

**Supplementary Table 1**

Characteristics for 9 polymorphic microsatellite loci developed for saffron cod (*Eleginus gracilis*) collected from the Chukchi Sea in 2011 and the Gulf of Alaska in 2013.  $n$ =number of samples.

Locus		Primer sequence	Repeat motif	$n$	$H_E$	$F_{is}$
Elgr7	F:	5' TCCTCTCTCTGAACACAACACTCC 3'	TCTG	30	0.853	-0.016
	R:	5' ACCAGAGCGGACGAAGGC 3'				
Elgr11	F:	5' AATGCTCCTATTTCAATAGCCC 3'	ATCT	30	0.833	0.043
	R:	5' ATAGTTGCAGCTTTCGCAGG 3'				
Elgr13	F:	5' TGCTGATAGCTGAAGATGGC 3'	TCTG	30	0.867	0.007
	R:	5' ATTTGCTCAGCAGAACATGG 3'				
Elgr14	F:	5' GTGTATTCAAAGCAACGCCG 3'	TCTG	30	0.800	0.101
	R:	5' CAAGCAACACACATCTTCAGTCC 3'				
Elgr23	F:	5' AAGAAGGTATTACCCTGTATAATTGCC 3'	TCTG	30	0.933	-0.027
	R:	5' CCACCTTCAACACGCAGG 3'				
Elgr31	F:	5' TTTGGCAGTCACGTGTGC 3'	AAAG	30	0.833	-0.103
	R:	5' GAGGCAAGAACAGCATCTGG 3'				
Elgr38	F:	5' CAAACCTGGCTCAGGAACG 3'	TCTG	30	0.867	-0.026
	R:	5' GGAAAGAGGAGATCCCTGTGG 3'				
Elgr44	F:	5' TGGCTCATGGTAGAATCGCC 3'	TCTG	30	0.867	0.057
	R:	5' TGGAAAGCCAAAGTTGTACTGC 3'				
Elgr45	F:	5' GAGCACGCGTTTAGCTCC 3'	AGTG	30	0.867	0.009
	R:	5' TTTAAATGGTCGACCTATCACC 3'				