

ECASA indicator

Name	Sediment flux (traps)
DPSIR classe	Impact
ECASA subgroups	Sediment
ECASA code	SEDFLUX
Proposed by participant	National Institute of Biology
Definition, computation,	calculation of sedimentation rate (in mg/m ² or µg/m ²) of total suspended matter (TSM), particulate organic carbon (POC) and total particulate nitrogen (TPN)
Data required	elemental composition of sedimented material collected over 24 hours using the sediment traps i.e. at sampling and control sites
Summary, scientific meaning, implementation	The aquaculture industry effects the environment of farming site and nearby surroundings. The increased sedimentation of organic matter lead to anoxic sediments bellow the farm cages (Hall et al. 1990, Holmer 1991) with a negative redox characteristics (Hargrave et al. 1993) and a high organic content (Hall et al. 1990, Hall et al., 1992; Holmer 1991; Karkassis et al. 1998). Moreover, alterations of sediment chemistry results in changes of biomass abundance and species composition of benthos (Weston 1990, Karakassis et al. 2002). Particulate organic matter that originate in aquaculture activity contribute to higher fluxes (sedimentation rates) which could be used as indicators of grater organic loading.
Range of validity	
Species concerned (fishes/molluscs)	All
Related type of aquaculture	-Open sea aquaculture -Cage aquaculture -Longlines -Intertidal, extensive aquaculture
Relevant environments for this indicator	Open sea Sheltered areas (bays, fjord, estuaries)
Geographic scale	local
Direct relevance to objectives	
Clarity in design.	
Realistic collection or development costs	
High quality and reliability	
Appropriate spatial and temporal scale	
Obvious significance	

advantages
disadvantages
references

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State of validation
recommendations