Supplementary Material

Impact of different cooking methods on the proximate chemical and fatty acid composition of blackspot seabream (*Pagellus bogaraveo*) and blackbelly rosefish (*Helicolenus dactylopterus*) from the North Atlantic Azores Archipelago

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Table S1 ANOVA results on the effect of cooking methods on water loss, moisture, ash and total fat content of *P. bogaraveo* and *H. dactylopterus.* Significant p-values are indicated in bold.

	P. bogaraveo					
	SS	*DF*	*MS*	*F*	*p-value*	*F critical*
Water loss						
Between	3372.388	3	1124.129	30.1250	**0.0000**	2.6693
Within	5224.166	140	37.3155			
Total	8596.554	143				
Moisture						
Between	5984.861	4	1496.215	129.8285	**0.0000**	2.4233
Within	2016.797	175	11.5246			
Total	8001.658	179				
Ash						
Between	28.5410	4	7.1353	55.4808	**0.0000**	2.4341
Within	18.6481	145	0.1286			
Total	47.1891	149				
Total Fat						
Between	62.1280	4	15.5320	12.5460	**0.0001**	3.0556
Within	18.5700	15	1.2380			
Total	80.6980	19				
	H. dactylopterus					
	SS	*DF*	*MS*	*F*	*p-value*	*F critical*
Water loss						
Between	2812.549	3	937.5164	44.1619	**0.0000**	2.6920
Within	2207.825	104	21.2291			
Total	5020.374	107				
Moisture						
Between	9218.987	4	2304.747	266.3939	**0.0000**	2.4414
Within	1124.714	130	8.6516			
Total	10343.7	134				
Ash						
Between	11.3756	4	2.8439	150.4936	**0.0000**	2.4472
Within	2.2677	120	0.0019			
Total	13.6432	124				
Total Fat						
Between	6.9600	4	1.7400	1.1757	0.3609	3.0556
Within	22.2000	15	1.4800			
Total	29.1600	19				

Table S2 ANOVA results on the effect of cooking methods on the main fatty acids content of fat in *P. bogaraveo.* Significant p-values are indicated in bold.

		SS	*DF*	*MS*	*F*	*p-value*	*F critical*
Total Fat							
	Between	62.1280	4	15.5320	12.5460	**0.0001**	3.0556
	Within	18.5700	15	1.2380			
	Total	80.6980	19				
Myristic Acid							
	Between	0.5120	4	0.1280	5.3333	**0.0071**	3.0556
	Within	0.3600	15	0.0240			
	Total	0.8720	19				
Palmitic Acid							
	Between	6.6880	4	1.6720	5.5364	**0.0061**	3.0556
	Within	4.5300	15	0.3020			
	Total	11.2180	19				
Stearic Acid							
	Between	0.5120	4	0.1280	4.9231	**0.0098**	3.0556
	Within	0.3900	15	0.0260			
	Total	0.9020	19				
Total SFA							
	Between	18.8320	4	4.7080	4.7943	**0.0108**	3.0556
	Within	14.7300	15	0.9820			
	Total	33.5620	19				
Palmitoleic Acid							
	Between	0.0480	4	0.0120	2.0000	0.1462	3.0556
	Within	0.0900	15	0.0060			
	Total	0.1380	19				
Elaidic Acid + Oleic Acid							
	Between	0.9120	4	0.2280	0.9048	0.4859	3.0556
	Within	3.7800	15	0.2520			
	Total	4.6920	19				
Total MUFA							
	Between	0.7680	4	0.1920	0.4638	0.7613	3.0556
	Within	6.2100	15	0.4140			
	Total	6.9780	19				
Linoleic acid + Linolelaidic acid							
	Between	1.3200	3	0.4400	7.0400	**0.0055**	3.4903
	Within	0.7500	12	0.0625			
	Total	2.0700	15				
Docosahexanoic Acid [DHA]							
	Between	0.0480	4	0.0120	3.0000	0.0528	3.0556
	Within	0.0600	15	0.0040			
	Total	0.1080	19				
Total PUFA							
	Between	5.3920	4	1.3480	9.4930	**0.0005**	3.0556
	Within	2.1300	15	0.1420			
	Total	7.5220	19				

Table S3 ANOVA results on the effect of cooking methods on the nutritional correlations and nutritional value of fat in *P. bogaraveo.* Significant p-values are indicated in bold.

	SS	*DF*	*MS*	*F*	*p-value*	*F critical*
Total n-3 PUFA						
Between	0.1280	4	0.0320	5.3333	**0.0071**	3.0556
Within	0.0900	15	0.0060			
Total	0.2180	19				
EPA + DHA						
Between	0.1280	4	0.0320	8.0000	**0.0012**	3.0556
Within	0.0600	15	0.0040			
Total	0.1880	19				
Total n-6 PUFA						
Between	2.2800	3	0.7600	12.1600	**0.0006**	3.4903
Within	0.7500	12	0.0625			
Total	3.0300	15				
PUFA / SFA						
Between	0.3520	4	0.0880	1.4194	0.2755	3.0556
Within	0.9300	15	0.0620			
Total	1.2820	19				
MUFA / SFA						
Between	1.2320	4	0.3080	2.2319	0.1144	3.0556
Within	2.0700	15	0.1380			
Total	3.3020	19				
UFA / SFA						
Between	2.6880	4	0.6720	2.3662	0.0995	3.0556
Within	4.2600	15	0.2840			
Total	6.9480	19				
n-6 / n-3						
Between	44.2400	3	14.7467	47.1893	**0.0000**	3.4903
Within	3.7500	12	0.3125			
Total	47.9900	15				
n-3 / n-6						
Between	36.6700	3	12.2233	10.9873	**0.0009**	3.4903
Within	13.3500	12	1.1125			
Total	50.0200	15				
AI						
Between	6.9200	3	2.3067	11.3909	**0.0008**	3.4903
Within	2.4300	12	0.2025			
Total	9.3500	15				
TI						
Between	4.8300	3	1.6100	12.6275	**0.0005**	3.4903
Within	1.5300	12	0.1275			
Total	6.3600	15				
h / H						
Between	3.9680	4	0.9920	26.1053	**0.0000**	3.0556
Within	0.5700	15	0.0380			
Total	4.5380	19				
FLQ						
Between	296.0800	4	74.0200	150.4472	**0.0000**	3.0556
Within	7.3800	15	0.4920			
Total	303.4600	19				
HPI						
Between	2.6400	4	0.6600	8.2500	**0.0010**	3.0556
Within	1.2000	15	0.0800			
Total	3.8400	19				
PI						
Between	0.4320	4	0.1080	10.8000	**0.0003**	3.0556
Within	0.1500	15	0.0100			
Total	0.5820	19				

Table S4 ANOVA results on the effect of cooking methods on the main fatty acids content of fat in *H. dactylopterus.* Significant p-values are indicated in bold.

		SS	*DF*	*MS*	*F*	*p-value*	*F critical*
Total Fat							
	Between	6.9600	4	1.7400	1.1757	0.3609	3.0556
	Within	22.2000	15	1.4800			
	Total	29.1600	19				
Myristic Acid							
	Between	0.1120	4	0.0280	4.6667	**0.0120**	3.0556
	Within	0.0900	15	0.0060			
	Total	0.2020	19				
Palmitic Acid							
	Between	0.5280	4	0.1320	2.5385	0.0834	3.0556
	Within	0.7800	15	0.0520			
	Total	1.3080	19				
Stearic Acid							
	Between	0.0480	4	0.0120	3.0000	0.0528	3.0556
	Within	0.0600	15	0.0040			
	Total	0.1080	19				
Total SFA							
	Between	1.0720	4	0.2680	1.5581	0.2363	3.0556
	Within	2.5800	15	0.1720			
	Total	3.6520	19				
Palmitoleic Acid							
	Between	0.2080	4	0.0520	6.5000	**0.0031**	3.0556
	Within	0.1200	15	0.0080			
	Total	0.3280	19				
Elaidic Acid + Oleic Acid							
	Between	1.3280	4	0.3320	2.6349	0.0757	3.0556
	Within	1.8900	15	0.1260			
	Total	3.2180	19				
Total MUFA							
	Between	0.9920	4	0.2480	0.9323	0.4716	3.0556
	Within	3.9900	15	0.2660			
	Total	4.9820	19				
Linoleic acid + Linolelaidic acid							
	Between	3.6300	3	1.2100	9.8776	**0.0015**	3.4903
	Within	1.4700	12	0.1225			
	Total	5.1000	15				
Eicosapentaenoic Acid [EPA]							
	Between	0.0300	3	0.0100	2.0000	0.1678	3.4903
	Within	0.0600	12	0.0050			
	Total	0.0900	15				
Docosahexanoic Acid [DHA]							
	Between	1.0720	4	0.2680	10.3077	**0.0003**	3.0556
	Within	0.3900	15	0.0260			
	Total	1.4620	19				
Total PUFA							
	Between	2.6880	4	0.6720	2.2550	0.1117	3.0556
	Within	4.4700	15	0.2980			
	Total	7.1580	19				

Table S5 ANOVA results on the effect of cooking methods on the nutritional correlations and nutritional value of fat in *H. dactylopterus*. Significant p-values are indicated in bold.

	SS	*DF*	*MS*	*F*	*p-value*	*F critical*
Total n-3 PUFA						
Between	1.9520	4	0.4880	18.7692	**0.0000**	3.0556
Within	0.3900	15	0.0260			
Total	2.3420	19				
EPA + DHA						
Between	1.6480	4	0.4120	15.8462	**0.0000**	3.0556
Within	0.3900	15	0.0260			
Total	2.0380	19				
Total n-6 PUFA						
Between	3.6300	3	1.2100	9.8776	**0.0015**	3.4903
Within	1.4700	12	0.1225			
Total	5.1000	15				
PUFA / SFA						
Between	1.4080	4	0.3520	5.6774	**0.0055**	3.0556
Within	0.9300	15	0.0620			
Total	2.3380	19				
MUFA / SFA						
Between	0.6880	4	0.1720	1.1467	0.3727	3.0556
Within	2.2500	15	0.1500			
Total	2.9380	19				
UFA / SFA						
Between	7.0720	4	1.7680	14.2581	**0.0001**	3.0556
Within	1.8600	15	0.1240			
Total	8.9320	19				
n-6 / n-3						
Between	195.2400	3	65.0800	13016.0000	**0.0000**	3.4903
Within	0.0600	12	0.0050			
Total	195.3000	15				
n-3 / n-6						
Between	827.6000	3	275.8667	98.2606	**0.0000**	3.4903
Within	33.6900	12	2.8075			
Total	861.2900	15				
AI						
Between	1.1600	3	0.3867	25.7778	**0.0000**	3.4903
Within	0.1800	12	0.0150			
Total	1.3400	15				
TI						
Between	0.5900	3	0.1967	78.6667	**0.0000**	3.4903
Within	0.0300	12	0.0025			
Total	0.6200	15				
h / H						
Between	11.9520	4	2.9880	29.2941	**0.0000**	3.0556
Within	1.5300	15	0.1020			
Total	13.4820	19				
FLQ						
Between	700.8800	4	175.2200	43805.0000	**0.0000**	3.0556
Within	0.0600	15	0.0040			
Total	700.9400	19				
HPI						
Between	16.6880	4	4.1720	231.7778	**0.0000**	3.0556
Within	0.2700	15	0.0180			
Total	16.9580	19				
PI						
Between	3.4720	4	0.8680	54.2500	**0.0000**	3.0556
Within	0.2400	15	0.0160			
Total	3.7120	19				