

ECASA indicator

Name	Meiofauna sediment test
DPSIR classe	Response
ECASA subgroups	Benthos
ECASA code	MEIOSED
Proposed by participant	NIB Solvenia
Definition, computation,	2 parallel samples are taken from position n°1. One is transferred to a control site, C and the other under mariculture facility, M. Subsamples are taken and analysed for comparison 6-9 times
Data required	meiofauna specific composition, abundance and biomass
Summary, scientific meaning, implementation	<p>In the testing (M) and control (C) samples we assume to have primarily the "same biocenosis" which is later on procentually changed. We should propose an acceptable value on how high this percentage could be.</p> <p>All the samples are taken from N°1 position (assuming that a scuba diver collects them near by and so the contiguous dispersion of meiofaunai is discarded). This also allows to obtain uniform starting conditions. The disturbance effect caused by moving the substrat under mariculture does not act, as the control sample is treated in the same way.</p> <p>If the sample M would be taken directly under the mariculture, we would actually collect meiofauna which has been under mariculture effect for years, while if we take the sample from N°1 position and than situate it at M position for some time, we have the effect as the mariculture was positioned there just now.</p> <p>Negative: technically very hard to perform- superficial layer sediment disturbance.</p> <p>We could also directly analyse a set of samples from N°1 position, to evaluate the change of biocenosis as the result of translocation, small area effect (on food chains).</p>
Range of validity	
Species concerned (fishes/molluscs)	All species
Related type of aquaculture	<ul style="list-style-type: none"> -Cage aquaculture -Longlines -Intertidal, extensive aquaculture
Relevant environments for this indicator	Sheltered areas (bays, fjord, estuaries)
Geographic scale	local
Direct relevance to objectives	A
Clarity in design.	A
Realistic collection or development costs	B
High quality and reliability	A
Appropriate spatial and temporal scale	B
Obvious significance	A

advantages

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disadvantages

technically very hard to perform- superficial layer sediment disturbance.

references

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Mirto, S.; Rosa, T. La; Danovaro, R. & A. Mazzola (2000): Microbial and meiofaunal response to intensive mussel-farm biodeposition in coastal sediments of the western Mediterranean. *Marine Pollution Bulletin* 40, 244-252.

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State of validation

Not validated

Recommendations