

Table S7. Accession numbers for mtDNA sequences used to generate phylogenies for the comparative methods in this study.

species	ND2	Control
<i>Aristochromis christyi</i>	EF585282 ¹	EF647535
<i>Aulonocara baenschi</i>	GQ422572	GQ422532
<i>Aulonocara</i> sp.	GQ422580	GQ422533
<i>Aulonocara</i> sp. "blue fin"	GQ422566	GQ422531
<i>Copadichromis eucinostomus</i>	EF585268	GQ422530
<i>Copadichromis jacksoni</i>	GQ422593	EF647580
<i>Ctenopharynx pictus</i>	GQ422587	GQ422547
<i>Cyathochromis obliquidens</i>	GQ422579	U90759 ³
<i>Cynotilapia afra</i>	EF585264 ¹	AY911740
<i>Cyrtocara moorii</i>	AY930089 ²	U01105 ³
<i>Dimidiochromis compressiceps</i>	EF585267 ¹	EF647532
<i>Dimidiochromis kiwinge</i>	AF305322	AJ291408 ⁵
<i>Genyochromis mento</i>	AF305297	U90779 ³
<i>Hemitalapia oxyrhynchus</i>	EF585277 ¹	GQ422534
<i>Labeotropheus fuelleborni</i>	EF585259 ¹	U90774 ³
<i>Labeotropheus trewavasae</i>	GQ422577	GQ422535
<i>Labidochromis gigas</i>	EF585276 ¹	GQ422538
<i>Labidochromis</i> sp. "blue bar"	GQ422573	GQ422537
<i>Lethrinops aurita</i>	GQ422586	GQ422539
<i>Maravichromis mola</i>	EF585274 ¹	GQ422540
<i>Melanochromis auratus</i>	AY930069 ²	U01107 ³
<i>Melanochromis</i> sp. "black-white johanni"	GQ422574	U01942 ³
<i>Melanochromis vermivorus</i>	EF585270 ¹	GQ422541
<i>Melanochromis parallelus</i>	GQ422592	U01953 ³
<i>Metriaclima aurora</i>	GQ422569	GQ422542
<i>Metriaclima callainos</i>	GQ422570	AF2136204 ⁴
<i>Metriaclima livingstonii</i>	GQ422582	GQ422543
<i>Metriaclima</i> sp.	GQ422581	GQ422544
<i>Metriaclima zebra</i>	DQ093114	AY930025 ²
<i>Nimbochromis linni</i>	EF585279 ¹	AY913941
<i>Nimbochromis polystigma</i>	EF585262 ¹	AJ291407 ⁵
<i>Otopharynx heterodon</i>	EF585278 ¹	GQ422546
<i>Petrotilapia nigra</i>	GQ422567	GQ422548
<i>Placidochromis johnstoni</i>	EF585269 ¹	GQ422549
<i>Placidochromis milomo</i>	GQ422590	GQ422550
<i>Protomelas annectens</i>	GQ422575	AJ291414 ⁵
<i>Protomelas fenestratus</i>	AF305301	GQ422551
<i>Protomelas similis</i>	GQ422585	GQ422552
<i>Protomelas spilonotus</i>	EF585253	GQ422553
<i>Protomelas taeniolatus</i>	AF305302	EF647546
<i>Pseudotropheus heteropictus</i>	GQ422584	GQ422554
<i>Pseudotropheus microstoma</i>	EF585258 ¹	GQ422555
<i>Rhamphochromis esox</i>	AF305252	AF298913
<i>Rhamphochromis</i> sp.	GQ422591	GQ422556
<i>Stigmatochromis woodi</i>	AF213626	GQ422557
<i>Taeniolatus praeorbitalis</i>	GQ422576	GQ422558
<i>Tramitichromis brevis</i>	AF305320	GQ422559
<i>Trematocranus placodon</i>	EF585261 ¹	GQ422560
<i>Tropheops gracillior</i>	EF585260 ¹	GQ422562
<i>Tropheops</i> sp. "broad mouth"	GQ422589	GQ422561
<i>Tropheops</i> sp. "orange chest"	GQ422583	GQ422563
<i>Tropheops</i> sp. "red cheek"	GQ422568	GQ422564
<i>Tyrannochromis macrostoma</i>	EF585257 ¹	EF647537
<i>Tyrannochromis maculiceps</i>	GQ422571	GQ422565

¹Hulsey et al. 2007. Proc R Soc B 274: 1867–1875.

²Salzburger et al. 2005. BMC Evol Biol 5: 17.

³Parker and Kornfield 1997. J Mol Evol 45: 70–83.

⁴Nagl et al. 2000 Proc R Soc B 267: 1049–1061.

⁵Meyer et al. 1990. Nature 347: 550–553.