

Table S7: Summary of genome assembly of seven sequenced teleost species

Species	Total length of scaffolds (bp)	Total length of contigs (bp)	Percentage of gaps	N50 of scaffolds (bp)	N50 of contigs (bp)	Number of scaffolds	Number of contigs
<i>Larimichthys crocea</i>	678,964,076	661,327,267	2.60%	1,034,540	63,110	6,019	27,015
<i>Gadus morhua</i>	832,114,588	607,869,276	26.95%	136,353	2,310	398,859	555,245
<i>Takifugu rubripes</i>	393,312,790	351,017,437	10.75%	858,115	49,304	7,214	33,204
<i>Oryzias latipes</i>	869,000,216	700,384,697	19.40%	29,908,082	9,628	7,189	134,399
<i>Tetraodon nigroviridis</i>	358,618,246	302,293,082	15.71%	13,390,619	30,260	27	33,235
<i>Gasterosteus aculeatus</i>	461,533,321	446,627,734	3.23%	18,115,788	83,204	1,842	16,966
<i>Danio rerio</i>	1,412,464,843	1,409,741,015	0.19%	54,093,808	1,073,451	1,133	28,972

Assemblies of six other teleost species are downloaded from Ensemble74. Since *Oryzias latipes*, *Tetraodon nigroviridis*, *Gasterosteus aculeatus*, and *Danio rerio* were anchored to chromosomes (Shadowed background), their scaffold N50 is larger than 10 Mb.