



Corrigendum

Corrigendum to “Combined replacement of fishmeal and fish oil in European sea bass (*Dicentrarchus labrax*): Production performance, tissue composition and liver morphology” [Aquaculture 474 (2017) 101–112]

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The authors regret.

ORIGINAL TABLE:

Table 3

Growth performance, feed utilization and somatic indexes of European sea bass (*Dicentrarchus labrax*) juveniles fed diets with several FM/FO contents for 90 days.

		Diets (%FM/%FO)					
		58/15	20/6	20/3	10/6	10/3	5/6
Initial	Standard length (cm)	9.1 ± 0.1	9.1 ± 0.1	9.1 ± 0.0	9.1 ± 0.1	9.1 ± 0.0	9.1 ± 0.1
	Body weight (g)	9.8 ± 0.2	9.8 ± 0.2	9.9 ± 0.1	9.9 ± 0.3	9.7 ± 0.2	9.8 ± 0.1
45 days	Feed intake 0–45 (kg)	1.78 ± 0.06 ^a	1.65 ± 0.08 ^{abc}	1.73 ± 0.05 ^{ab}	1.61 ± 0.01 ^{bc}	1.65 ± 0.07 ^{bc}	1.63 ± 0.06 ^{bc}
	g feed/kg BW/day	14.48 ± 0.09	14.08 ± 0.55	14.90 ± 0.91	14.36 ± 0.31	14.39 ± 0.19	14.34 ± 0.25
	Standard length (cm)	12.5 ± 0.2 ^a	12.3 ± 0.1 ^a	12.2 ± 0.2 ^a	12.1 ± 0.1 ^a	12.3 ± 0.1 ^a	12.3 ± 0.2 ^a
	Body weight (g)	30.4 ± 1.3 ^a	29.0 ± 0.6 ^{ab}	28.8 ± 1.1 ^{ab}	27.6 ± 0.4 ^b	28.3 ± 0.5 ^{ab}	28.0 ± 1.4 ^{ab}
	Condition factor (K) ¹	1.6 ± 0.1 ^a	1.5 ± 0.1 ^{ab}	1.6 ± 0.1 ^a	1.5 ± 0.1 ^{ab}	1.5 ± 0.1 ^{ab}	1.5 ± 0.1 ^b
	DGI ² 0–45 (% day)	15.3 ± 0.8 ^a	14.3 ± 0.3 ^{ab}	14.0 ± 0.7 ^{ab}	13.2 ± 0.2 ^b	13.7 ± 0.4 ^{ab}	13.5 ± 1.0 ^b
90 days	FE ³	1.04 ± 0.02 ^a	1.05 ± 0.05 ^a	0.98 ± 0.07 ^{ab}	1.00 ± 0.02 ^{ab}	1.01 ± 0.03 ^{ab}	1.00 ± 0.04 ^{ab}
	Feed intake 0–90 (kg)	4.90 ± 0.10 ^a	4.58 ± 0.07 ^b	4.61 ± 0.05 ^{ab}	4.33 ± 0.15 ^{bc}	4.36 ± 0.05 ^{bc}	4.15 ± 0.19 ^c
	g feed/kg BW/day	10.29 ± 0.37	9.97 ± 0.37	10.43 ± 0.15	10.24 ± 0.29	10.28 ± 0.20	10.34 ± 0.05
	Standard length (cm)	15.7 ± 0.3 ^a	15.4 ± 0.3 ^a	15.2 ± 0.1 ^{ab}	15.1 ± 0.3 ^{ab}	15.1 ± 0.1 ^{ab}	15.0 ± 0.3 ^{ab}
	Body weight (g)	58.9 ± 3.1 ^a	56.7 ± 2.8 ^a	54.6 ± 0.9 ^{ab}	52.2 ± 3.3 ^{abc}	52.4 ± 1.0 ^{abc}	49.6 ± 2.1 ^{bc}
	Condition factor (K)	1.5 ± 0.1	1.5 ± 0.1 ^a	1.5 ± 0.1 ^a	1.5 ± 0.1 ^a	1.5 ± 0.1 ^{ab}	1.5 ± 0.1 ^{bc}
	DGI ² 0–90 (% day)	18.2 ± 1.1 ^a	17.4 ± 1.0 ^a	16.6 ± 0.3 ^{ab}	15.7 ± 1.3 ^{abc}	15.8 ± 0.4 ^{abc}	14.7 ± 0.8 ^{bc}
	FE ³	0.89 ± 0.03 ^a	0.91 ± 0.03 ^a	0.83 ± 0.02 ^{ab}	0.84 ± 0.04 ^{ab}	0.84 ± 0.02 ^{ab}	0.83 ± 0.02 ^{ab}
	HSI ⁴	2.8 ± 0.0 ^a	2.5 ± 0.1 ^{ab}	2.8 ± 0.3 ^{ab}	2.5 ± 0.1 ^{ab}	2.7 ± 0.1 ^{ab}	2.5 ± 0.0 ^b
	PIF ⁵	8.8 ± 0.2 ^{ab}	7.5 ± 0.7 ^{bcd}	9.1 ± 0.6 ^a	7.5 ± 0.4 ^{bcd}	8.1 ± 0.4 ^{abc}	7.3 ± 0.5 ^{cd}
VSI ⁶	17.1 ± 0.8 ^{ab}	16.0 ± 0.4 ^b	18.4 ± 1.2 ^a	15.9 ± 0.1 ^b	17.0 ± 0.5 ^{ab}	15.5 ± 0.5 ^b	
Survival (%)	99.3 ± 1.3 ^a	98.5 ± 1.7 ^a	95.6 ± 2.9 ^{ab}	96.3 ± 0.6 ^{ab}	96.3 ± 0.6 ^{ab}	96.7 ± 1.1 ^{ab}	

		Diets (%FM/%FO)			Two-way ANOVA		
		5/3	0/0	0/0 ⁺	FM	FO	FM * FO
Initial	Standard length (cm)	9.1 ± 0.1	9.1 ± 0.1	9.1 ± 0.0	NS	NS	NS
	Body weight (g)	9.8 ± 0.3	9.8 ± 0.1	9.7 ± 0.2	NS	NS	NS

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45 days	Feed intake 0–45 (kg)	1.58 ± 0.03 ^c	1.19 ± 0.03 ^d	1.16 ± 0.16 ^d	P = 0.001	NS	NS
	g feed/kg BW/day	14.37 ± 0.31	14.34 ± 0.60	13.48 ± 0.15	NS	NS	NS
	Standard length (cm)	12.1 ± 0.1 ^a	11.2 ± 0.1 ^b	11.3 ± 0.1 ^b	NS	NS	NS
	Body weight (g)	27.1 ± 0.9 ^b	20.5 ± 1.0 ^c	21.2 ± 0.4 ^c	P = 0.001	NS	NS
	Condition factor (K) ¹	1.5 ± 0.1 ^b	1.4 ± 0.1 ^c	1.4 ± 0.2 ^c	P = 0.001	NS	NS
90 days	DGI ² 0–45 (% day)	12.8 ± 0.5 ^b	8.0 ± 0.7 ^c	8.6 ± 0.04 ^c	P = 0.007	NS	NS
	FE ³	0.99 ± 0.02 ^{ab}	0.81 ± 0.07 ^c	0.90 ± 0.03 ^{bc}	NS	P = 0.05	NS
	Feed intake 0–90 (kg)	4.09 ± 0.11 ^c	2.88 ± 0.05 ^d	3.09 ± 0.06 ^d	P = 0.001	NS	NS
	g feed/kg BW/day	10.69 ± 0.69	10.22 ± 0.26	9.34 ± 0.15	NS	NS	NS
	Standard length (cm)	14.7 ± 0.3 ^{bc}	13.5 ± 0.1 ^d	14.1 ± 0.1 ^{cd}	P = 0.012	P = 0.006	NS
	Body weight (g)	47.4 ± 4.1 ^{cd}	34.8 ± 1.4 ^e	40.8 ± 1.4 ^{de}	P = 0.001	P = 0.019	NS
	Condition factor (K)	1.5 ± 0.1 ^{abc}	1.4 ± 0.1 ^c	1.4 ± 0.1 ^{bc}	P = 0.007	NS	NS
	DGI ² 0–90 (% day)	13.9 ± 1.4 ^c	9.3 ± 0.5 ^e	11.5 ± 0.5 ^d	P = 0.001	P = 0.001	NS
	FE ³	0.78 ± 0.04 ^{bc}	0.68 ± 0.02 ^d	0.70 ± 0.03 ^{cd}	P = 0.01	P = 0.02	NS
	HSI ⁴	2.8 ± 0.3 ^{ab}	3.0 ± 0.2 ^{ab}	2.3 ± 0.1 ^b	NS	P = 0.001	NS
	PFI ⁵	7.4 ± 0.8 ^{cd}	6.5 ± 0.3 ^d	7.1 ± 0.2 ^{cd}	P = 0.019	P = 0.011	NS
VSI ⁶	16.4 ± 1.3 ^{ab}	15.7 ± 0.6 ^b	15.8 ± 0.8 ^b	P = 0.043	P = 0.003	NS	
Survival (%)	95.6 ± 4.0 ^{ab}	88.9 ± 1.9 ^{bc}	82.6 ± 3.6 ^c	NS	NS	NS	

Values expressed in mean ± SD (n = 3 tanks/diet). ¹Condition factor (K) = [(weight) / (length)³]; ²Daily Growth Index (DGI) = [(final weight^{1/3} – initial weight^{1/3}) / number of days] × 100; ³FE (feed efficiency) = 1 / (ingested feed / gain weight); ⁴Hepatosomatic index (HSI) = (wet liver weight / wet body weight) × 100. ⁵Perivisceral fat index (PFI) = (wet perivisceral fat weight / wet body weight) × 100. ⁶Viscerosomatic index (VSI) = (wet viscera weight / wet body weight) × 100. Different letters within a row denote significant differences among dietary treatments (P ≤ 0.05; one way ANOVA; Tukey). Two-way ANOVA, GT2 Hochberg. NS = not significant; 0/0⁺ diet is similar to the 0FM/0FO diet but supplemented with long chain polyunsaturated fatty acids from alternative sources; FM: Fishmeal; FO: Fish oil.

TABLE WITH CORRECT DGI:

Table 3

Growth performance, feed utilization and somatic indexes of European sea bass (*Dicentrarchus labrax*) juveniles fed diets with several FM/FO contents for 90 days.

		Diets (%FM/%FO)					
		58/15	20-Jun	20-Mar	10-Jun	10-Mar	05-Jun
Initial	Standard length (cm)	9.1 ± 0.1	9.1 ± 0.1	9.1 ± 0.0	9.1 ± 0.1	9.1 ± 0.0	9.1 ± 0.1
	Body weight (g)	9.8 ± 0.2	9.8 ± 0.2	9.9 ± 0.1	9.9 ± 0.3	9.7 ± 0.2	9.8 ± 0.1
45 days	Feed intake 0–45 (kg)	1.78 ± 0.06 ^a	1.65 ± 0.08 ^{abc}	1.73 ± 0.05 ^{ab}	1.61 ± 0.01 ^{bc}	1.65 ± 0.07 ^{bc}	1.63 ± 0.06 ^{bc}
	g feed/kg BW/day	14.48 ± 0.09	14.08 ± 0.55	14.90 ± 0.91	14.36 ± 0.31	14.39 ± 0.19	14.34 ± 0.25
	Standard length (cm)	12.5 ± 0.2 ^a	12.3 ± 0.1 ^a	12.2 ± 0.2 ^a	12.1 ± 0.1 ^a	12.3 ± 0.1 ^a	12.3 ± 0.2 ^a
	Body weight (g)	30.4 ± 1.3 ^a	29.0 ± 0.6 ^{ab}	28.8 ± 1.1 ^{ab}	27.6 ± 0.4 ^b	28.3 ± 0.5 ^{ab}	28.0 ± 1.4 ^{ab}
	Condition factor (K) ¹	1.6 ± 0.1 ^a	1.5 ± 0.1 ^{ab}	1.6 ± 0.1 ^a	1.5 ± 0.1 ^{ab}	1.5 ± 0.1 ^{ab}	1.5 ± 0.1 ^b
90 days	DGI ² 0–45 (% day)	2.1 ± 0.1 ^a	2.0 ± 0.0 ^{ab}	2.0 ± 0.1 ^{ab}	1.9 ± 0.0 ^b	2.0 ± 0.1 ^{ab}	1.9 ± 0.1 ^b
	FE ³	1.04 ± 0.02 ^a	1.05 ± 0.05 ^a	0.98 ± 0.07 ^{ab}	1.00 ± 0.02 ^{ab}	1.01 ± 0.03 ^{ab}	1.00 ± 0.04 ^{ab}
	Feed intake 0–90 (kg)	4.90 ± 0.10 ^a	4.58 ± 0.07 ^b	4.61 ± 0.05 ^{ab}	4.33 ± 0.15 ^{bc}	4.36 ± 0.05 ^{bc}	4.15 ± 0.19 ^c
	g feed/kg BW/day	10.29 ± 0.37	9.97 ± 0.37	10.43 ± 0.15	10.24 ± 0.29	10.28 ± 0.20	10.34 ± 0.05
	Standard length (cm)	15.7 ± 0.3 ^a	15.4 ± 0.3 ^a	15.2 ± 0.1 ^{ab}	15.1 ± 0.3 ^{ab}	15.1 ± 0.1 ^{ab}	15.0 ± 0.3 ^{ab}
	Body weight (g)	58.9 ± 3.1 ^a	56.7 ± 2.8 ^a	54.6 ± 0.9 ^{ab}	52.2 ± 3.3 ^{abc}	52.4 ± 1.0 ^{abc}	49.6 ± 2.1 ^{bc}
	Condition factor (K)	1.5 ± 0.1	1.5 ± 0.1 ^a	1.5 ± 0.1 ^a	1.5 ± 0.1 ^a	1.5 ± 0.1 ^{ab}	1.5 ± 0.1 ^{abc}
	DGI ² 0–90 (% day)	1.9 ± 0.1 ^a	1.9 ± 0.1 ^{ab}	1.8 ± 0.0 ^{ab}	1.7 ± 0.1 ^{abc}	1.7 ± 0.0 ^{abc}	1.7 ± 0.1 ^{bc}
	FE ³	0.89 ± 0.03 ^a	0.91 ± 0.03 ^a	0.83 ± 0.02 ^{ab}	0.84 ± 0.04 ^{ab}	0.84 ± 0.02 ^{ab}	0.83 ± 0.02 ^{ab}
	HSI ⁴	2.8 ± 0.0 ^a	2.5 ± 0.1 ^{ab}	2.8 ± 0.3 ^{ab}	2.5 ± 0.1 ^{ab}	2.7 ± 0.1 ^{ab}	2.5 ± 0.0 ^b
	PFI ⁵	8.8 ± 0.2 ^{ab}	7.5 ± 0.7 ^{bcd}	9.1 ± 0.6 ^a	7.5 ± 0.4 ^{bcd}	8.1 ± 0.4 ^{abc}	7.3 ± 0.5 ^{cd}
VSI ⁶	17.1 ± 0.8 ^{ab}	16.0 ± 0.4 ^b	18.4 ± 1.2 ^a	15.9 ± 0.1 ^b	17.0 ± 0.5 ^{ab}	15.5 ± 0.5 ^b	
Survival (%)	99.3 ± 1.3 ^a	98.5 ± 1.7 ^a	95.6 ± 2.9 ^{ab}	96.3 ± 0.6 ^{ab}	96.3 ± 0.6 ^{ab}	96.7 ± 1.1 ^{ab}	
		Diets (%FM/%FO)			Two-way ANOVA		
		05-Mar	0/0	0/0 ⁺	FM	FO	FM * FO
Initial	Standard length (cm)	9.1 ± 0.1	9.1 ± 0.1	9.1 ± 0.0	NS	NS	NS
	Body weight (g)	9.8 ± 0.3	9.8 ± 0.1	9.7 ± 0.2	NS	NS	NS
45 days	Feed intake 0–45 (kg)	1.58 ± 0.03 ^c	1.19 ± 0.03 ^d	1.16 ± 0.16 ^d	P = 0.001	NS	NS
	g feed/kg BW/day	14.37 ± 0.31	14.34 ± 0.60	13.48 ± 0.15	NS	NS	NS
	Standard length (cm)	12.1 ± 0.1 ^a	11.2 ± 0.1 ^b	11.3 ± 0.1 ^b	NS	NS	NS
	Body weight (g)	27.1 ± 0.9 ^b	20.5 ± 1.0 ^c	21.2 ± 0.4 ^c	P = 0.001	NS	NS
	Condition factor (K) ¹	1.5 ± 0.1 ^b	1.4 ± 0.1 ^c	1.4 ± 0.2 ^c	P = 0.001	NS	NS
90 days	DGI ² 0–45 (% day)	1.9 ± 0.0 ^b	1.3 ± 0.1 ^c	1.4 ± 0.1 ^c	P = 0.033	NS	NS
	FE ³	0.99 ± 0.02 ^{ab}	0.81 ± 0.07 ^c	0.90 ± 0.03 ^{bc}	NS	P = 0.05	NS
	Feed intake 0–90 (kg)	4.09 ± 0.11 ^c	2.88 ± 0.05 ^d	3.09 ± 0.06 ^d	P = 0.001	NS	NS
	g feed/kg BW/day	10.69 ± 0.69	10.22 ± 0.26	9.34 ± 0.15	NS	NS	NS
	Standard length (cm)	14.7 ± 0.3 ^{bc}	13.5 ± 0.1 ^d	14.1 ± 0.1 ^{cd}	P = 0.012	P = 0.006	NS
	Body weight (g)	47.4 ± 4.1 ^{cd}	34.8 ± 1.4 ^e	40.8 ± 1.4 ^{de}	P = 0.001	P = 0.019	NS
	Condition factor (K)	1.5 ± 0.1 ^{abc}	1.4 ± 0.1 ^c	1.4 ± 0.1 ^{bc}	P = 0.007	NS	NS
	DGI ² 0–90 (% day)	1.6 ± 0.1 ^c	1.4 ± 0.0 ^e	1.2 ± 0.0 ^d	P = 0.001	NS	NS
	FE ³	0.78 ± 0.04 ^{bc}	0.68 ± 0.02 ^d	0.70 ± 0.03 ^{cd}	P = 0.01	P = 0.02	NS
	HSI ⁴	2.8 ± 0.3 ^{ab}	3.0 ± 0.2 ^{ab}	2.3 ± 0.1 ^b	NS	P = 0.001	NS
	PFI ⁵	7.4 ± 0.8 ^{cd}	6.5 ± 0.3 ^d	7.1 ± 0.2 ^{cd}	P = 0.019	P = 0.011	NS

VSI ⁶	16.4 ± 1.3 ^{ab}	15.7 ± 0.6 ^b	15.8 ± 0.8 ^b	P = 0.043	P = 0.003	NS
Survival (%)	95.6 ± 4.0 ^{ab}	88.9 ± 1.9 ^{bc}	82.6 ± 3.6 ^c	NS	NS	NS

Values expressed in mean ± SD (n = 3 tanks/diet). ¹Condition factor (K) = [(weight) / (length)³]; ²Daily Growth Index (DGI) = [(final weight^{1/3} – initial weight^{1/3}) / number of days] × 100; ³FE (feed efficiency) = 1 / (ingested feed / gain weight); ⁴Hepatosomatic index (HSI) = (wet liver weight / wet body weight) × 100. ⁵Perivisceral fat index (PFI) = (wet perivisceral fat weight / wet body weight) × 100. ⁶Viscerosomatic index (VSI) = (wet viscera weight / wet body weight) × 100. Different letters within a row denote significant differences among dietary treatments (P ≤ 0.05; one way ANOVA; Tukey). Two-way ANOVA, GT2 Hochberg. NS = not significant; 0/0⁺ diet is similar to the 0FM/0FO diet but supplemented with long chain polyunsaturated fatty acids from alternative sources; FM: Fishmeal; FO: Fish oil.

The authors would like to apologise for any inconvenience caused.