

ECASA indicator

<b>Name</b>	<b>Nitrifier bacteria</b>
<b>DPSIR class</b>	Response
<b>ECASA sub-group</b>	Sediment
<b>ECASA code</b>	NITBACT
<b>Proposed by participant</b>	4 – National institute of Biology Slovenia
<b>Definition, computation,</b>	<ol style="list-style-type: none"> <li>1. nitrifiers are in values as natural background (reference station)</li> <li>2. higher abundance of nitrifiers comparing to natural background</li> <li>3. medium abundance of nitrifiers comparing to natural background</li> <li>4. high abundance of nitrifiers comparing to natural background</li> </ol>
<b>Data required</b>	<ol style="list-style-type: none"> <li>1. isolation of dominant ammonium and nitrite oxidizers</li> <li>2. use of specific probe for identification of ammonium and nitrite oxidizers</li> <li>3. use of fluorescent in situ hybridization method (FISH)</li> </ol>
<b>Summary, scientific meaning, implementation</b>	epifluorescent microscope Application of Fluorescent in situ hybridisation (FISH) method and specific probes for detection of dominant group of nitrifiers. When probes are determine their distribution can be followed around the fish farm to see how far away can pollution be detected
<b>Range of validity</b>	
<b>Species concerned (fishes/molluscs)</b>	all
<b>Related type of aquaculture</b>	<ul style="list-style-type: none"> <li>-Open sea aquaculture</li> <li>-Cage aquaculture</li> <li>-Longlines</li> <li>-Intertidal, extensive aquaculture</li> </ul>
<b>Relevant environments for this indicator</b>	Open sea
<b>Geographic scale</b>	Sheltered areas (bays, fjord, estuaries)
<b>Direct relevance to objectives</b>	
<b>Clarity in design.</b>	
<b>Realistic collection or development costs</b>	
<b>High quality and reliability</b>	
<b>Appropriate spatial and temporal scale</b>	
<b>Obvious significance</b>	
<b>disadvantages</b>	
<b>references</b>	
<b>State of validation</b>	
<b>recommendations</b>	