

**Table S1.** Average and molar concentrations of the Hg, Se and selenium health benefit value (HBV<sub>Se</sub>).

Species	Hg		Se		HBV <sub>Se</sub>
	µg g <sup>-1</sup>	µmol g <sup>-1</sup>	µg g <sup>-1</sup>	µmol g <sup>-1</sup>	
Blue shark	0.63	3.14	0.20	2.53	-1.36
Porbeagle	1.25	6.23	0.47	5.95	-0.57
Picked dogfish	1.25	6.23	0.40	5.07	-2.60
Longnose spurdog	0.75	3.74	0.42	5.32	2.69
Smooth-hound	1.03	5.13	0.49	6.21	1.96
Starry smooth-hound	0.73	3.64	0.39	4.94	2.26
Lesser spotted dogfish	0.61	3.04	0.41	5.19	3.41
Thornback ray	0.65	3.24	0.6	7.60	6.22
Brown ray	0.64	3.19	0.5	6.33	4.72
Mediterranean starry ray	0.62	3.09	0.48	6.08	4.51
Sandy ray	0.58	2.89	0.43	5.45	3.91
Longnosed skates	0.49	2.44	0.38	4.81	3.57
Electric ray	1.22	6.08	0.50	6.33	0.49
Common torpedo	0.87	4.34	0.37	4.69	0.67
Marbled electric ray	1.14	5.68	0.48	6.08	0.77

**Table S2.** MeHg concentrations, daily (CR<sub>lim</sub>) and monthly (CR<sub>mm</sub>) consumption rate limit in the Italian general population.

Species	µg g <sup>-1</sup> w.w.	CR <sub>lim</sub> (g day <sup>-1</sup> )	CR <sub>mm</sub> (meals/month)
Blue shark	0.57	12	1
Porbeagle	1.03	7	1
Picked dogfish	0.97	7	1
Longnose spurdog	0.65	11	1
Smooth-hound	0.89	8	1
Starry smooth-hound	0.68	10	2
Lesser spotted dogfish	0.57	12	2
Thornback ray	0.62	11	1
Brown ray	0.63	11	2
Mediterranean starry ray	0.54	13	2
Sandy ray	0.50	14	2
Longnosed skates	0.41	17	1
Electric ray	1.10	6	1
Common torpedo	0.74	9	1
Marbled electric ray	1.03	7	0