

Table S1. Species studied and specimen information. Columns refer to: tribe, species, species authority, the number of individuals sampled for intestine length and N isotope value (n), trophic guild membership as inferred from gut contents (Guild; Hori et al. 2003; P. McIntyre unpublished), voucher specimen accession numbers at the Cornell University Museum of Vertebrates (CUMV), mean intestine length (IL; cm), standard error intestine length (SE-IL), mean mass (M; g), standard error mass (SE-M), and mtDNA sequence data Genbank accession numbers for ND2 and CytB. Tribe names after Poll (1986), except as noted. All specimens were collected with permission from the University of Dar es Salaam in Tanzania. (Trophic guilds: P = piscivore; Z = zooplanktivore; A = algivore; I = invertivore; S = scale-eater.)

Tribe	Species	Sp. Authority	n	Guild	CUMV #	IL	SE-IL	M	SE-M	ND 2	CytB
Bathybatini	<i>Bathybates fasciatus</i>	Boulenger 1901	3	P	88627	108	9.29	20	11.13	EF679236	EF679268
Boulengerochromini ¹	<i>Boulengerchromis microlepis</i>	Boulenger 1899	3	P	88760	177.67	14.52	21.31	1.15	EF679235	EF679267
Cyphotilapini ¹	<i>Cyphotilapia frontosa</i>	Boulenger 1906	4	P	88626	144.5	39.7	144.3	57.37	EF679242	EF679274
Cyprichromini	<i>Cyprichromis leptosoma</i>	Boulenger 1898	4	Z	88630	99	6.89	9.96	0.29	EF679243	EF679275
Ectodini	<i>Xenotilapia leptura</i>	Boulenger 1901	3	A	89304	211.67	10.81	8.39	0.68	EF679238	EF679270
	<i>Ophthalmotilapia heterodonta</i>	Poll & Matthes 1962	3	A	88644	397	34.43	28.54	2.66	EF679254	EF679286
Eretmodini	<i>Eretmodus cyanostictus</i>	Boulenger 1898	3	A	88640	184	15.72	7.12	0.79	EF679244	EF679276
	<i>Spathodus marlieri</i>	Poll 1950	4	A	89317	300.75	42.21	8.57	1.62	EF679260	EF679292
Lamprologini	<i>Altolamprologus compressiceps</i>	Boulenger 1898	3	I	88649	108	10	20	6.21	EF679237	EF679269
	<i>Chalinochromis brichardi</i>	Poll 1974	3	I	88628	140	12.17	31.83	5.21	EF679241	EF679273
	<i>Julidochromis marlieri</i>	Poll 1956	3	I	89307	101.67	2.73	9.44	23.38	EF679264	EF679296
	<i>Lamprologus callipterus</i>	Boulenger 1906	3	I	88650	72.67	10.84	9.43	1.6	EF679240	EF679272
	<i>Lamprologus lemairii</i>	Boulenger 1899	3	P	88632	73.67	8.01	43.61	7.83	EF679247	EF679279
	<i>Lepidolamprologus elongatus</i>	Boulenger 1898	3	P	88645	90	21.02	60.44	15.04	EF679248	EF679280
	<i>Neolamprologus brichardi</i>	Poll 1974	3	Z	88637	83	9.54	5.45	0.9	EF679251	EF679283
	<i>Neolamprologus furcifer</i>	Boulenger 1898	3	P	88629	66.33	23.45	20.7	5.47	EF679252	EF679284
	<i>Neolamprologus tredocephalus</i>	Boulenger 1899	3	I	88631	62.67	6.98	22.1	1.15	EF679253	EF679285
	<i>Telmatochromis bifrenatus</i>	Myers 1936	3	I	88653	50.33	8.29	1.63	0.45	EF679239	EF679271
	<i>Telmatochromis dhonti</i>	Boulenger 1919	1	I	88636	137	0	28.01	0	EF679266	EF679298
	<i>Telmatochromis temporalis</i>	Boulenger 1898	3	I	88633	117	17.21	6.52	1.12	EF679261	EF679293
Perissodini	<i>Haplotaxodon microlepis</i>	Boulenger 1906	3	Z	88641	203	6.11	45.01	0.51	EF679246	EF679278
	<i>Perissodus microlepis</i>	Boulenger 1898	3	S	88647	67.67	3.71	5.46	0.33	EF679255	EF679287
	<i>Plecodus straeleni</i>	Poll 1948	3	S	88634	112.67	3.53	32.31	8.56	EF679258	EF679290
Tropheini	<i>Gnathochromis pfefferi</i> ¹	Boulenger 1898	3	I	88652	103.33	11.61	19.16	9.58	EF679245	EF679277
	<i>Limnotilapia dardennii</i>	Boulenger 1899	3	I	88642	536	89.29	109.29	46.73	EF679249	EF679281
	<i>Lobochilotes labiatus</i>	Boulenger 1898	3	I	88643	438.33	59.47	121.18	32.4	EF679250	EF679282
	<i>Petrochromis</i> sp. "moshi"	undescribed	3	A	88710	1229.33	140.81	124.8	36.76	EF679256	EF679288

	Matthes &										
<i>Petrochromis famula</i>	Trewavas 1960	3	A	88724	949.67	58.15	74.54	1.16	EF679265	EF679297	
<i>Petrochromis</i> sp. "kazumbe"	undescribed	3	A	88725	1493.67	20.53	167	5.03	EF679257	EF679289	
<i>Simochromis diagramma</i>	Gunther 1894	3	A	88719	617	21.66	59.75	4.54	EF679259	EF679291	
	Nelissen & Thys van den										
<i>Tropheus brichardi</i>	Audenaerde 1975	3	A	88711	383.67	24.46	21.02	3.43	EF679262	EF679294	
<i>Tropheus duboisi</i>	Marlier 1959	3	A	88651	431.33	50.25	29.79	5.37	EF679263	EF679295	

¹ Takahashi 2003.

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