

Untapping the potential of sulfur isotope analysis in biominerals

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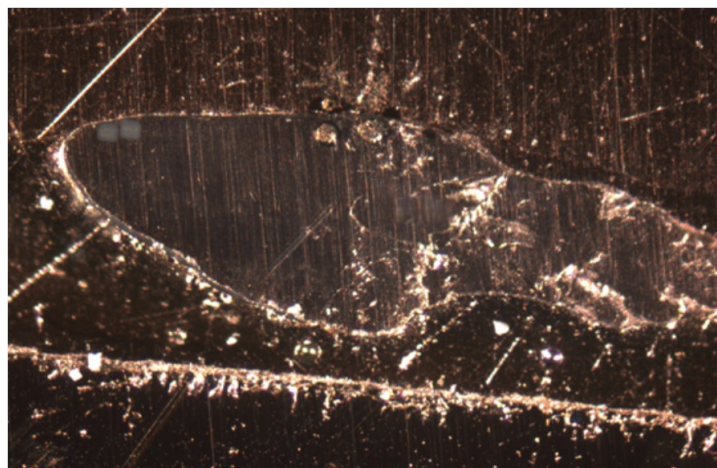


Figure S1. Cross section of barramundi otolith, embedded in epoxy, gold-coated, and showing duplicate rasters from SIMS analysis (grey squares). Duplicate rasters (analysis craters) are located on the top left edge of the otolith. Scale = 30 μm raster.

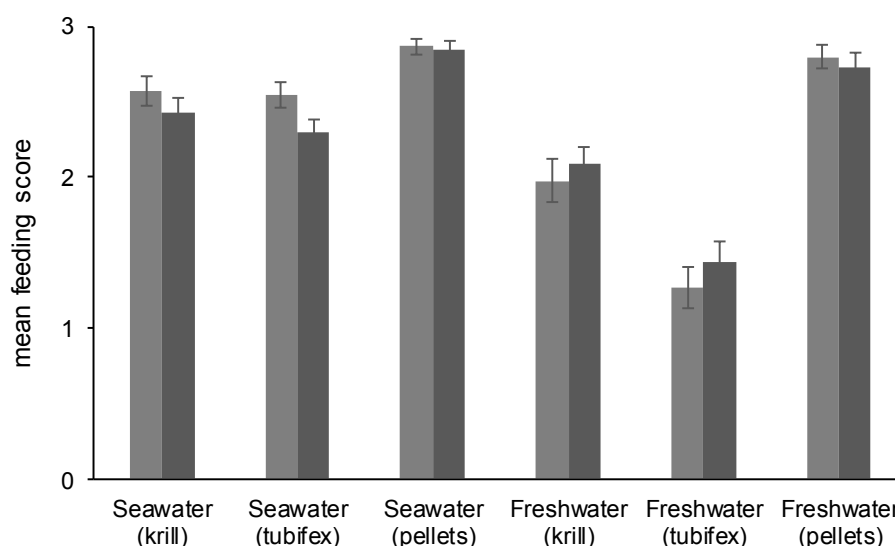


Figure S2. Mean relative feeding rates (\pm SE) of fish raised in freshwater versus seawater and fed freshwater origin (tubifex worms), mixed origin (pellets) or marine origin (krill) diets (refer to Table 1). Rates are based on a qualitative score that was recorded daily at time of feeding (0 = no feeding, 3 = high level feeding). Light and dark grey columns represent replicate tanks.

Table S1. Raw data showing $^{34}\text{S}/^{32}\text{S}$ values for all SIMS analyses in the final dataset (Figure 1). Each fish were analysed in duplicate, except for one individual (*) (n= 25 individual fish, n = 49 individual SIMS analyses). Four fish (1 from FW tubifex, 2 from SW krill, and 1 from SW pellet treatments) were removed from the final dataset and not included in Figure 1 and relevant statistics, as the analyses were of poor quality or not correctly aligned on the otolith edge.

Water	Diet	Tank	Individual	Ratio	Fish Weight (g)
freshwater	krill	1	1	0.043973	
	krill	1	1	0.043982	3.56
	krill	1	2	0.044042	
	krill	1	2	0.043983	1.97
	krill	1	3	0.043742	
	krill	1	3	0.043764	3.21
	krill	2	1	0.044034	
	krill	2	1	0.043933	2.90
	krill	2	2	0.044015	
	krill	2	2	0.043984	3.58
	krill	2	3	0.043844	
	krill	2	3	0.043819	3.48
	pellets	2	1	0.043679	
	pellets	2	1	0.043681	9.11
	pellets	2	2	0.043667	
	pellets	2	2	0.043649	14.8
	pellets	2	3	0.043714	
	pellets	2	3	0.043682	12.61
	tubifex	1	1	0.043741	
	tubifex	1	1	0.043708	1.44
tubifex	1	2	0.043746*	2.02	
seawater	krill	2	1	0.043995	
	krill	2	1	0.043903	3.03
	krill	2	2	0.044078	
	krill	2	2	0.044056	4.68
	krill	2	3	0.044070	
	krill	2	3	0.044016	2.17
	krill	2	4	0.044063	
	krill	2	4	0.044126	3.24
	pellets	1	1	0.043846	
	pellets	1	1	0.043831	12.51
	pellets	1	2	0.043875	
	pellets	1	2	0.043807	13.87
	pellets	2	1	0.043870	
	pellets	2	1	0.043832	10.08
	pellets	2	2	0.043925	
pellets	2	2	0.043917	9.62	

Water	Diet	Tank	Individual	Ratio	Fish Weight (g)
tubifex		1	1	0.043885	
tubifex		1	1	0.043833	1.97
tubifex		1	2	0.043741	
tubifex		1	2	0.043761	2.65
tubifex		1	3	0.043951	
tubifex		1	3	0.043822	1.86
tubifex		2	1	0.043831	
tubifex		2	1	0.043832	2.03
tubifex		2	2	0.043782	
tubifex		2	2	0.043797	3.18
tubifex		2	3	0.043781	
tubifex		2	3	0.043768	1.44