Supplementary material

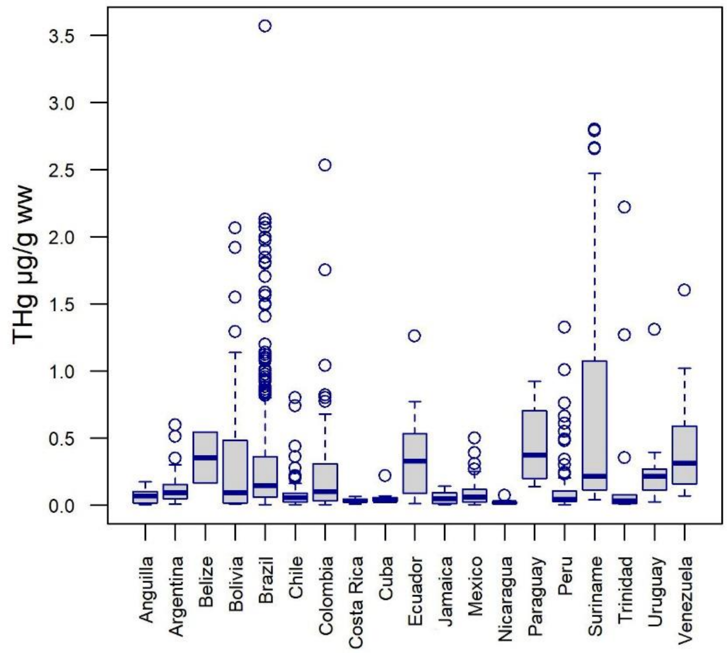

Figure S1. Distribution of median THg concentrations (µg g^{-1} ww) by country in fish muscle around Latin America and the Caribbean.

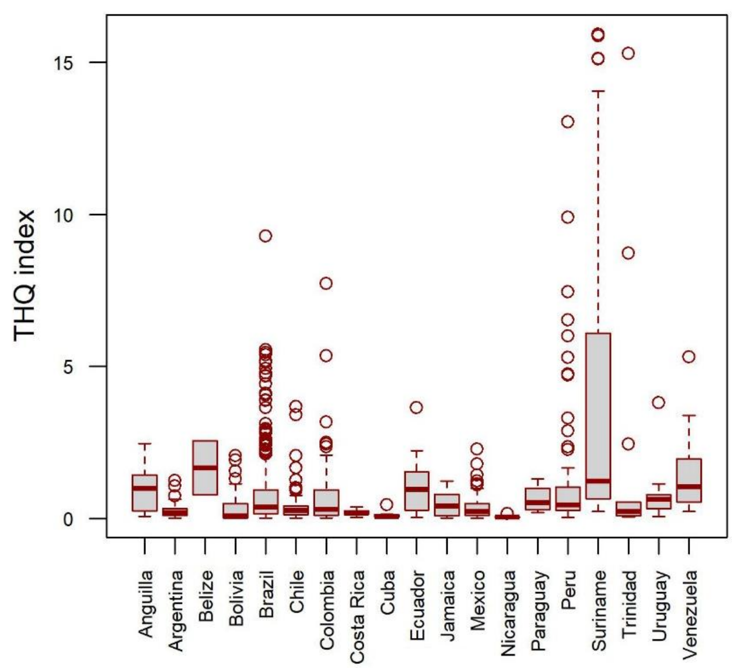

Figure S1. Distribution of THQ index estimated by country for Latin America and the Caribbean.

Table S2 Mood's median test of THg concentrations by different factors

Mood's median test	χ^2	df	p-value
THg by Habitat	30.338	1	**3.63e-8***
THg by Country	140.09	18	**2.2e-16***
THg by Diet	66.403	4	**1.303e-13***
THg by Aquatic Environment	38.513	8	**6.051e-6***
THg by Benthic/Pelagic/Benthopelagic	5.684	2	0.058

Table S3 Pairwise Median Test of THg in fish muscle by aquatic environment.

Comparison	p.value	p-adjust
Coastal – Coastal/Oceanic	0.692	0.882
Coastal - Estuary	0.826	0.909
Coastal - Lake	**0.013**	0.118
Coastal - Oceanic	0.078	0.300
Coastal - Reservoir	0.710	0.882
Coastal - River	**<0.001**	**<0.001**
Coastal - Wetland	0.157	0.300
Coastal/Oceanic - Estuary	0.690	0.882
Coastal/Oceanic - Lake	0.104	0.300
Coastal/Oceanic - Oceanic	0.102	0.300
Coastal/Oceanic - Reservoir	0.739	0.882
Coastal/Oceanic - River	**<0.001**	**<0.001**
Coastal/Oceanic - Wetland	0.150	0.300
Estuary – Lake	0.833	0.910
Estuary – Oceanic	0.760	0.882
Estuary – Reservoir	0.676	0.882
Estuary – River	0.329	0.593
Estuary - Wetland	0.136	0.300
Lake – Oceanic	0.752	0.882
Lake – Reservoir	0.699	0.882
Lake – River	**0.009**	0.112
Lake – Wetland	0.153	0.300
Oceanic – Reservoir	0.660	0.882
Oceanic - River	0.474	0.812
Oceanic - Wetland	0.125	0.300
Reservoir - River	0.707	0.882
Reservoir – Wetland	0.091	0.300
River – Wetland	0.157	0.300

Table S4 Pairwise Median Test of THg in fish muscle by diet preferences. Significant p-values or p-adjust are bold font

Comparison	p.value	p-adjust
Carnivore - Detritivore	**<0.001**	**<0.001**
Carnivore - Herbivore	**<0.001**	**<0.001**
Carnivore - Omnivore	**<0.001**	**<0.001**
Detritivore - Herbivore	0.128	0.256
Detritivore - Omnivore	0.920	1.000
Herbivore - Omnivore	0.073	0.181

Table S5 Pairwise Median Test of THg in fish muscle by country. Significant p-values or p-adjust are bold font

Comparison	p-value	p-adjust
Anguilla - Argentina	0.138	0.216
Anguilla - Belize	0.134	0.212
Anguilla - Bolivia	0.482	0.560
Anguilla - Brazil	**0.033**	0.073
Anguilla - Chile	1.000	1.000
Anguilla - Colombia	0.142	0.220
Anguilla - Costa Rica	0.243	0.338
Anguilla - Cuba	0.204	0.291
Anguilla - Ecuador	**0.012**	**0.038**
Anguilla - Jamaica	0.329	0.423
Anguilla - Mexico	1.000	1.000
Anguilla - Nicaragua	0.054	0.106
Anguilla - Paraguay	**0.019**	**0.050**
Anguilla - Peru	0.437	0.523
Anguilla - Suriname	**0.002**	**0.011**
Anguilla - Trinidad and Tobago	0.314	0.410
Anguilla - Uruguay	**0.008**	**0.028**
Anguilla - Venezuela	**0.001**	**0.008**
Argentina - Belize	0.154	0.228
Argentina - Bolivia	0.928	1.000
Argentina - Brazil	**0.005**	**0.023**
Argentina - Chile	**0.0005**	**0.005**
Argentina - Colombia	0.748	0.820
Argentina - Costa Rica	**0.002**	**0.010**
Argentina - Cuba	0.053	0.105
Argentina - Ecuador	0.114	0.189
Argentina - Jamaica	0.084	0.150
Argentina - Mexico	**0.041**	**0.018**
Argentina - Nicaragua	**0.0006**	**0.004**
Argentina - Paraguay	**0.036**	0.075
Argentina - Peru	**0.0002**	**0.002**
Argentina - Suriname	**0.007**	**0.026**
Argentina - Trinidad and Tobago	**0.012**	**0.038**
Argentina - Uruguay	0.062	0.115
Argentina - Venezuela	**0.003**	**0.012**
Belize - Bolivia	0.149	0.226

Belize - Brazil	0.156	0.228
Belize - Chile	0.154	0.228
Belize - Colombia	0.155	0.228
Belize - Costa Rica	0.103	0.174
Belize - Cuba	0.091	0.157
Belize - Ecuador	1.000	1.000
Belize - Jamaica	0.125	0.202
Belize - Mexico	0.130	0.207
Belize - Nicaragua	**0.027**	0.064
Belize - Paraguay	1.000	1.000
Belize - Peru	0.149	0.226
Belize - Suriname	0.965	1.000
Belize - Trinidad and Tobago	0.121	0.199
Belize - Uruguay	1.000	1.000
Belize - Venezuela	0.939	0.979
Bolivia - Brazil	0.097	0.165
Bolivia - Chile	0.438	0.523
Bolivia - Colombia	0.930	0.976
Bolivia - Costa Rica	0.079	0.143
Bolivia - Cuba	0.238	0.333
Bolivia - Ecuador	0.104	0.174
Bolivia - Jamaica	0.421	0.517
Bolivia - Mexico	0.415	0.514
Bolivia - Nicaragua	**0.024**	0.060
Bolivia - Paraguay	**0.039**	0.080
Bolivia - Peru	0.320	0.041
Bolivia - Suriname	**0.018**	0.049
Bolivia - Trinidad and Tobago	0.397	0.495
Bolivia - Uruguay	0.057	0.107
Bolivia - Venezuela	**0.016**	**0.044**
Brazil - Chile	**<0.001**	**<0.001**
Brazil - Colombia	0.167	**0.242**
Brazil - Costa Rica	**0.002**	**0.012**
Brazil - Cuba	0.057	0.107
Brazil - Ecuador	0.332	0.423
Brazil - Jamaica	**0.0002**	**0.002**
Brazil - Mexico	**<0.001**	**<0.001**
Brazil - Nicaragua	**<0.001**	**0.005**

Brazil - Paraguay	0.314	0.410
Brazil - Peru	**<0.001**	**<0.001**
Brazil - Suriname	**0.041**	0.083
Brazil - Trinidad and Tobago	**0.018**	**0.049**
Brazil - Uruguay	0.554	0.635
Brazil - Venezuela	**0.026**	0.064
Chile - Colombia	**0.003**	**0.017**
Chile - Costa Rica	0.085	0.150
Chile - Cuba	0.252	0.346
Chile - Ecuador	0.008	0.029
Chile - Jamaica	0.450	0.533
Chile - Mexico	0.748	0.820
Chile - Nicaragua	**0.004**	**0.018**
Chile - Paraguay	**0.035**	0.075
Chile - Peru	0.273	0.365
Chile - Suriname	**<0.001**	**<0.001**
Chile - Trinidad and Tobago	0.424	0.517
Chile - Uruguay	**0.013**	**0.038**
Chile - Venezuela	**<0.001**	**0.001**
Colombia - Costa Rica	**0.002**	**0.010**
Colombia - Cuba	0.054	0.106
Colombia - Ecuador	0.122	0.199
Colombia - Jamaica	**0.006**	**0.022**
Colombia - Mexico	**0.017**	**0.048**
Colombia - Nicaragua	**<0.001**	**<0.001**
Colombia - Paraguay	**0.042**	0.084
Colombia - Peru	**<0.001**	**<0.001**
Colombia - Suriname	**0.019**	**0.050**
Colombia - Trinidad and Tobago	**0.014**	**0.041**
Colombia - Uruguay	0.066	0.122
Colombia - Venezuela	**0.016**	**0.044**
Costa Rica - Cuba	0.626	0.713
Costa Rica - Ecuador	**0.001**	**0.007**
Costa Rica - Jamaica	0.225	0.318
Costa Rica - Mexico	0.088	0.153
Costa Rica - Nicaragua	**0.032**	0.072
Costa Rica - Paraguay	**0.013**	**0.038**
Costa Rica - Peru	0.079	0.143

Costa Rica - Suriname	**0.001**	**0.008**
Costa Rica - Trinidad and Tobago	0.680	0.765
Costa Rica - Uruguay	**0.0002**	**0.002**
Costa Rica - Venezuela	**0.0003**	**0.003**
Cuba - Ecuador	**0.039**	0.081
Cuba - Jamaica	0.660	0.748
Cuba - Mexico	0.253	0.346
Cuba - Nicaragua	**0.028**	0.066
Cuba - Paraguay	**0.009**	**0.030**
Cuba - Peru	0.694	0.774
Cuba - Suriname	0.056	0.107
Cuba - Trinidad and Tobago	0.870	0.936
Cuba - Uruguay	**0.032**	0.072
Cuba - Venezuela	**0.028**	0.066
Ecuador - Jamaica	**0.030**	0.069
Ecuador - Mexico	**0.010**	**0.032**
Ecuador - Nicaragua	**<0.001**	**<0.001**
Ecuador - Paraguay	1.000	1.000
Ecuador - Peru	**0.008**	**0.029**
Ecuador - Suriname	0.487	0.563
Ecuador - Trinidad and Tobago	**0.008**	**0.029**
Ecuador - Uruguay	0.143	0.220
Ecuador - Venezuela	0.864	0.935
Jamaica - Mexico	0.455	0.533
Jamaica - Nicaragua	**0.008**	**0.028**
Jamaica - Paraguay	**0.023**	0.576
Jamaica - Peru	0.789	0.859
Jamaica - Suriname	**<0.001**	**<0.001**
Jamaica - Trinidad and Tobago	0.296	0.392
Jamaica - Uruguay	**<0.001**	**<0.001**
Jamaica - Venezuela	**<0.001**	**<0.001**
Mexico - Nicaragua	**0.005**	**0.020**
Mexico - Paraguay	**0.034**	0.074
Mexico - Peru	0.375	0.472
Mexico - Suriname	**<0.001**	**<0.001**
Mexico - Trinidad and Tobago	0.428	0.519
Mexico - Uruguay	**0.015**	**0.042**
Mexico - Venezuela	**<0.001**	**<0.001**

Nicaragua - Paraguay	**0.006**	**0.023**
Nicaragua - Peru	**0.004**	**0.018**
Nicaragua - Suriname	**<0.001**	**<0.001**
Nicaragua - Trinidad and Tobago	0.697	0.774
Nicaragua - Uruguay	**<0.001**	**<0.001**
Nicaragua - Venezuela	**<0.001**	**<0.001**
Paraguay - Peru	**0.034**	0.074
Paraguay - Suriname	0.268	0.361
Paraguay - Trinidad and Tobago	**0.021**	0.053
Paraguay - Uruguay	0.264	0.358
Paraguay - Venezuela	**<0.001**	**<0.001**
Peru - Suriname	**<0.001**	**<0.001**
Peru - Trinidad and Tobago	0.453	0.533
Peru - Uruguay	**0.009**	**0.030**
Peru - Venezuela	**<0.001**	**<0.001**
Suriname – Trinidad and Tobago	**0.009**	**0.031**
Suriname – Uruguay	0.925	0.976
Suriname - Venezuela	0.370	0.469
Trinidad and Tobago - Uruguay	**0.001**	**0.008**
Trinidad and Tobago - Venezuela	**0.002**	**0.009**
Uruguay - Venezuela	0.184	0.264

Table S6 The Mann-Whitney U-test between human female and male risk quotient (THQ) by country

	Statistic	p-value	Mean difference
Anguilla	27.0	0.645	0.033
Angentina	2030	0.220	0.030
Belize	1	0.667	0.090
Bolivia	2414	0.665	0.001
Brazil	39921	0.507	0.052
Chile	1952	0.305	0.023
Colombia	1035	0.393	0.013
Costa Rica	34	0.605	0.025
Cuba	19	0.535	0.009
Ecuador	1	0.667	0.012
Jamaica	135	0.751	0.002
Mexico	2826	0.445	0.025
Nicaragua	147	0.646	0.007
Paraguay	6	0.686	0.084
Peru	1980	0.539	0.048
Suriname	-0.201	0.673	0.080
Trinidad and Tobago	103	0.709	0.020
Uruguay	60	0.514	0.095
Venezuela	125	0.518	0.095
All countries	170350	0.131	0.020

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