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Subject:	ANNEXES to the Commission Decision establishing, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, the values of the Member State monitoring system classifications as a result of the intercalibration exercise and repealing Commission Decision (EU) 2018/229

Delegations will find attached document D91755/2 - Annex 1.

Encl.: D91755/2 - Annex 1



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ANNEX 1

ANNEXES

to the

Commission Decision

establishing, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, the values of the Member State monitoring system classifications as a result of the intercalibration exercise and repealing Commission Decision (EU) 2018/229

ANNEX 1
to the Commission Decision establishing, pursuant to Directive 2000/60/EC of the European Parliament and of the Council, the values of the Member State monitoring system classifications as a result of the intercalibration exercise and repealing Commission Decision (EU) 2018/229

Part 1 of this annex includes the results of the intercalibration exercise for which all steps of the intercalibration process have been fully completed, including their respective boundary values.

Part 2 includes national methods and their respective boundary values which are consistent with the normative definition set out in Section 1.2 of Annex V to Directive 2000/60/EC but where they have not been technically feasible to complete the comparability assessment within a Geographical Intercalibration Group due to lack of common types, different pressures addressed or different assessment concepts.

Part 3 includes surface water body types (across Member States and Norway) for which a Biological or Sub-Biological Quality element is not applicable on the basis of the justifications provided and accepted.

-- Part 1 --

Water category	Rivers
Geographical Intercalibration Group	Alpine rivers

Description of types that have been intercalibrated

Type	River characterisation	Catchment (km²)	Altitude (m a.s.l.) and geomorphology	Alkalinity	Flow regime
R-A1	Pre-Alpine, small to medium, high altitude calcareous	10 - 1 000	800 - 2 500 m (catchment), boulders/cobble	High (but not extremely high) alkalinity	
R-A2	Small to medium, high altitude, siliceous	10 - 1 000	500 - 1 000 m (max altitude of catchment 3 000 m, mean 1 500 m), boulders	Non-calcareous (granite, metamorphic) medium to low alkalinity	Nival-glacial flow regime

Countries sharing types that have been intercalibrated:

Type R-A1: Austria, France, Germany, Italy, Slovenia

Type R-A2: Austria, France, Italy, Spain

ALPINE RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Benthic invertebrate fauna
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Results: Ecological quality ratios of national classification methods intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
<i>Type R-A1</i>			
Austria	Assessment of the biological quality elements - part benthic invertebrates [Erhebung der biologischen Qualitätselemente - Teil Makrozoobenthos (Detaillierte MZB-Methode)]	0.80	0.60
France	Multimetric index based on macroinvertebrate fauna for the ecological assessment of French wadeable rivers (I ₂ M ₂)	0.605	0.354

Germany	PERLODES – Bewertungsverfahren von Fließgewässern auf Basis des Makrozoobenthos	0.80	0.60
Italy	MacrOper, based on STAR Intercalibration Common Metric Index (STAR_ICMi)	0.97	0.73
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi bentoških nevretenčarjev	0.80	0.60
Type R-A2			
Austria	Assessment of the biological quality elements - part benthic invertebrates [Erhebung der biologischen Qualitätselemente - Teil Makrozoobenthos (Detaillierte MZB-Methode)]	0.80	0.60
France	Multimetric index based on macroinvertebrate fauna for the ecological assessment of French wadeable rivers (I ₂ M ₂)	0.665	0.460
Italy	MacrOper, based on STAR Intercalibration Common Metric Index (STAR_ICMi)	0.95	0.71
Spain	Iberian BMWP (IBMWP)	0.83	0.53

ALPINE RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Macrophytes and Phytobenthos
Sub-Biological Quality Element	Phytobenthos

Results: Ecological quality ratios of national classification methods intercalibrated

Type and country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Type R-A1			
Austria	Assessment of the biological quality elements - part phytobenthos [Leitfaden zur Erhebung der biologischen Qualitätselemente, Teil A3 - Fließgewässer/Phytobenthos]	0.89	0.71
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF-T-90-354, December 2007. Arrêté ministériel du 25 janvier 2010 modifié relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface	0.94	0.78
Germany	Verfahrensanleitung für die ökologische Bewertung von Fließgewässern zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Diatomeen	0.735	0.54
Italy	Intercalibration Common Metric Index (ICMi) (Mancini &	0.87	0.70

	Sollazzo, 2009)		
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, fitobentos	0.80	0.60
Type R-A2			
Austria	Assessment of the biological quality elements - part phytobenthos [Leitfaden zur Erhebung der biologischen Qualitätselemente, Teil A3 - Fließgewässer/Phytobenthos]	0.89	0.71
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF-T-90-354, December 2007. Arrêté ministériel du 25 janvier 2010 modifié relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface	0.94	0.78
Spain	IPS (Coste in Cemagref, 1982)	0.94	0.74
Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo, 2009)	0.85	0.64

Water category	Rivers
Geographical Intercalibration Group	Central-Baltic rivers

Description of types that have been intercalibrated

Type	River characterisation	Catchment (km ²)	Altitude and geomorphology	Alkalinity (meq/l)
R-C1	Small lowland siliceous sand	10 - 100	Lowland, dominated by sandy substrate (small particle size), 3 - 8 m width (bankfull size)	> 0.4
R-C2	Small lowland siliceous - rock	10 - 100	Lowland, rock material 3 - 8m width (bankfull size)	< 0.4
R-C3	Small mid-altitude siliceous	10 - 100	Mid-altitude, rock (granite) - gravel substrate, 2 - 10 m width (bankfull size)	< 0.4
R-C4	Medium lowland mixed	100 - 1 000	Lowland, sandy to gravel substrate, 8 - 25 m width (bankfull size)	> 0.4
R-C5	Large lowland mixed	1 000 - 10 000	Lowland, barbel zone, variation in velocity, max. altitude in catchment: 800 m a.s.l., >25 m width (bankfull size)	> 0.4
R-C6	Small, lowland, calcareous	10 - 300	Lowland, gravel substrate (limestone), width 3 - 10 m (bankfull size)	> 2

Countries sharing types that have been intercalibrated:

Type R-C1:	Belgium (Flanders), Belgium (Wallonia), Denmark, France, Germany, Italy, Lithuania, the Netherlands, Poland, Sweden
Type R-C2:	France, Ireland, Spain, Sweden
Type R-C3:	Austria, Belgium (Wallonia), Czech Republic, France, Germany, Luxembourg, Poland, Spain, Sweden
Type R-C4:	Belgium (Flanders), Belgium (Wallonia), Czech Republic, Denmark, Estonia, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Spain, Sweden
Type R-C5:	Belgium (Wallonia), Czech Republic, Estonia, France, Germany, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Poland, Spain, Sweden
Type R-C6:	Belgium (Wallonia), Denmark, Estonia, France, Ireland, Italy, Poland, Latvia, Lithuania, Luxembourg, Spain, Sweden

CENTRAL-BALTIC RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	Assessment of the biological quality elements - part benthic invertebrates	0.80	0.60
Belgium (Flanders)	Multimetric Macroinvertebrate Index Flanders (MMIF)	0.90	0.70
Belgium (Wallonia)	Indice Biologique Global Normalisé (IBGN) (Norme AFNOR NF T 90 350, 1992) and Arrêté du Gouvernement wallon du 13 septembre 2012 relatif à l'identification, à la caractérisation et à la fixation des seuils d'état écologique applicables aux masses d'eau de surface et modifiant le Livre II du Code de l'Environnement, contenant le Code de l'Eau. Moniteur belge 12.10.2012	0.94 (type R-C1) 0.97 (types R-C3, R-C5, R-C6)	0.75 (type R-C1) 0.74 (types R-C3, R-C5, R-C6)
Czech Republic	Czech system for ecological status assessment of rivers using benthic macroinvertebrates	0.80	0.60
Denmark	Danish Stream Fauna Index (DSFI)	1.00	0.71
Estonia	Estonian surface water ecological quality assessment – river macroinvertebrates	0.90	0.70
France	Multimetric index based on macroinvertebrate fauna for the ecological assessment of French wadeable rivers (I ₂ M ₂)	0.665	0.443
Germany	PERLODES – Bewertungsverfahren von Fließgewässern auf Basis des Makrozoobenthos	0.80	0.60

Ireland	Quality Rating System (Q-value)	0.85	0.75
Italy	MacroOper, based on STAR_ICM index calculation	0.96	0.72
Latvia	Latvian Macroinvertebrate Index (LMI)	0.92	0.72
Lithuania	Lithuanian River Macroinvertebrate Index	0.80	0.60
Luxembourg	Macroinvertebrate-based Multimetric Index (I ₂ M ₂)	0.64	0.45
Netherlands	KRW-maatlat	0.80	0.60
Poland	RIVECOmacro - MMI_PL	0.91 (type R-C1)	0.72 (type R-C1)
Spain	METI	0.93	0.70
Spain (Basque country)	MBf (Multimetric Basque index family level)	0.91	0.68
Sweden	DJ-index (Dahl & Johnson 2004)	0.80	0.60

CENTRAL-BALTIC RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Type	Ecological Quality Ratios	
			High-Good boundary	Good-Moderate boundary
Austria	AIM for Rivers (Austrian Index Macrophytes for rivers)	RC-3	0.875	0.625
Belgium (Flanders)	MAFWAT - Flemish macrophyte assessment system	R-C1	0.80	0.60
Belgium (Wallonia)	IBMR-WL - Biological Macrophyte Index for Rivers (Arrêté du Gouvernement wallon du 13 septembre 2012 relatif à l'identification, à la caractérisation et à la fixation des seuils d'état écologique applicables aux masses d'eau de surface et modifiant le Livre II du Code de l'Environnement, contenant le Code de l'Eau. Moniteur belge 12.10.2012)	R-C3	0.925	0.607
Czech Republic	Assessment method of surface running water bodies in the Czech Republic using biological quality element macrophytes	R-C3 (national type 1)	0.83	0.67

		R-C3 (national type 4)	0.82	0.64
		R-C4	0.86	0.62
Denmark	DSPI - Danish Stream Plant Index	R-C1, R-C4	0.70	0.50
Estonia	Estonian Macrophyte Index for Rivers	R-C4	0.85	0.65
Germany	Verfahrensanleitung für die ökologische Bewertung von Fließgewässern zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Makrophyten	R-C1	0.745	0.495
		R-C3	0.80	0.55
		R-C4	0.575	0.395
Germany	NRW-Verfahren zur Bewertung von Fließgewässern mit Makrophyten	R-C1, R-C3, R-C4	0.995	0.695
France	IBMR - Indice Biologique Macrophytique en Rivières French standard NF T90-395 (2003-10-01)	R-C3	0.93	0.79
		R-C4	0.905	0.79
Ireland	MTR – IE - Mean Trophic Ranking	R-C4	0.74	0.62
Italy	IBMR – IT - Biological Macrophyte Index for Rivers	R-C1	0.90	0.80
		R-C4	0.90	0.80
Lithuania	Lithuanian River Macrophyte Index	R-C4	0.61	0.41
Latvia	Latvian assessment method using macrophytes	R-C4	0.75	0.55
Luxembourg	IBMR – LU - Biological Macrophyte Index for Rivers	R-C3, R-C4, R-C5 and R-C6	0.89	0.79
Netherlands	Revised assessment method for rivers in The Netherlands using macrophytes	R-C1 and R-C4	0.80	0.60
Poland	MIR - Macrophyte Index for Rivers	R-C1	0.90	0.65
		R-C3	0.910	0.684
		R-C4	0.90	0.65

CENTRAL-BALTIC RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Phytobenthos

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Type	Ecological Quality Ratios	
			<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	Assessment of the biological quality elements - part Phytobenthos [Leitfaden zur Erhebung der biologischen Qualitätselemente, Teil A3 - Fließgewässer/Phytobenthos]	All types, altitude <500 m	0.64	0.49
		All types, altitude >500 m	0.81	0.53
Belgium (Flanders)	Proportions of Impact-Sensitive and Impact-Associated Diatoms (PISIAD)	All types	0.80	0.60
Belgium (Wallonia)	IPS (Coste, in CEMAGREF, 1982 ; Lenoir & Coste, 1996 and Arrêté du Gouvernement wallon du 13 septembre 2012 relatif à l'identification, à la caractérisation et à la fixation des seuils d'état écologique applicables aux masses d'eau de surface et modifiant le Livre II du Code de l'Environnement, contenant le Code de l'Eau. Moniteur belge 12.10.2012)	All types	0.98	0.73
Czech Republic	Czech assessment method for rivers using phytobenthos	R-C3, R-C4, R-C5	0.80	0.63
Denmark	Danish index for benthic algae (SID_TID)	R-C1, R-C4, R-C6	0.861	0.68
Estonia	Indice de Polluosensibilité Spécifique (IPS)	All types	0.85	0.70
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF-T-90-354, December 2007. Arrêté ministériel du 25 janvier 2010 modifié relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface	All types	0.94	0.78
Germany	Verfahrensanleitung für die ökologische Bewertung von Fließgewässern zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Diatomeen	R-C1	0.67	0.43
		R-C3	0.67	0.43
		R-C4	0.61	0.43
		R-C5	0.73	0.55
Ireland	Revised form of Trophic Diatom Index (TDI)	All types	0.93	0.78

Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo, 2009)	All types	0.89	0.70
Ireland	Revised form of Trophic Diatom Index (TDI)	All types	0.93	0.78
Latvia	Latvian assessment method using phytobenthos	R-C4, R-C5, R-C6	0.70	0.50
Lithuania	Lithuanian River Phytobenthos Index	R-C1, R-C4, R-C5, R-C6	0.73	0.55
Luxembourg	Indice de Polluosensibilité Spécifique (IPS)	R-C3, R-C4 (low alkalinity)	0.98	0.78
		R-C4 (high alkalinity), R-C5 and R-C6	0.99	0.78
Netherlands	KRW Maatlat	All types	0.80	0.60
Poland	Indeks Okrzemkowy IO dla rzek (Diatom Index for rivers)	All types	0.80	0.58
Spain	Diatom multimetric (MDIAT)	R-C2, R-C3, R-C4	0.93	0.70
Sweden	Swedish assessment methods, Swedish EPA regulations (NFS 2008:1) based on Indice de Polluosensibilité Spécifique (IPS)	All types	0.89	0.74

Water category	Rivers
Geographical Intercalibration Group	Eastern Continental rivers

Description of types that have been intercalibrated

Type	River characterisation	Ecoregion	Catchment (km ²)	Altitude (m a.s.l.)	Geology	Substrate
R-E1a	Carpathians: small to medium, mid-altitude	10	10 - 1 000	500 - 800	Mixed	
R-E1b	Carpathians: small to medium, mid-altitude	10	10 - 1 000	200 - 500	Mixed	
R-E2	Plains: medium-sized, lowland	11 and 12	100 - 1 000	< 200	Mixed	Sand and silt
R-E3	Plains: large, lowland	11 and 12	> 1 000	< 200	Mixed	Sand, silt and gravel
R-E4	Plains: medium-sized, mid-altitude	11 and 12	100 - 1 000	200 - 500	Mixed	Sand and gravel
R-EX4	Large, mid-altitude	10, 11 and	> 1 000	200 - 500	Mixed	Gravel and

		12				boulder
R-EX5	Plains: small lowland	11 and 12	10 - 100	< 200	Mixed	Sand and silt
R-EX6	Plains: small, mid-altitude	11 and 12	10 - 100	200 - 500	Mixed	Gravel
R-EX7	Balkan: small, calcareous, mid-altitude	5	10 - 100	200 - 500	Calcareous	Gravel
R-EX8	Balkan: small to medium-sized, calcareous karst spring	5	10 - 1 000		Calcareous	Gravel, sand and silt

Countries sharing types that have been intercalibrated:

R-E1a: Bulgaria, Czech Republic, Romania, Slovakia

R-E1b: Bulgaria, Czech Republic, Hungary, Romania, Slovakia

R-E2: Bulgaria, Croatia, Czech Republic, Hungary, Romania, Slovakia, Slovenia

R-E3: Bulgaria, Croatia, Czech Republic, Hungary, Romania, Slovakia, Slovenia

R-E4: Austria, Czech Republic, Bulgaria, Hungary, Romania, Slovakia, Slovenia

R-EX4: Czech Republic, Romania, Slovakia

R-EX5: Croatia, Hungary, Romania, Slovenia, Slovakia

R-EX6: Croatia, Hungary, Romania, Slovenia

R-EX7: Croatia, Slovenia

R-EX8: Croatia, Slovenia

EASTERN CONTINENTAL RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Type	Ecological Quality Ratios	
			<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	Assessment of the biological quality elements - part benthic invertebrates	R-E4	0.80	0.60
Bulgaria	IBI (BG) (Irish Biotic Index (BG))	R-E1a, R-E1b	0.86	0.67
		R-E2, R-E3	0.80	0.60
Croatia	Croatian classification method for benthic macroinvertebrates	R-E2, R-E3, R-EX5, R-EX6	0.80	0.60
Czech Republic	Czech system for ecological status assessment of rivers using benthic macroinvertebrates	R-E1a, R-E1b, R-E2, R-E3	0.80	0.60

Hungary	Hungarian Multimetric Macroinvertebrate Index	R-E1b, R-E3, R-E4, R-EX5, R-EX6	0.80	0.60
Romania	Assessment method for ecological status of water bodies based on macroinvertebrates	R-E1a, R-E1b, R-E3, R-EX4	0.80	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi bentoških nevretenčarjev	R-E4, R-EX5, R-EX6	0.80	0.60
Slovakia	Slovak assessment of benthic invertebrates in rivers	R-E1a, R-E1b, R-E2, R-E3, R-E4, R-EX4	0.80	0.60

EASTERN CONTINENTAL RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Type	Ecological Quality Ratios	
			<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	AIM for Rivers (Austrian Index Macrophytes for rivers)	R-E4	0.875	0.625
Bulgaria	Reference Index	R-E2, R-E3	0.570	0.370
		R-E4	0.510	0.270
Croatia	Croatian classification method for macrophytes in rivers	R-E2, R-E3	0.800	0.600
Czech Republic	Assessment method of surface running water bodies in the Czech Republic using biological quality element macrophytes	R-E2, R-E3	0.750	0.500
Czech Republic	Assessment method of surface running water bodies in the Czech Republic using biological quality element macrophytes	R-E4	0.770	0.560
Hungary	Reference Index	R-E2, R-E3	0.700	0.370
Romania	Romanian Macrophyte-based assessment system for rivers (Macrophyte River Index (MARI))	R-E2, R-E3, R-E4	R-E2 and R-E3: 0.875, R-E4: 0.783	all types: 0.625
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in	R-E2, R-E3, R-E4	0.800	0.600

	makrofitov, makrofiti			
Slovakia	Macrophyte Biological Index for Rivers (IBMR-SK)	R-E2, R-E3, R-E4	0.800	0.600

EASTERN CONTINENTAL RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element **Macrophytes and Phytobenthos**

Sub-Biological Quality Element **Phytobenthos**

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Type	Ecological Quality Ratios	
			High-Good boundary	Good-Moderate boundary
Austria	Assessment of the biological quality elements - part Phytobenthos [Leitfaden zur Erhebung der biologischen Qualitätselemente, Teil A3 - Fließgewässer/Phytobenthos]	R-E4	0.64	0.49
Bulgaria	Ecological status assessment of rivers in Bulgaria based on IPS diatom index	R-E1a, R-E1b, R-E3	0.87 (national type R2, R4) 0.85 (national type R7, R8)	0.66 (national type R2, R4) 0.64 (national type R7, R8)
Croatia	Croatian classification method for phytobenthos in rivers	R-E2, R-E3, R-EX5, R-EX6, R-EX7, R-EX8	0.862	0.60
Czech Republic	Assessment system for rivers using phytobenthos	R-E1a, R-E1b, R-E2, R-E3, R-EX4	0.80	0.60
Hungary	Ecological status assessment for rivers based on diatoms	R-E1b, R-E2, R-E3, R-EX5	0.80	0.60
Romania	National (Romanian) Assessment Method for Rivers Ecological Status based on Phytobenthos (Diatoms) RO-AMRP	R-E1a, R-E1b, R-E3	0.80	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, fitobentos	R-E4, R-EX5, R-EX6, R-EX7, R-EX8	0.80	0.60
Slovakia	Ecological status assessment system for rivers using phytobenthos	R-E1a, R-E1b, R-E2, R-E3, R-E4, R-EX4	0.90	0.70

Water category **Rivers**

Geographical Intercalibration Group **Mediterranean rivers**

Description of types that have been intercalibrated

Type	River characterisation	Catchment (km ²)	Geology	Flow regime
R-M1	Small Mediterranean streams	<100	Mixed (except siliceous)	Highly seasonal
R-M2	Medium Mediterranean streams	100 - 1 000	Mixed (except siliceous)	Highly seasonal
R-M4	Mediterranean mountain streams		Non-siliceous	Highly seasonal
R-M5	Temporary streams			Temporary

Countries sharing types that have been intercalibrated:

R-M1: Bulgaria, Croatia, France, Greece, Italy, Portugal, Slovenia, Spain

R-M2: Bulgaria, Croatia, France, Greece, Italy, Portugal, Slovenia, Spain

R-M4: Cyprus, France, Greece, Italy, Spain

R-M5: Croatia, Cyprus, Italy, Portugal, Slovenia, Spain

MEDITERRANEAN RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Type and Country	National classification systems intercalibrated	Ecological Quality Ratios	
		High-Good boundary	Good-Moderate boundary
R-M1			
Croatia	Croatian classification method for benthic macroinvertebrates	0.800	0.600
France	Multimetric index based on macroinvertebrate fauna for the ecological assessment of French wadeable rivers (I ₂ M ₂)	0.676	0.464
Greece	Hellenic Evaluation System-2 (HESY-2)	0.943	0.750
Italy	MacOper (based on STAR Intercalibration Common Metric Index ICMi)	0.970	0.720
Portugal	Rivers Biological Quality Assessment Method-Benthic	0.870	0.678

	Invertebrates (IPtIN, IPtIS)	(type 1)	(type 1)
		0.850 (type 3)	0.686 (type 3)
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi bentoških nevretenčarjev	0.800	0.600
Spain	Iberian Biological Monitoring Working Party (IBMWP)	0.845	0.698
Spain	Iberian Mediterranean Multimetric Index—using quantitative data (IMMi-T)	0.811	0.707
R-M2			
Bulgaria	IBI (BG) (Irish Biotic Index (BG))	0.800	0.600
Croatia	Croatian classification method for benthic macroinvertebrates	0.800	0.600
France	Multimetric index based on macroinvertebrate fauna for the ecological assessment of French wadeable rivers (I ₂ M ₂)	0.676	0.464
Greece	Hellenic Evaluation System-2 (HESY-2)	0.944	0.708
Italy	MacrOper (based on STAR Intercalibration Common Metric Index ICMi)	0.940	0.700
Portugal	Rivers Biological Quality Assessment Method-Benthic Invertebrates (IPtIN, IPtIS)	0.830 (type 2)	0.693 (type 2)
		0.880 (type 4)	0.676 (type 4)
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi bentoških nevretenčarjev	0.800	0.600
Spain	Iberian Biological Monitoring Working Party (IBMWP)	0.845	0.698
Spain	Iberian Mediterranean Multimetric Index—using quantitative data (IMMi-T)	0.811	0.707
R-M4			
Cyprus	STAR Intercalibration Common Metric Index (STAR_ICMi)	0.972	0.729
France	Multimetric index based on macroinvertebrate fauna for the ecological assessment of French wadeable rivers (I ₂ M ₂)	0.676	0.464
Greece	Hellenic Evaluation System-2 (HESY-2)	0.850	0.637
Italy	MacrOper (based on STAR Intercalibration Common Metric Index ICMi)	0.940	0.700
Spain	Iberian Biological Monitoring Working Party (IBMWP)	0.840	0.700
Spain	Iberian Mediterranean Multimetric Index—using quantitative data (IMMi-T)	0.850	0.694

R-M5			
Croatia	Croatian classification method for benthic macroinvertebrates	0.800	0.600
Cyprus	STAR Intercalibration Common Metric Index (STAR_ICMi)	0.982	0.737
Greece	Hellenic Evaluation System-2 (HESY-2)	0.963	0.673
Italy	MacrOper (based on STAR Intercalibration Common Metric Index ICMi)	0.970	0.730
Portugal	Rivers Biological Quality Assessment Method-Benthic Invertebrates (IPtIN, IPtIS)	0.973 (type 5)	0.705 (type 5)
		0.961 (type 6)	0.708 (type 6)
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi bentoških nevretenčarjev	0.800	0.600
Spain	Iberian Biological Monitoring Working Party (IBMWP)	0.830	0.630
Spain	Iberian Mediterranean Multimetric Index—using quantitative data (IMMi-T)	0.830	0.620
Spain (Balearic Islands)	INVMIB index (INVertebrate Multimetric Illes Balears)	0.93	0.68

MEDITERRANEAN RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods intercalibrated

Type and Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
R-M1, M2, M4			
Bulgaria (R-M1 and R-M2)	RI (BG) (Reference Index (BG))	0.640	0.350
Croatia (R-M1 and R-M2)	Croatian classification method for macrophytes in rivers	0.800	0.600
Cyprus (R-M4)	IBMR – Biological Macrophyte Index for Rivers	0.795	0.596
France	IBMR - Indice Biologique Macrophytique en Rivière	0.930	0.745

	French standard NF T90-395 (2003-10-01)		
Greece	IBMR – Biological Macrophyte Index for Rivers	0.750	0.560
Italy	IBMR – Biological Macrophyte Index for Rivers	0.900	0.800
Portugal (R-M1 and R-M2)	IBMR – Biological Macrophyte Index for Rivers	0.920	0.690
Slovenia (R-M1 and R-M2)	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, makrofiti	0.800	0.600
Spain	IBMR – Biological Macrophyte Index for Rivers	0.950	0.740

MEDITERRANEAN RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element **Macrophytes and Phytobenthos**

Sub-Biological Quality Element **Phytobenthos**

Results: Ecological quality ratios of national classification methods intercalibrated

Type and Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
R-M1			
Bulgaria	IPS (Indice de polluo-sensibilité)	0.820	0.630
Croatia	Croatian classification method for phytobenthos in rivers	0.829	0.555
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF-T-90-354, December 2007. Arrêté ministériel du 25 janvier 2010 modifié relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface	0.940	0.780
Greece	IPS (Coste in Cemagref, 1982) Intercalibrated (EQR IPS)	0.956	0.717
Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo, 2009)	0.800	0.610
Portugal	IPS (Coste in Cemagref, 1982)	0.970 (type 1)	0.730 (type 1)
		0.910 (type 3)	0.680 (type 3)
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, fitobentos	0.800	0.600
Spain	IPS (Coste in Cemagref, 1982)	0.937	0.727
R-M2			
Bulgaria	IPDS (Indice de polluo-sensibilité)	0.820	0.630

Croatia	Croatian classification method for phytobenthos in rivers	0.829	0.555
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF-T-90-354, December 2007. Arrêté ministériel du 25 janvier 2010 modifié relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface	0.940	0.780
Greece	IPS (Coste in Cemagref, 1982) Intercalibrated (EQR IPS)	0.953	0.732
Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo, 2009)	0.800	0.610
Portugal	IPS (Coste in Cemagref, 1982))	0.910 (type 2)	0.680 (type 2)
		0.970 (type 4)	0.730 (type 4)
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, fitobentos	0.800	0.600
Spain	IPS (Coste in Cemagref, 1982)	0.938	0.727
R-M4			
Cyprus	IPS (Coste in Cemagref, 1982)	0.910	0.683
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF-T-90-354, December 2007. Arrêté ministériel du 25 janvier 2010 modifié relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface	0.940	0.780
Greece	IPS (Coste in Cemagref, 1982) Intercalibrated (EQR IPS)	0.932	0.716
Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo, 2009)	0.800	0.610
Spain	IPS (Coste in Cemagref, 1982)	0.935	0.727
R-M5			
Croatia	Croatian classification method for phytobenthos in rivers	0.850	0.585
Cyprus	IPS (Coste in Cemagref, 1982)	0.958	0.718
Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo, 2009)	0.880	0.650
Portugal	IPS (Coste in Cemagref, 1982)	0.800 (Type 5)	0.651 (Type 5)
		0.940 (Type 6)	0.700 (Type 6)
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, fitobentos	0.800	0.600
Spain	IPS (Coste in Cemagref, 1982)	0.935	0.700

Spain (Balearic Islands)	Diatom multimetric index (DIATMIB)	0.93	0.68
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Water category	Rivers
Geographical Intercalibration Group	Northern rivers

Description of types that have been intercalibrated

Type	River characterisation	Catchment area of stretch (km ²)	Altitude and geomorphology	Alkalinity (meq/l)	Organic material (mg Pt/l)
R-N1	Small lowland siliceous moderate alkalinity	10 - 100	< 200 m a.s.l. or below the highest coastline	0.2 - 1	<30 (<150 in Ireland)
R-N3	Small/medium lowland organic low alkalinity	10 - 1 000		<0.2	>30
R-N4	Medium lowland siliceous moderate alkalinity	100 - 1 000		0.2 - 1	<30
R-N5	Small mid-altitude siliceous low alkalinity	10 - 100	Between lowland and highland	<0.2	<30
R-N9	Small/medium mid-altitude siliceous low alkalinity organic (humic)	10 - 1 000	Between lowland and highland	<0.2	>30

Countries sharing types that have been intercalibrated:

R-N1: Finland, Ireland, Norway, Sweden

R-N3: Finland, Ireland, Norway, Sweden

R-N4: Finland, Norway, Sweden

R-N5: Finland, Norway, Sweden

R-N9: Finland, Norway, Sweden

NORTHERN RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna (methods sensitive for organic enrichment and general degradation)

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Finland	Revised Finnish river invertebrate fauna assessment method	0.80	0.60
Ireland	Quality Rating System (Q-value)	0.85	0.75
Norway	ASPT	0.99	0.87
Sweden	DJ-index (Dahl & Johnson 2004)	0.80	0.60

Biological Quality Element

Benthic invertebrate fauna (methods sensitive for acidification)

Results: Ecological quality ratios of national classification methods intercalibrated

The following results apply to clear, low alkalinity river types

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Ireland	Acid Waters Indicator Community Species (IE AWICSp)	0.99	0.90
Norway	AcidIndex2 (Modified Raddum index2) (river acidification)	0.675	0.515

Results: Ecological quality ratios of national classification methods intercalibrated

The following results apply to humic, low alkalinity river types

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Sweden	MISA: Multimetric Invertebrate Stream Acidification index	0.550	0.400

Water category	Rivers
Geographical Intercalibration Groups	All
Biological Quality Element	Fish fauna

Overview of regional groups that have been established for the river fish intercalibration:

Alpine-type Mountains group – Austria, France, Germany, Italy, Slovenia

Danubian group – Bulgaria, Croatia, Czech Republic, Hungary, Romania, Slovakia

Lowland-Midland group – Belgium (Flanders), Belgium (Wallonia), Denmark, Estonia, France, Germany, Hungary, Latvia, Lithuania, Luxembourg, Netherlands, Poland

Mediterranean South Atlantic group – Bulgaria, Croatia, Greece, Italy, Portugal, Spain

Nordic group – Finland, Ireland, Norway, Sweden

Results: Ecological quality ratios of national classification methods intercalibrated

Alpine-type Mountains group

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	FIA	0.875	0.625
France	FBI (Fish-Based Index): Indice Poissons Rivière (IPR). AFNOR NF-T90-344	1.131	0.876
Germany	FIBS – fischbasiertes Bewertungssystem für Fließgewässer zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland	1.086	0.592
Italy	NISECI index (New Index of Ecological Status of Fish Communities)	0.800	0.520
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi rib	0.800	0.600

Danubian group

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Bulgaria	TsBRI (Type Specific Bulgarian Fish Index)	0.860	0.650
Croatia	Croatian classification method for fish in rivers	0.800	0.600

Czech Republic	Czech multimetric method CZI	0.780	0.585
Romania	EFI+ European Fish index (cyprinid wading type)	0.939	0.700
Romania	EFI+ European Fish index (salmonid type)	0.911	0.755
Slovakia	Fish Index of Slovakia FIS	0.710	0.570

Lowland - Midland group

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Belgium Flanders	Upstream and Lowland IBI	0.850	0.650
Belgium Wallonia	IBIP (Arrêté du Gouvernement wallon du 13 septembre 2012 relatif à l'identification, à la caractérisation et à la fixation des seuils d'état écologique applicables aux masses d'eau de surface et modifiant le Livre II du Code de l'Environnement, contenant le Code de l'Eau. Moniteur belge 12.10.2012)	0.958	0.792
Denmark	Danish index for fish in streams DFFVa	0.700	0.500
France	FBI (Fish-Based Index): Indice Poissons Rivière (IPR). AFNOR NF-T-90-344.	1.131	0.835
Germany	FIBS – fischbasiertes Bewertungssystem für Fließgewässer zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland	1.086	0.592
Latvia	Latvian Fish Index	0.880	0.660
Lithuania	Lithuanian River Fish Index	0.940	0.720
Luxembourg	Classification française DCE Indice Poissons Rivière (IPR). AFNOR NF-T-90-344	1.131	0.835
Netherlands	NLFISR	0.800	0.600
Poland	EFI+PL index	0.800	0.600

Mediterranean group

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Croatia	Croatian classification method for fish in rivers	0.800	0.600

Greece	Hellenic Fish Index (HeFI)	0.800	0.600
Portugal	F-IBIP - Fish-based Index of Biotic Integrity for Portuguese Wadeable Streams	0.850	0.675
Spain	IBIMED – type T2	0.816	0.705
Spain	IBIMED – type T3	0.929	0.733
Spain	IBIMED – type T4	0.864	0.758
Spain	IBIMED – type T5	0.866	0.650
Spain	IBIMED – type T6	0.916	0.764

Nordic group

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Finland	Finnish Fish Index (FiFi) – type L2	0.665	0.499
Finland	Finnish Fish Index (FiFi) – type L3	0.658	0.493
Finland	Finnish Fish Index (FiFi) – type M1	0.709	0.532
Finland	Finnish Fish Index (FiFi) – type M2	0.734	0.550
Finland	Finnish Fish Index (FiFi) – type M3	0.723	0.542
Ireland	Fish Classification Scheme 2 Ireland (FCS2)	0.845	0.540
Sweden	Swedish method VIX	0.739	0.467

Water Category	Rivers
Geographical Intercalibration Groups	All – Very Large Rivers

Description of types that have been intercalibrated

Type	River characterisation	Catchment area of stretch (km ²)	Alkalinity (meq/l)
R-L1	Very large low alkalinity rivers	>10 000	< 0.5
R-L2	Very large medium to high alkalinity rivers	>10 000	> 0.5

Countries sharing types that have been intercalibrated:

R-L1: Finland, Norway, Sweden

R-L2: Austria, Belgium (Flanders), Bulgaria, Croatia, Czech Republic, Estonia, France, Germany, Greece, Hungary, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden

VERY LARGE RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	Assessment of the Biological Quality Elements - part benthic invertebrates (for large alpine rivers)	0.80	0.60
Austria	Slovak assessment of benthic invertebrates in large rivers (for large lowland rivers)	0.80	0.60
Belgium (Flanders)	Multimetric Macroinvertebrate Index Flanders (MMIF)	0.90	0.70
Bulgaria	mRBA - Modified Rapid Biological Assessment	0.80	0.60
Croatia	Ecological status assessment system based on benthic invertebrates in very large rivers	0.80	0.60
Czech Republic	Czech system for ecological status assessment of large non-wadeable rivers using benthic macroinvertebrates	0.80	0.60
Estonia	Estonian surface water ecological quality assessment _ large river macroinvertebrates	0.90	0.70
Finland	Revised Finnish river invertebrate fauna assessment method	0.80	0.60
Germany	Germany PTI - Potamon-Typie-Index	0.80	0.60
Greece	STAR_ICMi index	1.01	0.73
Hungary	Hungary HMMI_II - Hungarian Multimetric Macroinvertebrate Index for large and very large rivers	0.80	0.60
Italy	ISA (Indice per la classificazione sulla base dei Substrati Artificiali) - mediterranean rivers	0.94	0.70
Italy	ISA (Indice per la classificazione sulla base dei Substrati Artificiali) - non-mediterranean rivers	0.96	0.72
Latvia	LRMI - Latvian large River Macroinvertebrate Index	0.88	0.63

Lithuania	Lithuanian River Macroinvertebrate Index	0.80	0.60
Netherlands	WFD metrics for natural water types	0.80	0.60
Norway	Norway ASPT - Average Score Per Taxon	0.99	0.87
Poland	RIVECOmacro - MMI_PL	0.91	0.71
Portugal	Portuguese assessment method for Large Rivers using Benthic Macroinvertebrates (IPTI _N)	0.849	0.637
Romania	Assessment method for ecological status of water bodies based on macroinvertebrates	0.80	0.60
Slovakia	Slovak assessment of benthic invertebrates in large rivers	0.80	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi bentoških nevretenčarjev	0.80	0.60
Spain	IBMWP - Iberian Biological Monitoring Working Party	0.79	0.48
Sweden	Average Score Per Taxon (ASPT) and DJ-index	0.80	0.60

VERY LARGE RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	German PhytoFluss-Index 4.0	0.80	0.60
Belgium (Flanders)	German PhytoFluss-Index 2.0	0.80	0.60
Bulgaria	German PhytoFluss-Index 4.0	0.80	0.60
Croatia	HRPI - Hungarian River Phytoplankton Index	0.80	0.60
Czech Republic	CZ - Assessment method for ecological status of rivers based on phytoplankton	0.80	0.60
Germany	German PhytoFluss-Index	0.80	0.60
Estonia	EST_PHYPLA_R – Estonian Large River Phytoplankton Index	0.85	0.65
Hungary	HRPI - Hungarian River Phytoplankton Index	0.80	0.60
Latvia	Latvian Large River Phytoplankton Index	0.80	0.60

Lithuania	German River Phytoplankton Index (PhytoFluss-Index for lowland rivers of type 15.2)	0.80	0.60
Poland	IFPL metric - Method for large rivers assessment using phytoplankton	1.08	0.92
Portugal	Portuguese assessment method for Phytoplankton in large rivers (NMA SRP)	0.80	0.60
Romania	ECO-FITO - Assessment Method for Ecological Status of the Water Bodies based on Phytoplankton	0.92	0.76
Slovakia	Phytoplankton-SK - Slovak assessment of phytoplankton in large rivers	0.80	0.60

VERY LARGE RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP

Biological Quality Element **Macrophytes and Phytobenthos**

Sub-Biological Quality Element **Phytobenthos**

Results: Ecological quality ratios of national classification methods intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
R-L1			
Finland	Revised Finnish river phytobenthos method	0.80	0.60
Sweden	Benthic algae in running water – diatom analysis	0.89	0.74
R-L2			
Austria	Assessment of the Biological Quality Elements - part phytobenthos	0.85	0.57
Bulgaria	IPS (Indice de Polluo-Sensibilité)	0.76	0.58
Croatia	Ecological status assessment system for phytobenthos in rivers based on diatoms	0.80	0.61
Czech Republic	Assessment system for rivers using phytobenthos	0.80	0.60
Estonia	Estonian surface water ecological quality assessment – river phytobenthos	0.83	0.64
France	IBD 2007 (Coste et al, Ecol. Ind. 2009). AFNOR NF T90-354, April 2016. Arrêté ministériel du 25 janvier 2010 modifié	0.92	0.76

	relatif aux méthodes et critères d'évaluation de l'état écologique {...} des eaux de surface		
Germany	Verfahrensanleitung für die ökologische Bewertung von Fließgewässern zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Diatomeen	0.725	0.55
Hungary	Ecological status assessment for rivers based on diatoms	0.762	0.60
Italy	Intercalibration Common Metric Index (ICMi) (Mancini & Sollazzo 2009)	0.89 (national type C)	0.70 (national type C)
		0.82 (national type M3)	0.62 (national type M3)
Latvia	Latvian assessment method using phytobenthos in very large rivers (IPS index)	0.78	0.58
Lithuania	Lithuanian River Phytobenthos Index	0.73	0.55
Netherlands	WFD-metrics for natural water types	0.80	0.60
Portugal	IPS (Coste in Cemagref, 1982)	0.90	0.67
Romania	National (Romanian) Assessment Method for Rivers Ecological Status based on Phytobenthos (Diatoms) - RO-AMRP	0.80	0.60
Slovakia	Ecological status assessment system for rivers using phytobenthos	0.90	0.70
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi fitobentosa in makrofitov, fitobentos	0.80	0.60
Spain	IPS (Coste in Cemagref, 1982)	0.68	0.48

VERY LARGE RIVERS GEOGRAPHICAL INTERCALIBRATION GROUP

Biological Quality Element

Fish fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Austria	Fish Index Austria (FIA)	n.i.	0.625
Belgium	Flemish Index of Biotic Integrity (IBIFL)	n.i.	0.805

(Flanders)				
Bulgaria	Bulgarian River Index for the Danube River (BRID)		n.i.	0.600
Croatia	Croatian fish index for large rivers (CFILR)		0.87	0.550
Czech Republic	Czech Multimetric Fish Index for Rivers (CZI)		0.800	0.600
Greece	Hellenic Fish Index (HeFI)		n.i.	0.650
Hungary	Hungarian Multimetric Fish Index Group (HMMFI)	Highland	0.800	0.600
		Lowland		
Latvia	Latvian Large River Fish Index		n.i.	0.660
Lithuania	Lithuanian River Fish Index		n.i.	0.720
Norway	European Fish Index (EFI)		0.996	0.755
Poland	Index of Biotic Integrity with Diadromous Fish Index (IBIPL)		n.i.	0.688
Portugal	Fish-based index of biotic integrity for Portuguese Large Rivers (FIBIP-GR)		0.860	0.600
Romania	New European Fish (EFI+I)	Boat-sampling	0.971	0.651
		Wade-sampling	0.939	0.655
Slovakia	Fish Index of Slovakia (FIS)		n.i.	0.661
Slovenia	Metodologija vrednotenja ekološkega stanja vodotokov na podlagi rib		0.800	0.600
Spain	New European Fish (EFI+I)	Boat-sampling	n.i.	0.614
Sweden	Swedish Method VIX		0.739	0.467

n.i. – not intercalibrated due to an insufficient number of national samples

Water category	Lakes
Geographical Intercalibration Group	Alpine lakes

Description of types that have been intercalibrated

Type	Lake characterisation	Altitude (m above sea level)	Mean depth (m)	Alkalinity (meq/l)	Lake size (km ²)
L-AL3	Lowland or mid-altitude, deep, moderate to high alkalinity	50 - 800	>15	>1	> 0.5

	(alpine influence), large				
L-AL4	Mid-altitude, shallow, moderate to high alkalinity (alpine influence), large	200 - 800	3 - 15	>1	> 0.5

Countries sharing types that have been intercalibrated:

Types L-AL3: Austria, France, Germany, Italy, and Slovenia

Types L-AL4: Austria, France, Germany, Italy

ALPINE LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Austria	Evaluation of the biological quality elements, Part B2 – phytoplankton	0.80	0.60
France	Phytoplankton Index for Lakes (IPLAC): Indice Phytoplancton Lacustre	0.80	0.60
Germany	PSI (Phyto-Seen-Index) - Bewertungsverfahren für Seen mittels Phytoplankton zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland	0.80	0.60
Italy	Italian Phytoplankton Assessment Method (IPAM)	0.80	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja jezer na podlagi fitoplanktona	0.80	0.60

ALPINE LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	IC type	Ecological Quality Ratios	
			<i>High-good boundary</i>	<i>Good-moderate boundary</i>

Austria	AIM for Lakes (Austrian Index Macrophytes for lakes)	L-AL3+ L-AL4	0.80	0.60
France	French Macrophyte Index for Lakes (IBML): Indice Biologique Macrophytique en Lacs	L-AL3+ L-AL4	0.92	0.72
Germany	Verfahrensanleitung für die ökologische Bewertung von Seen zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Makrophyten	L-AL3+ L-AL4	0.76	0.51
Germany	Verfahrensanleitung für die ökologische Bewertung von Seen zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Makrophyten und Phytobenthos	LAL4	0.74	0.47
Italy	MacroIMMI (Macrophytic index for the evaluation of the ecological quality of the Italian lakes)	L-AL3+ L-AL4	0.80	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja jezer na podlagi fitobentosa in makrofitov, makrofiti	L-AL3	0.80	0.60

ALPINE LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Austria	Method for the assessment of Alpine lakes using benthic invertebrates	0.80	0.60
Germany	AESHNA - Bewertungsverfahren für das eulitorale Makrozoobenthos in Seen zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland	0.80	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja jezer na podlagi bentoških nevretenčarjev	0.80	0.60

ALPINE LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Fish fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Austria	ALFI (Austrian lake fish index): A multimetric index to assess the ecological status of alpine lakes based on fish fauna	0.80	0.60
Germany	DeLFI_SITE - Deutsches probennahmestandort-spezifisches Bewertungsverfahren für Fische in Seen zur Umsetzung der EG-Wasserrahmenrichtlinie	0.85	0.69
Italy	Lake Fish Index (LFI)	0.82	0.64
Slovenia	Metodologija vrednotenja ekološkega stanja jezer na podlagi rib	0.80	0.60

Water category

Lakes

Geographical Intercalibration Group

Central / Baltic lakes

Description of types that have been intercalibrated

Type	Lake characterisation	Altitude (m above sea level)	Mean depth (m)	Alkalinity (meq/l)	Residence time (years)
L-CB1	Lowland, shallow, calcareous	< 200	3 - 15	> 1	1 - 10
L-CB2	Lowland, very shallow, calcareous	< 200	<3	> 1	0.1 - 1

Countries sharing types that have been intercalibrated

Types L-CB1: Belgium, Germany, Denmark, Estonia, Ireland, Lithuania, Latvia, Netherlands, Poland

Types L-CB2: Belgium, Germany, Denmark, Estonia, Ireland, Lithuania, Latvia, Netherlands, Poland

CENTRAL-BALTIC LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium (Flanders)	Flemish phytoplankton assessment method for lakes	0.80	0.60
Denmark	Danish Lake Phytoplankton Index	0.80	0.60
Estonia	Estonian surface water ecological quality assessment – lake phytoplankton	0.80	0.60
Germany	PSI (Phyto-Seen-Index) - Bewertungsverfahren für Seen mittels Phytoplankton zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland - German Phyto-Lake-Index (Phyto-See-Index)	0.80	0.60
Ireland	IE Lake Phytoplankton Index	0.80	0.60
Latvia	Latvian Lake Phytoplankton Index	0.81	0.61
Lithuania	German Lake Phytoplankton Index (Phyto-See-Index)	0.81	0.61
Netherlands	WFD - metrics for natural water types	0.80	0.60
Poland	Phytoplankton method for Polish Lakes (PMPL)	0.80	0.60

CENTRAL-BALTIC LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	IC type	Ecological Quality Ratios	
			<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium (Flanders)	Flemish macrophyte assessment system	All types	0.80	0.60
Denmark	Danish Lake Macrophytes Index	All types	0.80	0.60

Estonia	Estonian surface water ecological quality assessment – lake macrophytes	LCB1	0.78	0.52
		LCB2	0.76	0.50
Germany	Verfahrensanleitung für die ökologische Bewertung von Seen zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Makrophyten	All types	0.80	0.60
Latvia	Latvian Lake Macrophyte Assessment Method	All types	0.80	0.60
Lithuania	Lithuanian Lake Macrophyte Index	All types	0.75	0.50
Netherlands	WFD-metrics for natural water types	All types	0.80	0.60
Poland	Macrophyte based indication method for lakes - Ecological Status Macrophyte Index ESMI (multimetric)	All types	0.68	0.41

CENTRAL-BALTIC LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate
Belgium (Flanders)	Multimetric Macroinvertebrate Index Flanders (MMIF)	0.90	0.70
Denmark	Danish Lake Macroinvertebrate Index (DLMI)	0.696	0.511
Estonia	Estonian surface water ecological quality assessment – lake macroinvertebrates	0.86	0.70
Germany	AESHNA - Bewertungsverfahren für das eulitorale Makrozoobenthos in Seen zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland	0.80	0.60
Latvia	Latvian Lake Macroinvertebrate Multimetric Index (LLMMI)	0.85	0.52
Lithuania	Lithuanian Lake Macroinvertebrate Index	0.74	0.50
Netherlands	WFDi - Metric for Natural Watertypes	0.80	0.60
Poland	Lake Macroinvertebrate Index (LMI)	0.92	0.588

CENTRAL-BALTIC LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Fish fauna

Description of common intercalibration types

Type	Lake characterisation	Altitude (m above sea level)	Mean depth (m)	Alkalinity (meq/l)	Residence time (years)
L-CB1	Lowland, shallow, calcareous	< 200	3 - 15	> 1	1 - 10
L-CB2	Lowland, very shallow, calcareous	< 200	<3	> 1	0.1 - 1
L-CB3	Lowland, shallow, small, siliceous (moderate alkalinity)	< 200	3 - 15	0.2 - 1	1 - 10
L-CB4	Heavily modified water bodies	200 - 700	3 - 30	> 0.2	0.1 - 5

Countries sharing types that have been intercalibrated

Types L-CB1: Belgium, Germany, Denmark, Estonia, Ireland, Lithuania, Latvia, Netherlands, Poland

Types L-CB2: Belgium, Germany, Denmark, Estonia, Ireland, Lithuania, Latvia, Netherlands, Poland

Types L-CB3: Belgium, Denmark, Estonia, France, Latvia, Poland

Types L-CB4: Czech Republic

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate
Czech Republic	CZ-FBI	0.870	0.619
Denmark	Danish Lake Fish Index	0.75	0.54
EE	LAFIEE	0.80	0.61
Germany	DeLFI_SITE - Deutsches probennahmestandort-spezifisches Bewertungsverfahren für Fische in Seen zur Umsetzung der EG-Wasserrahmenrichtlinie	0.95	0.80
France	ELFI (European Lake Fish Index) : Indice Ichtyofaune Lacustre (IIL)	0.73	0.49
Latvia	Latvian Lake Fish Index	0.76	0.57
Lithuania	Lithuanian Lake Fish Index	0.865	0.605
Netherlands	VISMAATLAT	0.80	0.60

Poland	LFI+	0.866	0.595
Poland	LFI EN	0.804	0.557

Water category	Lakes
Geographical Intercalibration Group	Eastern Continental lakes

Description of common intercalibration types

Type	Lake characterisation	Altitude (m above sea level)	Mean depth (m)	Alkalinity (meq/l)	Conductivity (µS/cm)
L-EC1	Lowland very shallow hard-water	< 200	< 6	1 - 4	300 – 1 000

Countries sharing types that have been intercalibrated

Types L-EC1: Bulgaria, Hungary, Romania

EASTERN CONTINENTAL LAKES GEOGRAPHICAL INTERCALIBRATION GROUP	
Biological Quality Element	Phytoplankton

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	HLPI-Hungarian lake phytoplankton index	0.80	0.60
Hungary	HLPI-Hungarian lake phytoplankton index	0.80	0.60
Romania	HLPI-Hungarian lake phytoplankton index	0.80	0.60

EASTERN CONTINENTAL LAKES GEOGRAPHICAL INTERCALIBRATION GROUP	
Biological Quality Element	Macrophytes and Phytobenthos
Sub-Biological Quality Element	Macrophytes

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios
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		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	RI-BG - Adapted Reference Index	0.83	0.58
Hungary	HU-RI - Adapted Reference Index	0.89	0.67
Romania	MIRO - Macrophyte Index for Romanian Lakes (Adapted Reference Index)	0.86	0.66

EASTERN CONTINENTAL LAKES GEOGRAPHICAL INTERCALIBRATION GROUP

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification methods intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	HMMI_lakes (Hungarian Macrozoobenton Multimetric Index for Lakes)	0.85	0.65
Hungary	HMMI_lakes (Hungarian Macrozoobenton Multimetric Index for Lakes)	0.85	0.65
Romania	ECO-NL-BENT Romanian ecological status assessment system for natural lakes using benthic invertebrates	0.93	0.60

Water category

Lakes

Geographical Intercalibration Group

Mediterranean lakes

Description of types that have been intercalibrated

Type	Lake characterization	Altitude (m)	Annual mean precipitation (mm) and T (°C)	Mean depth (m)	Area (km ²)	Catchment (km ²)	Alkalinity (meq/l)
L-M5/7	Reservoirs, deep, large, siliceous, “wet” areas	< 1 000	>800 and /or <15	>15	0.5 - 50	< 20 000	<1
L-M8	Reservoirs, deep, large, calcareous	< 1 000	-	>15	0.5 - 50	< 20 000	>1

Countries sharing types that have been intercalibrated

Types L-M5/7: France, Greece, Italy, Portugal, Spain

Types L-M8: Cyprus, France, Greece, Italy, Spain

MEDITERRANEAN LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Country and Type	National classification methods intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
LM 5/7			
France	Phytoplankton Index for Lakes (IPLAC): Indice Phytoplankton Lacustre	n.d.*	0.60
Greece	New Mediterranean Assessment System for Reservoirs (NMASRP)	n.d.*	0.60
Italy	New Italian Method (NITMET)	n.d.*	0.60
Portugal	Reservoirs Biological Quality Assessment Method – Phytoplankton (New Mediterranean Assessment System for Reservoirs Phytoplankton: NMASRP).	n.d.*	0.60
Spain	Mediterranean Assessment System for Reservoirs Phytoplankton (MASRP).	n.d.*	0.58
L-M8			
Cyprus	New Mediterranean Assessment System for Reservoirs Phytoplankton (NMASRP).	n.d.*	0.60
France	Phytoplankton Index for Lakes (IPLAC): Indice Phytoplankton Lacustre	n.d.*	0.60
Greece	New Mediterranean Assessment System for Reservoirs (NMASRP)	n.d.*	0.60
Italy	New Italian Method (NITMET)	n.d.*	0.60
Spain	Mediterranean Assessment System for Reservoirs Phytoplankton (MASRP).	n.d.*	0.60

* High-Good boundary is not defined for reservoirs (both LM5/7 and LM8 types are reservoirs)

Water category

Lakes

Geographical Intercalibration Group

Northern lakes

NORTHERN LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Description of types that have been intercalibrated

Type	Lake characterisation	Altitude (m above sea level)	Mean depth (m)	Alkalinity (meq/l)	Colour (mg Pt/l)
L-N1	Lowland, shallow, moderate alkalinity, clear	< 200	3 - 15	0.2 - 1	< 30
L-N2a	Lowland, shallow, low alkalinity, clear	< 200	3 - 15	< 0.2	< 30
L-N2b	Lowland, deep, low alkalinity, clear	< 200	> 15	< 0.2	< 30
L-N3a	Lowland, shallow, low alkalinity, meso-humic	< 200	3 - 15	<0.2	30 - 90
L-N5	Mid-altitude, shallow, low alkalinity, clear	200 - 800	3 - 15	<0.2	< 30
L-N6a	Mid-altitude, shallow, low alkalinity, meso-humic	200 - 800	3 - 15	<0.2	30 - 90
L-N8a	Lowland, shallow, moderate alkalinity, meso-humic	< 200	3 - 15	0.2 - 1	30 - 90

Types L-N1, L-N2a, L-N3a, LN-8a: Ireland, Finland, Norway, Sweden

Types L-N2b: Norway, Sweden

Types L-N5, L-N6a: Norway, Sweden

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification methods intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Finland	Finnish phytoplankton assessment method for lakes	0.80	0.60
Ireland	IE Lake Phytoplankton Index	0.80	0.60
Norway	Lake phytoplankton ecological status classification method	0.80	0.60
Sweden	Ecological assessment methods for lakes. quality factor phytoplankton	0.80	0.60

NORTHERN LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macrophytes and Phytobenthos

Sub-Biological Quality Element

Macrophytes

Description of types that have been intercalibrated

Type	Lake characterisation	Alkalinity (meq/l)	Color (mg Pt/l)
L-N-M 101	Low alkalinity, clear	0.05 - 0.2	< 30
L-N-M 102	Low alkalinity, humic	0.05 - 0.2	> 30
L-N-M 201	Moderate alkalinity, clear	0.2 - 1.0	< 30
L-N-M 202	Moderate alkalinity, humic	0.2 - 1.0	> 30
L-N-M 301a	High alkalinity, clear, atlantic subtype	> 1.0	< 30
L-N-M 302a	High alkalinity, humic, atlantic subtype	> 1.0	> 30

Types 101, 102, 201 and 202: Ireland, Finland, Norway, Sweden

Type 301a: Ireland

Type 302a: Ireland

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification methods intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate</i>
Finland	Finnish macrophyte classification system (Finnmac)	0.8 (all types)	0.6 (all types)
Ireland	Free Macrophyte Index	0.9 (all types)	0.68 (all types)
Norway	National macrophyte index (Trophic Index – TIc)	Type 101: 0.98 Type 102: 0.96 Type 201: 0.95 Type 202: 0.99	Type 101: 0.87 Type 102: 0.87 Type 201: 0.75 Type 202: 0.77
Sweden	Trophic Macrophyte Index (TMI)	Type 101: 0.93 Type 102: 0.93 Type 201: 0.89 Type 202: 0.91	Type 101: 0.80 Type 102: 0.83 Type 201: 0.78 Type 202: 0.78

NORTHERN LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS
Biological Quality Element
Benthic invertebrates Fauna
Description of types that have been intercalibrated

Type	Lake characterisation	Ecoregion	Altitude (m absl)	Alkalinity (meq/l)	Colour (mg Pt/l)
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Lake littoral acidification					
L-N-BF1	Lowland/mid-altitude, low alkalinity, clear	n.d.	< 800	0.05 - 0.2	< 30
Lake profundal eutrophication					
L-N-BF2	Ecoregion 22, low alkalinity, clear and humic	22	Area > 1 km ² , max depth > 6 m	<0.2	n.d.

Types L-N-BF1: Ireland, Finland, Norway, Sweden

Types L-N-BF2: Finland, Sweden

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification methods intercalibrated	Ecological Quality Ratios	
		<i>High-good</i>	<i>Good-moderate</i>
Lake littoral acidification			
IE	LAMM (Lake Acidification Macroinvertebrate Metric)	0.86	0.70
Norway	MultiClear: Multimetric Invertebrate Index for Clear Lakes	0.95	0.74
Sweden	MILA: Multimetric Invertebrate Lake Acidification index	0.85	0.60
Lake profundal eutrophication			
Finland	Revised Finnish lake invertebrate fauna assessment method (PICM)	0.80	0.60
Sweden	BQI (Benthic Quality Index)	0.84	0.67

NORTHERN LAKES GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element Fish fauna

Description of types that have been intercalibrated

Type	Lake characterisation	Lake area km ²	Alkalinity (meq/l)	Colour (mg Pt/l)
L-N-F1	Dimictic clear water lakes	<40	< 0.2	< 30
L-N-F2	Dimictic humic lakes	<5	< 0.2	30 - 90

Types L-N-F1: Ireland, Finland, Norway, Sweden

Types L-N-F2: Ireland, Finland, Norway, Sweden

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification methods intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Eutrophication			
Finland	EQR4	0.80	0.60
Ireland	FIL2	0.76	0.53
Norway	EindexW3	0.75	0.56
Sweden	EindexW3	0.75	0.56
Acidification			
Norway	AindexW5	0.74	0.55
Sweden	AindexW5	0.74	0.55

Water category	Lakes
Geographical Intercalibration Group	Cross-GIG Phytobenthos

Description of types that have been intercalibrated

Type	Lake characterisation	Alkalinity (meq/l)	Ecoregions
HA	High alkalinity lakes	>1	Alpine, Central-Baltic, Eastern Continental, Mediterranean
MA	Moderate alkalinity lakes	0.2 - 1	Alpine, Central-Baltic, Eastern Continental, Mediterranean, Northern
LA	Low alkalinity lakes	< 0.2	Northern

Types HA: Belgium, Croatia, Denmark, Germany, Hungary, Ireland, Italy, Latvia, Lithuania, Poland, Sweden, Slovenia

Types MA: Belgium, Finland, Ireland, Italy, Romania, Sweden

Types LA: Finland, Ireland, Sweden

Country and Type	National classification methods intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
HA type			
Belgium (Flanders)	Proportions of Impact-Sensitive and Impact-Associated Diatoms (PISIAD)	0.80	0.60

Croatia	Croatian phytobenthos-based assessment method	0.81	0.62
Denmark	Danish Lake Phytobenthos classification method	0.921	0.76
Germany	Verfahrensanleitung für die ökologische Bewertung von Seen zur Umsetzung der EG-Wasserrahmenrichtlinie: Makrophyten und Phytobenthos (PHYLIB), Modul Phytobenthos	0.80	0.55
Hungary	MIL - Multimetric Index for Lakes	0.80	0.69
Ireland	Lake Trophic Diatom Index (IE)	0.90	0.63
Italy	Italian national method for the evaluation of the ecological quality of lake waterbodies using benthic diatoms (EPI-L)	0.75	0.5
Lithuania	Lithuanian Lake Phytobenthos Index	0.63	0.47
Poland	PL IOJ (Multimetryczny Indeks Okrzemkowy dla Jezior = Multimetric Diatom Index for Lakes)	0.91	0.76
Slovenia	Metodologija vrednotenja ekološkega stanja jezer na podlagi fitobentosa in makrofitov, fitobentos	0.80	0.60
Sweden	IPS	0.89	0.74
MA type			
Belgium (Flanders)	Proportions of Impact-Sensitive and Impact-Associated Diatoms (PISIAD)	0.80	0.60
Finland	Revised Finnish lake phytobenthos method	0.80	0.60
Ireland	Lake Trophic Diatom Index (IE)	0.90	0.63
Italy	Italian national method for the evaluation of the ecological quality of lake waterbodies using benthic diatoms (EPI-L)	0.75	0.5
Sweden	IPS	0.89	0.74
LA type			
Ireland	Lake Trophic Diatom Index (IE)	0.90	0.66

Water category	Coastal waters
Geographical Intercalibration Group	Baltic Sea

Description of types that have been intercalibrated

Type	Surface salinity (psu)	Bottom salinity (psu)	Exposure	Ice days	Other Characteristics
BC1	0.5 - 6 Oligohaline	1 - 6	Exposed	90 - 150	Sites in the Quark and the Bothnian Sea, extending to the Archipelago Sea (for phytoplankton the latter is excluded and integrated in type BC9). Influence of humic substances
BC2	6 - 22 Mesohaline	2 - 6	Very Sheltered		Lagoons
BC3	3 - 6 Oligohaline	3 - 6	Sheltered	90 - 150	Finnish and Estonian coasts of Gulf of Finland
BC4	5 - 8 Lower mesohaline	5 - 8	Sheltered	<90	Sites of Estonia and Latvia in the Gulf of Riga
BC5	6 - 8 Lower mesohaline	6 - 12	Exposed	<90	Sites in the southeastern Baltic Sea along the coast of Latvia, Lithuania, and Poland
BC6	8 - 12 Mid mesohaline	8 - 12	Sheltered	<90	Sites along the Western Baltic Sea at the southern Swedish coast and the southeastern Danish coast
BC7	6 - 8 Mid mesohaline	8 - 11	Exposed	<90	Western Polish coast and eastern German coast
BC8	13 - 18 Upper mesohaline	18 - 23	Sheltered	<90	Danish and German coasts in the Western Baltic Sea
BC9	3 - 6 Lower mesohaline	3 - 6	Moderately exposed to exposed	90 - 150	Sites in the western Gulf of Finland, Archipelago Sea and Åsö archipelago (only for phytoplankton)

Countries sharing types that have been intercalibrated:

Type BC1: Finland, Sweden

Type BC2: Germany

Type BC3: Estonia, Finland

Type BC4: Estonia, Latvia

Type BC5: Latvia, Lithuania, Poland

Type BC6: Sweden, Denmark

Type BC7: Germany, Poland

Type BC8: Germany, Denmark

Type BC9: Finland, Sweden, Estonia (type only relevant for phytoplankton)

BALTIC SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
BC7			
Germany	German coastal phytoplankton method	0.8	0.6
Poland	Polish coastal phytoplankton method	0.8	0.6
BC8			
Denmark	Danish coastal phytoplankton method	0.8	0.6
Germany	German coastal phytoplankton method	0.8	0.6

Results for parameter indicative of biomass (Chlorophyll-a)

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	High-good boundary	Good-moderate boundary	High-good boundary	Good-moderate boundary
BC1				
Finland (Quark outer)	0.76	0.59	1.7	2.2
Finland (Bothnian Sea outer)	0.78	0.60	1.6	2.1
Sweden (Quark outer)	0.75	0.58	1.6	2.1
Sweden (Bothnian Sea outer)	0.80	0.60	1.5	2.0
BC4				
Estonia	0.830	0.670	2.4	3.0
Latvia	0.82	0.67	2.2	2.7
BC5				
Latvia	0.650	0.390	1.85	3.1

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	High-good boundary	Good-moderate boundary	High-good boundary	Good-moderate boundary
Lithuania	0.880	0.600	2.5	4.9
BC6				
Denmark	0.78	0.62	1.36	1.72
Sweden	0.79	0.64	1.44	1.78
BC9				
Estonia	0.82	0.67	2.20	2.70
Finland	0.79	0.65	1.90	2.30
Sweden	0.80	0.67	1.50	1.80

BALTIC SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Macroalgae and Angiosperms

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
BC3			
Estonia	EPI - Estonian coastal water phytobenthos Index (macroalgae and angiosperms)	0.98	0.86
Finland	Fucus depth limit (macroalgae)	0.92	0.79
BC4			
Estonia	EPI - Estonian Phytobenthos Index (macroalgae and angiosperms)	0.91	0.70
Latvia	PEQI - Phytobenthos Ecological Quality Index	0.90	0.75
BC5			
Latvia	MDFLD - Maximum depth of the red alga <i>Furcellaria lumbricalis</i> distribution (macroalgae)	0.90	0.75
Lithuania	MDFLD - Lithuanian maximum depth of the red alga <i>Furcellaria lumbricalis</i> distribution	0.84	0.68

	(macroalgae)		
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BALTIC SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
BC1			
Finland	BBI - Finnish Brackish water Benthic Index	0.96	0.56
Sweden	BQI - Swedish multimetric biological quality index (soft sediment infauna)	0.77	0.31
BC3			
Estonia	ZKI - Estonian coastal water macrozoobenthos community index	0.39	0.24
Finland	BBI - Finnish Brackish water Benthic Index	0.94	0.56
BC5			
Latvia	BQI - Benthic quality index	0.87	0.61
Lithuania	BQI - Benthic quality index	0.94	0.81
BC6			
Denmark	Danish Quality Index version 2 (DKI ver2)	0.84	0.68
Sweden	BQI - Swedish multimetric biological quality index (soft sediment infauna)	0.76	0.27
BC7			
Germany	MarBIT- Marine Biotic Index Tool	-	0.60
Poland	B - Macrozoobenthos BQE assessment by multimetric index	-	0.58
BC8			
Denmark	Danish Quality Index version 2 (DKI ver2)	0.86	0.72
Germany	MarBIT - Marine Biotic Index Tool	0.80	0.60

Water category	Coastal waters
Geographical Intercalibration Group	North East Atlantic

Description of types that have been intercalibrated

Type	Characterisation	Salinity (psu) Tidal range (m) Depth (m)	Current Velocity (knots) Exposure	Mixing Residence Time
Type for opportunistic blooming macroalgae, seagrasses, saltmarshes, and benthic invertebrate fauna				
NEA 1/26	Open oceanic or enclosed seas, exposed or sheltered, euhaline, shallow	<30 Mesotidal 1-5 <30	Medium 1 - 3 Exposed or sheltered	Fully mixed Days (to weeks in the Wadden Sea)
Subtypes for intertidal macroalgae				
NEA 1/26 A2	Open oceanic, exposed or sheltered, euhaline, shallow, Temperate waters (mainly, >13°C) and high irradiance (mainly, PAR >29 Mol/m ² day)	>30 Mesotidal 1 - 5 <30	Medium 1 - 3 Exposed or sheltered	Fully mixed Days
NEA 1/26 B21	Open oceanic or enclosed seas, exposed or sheltered, euhaline, shallow Cool waters (mainly, <13°C) and medium irradiance (mainly, PAR <29 Mol/m ² day)	>30 Mainly mesotidal 1 - 5 <30	Medium 1 - 3 Exposed or sheltered	Fully mixed Days
Subtypes for phytoplankton				
NEA 1/26a	Open oceanic, exposed or sheltered, euhaline, shallow	>30 Mesotidal 1 - 5 <30	Medium 1 - 3 Exposed or sheltered	Fully mixed Days
NEA 1/26b	Enclosed seas, exposed or sheltered, euhaline, shallow	>30 Mesotidal 1 - 5 <30	Medium 1 - 3 Exposed or sheltered	Fully mixed Days
NEA 1/26c	Enclosed seas, enclosed or sheltered, partly stratified	>30 Microtidal/Mesotidal <1 - 5 <30	Medium 1 - 3 Exposed or sheltered	Partly stratified Days to weeks
NEA 1/26d	Scandinavian coast, exposed or sheltered, shallow	>30 Microtidal <1 <30	Low <1 Exposed or moderately exposed	Partly stratified Days to weeks

Type	Characterisation	Salinity (psu) Tidal range (m) Depth (m)	Current Velocity (knots) Exposure	Mixing Residence Time
NEA 1/26e	Areas of upwelling, exposed or sheltered, euhaline, shallow	>30 Mesotidal <1 <30	Medium 1 - 3 Exposed or sheltered	Fully mixed Days
Types for phytoplankton, macroalgae, seagrasses, saltmarshes, benthic invertebrate fauna				
NEA 5	Helgoland (German Bight), rocky, exposed and partly stratified	> 30 Mesotidal <30	Medium 1 - 3 Exposed	Partly stratified Days
NEA 3/4	Polyhaline, Exposed or moderately exposed (Wadden Sea type)	Polyhaline 18 - 30 Mesotidal 1 - 5 <30	Medium 1 - 3 Exposed or moderately exposed	Fully mixed Days
NEA 7	Deep fjordic and sea loch systems	>30 Mesotidal 1 -5 >30	Low <1 Sheltered	Fully mixed Days
NEA 8a	Skagerrak Inner Arc Type, polyhaline, microtidal, moderately exposed, shallow	Polyhaline 25 - 30 Microtidal <1 >30	Low <1 Moderately exposed	Fully mixed Days to weeks
NEA 8b	Skagerrak Inner Arc Type, polyhaline, microtidal, moderately sheltered, shallow	Polyhaline 10 - 30 Microtidal <1 <30	Low <1 Sheltered to moderately exposed	Partly stratified Days to weeks
NEA 9	Fjord with a shallow sill at the mouth with a very deep maximum depth in the central basin with poor deepwater exchange	Polyhaline 25 - 30 Microtidal <1 >30	Low <1 Sheltered	Partly stratified Weeks
NEA 10	Skagerrak Outer Arc Type, polyhaline, microtidal, exposed, deep	Polyhaline 25 - 30 Microtidal <1 >30	Low <1 Exposed	Partly stratified Days

Countries sharing types that have been intercalibrated:

Type NEA1/26 opportunistic blooming macroalgae, seagrasses, saltmarshes, benthic invertebrate fauna:

Belgium, France, Germany, Denmark, Ireland, Netherlands, Norway, Portugal, Spain

Type NEA1/26 A2 intertidal macroalgae: France, Spain, Portugal

Type NEA1/26 B21 intertidal macroalgae: France, Ireland, Norway

Type NEA1/26a phytoplankton: Spain, France, Ireland, Norway

Type NEA1/26b phytoplankton: Belgium, France, Netherlands

Type NEA1/26c phytoplankton: Germany, Denmark

Type NEA1/26d phytoplankton: Denmark

Type NEA1/26e phytoplankton: Portugal, Spain

Type NEA 5: Germany

Type NEA3/4: Germany, Netherlands

Type NEA7: Norway

Type NEA8a: Norway, Sweden

Type NEA8b: Denmark, Sweden

Type NEA9: Norway, Sweden

Type NEA10: Norway, Sweden

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Parameter values are expressed in µg/l as the 90thile value calculated over the defined growing season in a six-year period.

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	High-good boundary	Good-moderate boundary	High-good boundary	Good-moderate boundary
NEA 1/26a				
France	0.76	0.33	4.40	10.00
Ireland	0.82	0.60	9.90	15.00
Norway	0.67	0.33	2.50	5.00
Spain (Eastern Cantabrian coast)	0.67	0.33	1.50	3.00
Spain (Western-Central Cantabrian Coast)	0.67	0.33	3.00	6.00
Spain (Gulf of Cadiz coast)	0.67	0.33	5.00	10.00
NEA 1/26b				
Belgium	0.80	0.67	12.50	15.00
France	0.67	0.44	10.00	15.00
Netherlands	0.67	0.44	10.00	15.00
NEA 1/26c				
Germany	0.67	0.44	5.0	7.5

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	High-good boundary	Good-moderate boundary	High-good boundary	Good-moderate boundary
Denmark	0.67	0.44	5.0	7.5
NEA 1/26e				
Portugal (Iberian strong upwelling-A5)	0.670	0.440	8.000	12.000
Portugal (upwelling-A6, A7)	0.880	0.490	4.500	8.200
Spain (Western Iberian upwelling coast)	0.67	0.44	6.00	9.00
Spain (Western Iberian upwelling coast - rías)	0.67	0.44	8.00	12.00
NEA 3/4				
Germany (Eems Dollard)	0.80	0.60	7.00	11.00
Germany (Wadden Sea)	0.80	0.60	7.00	11.00
Netherlands (Eems Dollard)	0.80	0.60	6.75	10.13
Netherlands (Wadden Sea)	0.80	0.60	9.60	14.40
Netherlands (North Sea)	0.80	0.60	11.25	16.88
NEA 8a				
Norway	0.79	0.57	3.95	5.53
Sweden	0.75	0.49	1.54	2.35
NEA 8b (The Sound)				
Denmark	0.79	0.59	1.22	1.63
Sweden	0.80	0.60	1.18	1.56
NEA 8b (The Kattegat and Great Belt)				
Denmark	0.83	0.64	1.22	1.58
Sweden	0.84	0.65	1.18	1.52
NEA 9				
Norway	0.76	0.43	3.92	6.90
Sweden	0.73	0.38	1.89	3.60
NEA 10				

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	High-good boundary	Good-moderate boundary	High-good boundary	Good-moderate boundary
Norway	0.73	0.49	3.53	5.26
Sweden	0.71	0.46	1.39	2.14

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element Macroalgae and Angiosperms

Sub-Biological Quality Element Macroalgae

Intertidal or subtidal macroalgae rocky bottom

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Type NEA1/26 A2 intertidal macroalgae			
France	CCO - Cover, Characteristic species, Opportunistic species on intertidal rocky bottoms	0.80	0.60
Portugal	PMarMAT - Marine Macroalgae Assessment Tool	0.80	0.61
Spain	CFR - Quality of Rocky Bottoms	0.81	0.60
Spain	RICQI - Rocky Intertidal Community Quality Index	0.82	0.60
Spain	RSL - Reduced Species List	0.75	0.48
Type NEA1/26 B21 intertidal macroalgae			
Ireland	RSL - Rocky Shore Reduced Species List	0.80	0.60
Norway	RSLA - Rocky Shore Reduced Species List with Abundance	0.80	0.60
Type NEA 7 intertidal macroalgae			
Norway	RSLA - Rocky Shore Reduced Species List with Abundance	0.80	0.60
Type NEA8a/9/10 subtidal macroalgae			
Norway	MSMDI - Multi Species Maximum Depth Index	0.80	0.60

Sweden	MSMDI - Multi Species Maximum Depth Index	0.80	0.60
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NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Macroalgae and Angiosperms
Sub-Biological Quality Element	Macroalgae

Intertidal blooming macroalgae soft bottom, indicative of abundance

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Type NEA 1/26			
Germany	OMAI - Opportunistic Macroalgae-cover/acreage on soft sediment intertidal in coastal waters	0.78	0.59
France	CWOGA - Macroalgal Bloom Assessment	0.825	0.617
Ireland	OGA tool - Opportunistic Green Macroalgal Abundance	0.80	0.60

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Macroalgae and Angiosperms
Sub-Biological Quality Element	Angiosperms

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Macroalgae and Angiosperms
Sub-Biological Quality Element	Angiosperms

Seagrasses

Results: Ecological quality ratios of national classification systems intercalibrated

Results. Ecological quality ratios of national classification systems intercalibrated			
Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Type NEA 1/26			

Germany	SG - Assessment tool for intertidal seagrass in coastal and transitional waters	0.80	0.60
France	SBQ - Seagrass beds quality in coastal and transitional water bodies	0.80	0.645
Ireland	Intertidal Seagrass tool	0.80	0.61
Netherlands	SG - Monitoring beds of SG per waterbody using aerial photographs, ground truth and specifying surface & density per species	0.80	0.60
Portugal	SQI - Seagrass quality index	0.80	0.60
Type NEA 3/4			
Germany	SG - Bewertungssystem für Makroalgen und Seegräser der Küsten- und Übergangsgewässer zur Umsetzung der EG-Wasserrahmenrichtlinie in Deutschland	0.80	0.60
Netherlands	Monitoring beds of SG per waterbody using aerial photographs, ground truth and specifying surface and density per species	0.80	0.60

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Results: Ecological quality ratios of national classification systems intercalibrated

Results: Ecological quality ratios of national classification systems intercalibrated			
Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Type NEA 1/26			
Belgium	BEQI - Benthic Ecosystem Quality Index	0.80	0.60
Denmark	Danish Quality Index (DKI)	0.80	0.60
Germany	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.85	0.70
France	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.77	0.53
Ireland	IQI - Infaunal Quality Index	0.75	0.64
Netherlands	BEQI2 -Benthic Ecosystem Quality Index 2	0.80	0.60
Norway	NQI - Norwegian Quality Index	0.72	0.63
Portugal	BAT - Benthic Assessment Tool	0.79	0.58
Spain	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.77	0.63

Type NEA 3/4			
Germany	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.85	0.70
Netherlands	BEQI2 - Benthic Ecosystem Quality Index 2	0.80	0.60
Type NEA 7			
Norway	NQI - Norwegian Quality Index	0.72	0.63
Type NEA 8b			
Denmark	Danish Quality Index (DKI)	0.84	0.68
Sweden	BQI - Swedish multimetric biological quality index (soft sediment infauna)	0.71	0.54
Type NEA 8a/9/10			
Norway	NQI - Norwegian Quality Index	0.82	0.63
Sweden	BQI - Swedish multimetric biological quality index (soft sediment infauna)	0.71	0.54

Water category	Coastal waters
Geographical Intercalibration Group	Mediterranean Sea

Description of types that have been intercalibrated (for phytoplankton only)

For benthic invertebrate fauna, macroalgae and seagrasses the intercalibration results apply to the entire Mediterranean Sea covered by the Country.

Type	Description	Density (kg/m ³)	Annual mean salinity (psu)
Type I	Highly influenced by freshwater input	<25	<34,5
Type IIA, IIA Adriatic	Moderately influenced by freshwater input (continent influence)	25 - 27	34,5 - 37,5
Type IIIW	Continental coast, not influenced by freshwater input (Western Basin),	>27	>37,5
Type IIIE	Not influenced by freshwater input (Eastern Basin)	>27	>37,5
Type Island-W*	Island coast (Western Basin)	All range	All range

Countries sharing types that have been intercalibrated:

Type I: France, Italy

Type IIA: France, Spain, Italy

Type IIA Adriatic: Italy, Croatia, Slovenia

Type Island-W*(no boundaries for this type and no possible the intercalibration due to justified reasons): France, Spain, Italy

Type IIIW: France, Spain, Italy, Croatia

Type IIIE: Greece, Cyprus

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element **Phytoplankton**

Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Parameter values are expressed in µg/l of Chlorophyll a, for the 90th percentile calculated over the year in at least a five-year period.

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Type II A				
France	0.67	0.37	1.92	3.50
Spain	0.67	0.37	1.92	3.50
Type II A Adriatic				
Croatia	0.82	0.61	1.70	4.00
Italy	0.82	0.61	1.70	4.00
Slovenia	0.82	0.61	1.70	4.00
Type IIIW				
France	0.67	0.42	1.18	1.89
Spain	0.67	0.42	1.18	1.89
Type IIIE				
Cyprus	0.66	0.37	0.29	0.53
Greece	0.66	0.37	0.29	0.53
Malta	0.66	0.37	0.29	0.53

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element **Macroalgae and Angiosperms**

Sub-Biological Quality Element **Macroalgae**

Results: Ecological quality ratios of national classification systems intercalibrated

The following results apply to the upper infralittoral zone (3,5-0,2 m depth) in a rocky coasts:

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Cyprus	EEI-c - Ecological Evaluation Index	0.76	0.48
France	CARLIT - Cartography of Littoral and upper-sublittoral rocky-shore communities	0.75	0.60
Greece	EEI-c - Ecological Evaluation Index	0.76	0.48
Croatia	CARLIT - Cartography of Littoral and upper-sublittoral rocky-shore communities	0.75	0.60
Italy	CARLIT - Cartography of Littoral and upper-sublittoral rocky-shore communities	0.75	0.60
Malta	CARLIT - Cartography of Littoral and upper-sublittoral rocky-shore communities	0.75	0.60
Slovenia	Metodologija vrednotenja ekološkega stanja obalnega morja na podlagi makroalg	0.76	0.48
Spain	CARLIT - Cartography of Littoral and upper-sublittoral rocky-shore communities	0.75	0.60

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Macroalgae and Angiosperms
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Sub-Biological Quality Element	Angiosperms
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Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Croatia	POMI - Posidonia oceanica Multivariate Index	0.775	0.55
Cyprus	PREI - Posidonia oceanica Rapid Easy Index	0.775	0.55
France	PREI - Posidonia oceanica Rapid Easy Index	0.775	0.55
Greece	WePOSI- Weighted Posidonia oceanica Index	0.775	0.55
Italy	PREI - Posidonia oceanica Rapid Easy Index	0.775	0.55

Malta	PREI - Posidonia oceanica Rapid Easy Index	0.775	0.55
Spain	POMI - Posidonia oceanica Multivariate Index	0.775	0.55
Spain	Valencian-CS	0.775	0.55

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic invertebrate fauna

Biological Quality Element

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Italy	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.81	0.61
Slovenia	Metodologija vrednotenja ekološkega stanja obalnega morja na podlagi bentoških nevretenčarjev	0.83	0.62
Croatia	M-AMBI -Multivariate AZTI's Marine Biotic Index	0.83	0.62
Cyprus	Bentix	0.75	0.58
France	AMBI	0.83	0.58
Greece	Bentix	0.75	0.58
Malta	Bentix	0.75	0.58
Spain	BOPA	0.95	0.54
Spain	MEDOCC	0.73	0.47

Water category

Coastal waters

Geographical Intercalibration Group

Black Sea

Description of types that have been intercalibrated

Type	Description
CW-BL1	Mesohaline, microtidal (< 1 m), shallow (< 30 m), moderately exposed to very exposed, mixed substratum (fine sand for zoobenthos)

Countries sharing types that have been intercalibrated: Bulgaria and Romania

BLACK SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	IBI	0.80	0.63
Romania	IBI	0.80	0.63

Biological Quality Element

Macroalgae and Angiosperms

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	EI-Ecological index	0.837	0.644
Romania	EI-Ecological index	0.837	0.644

BLACK SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element

Benthic Invertebrate fauna

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	M-AMBI(n) - Multivariate AZTI's Marine Biotic Index Normalized	0.90	0.68
Romania	M-AMBI(n) - Multivariate AZTI's Marine Biotic Index Normalized	0.90	0.68

Water category	Transitional waters
Geographical Intercalibration Group	Baltic Sea GIG

Description of types that have been intercalibrated

Type	Surface salinity psu	Bottom salinity (psu)	Exposure	Ice days	Other Characteristics
BT1	0 - 8 Oligohaline	0 - 8	Very sheltered	-	Polish Vistula lagoon and Lithuanian Curonian lagoon

Countries sharing types that have been intercalibrated:

Lithuania and Poland

BALTIC SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element	Phytoplankton
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Results for parameter indicative of biomass (Chrophyll a)

The following results refer to summer mean May/June – September

Country	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Lithuania	0.83	0.57	31.70	46.60
Poland	0.77	0.61	33.46	42.20

Water category	Transitional waters
Geographical Intercalibration Group	North East Atlantic

Description of types that have been intercalibrated

Type	Characterisation	Salinity (psu), Tidal range (m), Depth (m)	Current Velocity (knots), Exposure	Mixing Residence Time
NEA 11	Transitional Waters	0 - 35 Micro to macrotidal	Variable Sheltered or moderately	Partly permanently stratified

Type	Characterisation	Salinity (psu), Tidal range (m), Depth (m)	Current Velocity (knots), Exposure	Mixing Residence Time
		<30	exposed	Days to weeks

Countries sharing type that have been intercalibrated:

Belgium, Germany, France, Ireland, Netherlands, Portugal, Spain

Description of sub common intercalibration types for Biological quality element Benthic Invertebrate Fauna:

Sub type	Characterisation	MS sharing sub-type
A	Lagoons	Ireland, Spain
B	Freshwater-oligohaline, medium river flow	Ireland, Spain
C	Mesotidal estuary with irregular river flow	Portugal, Spain
D	Large estuaries	Germany, France, Ireland, Netherlands, Portugal, Spain
E	Small-medium estuary with >50% intertidal area	France, Ireland, Germany, Spain
F	Small-medium estuary with <50% intertidal area	France, Ireland, Portugal, Spain

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element:

Phytoplankton

Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Parameter values are expressed in µg/l measured as the national chlorophyll-a metric calculated in a six-year period. National metrics for France, Netherlands, Portugal and Spain typically use a measure of P90 Chl-a with salinity adjusted thresholds, Ireland uses a combination of P90 Chl-a and median values.

Country	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
France	0.67	0.397	5.33	8.88
Ireland	0.80	0.60	12.96	25.96
Netherlands	0.80	0.60	12.00	18.00
Portugal-North	0.667	0.467	10.000	14.288
Spain - Central Cantabrian and Galician estuaries - Mixing zone*	0.67	0.44	8.00	12.00

Spain - Central Cantabrian and Galician estuaries - Euhaline*	0.67	0.33	4.00	8.00
Spain - East Cantabrian estuaries - Euhaline*	0.67	0.33	1.95	3.90
Spain - East Cantabrian estuaries - Polyhaline*	0.67	0.33	3.30	6.60
Spain - East Cantabrian estuaries - Mesohaline*	0.67	0.33	5.10	10.20
Spain - East Cantabrian estuaries - Oligohaline*	0.67	0.33	6.60	13.20
Spain - Gulf of Cádiz estuaries - Mixing zone	0.67	0.33	3.75	7.50
Spain - Gulf of Cádiz estuaries - Euhaline*	0.67	0.33	3.00	6.00

* Salinity ranges established by the median (P50) salinity as follows: Euhaline [30,1-34,4] PSU; Polyhaline [18,1-30,0] PSU; Mesohaline [5,1-18,0] PSU; Oligohaline [0,5-5,0] PSU

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element: Macroalgae and Angiosperms

Sub-Biological Quality Element Macroalgae

Intertidal blooming macroalgae soft bottom, indicative of abundance

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
France	TWOGA - Macroalgal Bloom Assessment	0.80	0.60
Ireland	OGA Tool - Opportunistic Green Macroalgal Abundance	0.80	0.60
Portugal	BMI-Blooming macroalgae Index	0.770	0.590

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element: Macroalgae and Angiosperms

Sub-Biological Quality Element Angiosperms

Seagrasses

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Germany	SG-Assessment tool for intertidal seagrass in coastal and transitional waters	0.80	0.60
France	SBQ-Seagrass beds quality in coastal and transitional water bodies	0.80	0.645
Ireland	Intertidal Seagrass tool	0.80	0.61
Netherlands	SG- Monitoring beds of SG per waterbody using aerial photographs, ground truth and specifying surface & density per species	0.80	0.60
Portugal	SQI-Seagrass quality index	0.800	0.600

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element: Macroalgae and Angiosperms

Sub-Biological Quality Element Angiosperms

Saltmarshes

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
France			
Spain - Cantabria	AQI - Angiosperm Quality Index	0.88	0.73
Portugal	AQuA - Angiosperm Quality Assessment Index	0.800	0.600

Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Sub type D			
France	BEQI-FR	0.870	0.670
Germany	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.850	0.700
Netherlands	BEQI2 - Benthic Ecosystem Quality Index 2	0.800	0.600
Spain	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.770	0.530
Portugal	BAT - Benthic Assessment Tool	0.84	0.60
Sub type E			
France	BEQI-FR	0.830	0.620
Spain	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.770	0.530
Spain	QSB - Quality of Soft Bottoms	0.800	0.600
Sub type F			
France	BEQI-FR	0.840	0.630
Spain	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.770	0.530
Portugal	BAT- Benthic Assessment Tool	0.79	0.580

NORTH EAST ATLANTIC GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS
Biological Quality Element:
Fish fauna
Results: Ecological quality ratios of national classification systems intercalibrated

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium	EBI - Zeeschelde Estuarine Biotic Index	0.850	0.615
France	ELFI - Estuarine and Lagoon Fish Index	0.910	0.675
Germany	FAT – TW - Fischbasiertes Bewertungswerkzeug für Übergangsgewässer	0.840	0.620

	der norddeutschen Ästuarie		
Ireland	TFCI - Transitional Fish Classification Index	0.810	0.580
Ireland	EMFI - Estuarine Multi-metric Fish Index	0.920	0.650
Netherlands	FAT – TW - WFD Fish index for transitional waters. type O2	0.800	0.600
Portugal	EFAI - Estuarine Fish Assessment Index	0.865	0.700
Spain	AFI - AZTI's Fish Index	0.780	0.550
Spain	TFCI - Transitional Fish Classification Index	0.900	0.650

Water category	Transitional waters
Geographical Intercalibration Group	Mediterranean Sea

Description of types that have been intercalibrated

Common IC type	Type characteristics	MS sharing IC common type
CL-Oligohaline	Coastal lagoons (Salinity <5 psu)	Spain, France, Italy
CL-Mesohaline choked and restricted	Coastal lagoons (Salinity 5 - 18 psu)	Spain*, France*, Italy, Greece
CL-Polyhaline choked and restricted	Coastal lagoons (Salinity 18 - 40 psu)	Spain*, France*, Italy, Greece
Hyperhalines (Salinity > 40 psu),	Hyperhalines (Salinity > 40 psu)	Spain
Estuaries	Estuaries (salt wedge type)	Spain, Croatia

* Spain and France do not consider distinction between restricted or choked lagoons,

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element: Phytoplankton

Phytoplankton: Ecological quality ratios of national classification systems intercalibrated

Country and	National classification systems intercalibrated	Ecological Quality Ratios
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type		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Coastal lagoons Polyhaline choked			
France	PhIL - Phytoplankton index for Mediterranean polyhaline lagoons	0.710	0.390
Greece	MPI - Multimetric Phytoplankton Index	0.780	0.510
Italy	MPI - Multimetric Phytoplankton Index	0.780	0.510
Coastal lagoons Polyhaline restricted			
France	PhIL - Phytoplankton index for Mediterranean polyhaline lagoons	0.710	0.390
Greece	MPI - Multimetric Phytoplankton Index	0.820	0.540
Italy	MPI - Multimetric Phytoplankton Index	0.820	0.540

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element: Macroalgae and Angiosperms

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Meso. poly and euhaline coastal lagoons (>5‰) either choked or restricted			
France	Exclame	0.8	0.6
Greece	EEI-c - Ecological Evaluation Index	0.7	0.4
Italy	MaQI - Macrophyte Quality Index	0.8	0.6

MEDITERRANEAN SEA GEOGRAPHICAL INTERCALIBRATION GROUP RESULTS

Biological Quality Element: Benthic invertebrate fauna

Results: Ecological quality ratios of national classification systems intercalibrated

Country and Type	National classification systems intercalibrated	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Coastal lagoons Polyhaline restricted			

France	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.84	0.63
Italy	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.96	0.71
Greece	M-AMBI - Multivariate AZTI's Marine Biotic Index	0.83	0.62
Coastal lagoons-Mesohaline choked and restricted			
Italy	M-AMBI - Multivariate AZTI's Marine Biotic Index	-	0.71
Greece	M-AMBI - Multivariate AZTI's Marine Biotic Index	-	0.62

-- Part 2 --

Water category	Rivers
Geographical Intercalibration Group	Cross-GIG
Biological Quality Element	Fish fauna

Ecological quality ratios of national classification methods

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Danubian group			
Hungary	Hungarian Multimetric Fish Index HMMFI	0.80	0.60
Mediterranean group			
Bulgaria	TsBRI (Type Specific Bulgarian Fish Index)	0.860	0.650
Italy	NISECI index (New Index of Ecological Status of Fish Communities)	0.80	0.60

Water category	Rivers
Geographical Intercalibration Group	Cross-GIG Very Large Rivers
Biological Quality Element	Macrophytes and Phytobenthos
Sub-biological Quality Element	Phytobenthos

Ecological quality ratios of national classification methods intercalibrated – Type R-L2

Country	National classification systems intercalibrated	Ecological Quality Ratios	
		<i>High-Good boundary</i>	<i>Good-Moderate boundary</i>
Belgium (Flanders)	PISIAD index (Proportions of Impact-Sensitive and Impact-Associated Diatoms)	0.80	0.60

Water category	Lakes
Geographical Intercalibration Group	Alpine lakes
Biological Quality Element	Benthic invertebrates

Results: Ecological quality ratios of national classification methods

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Italy	BQIES (Benthic Quality Index Expected Species number)	0.88	0.76

Biological Quality Element

Fish fauna

Results: Ecological quality ratios of national classification methods

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
France	ELFI (European Lake Fish Index): Indice Ichtyofaune Lacustre (IIL)	0.73	0.49

Water category

Lakes

Geographical Intercalibration Group

Central-Baltic lakes

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification methods

Country	National classification methods	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
France	Phytoplankton Index for Lakes (IPLAC): Indice Phytoplankton Lacustre	0.80	0.60

Biological Quality Element

Macrophytes and Phytobenthos

Sub-biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
France	French Macrophyte Index for Lakes (IBML): Indice Biologique Macrophytique en Lacs	0.80	0.60

Biological Quality Element

Fish fauna

Results: Ecological quality ratios of national classification methods

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium (Flanders)	Fish-based index for lakes and reservoirs in Flanders (Belgium)	0.80	0.60

Water category

Lakes

Geographical Intercalibration Group

Mediterranean lakes

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification methods

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Croatia	Hungarian lake phytoplankton index (HLPI)	0.80	0.60
France	Phytoplankton Index for Lakes (IPLAC): Indice Phytoplancton Lacustre	0.80	0.60
Greece	HeLPhy - Hellenic Lake Phytoplankton Assessment Method	0.80	0.60
Italy	Italian phytoplankton assessment method (IPAM)	0.80	0.60

Biological Quality Element

Macrophytes and Phytobenthos

Sub-biological Quality Element

Macrophytes

Results: Ecological quality ratios of national classification methods

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Croatia	Biocenological index (BMHR)	0.90	0.70
France	French Macrophyte Index for Lakes (IBML): Indice Biologique Macrophytique en Laacs	0.80	0.60
Greece	HeLM - Hellenic Lake Macrophytes Assessment Method	0.80	0.60
Italy	VLMMI - Volcanic Lakes Multimetric Macrophyte Index	0.70	0.50
Spain	Spanish Macrophyte method to assess the ecological status of Lakes OFALAM 1: Coverage of eutrophic macrophytes National lake types : L-T01, L-T02, L-T03, L-T04, L-T05, L-T06, L-T07, L-T08, L-T10, L-T11, L-T12, L-T14, L-T15, L-T16, L-T17, L-T18, L-T19, L-T20, L-T21, L-T22, L-T23, L-T24, L-T25, L-T26, L-T2, L-T28, L-T29	0.99	0.90
Spain	Spanish Macrophyte method to assess the ecological status of Lakes OFALAM 2: Exotic macrophytes coverage National lake types : L-T01, L-T02, L-T03, L-T04, L-T05, L-T06, L-T07, L-T08, L-T10, L-T11, L-T12, L-T14, L-T15, L-T16, L-T17, L-T18, L-T19, L-T20, L-T21, L-T22, L-T23, L-T24, L-T25, L-T26, L-T2, L-T28, L-T29	1.00	0.95
Spain	Spanish Macrophyte method to assess the ecological status of Lakes OFALAM 3 National lake types (specifying the applied metric)		
	Total cover of hydrophytes		
	L-T10, L-T14, L-T15, L-T16, L-T25	0.83	0.55
	L-T11	0.86	0.57
	L-T18	0.88	0.62
	L-T20, L-T21, L-T22, L-T23, L-T29	0.92	0.61
	L-T12, L-T24, L-T26, L-T27, L-T28	0.94	0.62
	Presence / absence of hydrophytes		
	L-T01, L-T02, L-T03, L-T04, L-T05, L-T06, L-T07, L-T08	Presence	Absence
Spain	Spanish Macrophyte method to assess the ecological status of Lakes OFALAM 4 National lake types (specifying the applied metric):		
	Helophytes coverage		
	L-T20, L-T21, L-T22, L-T23	0.86	0.50
	L-T12, L-T14, L-T15, L-T25, L-T29	0.88	0.75
	L-T10, L-T11, L-T16, L-T18, L-T24, L-T26, L-T27, L-T28	0.90	0.75
	Total coverage of macrophytes		

	L-T17	0.90	0.75
	L-T19	0.83	0.55
Spain	Spanish Macrophyte method to assess the ecological status of Lakes OFALAM 5: Macrophytes richness		
	National lake types:		
	L-T18; L-T25	-	0.48
	L-T16, L-T17, L-T19	-	0.50
	L-T27, L-T28	-	0.53
	L-T29	-	0.56
	L-T24	-	0.60
	L-T11; L-T26	-	0.62
	L-T10	-	0.64
	L-T12	-	0.70
	L-T14, L-T15	-	0.78

Biological Quality Element

Benthic invertebrates

Results: Ecological quality ratios of national classification methods

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Croatia	Croatian lake benthic macroinvertebrates classification method	0.80	0.60
Greece	GLBiI - Greek Lake Benthic invertebrate Index	0.80	0.60
Greece	HeLLBI - Hellenic assessment method for Lake Littoral Benthic invertebrate fauna	0.80	0.60
Italy	BQIES (Benthic Quality Index Expected Species number)	0.88	0.76
Spain	Spanish Invertebrates Index for Lakes IBCAEL National lake types		
	L-T01, L-T02, L-T03, L-T04, L-T05, L-T09	0.92	0.69
	L-T06, L-T07, L-T08, L-T10, L-T11, L-T12	0.93	0.69
	L-T13, L-T17, L-T30	0.89	0.68
	L-T14, L-T15, L-T24, L-T25, L-T26, L-T27, L-T29	0.78	0.59
	L-T16, L-T18	0.86	0.58
	L-T19, L-T21	0.80	0.60
	L-T20, L-T28	0.80	0.60
	L-T22	0.9	0.67
	L-T23	0.84	0.63
Spain	QAELS2010 index		
	shallow permanent ponds	0.86	0.58
	shallow temporary ponds	0.89	0.68

Biological Quality Element**Fish fauna****Results: Ecological quality ratios of national classification methods**

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Croatia	Croatian fish index for natural lakes (CFIL)	0.80	0.60
France	ELFI (European Lake Fish Index): Indice Ichtyofaune Lacustre (IIL)	0.73	0.49
Greece	GLFI - Greek Lake Fish Index	0.80	0.60
Italy	Lake Fish Index (LFI)	0.82	0.64

Water category**Lakes****Geographical Intercalibration Group****Eastern Continental lakes****Biological Quality Element****Macrophytes and phytobenthos****Sub-biological Quality Element****Phytobenthos****Results: Ecological quality ratios of national classification methods**

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Romania	RO-AML - Romanian Assessment Method for Natural Lakes Ecological Status based on Phytobenthos (Diatoms)	0.80	0.60

Biological Quality Element**Fish fauna****Results: Ecological quality ratios of national classification methods**

Country	National classification methods	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Bulgaria	Bulgarian fish based method for ecological classification and monitoring of lakes	0.76	0.52
Hungary	Hungarian Multimetric Fish Index for Oxbow lakes (HMMFI _O)	0.80	0.60

Hungary	The Balaton fish index (BFI)	0.80	0.60
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Water category	Coastal waters
Geographical Intercalibration Group	Baltic Sea

Biological Quality Element	Phytoplankton
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Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
BC2 (including German national types B1, B2a, B2b)				
Germany (B1)	0.91	0.67	9.30	12.70
Germany (B2a)	0.89	0.67	1.80	2.40
Germany (B2b)	0.93	0.67	1.40	1.95

Biological Quality Element	Macroalgae and Angiosperms
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Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
BC2			
Germany	PHYBIBCO - PHYtoBenthic Index for Baltic inner coastal waters	0.80	0.60
BC1			
Finland	Fucus depth limit(macroalgae)	0.90	0.74
Sweden	MSMDI (macroalgae and angiosperms)	0.60	0.40
BC6			

Denmark	Depth limit of angiosperms	0.90	0.74
Sweden	MSMDI (macroalgae and angiosperms)	0.60	0.40
BC7			
Germany	Balcosis - Baltic ALgae COmmunity AnalySIs System (macroalgae and angiosperms)	0.80	0.60
Poland	MQAI - Macrophyte Quality Assessment Index	0.90	0.70
BC8			
Germany	Balcosis - Baltic ALgae COmmunity AnalySIs System (macroalgae and angiosperms)	0.80	0.60
Denmark	Depth limit of angiosperms	0.90	0.74

Biological Quality Element

Benthic Invertebrate fauna

Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
BC2			
Germany	MarBIT- Marine Biotic Index Tool	0.80	0.60
BC4			
Estonia	ZKI - Estonian coastal water macrozoobenthos community index	0.39	0.24
Latvia	BQI - Benthic quality index	0.88	0.75

Water category

Coastal waters

Geographical Intercalibration Group

North East Atlantic

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification systems

Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Parameter values are expressed in µg/l as the 90%ile value calculated over the defined growing season in a six-year period.

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
NEA 1/26d				
Denmark	0.66	0.50	3.00	4.00
NEA 5				
Germany	0.67	0.44	5.00	7.50
NEA 7				
Norway	0.67	0.33	2.50	5.00

Biological Quality Element

Macroalgae and Angiosperms

Sub-Biological Quality Element

Macroalgae

Intertidal or subtidal macroalgae rocky bottom

Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Type NEA 5			
Germany	HPI - Helgoland Phytobenthic Index	0.80	0.60

Biological Quality Element

Macroalgae and Angiosperms

Sub-Biological Quality Element

Macroalgae

Intertidal blooming macroalgae soft bottom, indicative of abundance

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
NEA 3/4			
Germany	OMAI - Opportunistic Macroalgae-cover/acreage on soft sediment intertidal in coastal waters	0.80	0.60

Biological Quality Element

Macroalgae and Angiosperms

Sub-Biological Quality Element

Angiosperms

Saltmarshes

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Germany	EM - Assessment of saltmarsh vegetation in coastal and transitional waters	0.80	0.60
Ireland	SMAATIE - Saltmarsh Angiosperm Assessment Tool for Ireland	0.80	0.60
Netherlands	TSM - WFD-metrics for natural watertypes: tidal salt marsh	0.80	0.60

Biological Quality Element

Macroalgae and Angiosperms

Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Type NEA 8b			
Sweden	MSMDI (macroalgae and angiosperms)	0.80	0.60
Denmark	Depth limit of angiosperms	0.90	0.74

Biological Quality Element

Benthic Invertebrate fauna

Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Type NEA 1/26			
Portugal	RAT - Rocky Shore Assessment Tool	0.800	0.600
Spain	BO2A - Benthic Opportunistic polychaetes/amphipods index	0.83	0.50
Type NEA 5*			
Germany	MarBIT - Marine Biotic Index Tool	0.80	0.60

Water category	Coastal waters
Geographical Intercalibration Group	Mediterranean Sea

Biological Quality Element	Phytoplankton
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Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Parameter values are expressed in µg/l of Chlorophyll a, for the 90th percentile calculated over the year in at least a five-year period.

Country and Type	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Type I				
France	0.670	0.330	4.925	10.000
Italy	0.850	0.620	5.600	14.100
Type II A Tyrrhenian				
Italy	0.84	0.62	1.17	2.90
Type III W Adriatic				
Italy				1.7*
Croatia				1.7*
Type III W Tyrrhenian				
Italy				1.17*

* The values are not national boundaries but threshold values

Biological Quality Element	Macroalgae and Angiosperms
Sub-Biological Quality Element	Angiosperms

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Greece	CymoSkew	0.75	0.50

Water category	Transitional waters
Geographical Intercalibration Group	Baltic Sea

Biological Quality Element	Phytoplankton
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Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

The following results refer to summer mean June – September

Country	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Latvia	0.83	0.67	2.4	3.0

Biological Quality Element	Macroalgae and Angiosperms
Sub-Biological Quality Element	Angiosperms

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Latvia	Not applicable		
Poland	ESMiz-Ecological State Macrophyte index for lagoon	0.68	0.41

Biological Quality Element	Benthic Invertebrate fauna
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Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Latvia	BQI-Benthic Quality Index	0.784	0.588
Poland	B-Macrozoobenthos BQE assessment by multimetric index	0.765	0.647

Biological Quality Element	Fish fauna
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Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Poland	PMFI-Polish Multimetric Fish Index	0.80	0.60

Water category Transitional waters

Geographical Intercalibration Group North East Atlantic

Biological Quality Element Phytoplankton

Phytoplankton: parameter indicative of biomass parameter (Chlorophyll a)

Results: Ecological quality ratios and parameter values

Parameter values are expressed in µg/l as the 90%ile value calculated over the defined growing season

Country	Ecological Quality Ratios		Values (µg/l)	
	<i>High-good boundary</i>	<i>Good-moderate boundary</i>	<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium	1.00	0.60	100	200

Biological Quality Element Macroalgae and Angiosperms

Sub-Biological Quality Element Angiosperms

Saltmarshes

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium	TMQI -Tidal Marsh Quality Index	0.85	0.75
Germany	EM - Assessment of saltmarsh vegetation in coastal and transitional waters	0.80	0.60
Ireland	SMAATIE - Saltmarsh Angiosperm Assessment Tool for Ireland	0.80	0.60
Netherlands	TSM - WFD-metrics for natural watertypes: tidal salt marsh	0.80	0.60

Biological Quality Element**Macroalgae and Angiosperms****Sub-Biological Quality Element****Angiosperms****Seagrasses****Results: Ecological quality ratios of national classification systems**

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Spain - Cantabria	AQI - Angiosperms Quality Index	0.850	0.700

Biological Quality Element**Benthic Invertebrate fauna****Results: Ecological quality ratios of national classification systems**

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Belgium	BEQI - Benthic Ecosystem Quality Index	0.75	0.5
Sub type D			
Germany	AeTV - Aestuar Type Verfahren	0.80	0.60
Ireland	IQI - Infaunal Quality Index	0.75	0.64
Spain	TasBEM - Taxonomically Sufficient Benthic Multimetric	0.79	0.66
Sub type E			
Germany	AeTV - Aestuar Type Verfahren	0.80	0.60
Germany	M-AMBI	0.85	0.70
Ireland	IQI - Infaunal Quality Index	0.75	0.64
Spain	TasBEM - Taxonomically Sufficient Benthic Multimetric	0.79	0.66
Sub type F			
Ireland	IQI - Infaunal Quality Index	0.75	0.64
Spain	TasBEM - Taxonomically Sufficient Benthic Multimetric	0.79	0.66

Water category**Transitional waters**

Geographical Intercalibration Group	Mediterranean Sea
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Biological Quality Element	Phytoplankton
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Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Coastal lagoons oligohaline and mesohaline			
Spain (Balearic Islands)	FITOHMIB	0.93	0.73
Estuaries			
Spain (Southern Coast)	TWIf - Phytoplankton index for transitional waters	0.50	0.36
Croatia	MPI - Multimetric Phytoplankton Index	0.80	0.60

Biological Quality Element	Macroalgae and Angiosperms
Sub Biological Quality Element	Angiosperms

Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		High-good boundary	Good-moderate boundary
Estuaries			
Croatia	ZonoMI index-Zostera noltei multivariate index	0.775	0.550

Biological Quality Element	Benthic invertebrate fauna
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Results: Ecological quality ratios of national classification systems

Country and Type	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Coastal lagoons Oligohaline. Mesohaline and Polyhaline			
Spain (Balearic Islands)	INVHMIB	0.93	0.73
Coastal lagoons Oligohaline			

Spain (Northeastern Coast)	QAELS	0.86	0.58
Coastal lagoons Mesohaline			
Spain (Northeastern Coast)	QAELS	0.72	0.62
Estuaries			
Croatia	AMBI	0.80	0.60
Spain (without salt wedge - Southern Coast)	BO2A	0.87	0.45
Spain (with salt wedge - Southern Coast)	BO2A	0.87	0.52

Biological Quality Element

Fish fauna

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Coastal lagoons Mesohaline and Polyhaline choked and restricted			
Italy	HFBI - Habitat Fish Bio-Indicator	0.94	0.55
Estuaries			
Croatia	M-EFI - Modified Estuarine Fish Index	0.80	0.60

Water category

Transitional waters

Geographical Intercalibration Group

Black Sea

Biological Quality Element

Phytoplankton

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Romania	IBI - Integrated Biological Index	0.70	0.42

Results: Ecological quality ratios of national classification systems

Country	National classification systems	Ecological Quality Ratios	
		<i>High-good boundary</i>	<i>Good-moderate boundary</i>
Romania	M-AMBI(n) - Multivariate AZTI's Marine Biotic Index Normalized	0.90	0.68

-- Part 3 --

Water category	Rivers
Geographical Intercalibration Group	Alpine

Country	Type	Biological Quality Element
Austria	R-A1 and R-A2	Macrophytes
France		Macrophytes
Germany		Macrophytes
Italy		Macrophytes
Slovenia		Macrophytes
Spain		Macrophytes

Water category	Rivers
Geographical Intercalibration Groups	Mediterranean

Country	Type	Biological Quality Element
Cyprus	National river types	Fish fauna

Water Category	Rivers
Geographical Intercalibration Groups	Very Large Rivers

Country	Type	Biological Quality Element
Finland	R-L1	Phytoplankton
Italy	R-L2	Phytoplankton
Norway	R-L1	Phytoplankton
Sweden	R-L1	Phytoplankton

Water Category	Lakes
Geographical Intercalibration Groups	Cross-GIG

Country	Type	Biological Quality Element
Austria	All national lake types	Phytobenthos
Estonia		Phytobenthos
Latvia		Phytobenthos
Netherlands		Phytobenthos
Norway		Phytobenthos
Spain		Phytobenthos

Water category	Lakes
Geographical Intercalibration Groups	Mediterranean

Country	Type	Biological Quality Element
Cyprus	National lake types	Fish fauna
Spain		Fish fauna

Water category	Coastal waters
Geographical Intercalibration Group	Baltic Sea

Country	Type	Biological Quality Element
Finland	BC1, BC3	Sub-Biological Quality element Angiosperms
Poland	BC5	Macroalgae and angiosperms

Water category	Transitional waters
Geographical Intercalibration Group	Baltic Sea

Country	Type	Biological Quality Element
Latvia	National types	Macroalgae and angiosperms

Water category	Transitional waters
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Geographical Intercalibration Group	North East Atlantic
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Country	Type	Biological Quality Element
Germany	NEA 11	Phytoplankton

Water category	Transitional waters
Geographical Intercalibration Group	Mediterranean sea

Country	Type	Biological Quality Element
Croatia	Estuaries	Sub-Biological Quality element Macroalgae

Water category	Transitional waters
Geographical Intercalibration Group	Black Sea

Country	Type	Biological Quality Element
Romania	National types	Macroalgae and angiosperms