

**Supplementary Table 1** Sample IDs, sampling localities plus coordinates, sampling years and haplotypes of *Boulengerochromis microlepis*.

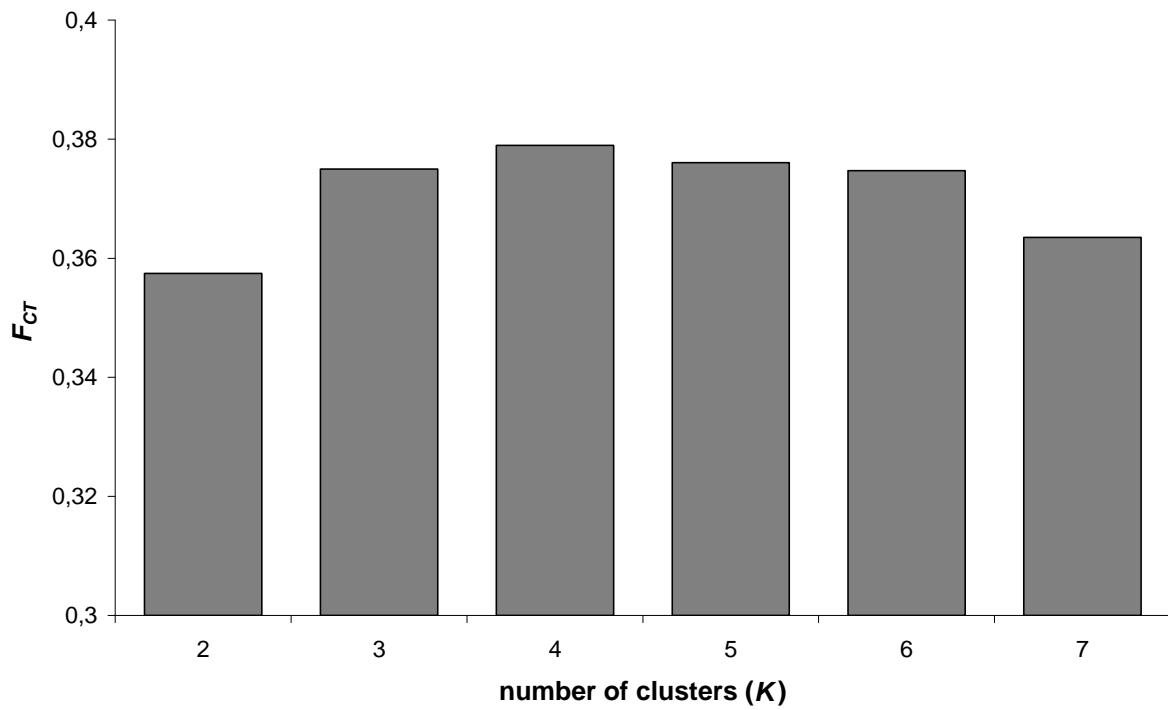
Sample ID	Locality	Coordinates	Year	Haplotype
5977	Mpulungu fishmarket	8°46' S; 31°07' E	2006	Ht24
6113	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
6121	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht22
6122	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht14
6123	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht14
6127	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht14
6132	Wonzye	8°42' S; 31°08' E	2004	Ht14
6135	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht20
6136	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht22
6137	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht22
6157	Mpulungu	8°46' S; 31°07' E	2001	Ht14
7692	Mkangasi – upstream Luega River	6°39' S; 30°21' E	2007	Ht28
7693	Mkangasi – upstream Luega River	6°39' S; 30°21' E	2007	Ht29
13454	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht13
13455	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht22
14275	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14277	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht10
14279	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht22
14280	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14281	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht20
14282	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht20
14283	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht25
14284	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14285	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht18
14286	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14287	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14288	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht1
14289	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14290	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14291	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14292	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht1
14294	Mpulungu fishmarket	8°46' S; 31°07' E	2007	Ht22
14296	Mpulungu fishmarket	8°46' S; 31°07' E	2007	Ht22
14298	Mpulungu fishmarket	8°46' S; 31°07' E	2007	Ht18
14299	Mpulungu fishmarket	8°46' S; 31°07' E	2007	Ht14
14300	Kipili	7°27' S; 30°35' E	2007	Ht14
14301	N of Mabilibili	6°26' S; 29°54' E	2007	Ht4
14302	N of Mabilibili	6°26' S; 29°54' E	2007	Ht7
14303	Mpulungu fishmarket	8°46' S; 31°07' E	2012	Ht24
14304	Mpulungu fishmarket	8°46' S; 31°07' E	2012	Ht22
14305	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht25
14306	Mpulungu fishmarket	8°46' S; 31°07' E	2012	Ht14
14307	Mpulungu fishmarket	8°46' S; 31°07' E	2012	Ht1
14308	Kalambo Lodge	8°37' S; 31°37' E	2012	Ht20
14309	Kalambo Lodge	8°37' S; 31°37' E	2012	Ht6
14310	Mpulungu fishmarket	8°46' S; 31°07' E	2012	Ht14
14311	Mpulungu fishmarket	8°46' S; 31°07' E	2012	Ht14
14312	Kalambo Lodge	8°37' S; 31°37' E	2012	Ht1

14313	Bujumbura fishmarket	3°23' S; 29°21' E	2013	Ht12
14314	Bujumbura fishmarket	3°23' S; 29°21' E	2013	Ht2
14315	Bujumbura fishmarket	3°23' S; 29°21' E	2013	Ht27
14316	Bujumbura fishmarket	3°23' S; 29°21' E	2013	Ht26
14317	Bujumbura fishmarket	3°23' S; 29°21' E	2013	Ht26
14320	Mpulungu fishmarket	8°46' S; 31°07' E	2001	Ht1
14322	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht21
14323	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht22
14324	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht22
14325	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht22
14326	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht14
14327	Mpulungu fishmarket	8°46' S; 31°07' E	2003	Ht18
14331	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
14334	Chisanze	8°31' S; 30°32' E	2006	Ht5
14335	Chimba	8°25' S; 30°27' E	2006	Ht19
14336	Mpulungu fishmarket	8°46' S; 31°07' E	2006	Ht22
14337	Mpulungu fishmarket	8°46' S; 31°07' E	2006	Ht17
14338	Mpulungu fishmarket	8°46' S; 31°07' E	2006	Ht22
14339	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
14340	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht22
14341	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
14342	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht25
14343	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
14344	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
14345	Kalambo Lodge	8°37' S; 31°37' E	2006	Ht14
14346	Katete	8°20' S; 30°30' E	2006	Ht23
14349	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht1
14350	Mpulungu fishmarket	8°46' S; 31°07' E	2004	Ht14
14353	Mpulungu fishmarket	8°46' S; 31°07' E	2007	Ht18
14355	Mpulungu fishmarket	8°46' S; 31°07' E	2007	Ht21
14356	Kipili	7°27' S; 30°35' E	2007	Ht15
14357	Kipili	7°27' S; 30°35' E	2007	Ht16
14358	S of Isonga	6°29' S; 30°10' E	2007	Ht28
14359	N of Mabilibili	6°26' S; 29°54' E	2007	Ht22
14361	Nkondwe Island	7°23' S; 30°33' E	2007	Ht3
14362	Mulembwe	6°07' S; 29°16' E	2010	Ht9
14363	Mugayo	6°47' S; 29°34' E	2010	Ht11
14364	Moba	7°03' S; 29°47' E	2010	Ht8
14365	Mulembwe	6°07' S; 29°16' E	2010	Ht9
14366	Bujumbura fishmarket	3°23' S; 29°21' E	2013	Ht19

Note that samples obtained at the fishmarkets in Mpulungu and Bujumbura might actually come from anywhere nearby these cities.

**Supplementary Table 2** GenBank accession numbers for haplotypes of *Boulengerochromis microlepis*.

<b>Haplotype</b>	<b>GenBank accession number</b>
Ht1	
Ht2	
Ht3	
Ht4	
Ht5	
Ht6	
Ht7	
Ht8	
Ht9	
Ht10	
Ht11	
Ht12	
Ht13	
Ht14	
Ht15	
Ht16	
Ht17	
Ht18	
Ht19	
Ht20	
Ht21	
Ht22	
Ht23	
Ht24	
Ht25	
Ht26	
Ht27	
Ht28	
Ht29	



**Supplementary Fig. 1** Results of the spatial analysis of molecular variance. A maximum  $F_{CT}$  was observed for  $K = 4$  (cluster I, Chisanze; cluster II, S of Isonga plus Mkangasi; cluster III, Nkondwe Island; cluster IV, the remaining locations; see Fig. 1).