Supplementary Tables

Table S1. Primer information of 61 candidate SNPs of black porgy.

SNP	Mutated Base	Primer
scaffold2-2815335	T→G	F：ACGTTGGATGTGAACCCCAGTGTGATTAGG R：ACGTTGGATGTGAACCCCAGTGTGATTAGG Extension：ACAGCTGAGAGAGCCCT
scaffold2-3426830	T→C	F：ACGTTGGATGCACTCACACTGCTTGTAAAC R：ACGTTGGATGCCTGCAGTTGTCAAAACCAC Extension：ACACGGCTTGTAAACATCGTTGAC
scaffold2-13687576	A→T	F：ACGTTGGATGATGCTGTTGCCATTACAGCC R：ACGTTGGATGAAGTTGTCCCCAGGTTGATG Extension：CAGCCTATTGCCTTTCAGT
scaffold3-16652593	T→C	F：ACGTTGGATGAACTGTTAAAGGCACAGCCG R：ACGTTGGATGATACCATCACCGATGGACAG Extension：GGATAAGATCCTGGGAGCTGACAC
scaffold3-16653046	C→T	F：ACGTTGGATGATTGTAGATGTGCCTGTCGG R：ACGTTGGATGTGTACCTTTCCATCAATAGC Extension：CGAAGAGCTTCTGGGCCGCGT
scaffold4-10430350	A→G	F：ACGTTGGATGGGTAAAAGGTAAACATGCTCC R：ACGTTGGATGACACCATTGTTGAGGCAAGG Extension：AACTTTTGTTATTTTTCAGACAAATG
scaffold5-12042944	T→C	F：ACGTTGGATGGGACCTCTTAAACTGACACG R：ACGTTGGATGACTGCACACAGGACAGATAC Extension：TCCACGCTTTGCGCTCCGC
scaffold6-5210078	A→C	F：ACGTTGGATGTGCTTGATTTCGGACATGCC R：ACGTTGGATGAGAGCCCCATGATGTACCC Extension：GGGAGCAACTGGCGGGACAGGGC
scaffold6-9258715	T→C	F：ACGTTGGATGAGGTGATGATGTGCAGACAG R：ACGTTGGATGCAACTCCATGTTCGACATCC Extension：CCGAAGCTGTCTCTTGTACTC
scaffold6-15802194	C→T	F：ACGTTGGATGCACCATGAATGGAGAAGCTG R：ACGTTGGATGTCTCCTCTTGTTGTTCAGGG Extension：TTATCCCACACACCGGCCTC
scaffold7-15455173	A→G	F：ACGTTGGATGTGTTTCAGACGTGCAAGCTC R：ACGTTGGATGAAAAGCCTCCGGAGCAAATG Extension：TGCCTCTTCTCTGCTCTCATCTT
scaffold7-15455275	C→T	F：ACGTTGGATGGAAACAAGCTCTGAGTCTGG R：ACGTTGGATGTTGATCTTGTCAGCTGGCAC Extension：GAAGTGGAAGCCATCATGACTGA
scaffold7-20336421	T→C	F：ACGTTGGATGTACCTATAGTTGGACACCGC R：ACGTTGGATGTCCCGTGCTTCAGCTATGAG Extension：TTGACGCACTGTCCTTT
scaffold8-9389475	T→C	F：ACGTTGGATGTTTTTCAGCACGTCGCGAAG R：ACGTTGGATGTCAGAGGTCTCCCTTCATTG Extension：AGGCTCGAAGCCTCTTCTTCTC
scaffold8-12482471	T→C	F：ACGTTGGATGACTTACTTGGACAGGCCGTG R：ACGTTGGATGTTCTCCCAGATTCTGGAGAG Extension：AGATGTCCTTGGTCATGGTGCC

scaffold9-8466307	T→C	F：ACGTTGGATGCCTCGTAAGCAGGATTCCAG R：ACGTTGGATGTCTGTAGATGGACCAGTAGC Extension：TGAGTCCAGCGCCCTCTATCAATGC
scaffold9-8467739	G→A	F：ACGTTGGATGATTGAGTTCCAGGGATCCTC R：ACGTTGGATGACAGGAAGCTTCGCAGTATG Extension：TCCTGTTACTAAACCACAGTCAATCAT
scaffold10-3011393	T→C	F：ACGTTGGATGAGACCAAACAGCTGACGGAG R：ACGTTGGATGGAACTGTTCCGCCAGTTTGC Extension：GGACCAGCTGACGGAGATGCTTCC
scaffold11-8650275	A→G	F：ACGTTGGATGTTGATGCGACTGACAGAGAC R：ACGTTGGATGGTTCTCGTCTTTGGTCTCAG Extension：AAATGCGGGCCTTCGCGGA
scaffold12-12226863	A→G	F：ACGTTGGATGTTCTTCTGCTGCTGGTCCTC R：ACGTTGGATGAGTGTCCTGCTGCACCCTGA Extension：AGGGTGCGGTGCTGCTGCCGGCG
scaffold12-12716321	T→C	F：ACGTTGGATGTCGTGGAGCTCATAGAGAAG R：ACGTTGGATGTCTCCGCTTGTTTGACTGTG Extension：AGAAGAACTTGGACACGTC
scaffold12-12772854	A→G	F：ACGTTGGATGTTGGCATCAACCTGGACAAC R：ACGTTGGATGACTCCTTCTCAAAGGCATGG Extension：CAGCCCTATAAGATGCC
scaffold13-4787950	A→C	F：ACGTTGGATGTACCCTTTGGAACCACAAGC R：ACGTTGGATGTTTGTACCCCATCCTTCCAC Extension：CACAAGCCCATTTATCTC
scaffold13-4805623	G→A	F：ACGTTGGATGGTTGCTTTCTGCTTTGCTCC R：ACGTTGGATGGAAGTCTGTGACAGACTTGG Extension：CTGCTTTGCTCCAGCTTT
scaffold13-5790209	T→C	F：ACGTTGGATGACTCGTGAACGATGAGTGAC R：ACGTTGGATGGCTACATGCTGGACAACTAC Extension：AGGGACCCCCAGGTGGCAATCTG
scaffold13-6616349	C→T	F：ACGTTGGATGTCATCCTGAGACCGGAGAAG R：ACGTTGGATGTGTCGACTAGTCTGAGGAAG Extension：GGGGTCATCTGGATCAAACTGGA
scaffold16-5142266	T→C	F：ACGTTGGATGAGAACCATTGCAGCCAGATG R：ACGTTGGATGGAAGTCTTGCTGGTTTCTCC Extension：AGGTGAGCCCCAGCAGAGTG
scaffold16-5142293	A→G	F：ACGTTGGATGTAGGCCTCACCTTTGATCTG R：ACGTTGGATGTACCTGTGTGGTCACTCTGC Extension：GGTTCAGTGGAGAGAACCAT
scaffold17-796332	T→C	F：ACGTTGGATGCCTAGAGCCAGGATCTTATC R：ACGTTGGATGCCCTGGAGTTCCACAAAGAA Extension：CCTCATAACCATCAAAAATAAGGTC
scaffold17-796939	T→C	F：ACGTTGGATGACAGAGCGTAGTGTATAACC R：ACGTTGGATGCTATGACAACACAACAGTGC Extension：CCCCTGTGTGTCAGCTTCCT
scaffold18-2467783	T→C	F：ACGTTGGATGACACTCCTGCCTGTGTGGTC R：ACGTTGGATGACTTGCACACACTCCATGAG Extension：CCTGTCCGGAAACCAGGC
scaffold19-709400	T→C	F：ACGTTGGATGACAATATCACTGGGTGGCTG R：ACGTTGGATGGGCCAACAGCTTGTTTGAAG Extension：TGGTGGCTGGACAAGAACAA
scaffold20-453978	G→A	F：ACGTTGGATGGTCCCTCAATACAGGCTATG

		R：ACGTTGGATGCACATGTCGATACTTGTCTG
		Extension：TATTTGATCGTTTGCTGACCATC
scaffold21-4955509	A→G	F：ACGTTGGATGAACGTCAGGACGAGCCTGTG
		R：ACGTTGGATGATCCCCTCAGAGTCTTTTGC
		Extension：GGTGCAGGACGAGCCTGTGAGAGTGG
scaffold25-4206172	A→G	F：ACGTTGGATGGTGTCCAGAACCTTCTGACC
		R：ACGTTGGATGCTTCAGGTGAAAACACGGTC
		Extension：ACACCAGACCCTCTGTGCC
scaffold31-9275712	T→C	F：ACGTTGGATGCTTCCCCCGCATCACTTTAC
		R：ACGTTGGATGTCAGAGAGATGAGGTGTGTG
		Extension：GGTCACGCATCACTTTACCTCAGAA
scaffold31-11182212	A→G	F：ACGTTGGATGGTGCTTGTTGCTCACCTTTG
		R：ACGTTGGATGCCCAAGCTCAGACCTTGAAA
		Extension：GCTCACCTTTGTCTTTCTT
scaffold31-12525471	A→C	F：ACGTTGGATGTGTTGACAGCGTCTGCAATG
		R：ACGTTGGATGGGCCAATCGTAACATTCAGC
		Extension：TCCCGGTACTCGTCGGGATTTCT
scaffold34-3226435	A→C	F：ACGTTGGATGCTGACGACATGGAGATGAAG
		R：ACGTTGGATGGTGTTGACATTTACCTCTCC
		Extension：CCCTGAGTATTCTGTGCACCCG
scaffold35-2164468	A→G	F：ACGTTGGATGAAACTCACCTGCAGTTTGGC
		R：ACGTTGGATGGTTGATTCCTGTTTGTGTGC
		Extension：GATATCAGCCAGCTCTTT
scaffold36-4436178	T→C	F：ACGTTGGATGCTGAGGACCATACAGCCATC
		R：ACGTTGGATGCTCTGTTCTGTCCTTAGTCG
		Extension：GCCTTGCAGCACATGGTACTCCGC
scaffold49-4261152	G→A	F：ACGTTGGATGTCTCACCACACATGACGTTG
		R：ACGTTGGATGACCATATTCATGGGTCACGG
		Extension：ATGACGTTGTATAATTCTATATTTTC
scaffold59-960994	A→G	F：ACGTTGGATGAGCTGGTGGATCGACCTGTG
		R：ACGTTGGATGGGTTTAAACCTACGCCAGAG
		Extension：AGCTTGTGGATCGACCTGTGGGACCC
scaffold65-275780	A→G	F：ACGTTGGATGTCAGAGCCCTGATGAGGAAG
		R：ACGTTGGATGGTGTCTTACTTCAGCTCCTG
		Extension：AACAGGACAGAGTTGAGCAGAT
scaffold66-172323	A→G	F：ACGTTGGATGGAGGCTGGTTTCTTTGTACG
		R：ACGTTGGATGTGTTCATCACCCTCTCTCAC
		Extension：GGTCAGGTATACAATCCAGTC
scaffold69-513313	C→T	F：ACGTTGGATGACTGTCGAGTGCTACATGTC
		R：ACGTTGGATGGAGAAAGAGAGAGATGCAGG
		Extension：TTCATCCTCTTCATGCT
scaffold85-1906881	A→G	F：ACGTTGGATGTGTATTTGCAGAGACCAGCG
		R：ACGTTGGATGCTGAGGACCACATGAAGAAG
		Extension：TGCGTAGAAAGGCATGTC
scaffold91-1266067	A→G	F：ACGTTGGATGAGTCTGACACTCTGCAACTG
		R：ACGTTGGATGCTTTGCTTTCCTCAGGTTTC
		Extension：GATCCATGTTCTCTCACCAAG
scaffold102-1219145	T→C	F：ACGTTGGATGAATCCTGCGCCTGAGAAGAC
		R：ACGTTGGATGTTCTGCTCAGATTTGGGACG
		Extension：CCATCCCGCTCGGGCATCGCTGCCTCC
scaffold102-1223941	T→C	F：ACGTTGGATGCCAGATTAAAGCTGTGGTCC
		R：ACGTTGGATGAAAGTGGCTGTGTAGCGTTG

		Extension：AAGCTGTGGTCCATAACTA
scaffold111-391534	T→C	F：ACGTTGGATGAAGGAAAAACTGCAGCCGAG
		R：ACGTTGGATGCTTACTTTGTGAGGCAGCAG
		Extension：TCGTAAAGAGCTGGAGGC
scaffold141-357706	T→C	F：ACGTTGGATGTGATGCGTGACTGCAGTTTC
		R：ACGTTGGATGCAGGCCTGGCATCAAGATCA
		Extension：CTGCTCTTGTTCTACAGGAGG
scaffold155-255306	T→C	F：ACGTTGGATGTGTAACTTCAGGTGGGTCAG
		R：ACGTTGGATGTGGAGAAGATGGGTTTGCAC
		Extension：ATATCGAGGTGCGGCCTGGTAT
scaffold164-155638	G→T	F：ACGTTGGATGACAAGCTGCTAGTAGGCAAC
		R：ACGTTGGATGATGTCGTCTTACCTTCGCTG
		Extension：CTCACAACGAAGAAGGT
scaffold168-178120	A→G	F：ACGTTGGATGTGACTAACAGAAGACCGACC
		R：ACGTTGGATGAAGCGTTTCTTCACCGTCAC
		Extension：AACAACCGGCTCGCTTCTCCCC
scaffold184-113778	C→T	F：ACGTTGGATGAAGAAGAACCCAGAGCAGTC
		R：ACGTTGGATGGTCTGTTTGTCTCACCTTCC
		Extension：CCCATCAGTCGGTCAACTTCGC
scaffold184-115262	A→G	F：ACGTTGGATGCCTTTAGGTGGGATGTAGTC
		R：ACGTTGGATGCAGCTGGTGATAAGAAGTGC
		Extension：GGGATGTAGTCGCTCAT
scaffold210-68511	A→G	F：ACGTTGGATGTTGTCCTGCAGACATTGCTC
		R：ACGTTGGATGTCGACAACAGTAACGGTGAG
		Extension：GGCCGGAAGTTTCATCAGCTGCACCA
scaffold290-11890	T→C	F：ACGTTGGATGCCTCTGCTGAACTATTCACC
		R：ACGTTGGATGGTACATCTGGGAGTCTCTTC
		Extension：ATGTGTGATTCAGGTAAGGA
scaffold305-32581	A→G	F：ACGTTGGATGACACCTTCTACAACGAGCTG
		R：ACGTTGGATGTCTTCTCCCTGTTGGCCTTG
		Extension：TACCACGAGCTGCGCGTGGCCCC
scaffold435-12868	A→G	F：ACGTTGGATGCCAAATCTCAAGACCGTAGC
		R：ACGTTGGATGACACATCCTTTGGGCTCATC
		Extension：CCCGGACTGGGAAAGACAT

Table S2. Genetic polymorphisms of black porgy SNP markers in the population.

SNP	Genotypes	Genotype Frequency	Allele Frequency	*Ne*	*He*	*PIC*	χ^2
scaffold10-3011393	CC	0.867	C: 0.927	1.156	0.135	0.131	1.879
	CT	0.120	T: 0.073				
	TT	0.013					
scaffold10-3011393	CC	0.392	C: 0.592	1.935	0.483	0.533	4.824
	CT	0.399	T: 0.408				
	TT	0.209					
scaffold102-1223941	CC	0.943	C: 0.946	1.113	0.102	0.100	138.966
	CT	0.006	T: 0.054				
	TT	0.051					
scaffold11-8650275	AA	0.032	A: 0.177	1.412	0.292	0.926	0.0004
	AG	0.291	G: 0.823				
	GG	0.677					
scaffold111-391534	CC	0.759	C: 0.858	1.323	0.244	0.235	6.114
	CT	0.196	T: 0.142				

	TT	0.044					
scaffold12-12226863	AG	0.070	A: 0.035	1.072	0.067	0.066	0.206
	GG	0.930	G: 0.965				
	CC	0.639	C: 0.801	1.469	0.319	0.308	0.019
scaffold12-12716321	CT	0.323	T: 0.199				
	TT	0.038					
	AA	0.095	A: 0.256	1.616	0.381	0.862	3.484
scaffold12-12772854	AG	0.323	G: 0.744				
	GG	0.582					
	AA	0.184	A: 0.389	1.906	0.475	0.735	2.869
scaffold13-4787950	AC	0.411	C: 0.611				
	CC	0.405					
	AA	0.070	A: 0.522	1.996	0.499	0.603	104.610
scaffold13-4805623	AG	0.905	G: 0.478				
	GG	0.025					
	CC	0.867	C: 0.873	1.284	0.221	0.213	140.428
scaffold13-5790209	CT	0.013	T: 0.127				
	TT	0.120					
	CC	0.044	C: 0.108	1.238	0.192	0.970	18.355
scaffold13-6616349	CT	0.127	T: 0.892				
	TT	0.829					
	CC	0.671	C: 0.829	1.395	0.283	0.272	2.154
scaffold141-357706	CT	0.316	T: 0.171				
	TT	0.013					
	CC	0.367	C: 0.585	1.943	0.485	0.539	1.590
scaffold155-255306	CT	0.437	T: 0.415				
	TT	0.196					
	CC	0.772	C: 0.877	1.276	0.216	0.208	0.190
scaffold16-5142266	CT	0.209	T: 0.123				
	TT	0.019					
	AA	0.114	A: 0.320	1.770	0.435	0.803	0.463
scaffold16-5142293	AG	0.411	G: 0.680				
	GG	0.475					
	GG	0.101	G: 0.244	1.584	0.369	0.873	8.163
scaffold164-155638	TG	0.285	T: 0.756				
	TT	0.614					
	AA	0.177	A: 0.418	1.947	0.486	0.707	0.020
scaffold168-178120	AG	0.481	G: 0.582				
	GG	0.342					
	CC	0.677	C: 0.829	1.395	0.283	0.272	0.821
scaffold17-796332	CT	0.304	T: 0.171				
	TT	0.019					
	CC	0.411	C: 0.665	1.805	0.446	0.459	2.908
scaffold17-796939	CT	0.506	T: 0.335				
	TT	0.082					
	CC	0.918	C: 0.924	1.163	0.140	0.136	130.787
scaffold18-2467783	CT	0.013	T: 0.076				
	TT	0.070					
	CC	0.044	C: 0.237	1.567	0.362	0.878	0.698
scaffold184-113778	CT	0.386	T: 0.763				
	TT	0.570					

	AA	0.006	A: 0.051	1.106	0.096	0.993	0.970
scaffold184-115262	AG	0.089	G: 0.949				
	GG	0.905					
	CC	0.810	C: 0.905	1.221	0.181	0.166	1.738
scaffold19-709400	CT	0.190	T: 0.095				
	GG	0.766	G: 0.880	1.268	0.212	0.204	0.933
scaffold2-2815335	TG	0.228	T: 0.120				
	TT	0.006					
	CC	0.981	C: 0.991	1.019	0.019	0.019	0.015
scaffold2-3426830	CT	0.019	T: 0.009				
	AA	0.013	A: 0.120	1.268	0.212	0.963	0.046
scaffold2-13687576	AT	0.215	T: 0.880				
	TT	0.772					
	AA	0.772	A: 0.883	1.261	0.207	0.199	0.805
scaffold20-453978	AG	0.222	G: 0.117				
	GG	0.006					
	AA	0.171	A: 0.443	1.974	0.494	0.682	1.674
scaffold21-4955509	AG	0.544	G: 0.557				
	GG	0.285					
	AA	0.006	A: 0.136	1.307	0.235	0.954	1.698
scaffold210-68511	AG	0.259	G: 0.864				
	GG	0.734					
	AA	0.209	A: 0.335	1.805	0.446	0.788	3.472
scaffold25-4206172	AG	0.380	G: 0.665				
	GG	0.475					
	CC	0.120	C: 0.361	1.856	0.461	0.763	0.291
scaffold290-11890	CT	0.481	T: 0.639				
	TT	0.399					
	CC	0.576	C: 0.772	1.543	0.352	0.342	2.097
scaffold3-16652593	CT	0.392	T: 0.228				
	TT	0.032					
scaffold3-16653046	CT	0.228	C: 0.114	1.253	0.202	0.194	2.612
	TT	0.772	T: 0.886				
scaffold305-32581	AG	0.044	A: 0.022	1.045	0.043	0.043	0.081
	GG	0.956	G: 0.978				
	CC	0.633	C: 0.801	1.469	0.319	0.308	0.407
scaffold31-9275712	CT	0.335	T: 0.199				
	TT	0.032					
	AA	0.006	A: 0.054	1.128	0.114	0.992	0.719
scaffold31-11182212	AG	0.095	G: 0.940				
	GG	0.892					
	AA	0.032	A: 0.114	1.253	0.202	0.967	5.403
scaffold31-12525471	AC	0.165	C: 0.886				
	CC	0.804					
	AA	0.051	A: 0.225	1.535	0.348	0.889	0.0001
scaffold34-3226435	AC	0.348	C: 0.775				
	CC	0.601					
scaffold35-2164468	AA	0.114	A: 0.367	1.868	0.465	0.757	1.270

	AG	0.506	G: 0.633				
	GG	0.380					
	CC	0.335	C: 0.585	1.943	0.485	0.539	0.143
scaffold36-4436178	CT	0.500	T: 0.415				
	TT	0.165					
	AA	0.291	A: 0.516	1.998	0.499	0.609	1.592
scaffold4-10430350	AG	0.449	G: 0.484				
	GG	0.259					
	AA	0.044	A: 0.234	1.559	0.359	0.881	0.545
scaffold435-12868	AG	0.380	G: 0.766				
	GG	0.576					
	AA	0.753	A: 0.829	1.395	0.283	0.272	34.010
scaffold49-4261152	AG	0.152	G: 0.171				
	GG	0.095					
	CC	0.797	C: 0.899	1.223	0.182	0.176	2.006
scaffold5-12042944	CT	0.203	T: 0.101				
	AA	0.006	A: 0.111	1.245	0.197	0.968	0.574
scaffold59-960994	AG	0.209	G: 0.889				
	GG	0.785					
	AA	0.108	A: 0.304	1.733	0.423	0.818	0.827
scaffold6-5210078	AC	0.392	C: 0.696				
	CC	0.500					
	CC	0.468	C: 0.649	1.837	0.456	0.475	6.865
scaffold6-9258715	CT	0.361	T: 0.351				
	TT	0.171					
	CC	0.108	C: 0.253	1.608	0.378	0.864	8.364
scaffold6-15802194	CT	0.291	T: 0.747				
	TT	0.601					
	AA	0.019	A: 0.206	1.485	0.327	0.904	3.220
scaffold65-275780	AG	0.373	G: 0.794				
	GG	0.608					
	AA	0.019	A: 0.149	1.339	0.253	0.946	0.097
scaffold66-172323	AG	0.259	G: 0.851				
	GG	0.722					
	CC	0.203	C: 0.405	1.930	0.482	0.720	4.023
scaffold69-513313	CT	0.405	T: 0.595				
	TT	0.392					
	AA	0.070	A: 0.225	1.558	0.358	0.890	1.857
scaffold7-15455173	AG	0.310	G: 0.769				
	GG	0.614					
	CC	0.152	C: 0.430	1.962	0.490	0.695	2.920
scaffold7-15455275	CT	0.557	T: 0.570				
	TT	0.291					
	CC	0.468	C: 0.690	1.748	0.428	0.433	0.198
scaffold7-20336421	CT	0.443	T: 0.310				
	TT	0.089					
	CC	0.614	C: 0.753	1.592	0.372	0.364	9.956
scaffold8-9389475	CT	0.278	T: 0.247				
	TT	0.108					
scaffold8-12482471	CC	0.886	C: 0.940	1.127	0.113	0.110	0.364
	CT	0.108	T: 0.060				

	TT	0.006					
	CC	0.557	C: 0.753	1.592	0.372	0.364	0.485
scaffold9-8466307	CT	0.392	T: 0.247				
	TT	0.051					
	AA	0.468	A: 0.677	1.777	0.437	0.446	0.313
scaffold9-8467739	AG	0.418	G: 0.323				
	GG	0.114					
	AA	0.127	A: 0.174	1.404	0.288	0.928	70.884
scaffold91-1266067	AG	0.095	G: 0.826				
	GG	0.778					

Note: $\chi 2$ value corresponds to *P* value *P*0.05(2) = 5.99, *P*0.01(2) = 9.21.