strings for searches in Google Scholar

Search strings in quotation marks in Google Scholar
"eutrophication is defined"
"eutrophication has been defined as"
"eutrophication can be defined as"
"eutrophication (here) defined as"
"eutrophication means"
"called eutrophication"
"define eutrophication as"
"eutrophication refers to"
"eutrophication is"
"eutrophication continues to be"
"Eutrophication ("
"eutrophication, which is"
"eutrophication corresponds to"
"eutrophication is considered here as"
"known as eutrophication"
"Eutrophication, or"
"or eutrophication"
"definition of eutrophication is"
"definition of eutrophication as"
"eutrophication is indicated by"

SECTION S1 Questionnaire used to analyze definitions:



is the definition in adequacy with the general diagram ? the cause - direct effects - * indirect effects (even if not complete)
○ yes
○ No
if no to the previous question, shortly explain :
Your answer
WHAT - Component 1: what does the definition contain? * what kind of category are involved in the definition. See cause/direct effect/indirect effect diagram below.If a trophic change is mentioned, it corresponds to a direct effect.
causes (1)
indirect effects (2)
none
Category 1: nutrient enrichment - Nutrient Type *
□ N
□ P
unspecified
Other:

Category 1: Nutrient enrichment - Nutrient form *
organic
inorganic (salts)
unspecified (including nutrient alone)
environmental factors (of direct effects) * Which associated causality factors are cited in the definition?
hydrodynamics (residence time, stratification, tides, confinement)
unspecified
Other:
WHERE: Kind of ecosystem involved in the definition what is the kind of ecosystem involved?
freshwater
marine marine
aquatic (word 'aquatic' without 'freshwater' and 'marine')
unspecified
Other:
WHERE: Kind of ecosystem involved in the topic what is the kind of ecosystem involved?
freshwater
marine marine
aquatic (word 'aquatic' without 'freshwater' and 'marine')
unspecified: neither in the text, nor in the definition itself
Other:

Time scale: Anthropic or Natural? (AN) * does the author specify the origin of the cause? the authors must use the words: natural anthropic/cultural/artificial/man-made unspecified
category 2 : Direct effect - Primary producers (DEPP) * which primary producers are cited? higher / vascular plants aquatic plants macro-algae Macrophytes algae phytoplankton / micro-algae cyanobacteria primary producers / autotroph unspecified Other:
category 2 : Direct effect - Process (DET) * Primary producers only increase growth rate / Production / productivity increase biomass / proliferation / increase number change of autotrophic community Turbidity / transparency / light /shading unspecified

	yes	no
oxygen depletion	\circ	\circ
oxygen + sulphide release (poison)	0	0
Toxicity (HAB)	\circ	\circ
Nutrient cycle	\circ	\circ
change of habitat	\circ	\circ
change of heterotrophic community	\circ	\circ
physical modification (volume, water depth, currents, integrity, silting up)	0	\circ
biodiversity (loss of species)	\circ	\circ
syndrome / impacts	\circ	\circ
Other	\circ	\circ
f response to previous questio	on IEE = 'other', give deta	ils:

	yes	no
Water quality	\circ	\circ
Ecosystem services (odour, aesthetics, clogging, navigation)	0	0
If response to previous que	estion = 'other' (IES), give de	tails:
	a still existing definition ? g	ive the name and year
Your answer	a still existing definition ? g	ive the name and year
Does the definition refer to Your answer Source characteristics * publications in aquatic ec		ive the name and year
Your answer Source characteristics *	ology	ive the name and year
Your answer Source characteristics * publications in aquatic eco	ology	ive the name and year
Your answer Source characteristics * publications in aquatic economic publications in other journ	ology	ive the name and year
Your answer Source characteristics * publications in aquatic economic publications in other journ books	ology	ive the name and year