

Additional file 1. Investigated Asian and African cichlids.

Major groups and species	Origin of samples	2n	5S rDNA number and position	Chromosomal arm	Reference	45S rDNA number and position	Chromosomal arm	References
Etroplinae								
<i>Etoplus maculatus</i>	Petshop, Botucatu, SP, Brazil	46	2t/a(i)	L	This work	2m/sm(t)	S	[24]
Pseudocrenilabrinae								
<u>Tilapiines</u>								
<i>Oreochromis aureus</i>	TAF-UMD, USA	44	2t/a(p)	CC	This work	2t/a(t)		
<i>Oreochromis mossambicus</i> *	TAF-UMD, USA; Gaoyao Aquac. Germplasm Conserv. Station	44	2t/a(i); 4t/a(i)+2t/a(t)	L; 4L+2S	This work, [68]	3t/a(t); 6t/a(t)	S; S	[68, 24]
<i>Oreochromis niloticus</i> *	Tietê river, Botucatu, SP, Brazil; Aquac. Facility, Dalhousie Univ., Canada	44	4t/a(i)+2t/a(p); 4t/a(i)+4t/a(p)	4L+2S; 4L+2S+2CC	This work, [25]	6t/a(t)	S	[24, 26]
<i>Oreochromis tanganica</i>	TAF-UMD, USA	44	2t/a(p)	CC	This work			
<i>Oreochromis urolepis hornorum</i>	Gaoyao Aquac. Germplasm Conserv. Station	44	4t/a(i)+2t/a(t)	4L+2S	[68]	6t/a(t)	S	[25]
<i>Tilapia mariae</i>	TAF-UMD, USA	40	2t/a(i)	L	This work	2t/a(t)	S	[24]
<i>Tilapia mamfe</i>	TAF-UMD, USA	44	2m/sm(p)+4t/a(p)	CC	This work	2t/a(t)	S	This work
<u>Hemichromines</u>								
<i>Hemichromis bimaculatus</i>	Petshop, Botucatu, SP, Brazil	44	2t/a(p)	CC	This work	2t/a(t)	S	[24]
<u>Haplochromines</u>								
<i>Astatotilapia burtoni</i>	TAF-UMD, USA	40	2m/sm(p)	CC	This work	2t/a(t)	S	[24]
<i>Gephyrochromis moorii</i>	Petshop, Botucatu, SP, Brazil	44	2m/sm(p)+2t/a(p)	CC	This work			
<i>Haplochromis venustus</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work			
<i>Haplochromis livingstonii</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work			
<i>Astatotilapia latifasciata</i> [#]	Petshop, Botucatu, SP, Brazil	44	2m/sm(p)+13t/a(p)	CC	This work	4t/a(t); 6t/a(t)	S; S	[24, 69]
<i>Labeotropheus trewavasae</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work	2t/a(t)	S	[24]
<i>Melanochromis auratus</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work	2t/a(t)	S	[24]
<i>Placidochromis electra</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work	6t/a(t)	S	This work
<i>Metriaclima gold zebra</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work	2t/a(t)	S	[24]
<i>Metriaclima lombardoi</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work	2t/a(t)	S	[24]
<i>Metriaclima callainos</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work			

<i>Metriaclima benetos</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work			
<i>Pseudotropheus</i> sp	TAF-UMD, USA	44	2m/sm(p)	CC	This work			
<i>Pseudotropheus tropheus</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work			
<i>Pseudotropheus zebra</i>	TAF-UMD, USA	44	2m/sm(p)	CC	This work	4t/a(t)	S	This work

2n, diploid number; t/a, telo/acrocentric; m/sm, meta/submetacentric; L, long arm; S, short arm; CC, closely associated to centromeric region; (p), proximal; (i), interstitial; (t), terminal. The (*) indicates species with polymorphism for 5S rDNA sites, and (#) species with polymorphism for 45S rDNA. The polymorphic conditions are separated by (;).