

Table S1. Summary of questionnaire responses by ICES data category (ICES 2018).

Response	ICES stock data category					
	1	2	3	4	5	6
Missing	15	0	6	5	5	5
Available	87	1	83	3	31	27
Total	102	1	89	8	36	32

Table S2 Model parameters and p-values for multinomial models with somatic growth rate K as explanatory factor. The ‘not available’ score was used as the reference score.

Category	Response score	Intercept			Slope		
		Estimate	Standard deviation	p-value	Estimate	Standard deviation	p-value
Stock assessment	considered in background	-1.53	0.5	0.002	-0.09	2.62	0.974
	qualitatively incorporated	-2.68	0.63	<0.001	2.7	2.83	0.339
	quantitatively incorporated	-1.05	0.3	<0.001	5.33	1.38	<0.001
Short term forecast	considered in background	-3.43	1.67	0.04	4.25	8.73	0.626
	qualitatively incorporated	-5.24	1.46	<0.001	13.83	5.04	0.006
	quantitatively incorporated	-1.71	0.62	0.006	11.43	3.32	0.001
Management/rebuilding plans	considered in background	-5.37	2.19	0.014	-0.09	7.86	0.02
	qualitatively incorporated	-3.45	2.08	0.097	2.7	8.72	0.26
	quantitatively incorporated	-1.35	1.14	0.236	5.33	5.6	0.09
Distributions and habitats	considered in background	-1.2	0.29	<0.001	2.41	1.21	0.05
	qualitatively incorporated	-2.81	0.54	<0.001	2.7	2.09	0.2
	quantitatively incorporated	-2.63	0.52	<0.001	2.19	2.1	0.3

Table S3 Model parameters and p-values for multinomial models with log-transformed landings explanatory factor. The ‘not available’ score was used as the reference score.

Category	Response score	Intercept			Slope		
		Estimate	Standard deviation	p-value	Estimate	Standard deviation	p-value
Stock assessment	considered in background	-2.37	0.62	<0.001	0.13	0.09	0.135
	qualitatively incorporated	-3.64	0.94	<0.001	0.22	0.12	0.072
	quantitatively incorporated	-4.43	0.65	<0.001	0.58	0.08	<0.001
Short term forecast	considered in background	-6.69	3.83	0.081	0.4	0.35	0.255
	qualitatively incorporated	-3.54	2.63	0.178	0.13	0.27	0.628
	quantitatively incorporated	-2	1.05	0.057	0.26	0.11	0.017
Management/rebuilding plans	considered in background	4.15	3.37	0.218	0.13	0.36	0.12
	qualitatively incorporated	-0.75	4.48	0.867	0.22	0.43	0.86
	quantitatively incorporated	-3.4	2.95	0.249	0.58	0.27	0.18
Distributions and habitats	considered in background	-2.72	0.5	<0.001	0.27	0.06	<0.001
	qualitatively incorporated	-3.19	0.78	<0.001	0.13	0.1	0.18
	quantitatively incorporated	-6.88	1.26	<0.001	0.55	0.12	<0.001

Table S4 Model parameters and p-values for multinomial model with the stage in the ICES stock advice cycle as explanatory factor. The ‘not available’ score was used as the reference score.

Response score	Intercept			Slope		
	Estimate	Standard deviation	p-value	Estimate	Standard deviation	p-value
considered in background	-0.24	0.3	0.421	-0.24	0.3	<0.001
qualitatively incorporated	-1.05	0.54	0.053	-1.05	0.54	<0.001
quantitatively incorporated	1.76	0.25	<0.001	1.76	0.25	<0.001

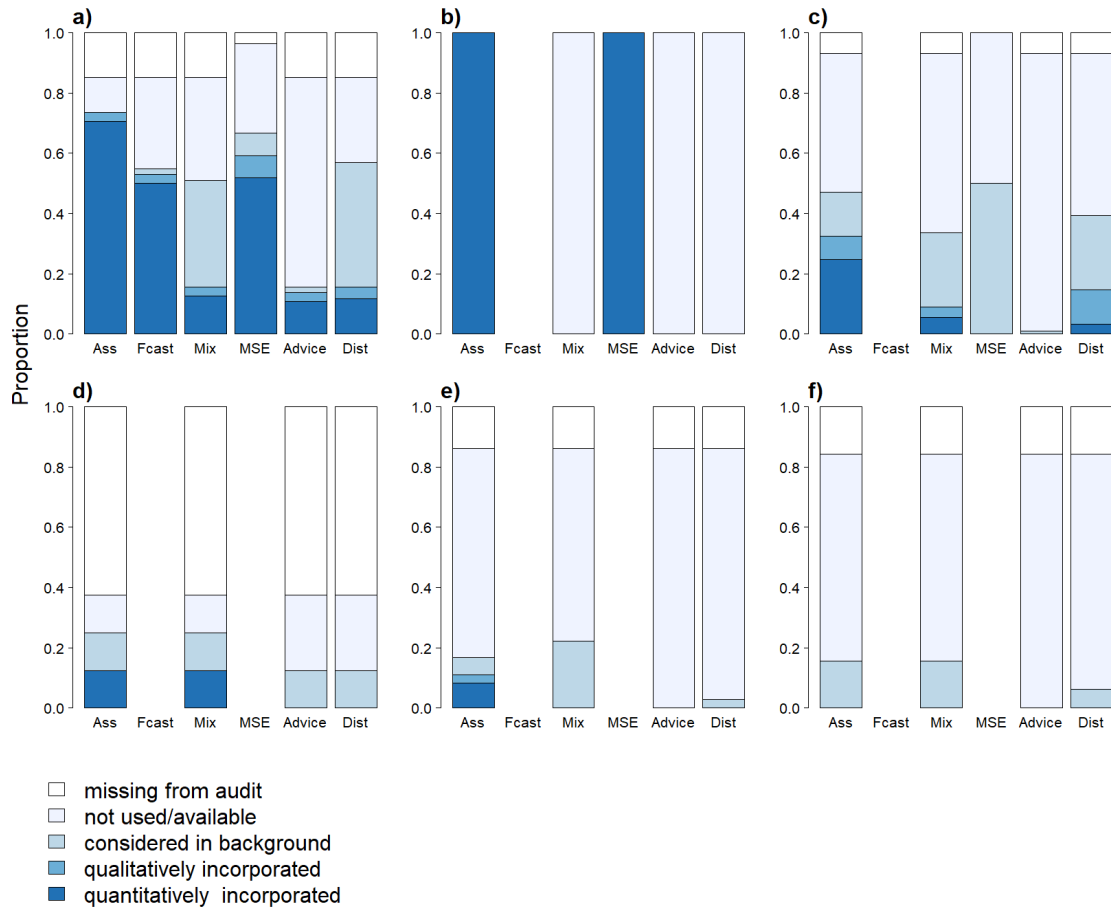


Fig. S1 Maximum scores by audit category for each ICES data category. a) Category 1, n=102; b) Category 2, n=1; c) Category 3, n=89; d) Category 4, n=8; e) Category 5, n=36; f) Category 6, n=32.

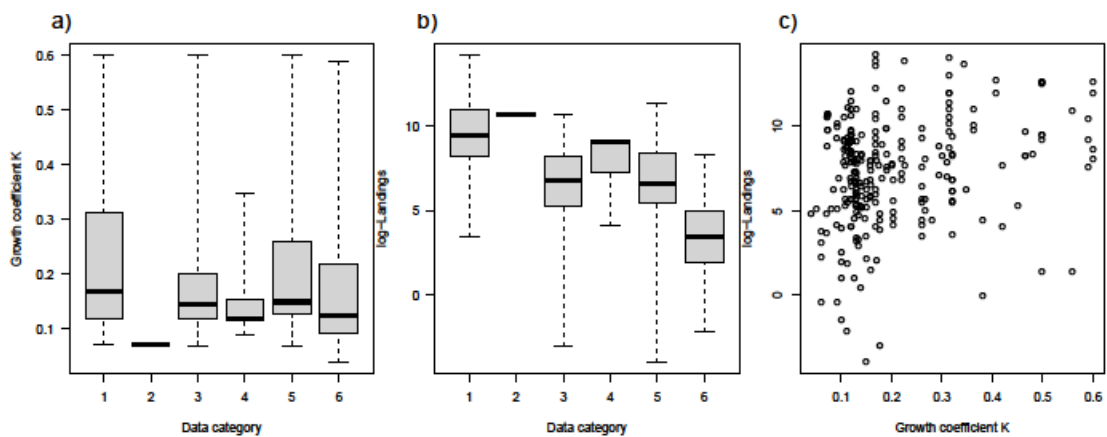


Fig. S2 Growth parameters K and log-landings grouped by ICES data category and relationship between the two parameters. Growth parameters are by species and landings are by stock, averaged for the years 2006-2019. In a) and b) bold horizontal lines are median values, boxes span interquartile ranges and whiskers extend from minimum to maximum values.