

# X Chromosome

Species	Genome			
	Number of single copy genes	Number of duplicate copy genes	Number of triplicate or more copy genes	Total number of genes
Amazon molly	10313	2909	712	13934
Atlantic herring	10198	2818	624	13640
Atlantic salmon	3919	6418	4147	14484
Ballan wrasse	9759	3130	1027	13916
Barramundi perch	10123	3089	836	14048
Blue tilapia	10480	2910	651	14041
Blunt-snouted clingfish	10139	2552	549	13240
Brown trout	3744	7066	3816	14626
Burton's mouthbrooder	10678	2836	514	14028
Channel bull blenny	10109	2678	517	13304
Channel catfish	10868	2672	590	14130
Climbing perch	10638	2979	540	14157
Cod	10411	2323	379	13113
Common carp	3530	5699	4772	14001
Denticle herring	9916	3182	798	13896
Eastern happy	10464	2865	713	14042
Electric eel	10526	2973	513	14012
European seabass	10503	2861	442	13806
Fugu	10133	2549	576	13258
Gilthead seabream	10711	2870	495	14076
Greater amberjack	10750	2957	552	14259
Guppy	10623	2662	509	13794
Huchen	3797	6234	4510	14541
Indian glassy fish	10440	2833	556	13829
Indian medaka	10589	2798	531	13918
Japanese medaka HdrR	10699	2557	474	13730
Japanese medaka HNI	10528	2432	426	13386
Japanese medaka HSOK	10609	2563	455	13627
Jewelled blenny	9907	2882	881	13670
Large yellow croaker	10645	2916	464	14025
Live sharksucker	10656	2761	422	13839
Lyretail cichlid	10331	2816	640	13787
Makobe Island cichlid	10552	2881	537	13970
Mexican tetra	10464	3139	621	14224
Midas cichlid	10441	2761	595	13797
Mummichog	10489	2813	553	13855
Nile tilapia	10588	2803	574	13965
Northern pike	10447	3354	462	14263
Orbiculate cardinalfish	10081	2994	797	13872
Pachon cavefish	10333	2844	497	13674
Pinecone soldierfish	10486	3042	553	14081
Rainbow trout	4274	6304	3445	14023
Red-bellied piranha	10767	3201	589	14557
Sailfin molly	10238	2843	780	13861
Sheepshead minnow	10388	2800	597	13785

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Shortfin molly	10174	2962	780	13916
Siamese fighting fish	10663	2637	432	13732
Stickleback	10384	2474	337	13195
Swamp eel	10771	2672	512	13955
Tetraodon	9699	2576	643	12918
Tiger tail seahorse	10485	2519	512	13516
Tongue sole	10473	2615	555	13643
Turbot	10755	2757	340	13852
Yellowtail amberjack	10347	3084	735	14166
Zebra mbuna	10262	3037	831	14130
Zebrafish	10601	2942	552	14095
Zig-zag eel	10768	2867	431	14066
<b>MAXIMAL</b>	10868	7066	4772	14626
<b>MINIMAL</b>	3530	2323	337	12918
<b>MOYENNE</b>	9853,78947	3135,28070	892,82456	13881,89474

## X Chromosome

### X chromosome genes

Number of X chromosome teleost orthologs returned in singleton	Number of X chromosome teleost orthologs remained in duplicate	Number of X chromosome teleost orthologs remained in triplicate or more	Total number of X chromosome genes
122	30	4	156
112	35	3	150
37	79	46	162
116	34	8	158
110	40	6	156
126	32	2	160
123	25	4	152
39	78	45	162
129	26	4	159
120	28	3	151
132	31	2	165
124	31	3	158
120	28	2	150
38	71	50	159
113	35	11	159
123	27	5	155
123	34	2	159
122	30	0	152
125	25	4	154
121	32	0	153
126	29	2	157
125	29	2	156
32	78	54	164
122	33	3	158
127	31	3	161
131	26	1	158
126	26	1	153
127	25	2	154
123	28	5	156
127	32	2	161
129	25	3	157
126	29	3	158
124	30	3	157
114	44	3	161
124	30	2	156
127	23	5	155
124	29	3	156
114	43	2	159
122	29	6	157
111	42	2	155
126	29	4	159
42	78	39	159
118	42	4	164
126	32	3	161
132	24	4	160

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127	29	4	160
125	27	3	155
121	26	1	148
128	26	5	159
110	33	1	144
121	32	2	155
125	25	5	155
128	29	2	159
124	30	5	159
121	33	6	160
122	38	2	162
132	25	6	163
132	79	54	165
32	23	0	144
115,50877	34,56140	7,14035	157,21053

# X Chromosome

## Comparison between singleton, duplicate, triplicate and more copies

Chi2 test	Chi2 test p-value	Chi2 test FDR (Benjamini-Hochberg procedure)	Hypergeometric test p-value	Hypergeometric test FDR (Benjamini-Hochberg procedure)
1,4252441964	0,2325421590	0,5358397208	0,9037804847	0,9884503281
0,0007749713	0,9777911141	0,9777911141	0,5204207194	0,9884503281
1,4603177402	0,2268795717	0,5358397208	0,1291340065	0,9884503281
0,8162863499	0,3662681920	0,5358397208	0,8404096812	0,9884503281
0,1854944212	0,6666933307	0,7600303970	0,3614405237	0,9884503281
1,4287986592	0,2319605980	0,5358397208	0,9040324714	0,9884503281
1,5980960560	0,2061732362	0,5358397208	0,9169064225	0,9884503281
0,1976021253	0,6566633431	0,7600303970	0,3655547669	0,9884503281
2,1980089024	0,1381891322	0,5358397208	0,9465651825	0,9884503281
1,0053114091	0,3160287064	0,5358397208	0,8661727938	0,9884503281
0,8847556329	0,3469024498	0,5358397208	0,8510313397	0,9884503281
0,9425104321	0,3316330579	0,5358397208	0,8580368748	0,9884503281
0,0336166531	0,8545246232	0,9190170476	0,6055502713	0,9884503281
0,1453975440	0,7029730125	0,7856757199	0,3905705266	0,9884503281
0,0065192884	0,9356470467	0,9696705757	0,4978806621	0,9884503281
1,9087165206	0,1671058993	0,5358397208	0,9334918817	0,9884503281
0,4257974428	0,5140583172	0,6511405352	0,7708676140	0,9884503281
1,4644516350	0,2262231451	0,5358397208	0,9075792428	0,9884503281
1,9202366087	0,1658305791	0,5358397208	0,9347938758	0,9884503281
0,7523857034	0,3857219526	0,5358397208	0,8331480781	0,9884503281
2,0018735843	0,1571049089	0,5358397208	0,9380939788	0,9884503281
0,8558250237	0,3549096725	0,5358397208	0,8478939476	0,9884503281
3,7028569750	0,0543193836	0,5358397208	0,0297169721	0,9884503281
0,2531408592	0,6148721336	0,7456959918	0,7220193429	0,9884503281
0,6939524762	0,4048232419	0,5366261579	0,8235208834	0,9884503281
2,2843990657	0,1306807484	0,5358397208	0,9504959043	0,9884503281
1,2497827936	0,2635939666	0,5358397208	0,8914695859	0,9884503281
1,9020505876	0,1678489725	0,5358397208	0,9343962531	0,9884503281
3,1765300716	0,0747032133	0,5358397208	0,9727043867	0,9884503281
0,7825804364	0,3763531107	0,5358397208	0,8369927025	0,9884503281
2,3656858623	0,1240293912	0,5358397208	0,9530742764	0,9884503281
1,9493043731	0,1626618309	0,5358397208	0,9354847952	0,9884503281
1,0097663794	0,3149588138	0,5358397208	0,8660674339	0,9884503281
0,6299162345	0,4273860413	0,5536591898	0,2372721472	0,9884503281
1,2310564103	0,2672016898	0,5358397208	0,8884103467	0,9884503281
3,2709010954	0,0705188793	0,5358397208	0,9751548546	0,9884503281
1,1454384774	0,2845060759	0,5358397208	0,8804271051	0,9884503281
0,1942649292	0,6593904080	0,7600303970	0,3575766708	0,9884503281
2,0044483731	0,1568383378	0,5358397208	0,9374406379	0,9884503281
1,3123926789	0,2519619044	0,5358397208	0,1453017937	0,9884503281
1,9076974844	0,1672192503	0,5358397208	0,9332535673	0,9884503281
1,2389811038	0,2656675104	0,5358397208	0,1506171372	0,9884503281
0,3451643289	0,5568633341	0,6900263052	0,3044476769	0,9884503281
1,6137288039	0,2039684383	0,5358397208	0,9165026779	0,9884503281
4,3957624193	0,0360283473	0,5358397208	0,9884503281	0,9884503281

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3,1943544406	0,0738929389	0,5358397208	0,9730642880	0,9884503281
0,8008441076	0,3708411150	0,5358397208	0,8406801930	0,9884503281
0,8267563513	0,3632121439	0,5358397208	0,8453029151	0,9884503281
0,9947892568	0,3185746487	0,5358397208	0,8648507067	0,9884503281
0,1316011127	0,7167776926	0,7856986246	0,6732391382	0,9884503281
0,0213743692	0,8837636968	0,9328616800	0,5898908577	0,9884503281
1,3085820579	0,2526515420	0,5358397208	0,8955877737	0,9884503281
0,7496939388	0,3865731488	0,5358397208	0,8329185148	0,9884503281
1,9755813287	0,1598566796	0,5358397208	0,9361037562	0,9884503281
0,7240174447	0,3948292679	0,5358397208	0,8273175633	0,9884503281
0,0008272669	0,9770542109	0,9777911141	0,5420031344	0,9884503281
1,7807311656	0,1820595691	0,5358397208	0,9271398266	0,9884503281
4,39576	0,97779	0,97779	0,98845	0,98845
0,00077	0,03603	0,53584	0,02972	0,98845
1,27767	0,35576	0,60195	0,74565	0,98845

**Comparison between tripli or  
more copies and dupli or less  
copies**

<b>Hypergeometric test p-value</b>	<b>Hypergeometric test FDR (Benjamini- Hochberg procedure)</b>
0,9612438914	1,0000000000
0,9704698845	1,0000000000
0,5565964067	1,0000000000
0,9046347538	1,0000000000
0,9085976049	1,0000000000
0,9957344967	1,0000000000
0,8805491706	1,0000000000
0,3396552965	1,0000000000
0,8392150573	1,0000000000
0,9365777269	1,0000000000
0,9930292319	1,0000000000
0,9435340861	1,0000000000
0,9339243179	1,0000000000
0,7841156678	1,0000000000
0,3058024461	1,0000000000
0,9000371211	1,0000000000
0,9817342310	1,0000000000
1,0000000000	1,0000000000
0,9069220097	1,0000000000
1,0000000000	1,0000000000
0,9854854784	1,0000000000
0,9806772683	1,0000000000
0,3243935096	1,0000000000
0,9559402904	1,0000000000
0,9482372724	1,0000000000
0,9962408394	1,0000000000
0,9931056633	1,0000000000
0,9668394160	1,0000000000
0,9758491395	1,0000000000
0,9717047092	1,0000000000
0,8618592457	1,0000000000
0,9796519620	1,0000000000
0,9439139871	1,0000000000
0,9739740256	1,0000000000
0,9919581591	1,0000000000
0,7462599508	1,0000000000
0,9579323800	1,0000000000
0,9670040529	1,0000000000
0,8939194345	1,0000000000
0,9784645583	1,0000000000
0,8758019579	1,0000000000
0,5353203318	1,0000000000
0,9031756436	1,0000000000
0,9951429448	1,0000000000
0,9203217315	1,0000000000

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0,9812899769	1,0000000000
0,8701178145	1,0000000000
0,9787371887	1,0000000000
0,6983732262	1,0000000000
0,9993852412	1,0000000000
0,9825771997	1,0000000000
0,7610721528	1,0000000000
0,9051386363	1,0000000000
0,9205656582	1,0000000000
0,9148378336	1,0000000000
0,9885644195	1,0000000000
0,3830100486	1,0000000000

1,00000	1,00000
0,30580	1,00000
0,87806	1,00000