

conservation	ATG	conservation
<i>Callorhinchus milii</i>	ATG	3
<i>Alligator mississippiensis</i>	ATG	3
<i>Anolis carolinensis</i>	ATG	23
<i>Astyanax mexicanus</i>	ATG	3
<i>Boleophthalmus pectinirostris</i>	ATG	3
<i>Cynoglossus semilaevis</i>	ATG	3
<i>Danio rerio</i>	ATG AACAGAGGG AAAAGG GAGAGCAGGACACCGATAGGAAAAGCAGGAGCATCCAGCAGTGAACGTGTCCAGACGGCTCCT	80
<i>Esox lucius</i>	ATG	3
<i>Fundulus heteroclitus</i>	ATG	3
<i>Gekko japonicus</i>	ATG	3
<i>Haplochromis burtoni</i>	ATG	3
<i>Hippocampus comes</i>	ATG	3
<i>Ictalurus punctatus</i>	ATG	3
<i>Larimichthys crocea</i>	ATG	3
<i>Lates calcarifer</i>	ATG	3
<i>Latimeria chalumnae</i>	ATG	3
<i>Lepisosteus oculatus</i>	ATG	3
<i>Macaca fascicularis</i>	ATG	3
<i>Manacus vitellinus</i>	ATG	3
<i>Mus musculus</i>	ATG	3
<i>Neolamprologus brichardi</i>	ATG	3
<i>Oncorhynchus mykiss</i>	ATG	3
<i>Oreochromis niloticus</i>	ATG	3
<i>Poecilia formosa</i>	ATG	3
<i>Poecilia latipinna</i>	ATG	3
<i>Pseudopodoces humilis</i>	ATG	3
<i>Pundamilia nyererei</i>	ATG	3
<i>Pygocentrus nattereri</i>	ATG	3
<i>Python bivittatus</i>	ATG	3
<i>Rattus norvegicus</i>	ATG	3
<i>Scleropages formosus</i>	ATG	3
<i>Sinocyclocheilus anshuiensis</i>	ATG	3
<i>Xenopus tropicalis</i>	ATG	3
<i>Lipotes vexillifer</i>	ATG	3
<i>Orcinus orca</i>	ATG	3
<i>Homo sapiens</i>	ATG	3

conservation	50	60	70	80	90	
<i>Callorhinchus milii</i>	TAGGG	AACGCATGT	GCCT	TGGAGGACAAATACAAA	CTGGC	AACTACACCAAG 96
<i>Alligator mississippiensis</i>	TCAGC	CCGGCTGCT	GCCT	TGGAAGCCAGTCTCTT	GCCCCCT	GAGGGTGACCCC 87
<i>Anolis carolinensis</i>	GCGGG	GCGGCGCTC	GCCT	TGGACGCCTCCCTCCT	GCCCCCGGC	CAGCCCCGCGGCC 159
<i>Astyanax mexicanus</i>	GAGTC	AGCATGGCT	GCTCT	GAAACCTGAGTGGAA	GCCGGG	ACTTATCCATCT 87
<i>Boleophthalmus pectinirostris</i>	GA	CTCTGTGGA	GCTCT	GCCTACGGAGTGGTT	GCCGGGG	AACTATCCAGAC 111
<i>Cynoglossus semilaevis</i>	TGGGA	CTGTGTGCT	GCTCT	GCCAGAAGACTGGGTCC	CAGGA	AATTATACAGAC 114
<i>Danio rerio</i>	GCTGG	AGC	GCGGCTCT	GAAACCCGAGTGGAT	GCCAGGG	GATTATCCCTCCA 210
<i>Esox lucius</i>	TACTC	TGTGAGATT	GTCT	GCCACCTGAGTGGAT	GCCGGGG	AACTATTCTTCC 102
<i>Fundulus heteroclitus</i>	CG	CTCTTTGAA	GCTCT	GTCAGCCAGCTGGCT	GCCAGGG	GACTATGCAAAC 120
<i>Gekko japonicus</i>	TGCTC	CTGCTGCCG	GCCC	GCGGCCGCGGCCTGGGA	GCGCCCCCG	ACCCCCGCGC 99
<i>Haplochromis burtoni</i>	GG	CAATCTGAG	GCTCT	GCCAGAAAGCTGGCT	GCTGGG	GAATTATTCAGAC 108
<i>Hippocampus comes</i>	AG	CAGTGTGAC	GCTCT	GCCGGCCAGCTGGCT	GCCAGGA	GAGTATTCACAC 96
<i>Ictalurus punctatus</i>	GAGTC	GGG	GTGGCTCT	GAAACCTGAGTGGCA	GCTGGG	AAGTACGATTCC 96
<i>Larimichthys crocea</i>	GA	CACTCTGAG	GCTTT	GACAGCAAGCTGGAT	GCCAGGG	AATTATGATAAC 108
<i>Lates calcarifer</i>	GA	CTGTGTGTG	GCTCT	GCCAGCAACCTGGCT	GCCAGGG	GAATATACAAAT 108
<i>Latimeria chalumnae</i>	CT	CTAG	GCCCT	TGACAATAGTTACCT	GCTCAG	AACTACACCAAA 87
<i>Lepisosteus oculatus</i>	GG	CTCGCTCATT	CTGT	TATTCTTATTTGAACTAC	CGGGG	GATTACCTAGCC 84
<i>Macaca fascicularis</i>	CCGCCGCAGCCC	GCGCTG	GCCCT	TGGACCCCGGGCTGCA	GCCGGC	AACTTTTCCGCC 126
<i>Manacus vitellinus</i>	TCAGC	CTGGCAGGT	GCCCT	TCGGGCCAGTTTCA	GCCCCC	CAGCATCCCCGC 84
<i>Mus musculus</i>	TGCTGTTGCTGCAGCCG	TCGCCC	GCCCCG	GCACTCGACCCTGGATTGCA	GCCGGGC	AACTTTTCCCCG 138
<i>Neolamprologus brichardi</i>	GG	CAATCTGAG	GCTCT	GCCAGAAAGCTGGCT	GCTGGG	GAATTATTCAGAC 108
<i>Oncorhynchus mykiss</i>	GACTC	TGTCATTTT	GTCT	GCCGCCGAGTGGGG	GCCAGGG	ACCTTCCCTGCC 102
<i>Oreochromis niloticus</i>	GG	CTATCTGAG	GCTCT	GCCAGAAAGCTGGCT	GCTGGG	GAATTATTCAGAC 108
<i>Poecilia formosa</i>	TG	CTATGTGAA	GCTCT	GCCAGCCGACTGGCT	GCCAGGG	GACTATGCAAAC 117
<i>Poecilia latipinna</i>	TG	CTGTGTGAA	GCTCT	GCCAGCCGACTGGCT	GCCAGGG	GACTATGCAAAC 117
<i>Pseudopodoces humilis</i>	TGAGC	CTGGCAGGT	GCCCT	TCAGCCCGGCCTCGA	GCCCCC	CAGCATGAGCCC 84
<i>Pundamilia nyererei</i>	GG	CAATCTGAG	GCTCT	GCCAGAAAGCTGGCT	GCTGGG	GAATTATTCAGAC 108
<i>Pygocentrus nattereri</i>	GAGCC	AGG	GCTCT	GAATCCCGAGTGGCA	GCCGGG	GCTTACGAGTCT 81
<i>Python bivittatus</i>	TTGGG	GTGGCATT	GCTCT	TGGATGCCTCCCTGAT	GCTCCT	AACTACAACAAC 90
<i>Rattus norvegicus</i>	TGCTGCTGCTGCTGCCGCCGTGCCCC	GCCCCG	GCGCT	TGACCCTGGATTGCA	GCCGGG	AACTTTTCCGCG 141
<i>Scleropages formosus</i>	GT	GCACATTGC	CT	GCCAGTAGACTGGCAAC	CAGGG	ATGTACCCAGC 84
<i>Sinocyclocheilus anshuiensis</i>	GCACG	AGC	GCAGCTCT	GAAACCCGAGTGGATC	CGGGG	GATTATTCTATG 84
<i>Xenopus tropicalis</i>	TGGGC	ACCAATTCA	GCCCT	TGACAGCTCCTTCTCT	GCCAGGC	ACCTACCCCAAG 87
<i>Lipotes vexillifer</i>	TGCTGCTGCTGCCGCCGCCACCGCCGCTGTGGTCTCTG	GCTCT	CAACCCCGCTTGCA	GCCGGG	AACTTTTCCGCC 147	
<i>Orcinus orca</i>	CCACCACCGCCGCTGTGGTCTCTG	GCGCT	TGACCCCGCTTGCA	GCCGGG	AACTTTTCCGCC 132	
<i>Homo sapiens</i>	CCGCCGCAGCCC	GCCCTG	GCGT	TGACCCCGGGCTGCA	GCCGGC	AACTTTTCTGCT 123

conservation	100	110	120	130	140	150	160	170		
<i>Callorhinchus milii</i>	GATGAAGCG	GGTG	CTTTGTTA	TTTGTGGCTGAT	TACAACACAACAG	CAGAGAGCA	TTTATTT	CAAGAGT	GTTTTCAGCCAG	176
<i>Alligator mississippiensis</i>	ACTGAGCAAG	GGGCT	GTGCTTGT	TTTGCAGATAAG	TACAACAGCAGCAG	CTGAGATAG	TCTTGT	CAAGAGT	GCTGAATGCCAG	167
<i>Anolis carolinensis</i>	ACCGAGGAG	GGCG	CCCGGCTC	TTGCGCCAGGAA	TACAACGCCACCG	CCGAGACCG	TCTTCT	TCTGACA	AACACGATGCCAG	239
<i>Astyanax mexicanus</i>	ACAGAGGCG	GGAG	CTGAGCTG	TTGCTCAGCGACT	TACAACACCACCG	CAGAACAAG	TCTTCT	CTTTCAG	CACGGAGGCCAG	167
<i>Boleophthalmus pectinirostris</i>	ACAGTGGCC	GGAG	TGCTGTCT	TTTCTCAGTGACT	TACAACAGCACCG	CCGAGGAAG	TGCTTT	ACTACAG	TGTGACGGCATC	191
<i>Cynoglossus semilaevis</i>	AATAAGCTT	GATGC	ACTACGGT	TTCTTGATGACT	TACAACCACACT	GCTGAAATGG	TACTGT	TCCAGAG	TGTCTCTGGCCAG	194
<i>Danio rerio</i>	ACTGAACAAG	GGGC	CAGAGAGG	TTTGTGAGCGACT	TACAATCCACCG	CCGAGGAGG	TGCTTT	ACTTAC	CTTACAGAGGCCAG	290
<i>Esox lucius</i>	ACAGAAGAAG	GGTGC	CATAAAG	TTTGTGACGCTT	TACAATACCTCCG	TGAGCAAG	TACCTA	CTAA	AACCAAGAGGCCAAG	182
<i>Fundulus heteroclitus</i>	ACCGTGTCT	GGTG	CACAGACG	TTCTCAGTGACT	TACAACAGCACT	GCAGAGGAGG	TGGTCT	TTTAAC	AGCGTGTCCGCTAG	200
<i>Gekko japonicus</i>	ACCGAGGCC	GGCG	CCCGCCTC	TTGCGCAGCGCC	TACAACGGCAGCG	CCGAGGCC	GTCTT	CTGCGC	CAACCGTCTCCGCCAG	179
<i>Haplochromis burtoni</i>	ACCATCAGT	GATGC	CACAAAGG	TTCTCAGTGACT	TACAACAGCACCG	CCGAGGAGG	TGTTTT	TTCCAC	AGTGTCTCTGCCAG	188
<i>Hippocampus comes</i>	ACGGCGGCC	GATGC	CAGTGC	TTTCTCGCGATT	TACAACAGCACAG	CGGAGGAGG	TTTTCT	TTTAC	AGCGTGTCCGCCAG	176
<i>Ictalurus punctatus</i>	ACAGAGGCT	GGGGC	CATTACG	TTTGTGAGTGATT	TACAACCTCGACT	GCTGAGCAAG	TGTTCT	ACTATA	GACACAGAGGCCAAG	176
<i>Larimichthys crocea</i>	ACCACGGC	CAGAGG	CATTAAGG	TTTCTAAATGACT	TACAACAGCACT	GCCGAGGAGG	TGTTAT	TTCTT	CAGCGTCTCTGCCAG	188
<i>Lates calcarifer</i>	ACCACGGAT	GATGC	ACTAAGG	TTCTCAGTGACT	TACAACAGCACT	GCTGAGGAGG	TGTTAT	TTTAC	AGCGTTTCTGCCAG	188
<i>Latimeria chalumnae</i>	AATAAAAT	TGGGGC	CTTGCAA	TTTGTGAGTGACT	TACAACAGCACT	GGGAGGAGG	TCTTCT	TTTAAA	AGTGTATCTGCCAAG	167
<i>Lepisosteus oculatus</i>	AATGAGACG	GGGGC	GTTAGAT	TTTGTGAATGACT	TACAACACCTCAG	CTGAGCAGG	TTTTCT	TTCCG	CAGCACCAGTGCCAG	164
<i>Macaca fascicularis</i>	GACGAGGCC	GGGGC	GCAACTC	TTGCGCAGAGCT	TACAATTGAGCG	CCGAACAGG	TGCTGTT	CTCAG	AGCGTGCCGCCAG	206
<i>Manacus vitellinus</i>	ACCGAGGAG	GGGGC	CGCCCTC	TTGCGCAGTGACT	TACAACAGCACCG	CCGAGCTCG	TCTCTT	CTTGAG	AGCGTCTCGGCCAG	164
<i>Mus musculus</i>	GACGAGGC	AGGGC	GCAGCTT	TTTGTGAAAGCT	TATAACTCGAGT	GCCGAGGTGG	TGATGTT	TTCCAG	AGCACCGTGGCCAG	218
<i>Neolamprologus brichardi</i>	ACCATCAGT	GATGC	CACAAAGG	TTCTCAGTGACT	TACAACAGCACCG	CCGAGGAGG	TGTTTT	TTCCAC	AGTGTCTCTGCCAG	188
<i>Oncorhynchus mykiss</i>	ACAGAGGCC	GGGGC	CAAAGACT	TTTGTCACTGCC	TACAATACCGCCG	CTGAGCTGG	TATCTA	CCAAA	ACCAAGAGGCCAG	182
<i>Oreochromis niloticus</i>	ACCATCAGT	GATGC	CACAAAGG	TTCTCAGTGACT	TACAACAGCACCG	CCGAGGAGG	TGTTTT	TTCCAC	AGTGTCTCTGCCAG	188
<i>Poecilia formosa</i>	TCTGTGAC	GATGG	CCAGAGG	TTTCTCAGTGACT	TACAACAGCACCG	CAGGAGG	TGTTCT	TTTAC	AGCGTGTCCGCCAG	197
<i>Poecilia latipinna</i>	TCTGTGAC	GATGG	CCAGAGG	TTTCTCAGTAAC	TACAACAGCACCG	CAGAGGAGG	TGTTCT	TTTAC	AGCGTGTCCGCCAG	197
<i>Pseudopodoces humilis</i>	ACCGAGGA	AGGGC	CACCCGC	TTGCGCAGAGACT	TACAACAGCACCG	CCGAGCTCG	TCTCTT	CTTGAG	AGCGTCTCGGCCAG	164
<i>Pundamilia nyererei</i>	ACCATCAGT	GATGC	CACAAAGG	TTCTCAGTGACT	TACAACAGCACCG	CCGAGGAGG	TGTTTT	TTCCAC	AGTGTCTCTGCCAG	188
<i>Pygocentrus nattereri</i>	TCGGAGGC	AGGGC	CAATCGG	TTTGTGAGTGACT	TACAACAGCACT	GAGAGCAAG	TCTTCT	TACTT	CAGCACAGAGGCCAG	161
<i>Python bivittatus</i>	ACCGAGGA	AGGGC	CCGCTGT	TTGCCCCAAAGACT	TATAACAGCACCG	GGGAAACT	TGTTCT	TTGAA	AGCGTCTCCGCCAG	170
<i>Rattus norvegicus</i>	GACGAGGC	AGGGC	GCAGCTC	TTTGTGACAGCT	TATAACTCGAGT	GCCGAGGTGG	TGATGTT	CTCAG	AGCACCGCAGCCAG	221
<i>Scleropages formosus</i>	ACAGAGGA	AGGAG	GAAACAAT	TTTGTGATGAAT	TATAATTCAACGG	CAGAGGAGG	TTTTCT	TTTAC	AGCACCAGCGCCAG	164
<i>Sinocyclocheilus anshuiensis</i>	ACAGAGGC	AGGGC	CTGAGAGC	TTTGTGAGCGACT	TACAACCTCAACCG	CCGAGGAGG	TCTTCT	TACTT	CAGCACAGAGGCCAG	164
<i>Xenopus tropicalis</i>	GATGAGGCT	GTTGC	CAGAGACT	TTTGTCCGATGCC	TACAACAGCACAG	CAGAGGTTAT	CTTATT	TTCAAG	AGTGTGGAAGCCAG	167
<i>Lipotes vexillifer</i>	GACGAGGCC	GGGGC	CAGAGGTT	TTGCGAGAGAGCT	TCAATTCCAGCG	CCGAGCAGG	TGCTGTT	CTCAC	AGCAGCGCCGCCAG	227
<i>Orcinus orca</i>	GACGAGGCC	GGTGC	CGAGGTC	TTGCGAAAGAGCT	TCAATTCCAGCG	CCGAGCAGG	TGTTCT	TTTAC	AGCAGCGCCGCCAG	212
<i>Homo sapiens</i>	GACGAGGCC	GGGGC	GCAGCTC	TTGCGCAGAGCT	TACAATCCAGCG	CCGAACAGG	TGCTGTT	TTCCAG	AGCGTGGCCGCCAG	203

	180	190	200	210	220	230	240	250	
conservation									
<i>Callorhinchus milii</i>	CTGGAATTACAAACACCAATCTGACCAAATATAACAGCAGAAAA	CAGATCAATGCCTCGCTAGTTGAGCAAGAGTTTACGG	256						
<i>Alligator mississippiensis</i>	CTGGAATTACAAACACCAACCTGACCGACTTCAACTCCAACCTGCAGATCATGGCCTCGCTGGAGGAGCAGAATTTACAGG	247							
<i>Anolis carolinensis</i>	CTGGGTTTACAAACACCAACCTCACCGACTTCAACGCCAGCTGCAGGTGGCAGCTTCTTTGATGGAGCAAGAAATTCATAG	319							
<i>Astyanax mexicanus</i>	CTGGGAATACAAACACCAACCTGACCAATGAAAACTCCCTGCAACAGATCCAGGCGTCTATGATAGAGCAAGAAATTTACAG	247							
<i>Boleophthalmus pectinirostris</i>	ATGGAACCTACAAACACCAACCTGACGGCGCACAACTCACAGCTGCAGGTCCAGGCTCCATGGATGAGCAGGCCCTTTAGTG	271							
<i>Cynoglossus semilaevis</i>	CTGGAACCTACAAACACCAACATCACACAACCAAATCTCAGCTTCAGGTAATTCATCTCTTGAAGAACAGGAATTTCTCTG	274							
<i>Danio rerio</i>	CTGGAACCTACAAACACCAACCTGACCGATCACAAATTCACAACCTGCAGATAGAAGCATCTTTGGAGGAGCAGGCTTTTACAG	370							
<i>Esox lucius</i>	CTGGACTTACAGACCAACATTACAACCTCAAACTCGGATAAAAAAGTGGAAATCTGACGGGCTGAAGCAAGCTTTTCACAG	262							
<i>Fundulus heteroclitus</i>	CTGGAACCTACAAACACCAACCTTACGGATCACAACTCCAAGCTGCAGGTAGCTGCAAGTCTCGAAGAACCAAGCCTTTGATG	280							
<i>Gekko japonicus</i>	CTGGGCCTACAAACACCAACCTCACCGCCGCCAACGCCAGCAGCAGGTGAATTCCTCTTTGGACGAACAGGAGTTTATAC	259							
<i>Haplochromis burtoni</i>	CTGGAACCTACAAACACCAACATAACAGACCACAACTCAAAGCTTCAGGTAAGTGCATCTCTTGAAGAACAGGCATTTCGTGG	268							
<i>Hippocampus comes</i>	CTGGAACCTACAAACACCAACCTTGACAGAGTACAACCTCTCAACTGCAGGTAAACGCATCCTTGGAGGAGCAAGCTTTTCATCG	256							
<i>Ictalurus punctatus</i>	CTGGGAGCATAAAACCAACCTGACGGAGTACAATTCCAGCAAGAGGTGCTGGCAAGTCTAGAGAAACAAAATTTACACAG	256							
<i>Larimichthys crocea</i>	CTGGAACCTACAAACACCAACATAACAAGCCACAACTCTGAGCTTCAGGTAATGCATCTCTTGACGAGCAGGCCTTTGCAT	268							
<i>Lates calcarifer</i>	CTGGAACCTACAAACACCAACATAACAGAGCACAACTCCATGCTTCAGGTAATGCAGCCCTTGAAGAGCAAGCATTCTCAG	268							
<i>Latimeria chalumnae</i>	TTGGGATTATAACACAAATCTGACTACATACAACCAGGAAAAACAGATCAATGCATCTTTAGAGGAGCAAGAGTTCTCTG	247							
<i>Lepisosteus oculatus</i>	CTGGACATACAAACACCGACTGAATGAACATAACAGATAGCACAGGTTAAACGCCTCAATGGAGGAGCAGGCCCTTTGTGG	244							
<i>Macaca fascicularis</i>	CTGGGCTCATGACACCAACATCACGCCGAGAAATGCACGGGCCAGGAGGAAGCAGCCCTGCTCAGCCAGGAGTTTGCCG	286							
<i>Manacus vitellinus</i>	CTGGAATTACAAACACCAACCTGACGGCGGAAAAACGCTGCTCTGCAGGTCAGGCTCGCTGGAGGAGCAAGCAACTTCACGG	244							
<i>Mus musculus</i>	TTGGGCGCAGGACACCAACATCACGGAGGAGAACGGCGGACGCCAGGAGGAAGCGGCCCTGGTCAGCCAGGAGTTTGCGAG	298							
<i>Neolamprologus brichardi</i>	CTGGAACCTACAAACACCAACATAACAGACCACAACTCAAAGCTTCAGGTAAGTGCATTTCTTGAAGAACAGGCATTGTGG	268							
<i>Oncorhynchus mykiss</i>	CTGGACATACCAGACCAACATTACGCCCCACAAACGCAGAGAAAAAGGTGGAATCTGATGGGATGAAGCAGGCCCTTCACAG	262							
<i>Oreochromis niloticus</i>	CTGGAACCTACAAACACCAACATAACAGACCACAACTCAAAGCTTCAGGTAAGTGCATCTCTTGAAGAACAGGCATTCTGTGG	268							
<i>Poecilia formosa</i>	CTGGAACCTACAAACACCAACCTGACGGAGCACAACTCAAAGCTGCAGGTACTTGCAAGTCTTGAAGAACCAAGCATTGTGTG	277							
<i>Poecilia latipinna</i>	CTGGAACCTACAAACACCAACCTGACGGAGCACAACTCAAAGCTGCAGGTACTTGCAAGTCTTGAAGAACCAAGCCTTGTGTG	277							
<i>Pseudopodoces humilis</i>	CTGGAATTACACCACCAACCTGACGGCGGAAAAATGCTGCTCTGCAGGTCAAGGCATCACTGGAGGAGCAGAACTTCACAG	244							
<i>Pundamilia nyererei</i>	CTGGAACCTACAAACACCAACATAACAGACCACAACTCAAAGCTTCAGGTAAGTGCATCTCTTGAAGAACAGGCATTTCGTGG	268							
<i>Pygocentrus nattereri</i>	CTGGACATACAAACACCAACCTGACGGACTACAACCTCCAGCAACAGGTTCTGTGCATCTTTGGAGGAGCAAGCATTTAGTG	241							
<i>Python bivittatus</i>	CTGGAATTACAAACACCAACCTGACAGACGAGAACGCTCAGCTGCAGGTAGCAGCTTCTTTGAAGGAACAAAATTTACAG	250							
<i>Rattus norvegicus</i>	CTGGGCGCACGACACCAACATCACGGAGGAGAAATGCGCGGCTCCAGGAGGAAGCGGCCCTGATCAACCGAGGAGTTTGCGAG	301							
<i>Scleropages formosus</i>	CTGGGCATACAAACACCAACCTGACTGAAGAGAACTCCAAAATACAGGTTGAAGCCTCCTTAGAGGAACAGGCCTTTCACAG	244							
<i>Sinocyclocheilus anshuiensis</i>	CTGGAACCTACAAACACCAACCTGACAGATCACAAATTCACAGCTGCAGATTGCTGCATCTTTGGAGGAGCAGGCCTTTCACAG	244							
<i>Xenopus tropicalis</i>	TTGGGCATATAACACCAACCTGACTGACTACAACCTCAAAGCAGCAGATTCTAGCTTCCATGGAGGAGCAGGAGTTTAATG	247							
<i>Lipotes vexillifer</i>	CTGGGCGCACGACACCGACATCAACGAGGAAAAACGCGCGGCGCCAGGAGGAGGCAGCCCTGCTCAGCCAGGAGTTTTCAG	307							
<i>Orcinus orca</i>	CTGGGCGCACGACACCAACATCACCGAGGAAAAACGCGCGGCGCCAGGAGGAGGCAGCCCTTAATCAGCCAGGAGTTTTCAG	292							
<i>Homo sapiens</i>	CTGGGCGCACGACACCAACATCACCGCGGAGAAATGCAAGGCGCCAGGAGGAAGCAGCCCTGCTCAGCCAGGAGTTTGCGG	283							

	260	270	280	290	300	310	320	330	
conservation	●●●								

		340	350	360	370	380	390	400	410	
conservation										
<i>Callorhinchus milii</i>	CTGAGAGAGA	TTCGAATC	CTAGGCC	CTGCAAT	CTTGACCCACAAA	AGAGAG	AGAGTAC	AACACCAT	CTGACTGAAAT	413
<i>Alligator mississippiensis</i>	ATTGGCTCCA	TCCAGACCT	TGGGGC	CTTCAAC	CTGCCCATGAACA	AGCGGG	AGCAGTAC	AAACACCATTTT	TGAGTGAGAT	404
<i>Anolis carolinensis</i>	ATCAGTAACA	TCCAGACAT	TAGGCC	CCTCCAAT	TGGATCTGGA	AAAGCGG	AGCGGTAT	AACACTATAAT	TGAGTGAGAT	476
<i>Astyanax mexicanus</i>	ATAAAGAAGA	TCAATGTG	CTCGGAG	CCGCCAAC	CTCCCAACTGCAG	AGAGAG	AGAGGTAC	AAACACAATT	CTGAGTCAGAT	407
<i>Boleophthalmus pectinirostris</i>	TATGACAAGA	TGTTGTCT	TGGGAC	CTGCCAAC	CTGCCACCGCCG	AAAGAG	AGGAGTAC	AAACACCATCTC	TAGCACCAT	428
<i>Cynoglossus semilaevis</i>	ATGGAAAAA	TCAAGGTA	CTGGGAG	CCGCCAAC	CTTGCGCCAGACG	AAAGGA	AGAGTAC	AAACACCATCTC	TAGCACCAT	431
<i>Danio rerio</i>	ATCAAAAAGA	TCAATGTC	TGGAAG	CCGCCAAC	CTCGCAATCACAG	ACAGAG	AGCTGTAC	AAACACTATT	CTGAGCCAGAT	530
<i>Esox lucius</i>	ATCCACAAGA	TCAACATT	CTGGGTC	CAGCTAAC	CTTCTGTCAGCAG	AAAGAA	TGAGTAC	AATCGCAT	CTTAGTGAAAT	419
<i>Fundulus heteroclitus</i>	ATTAAAAAGA	TCACGTCA	CTGGGAG	TGCAAC	CTTCCACTTGCTG	AACGAG	AGGAGTATA	AACACCATCT	TAGCACCAT	437
<i>Gekko japonicus</i>	ATCCGCTCCG	TCCAAACAT	TGGGGC	CTTCTAAT	TACCCATGGATA	AACGAC	AACTGTAC	AAACACCATCTT	TGAGTGAGAT	416
<i>Haplochromis burtoni</i>	ATGGAAAAGA	TCAAGCTA	CTCGGTG	CTGCCAAC	CTTCTCCCGGAAG	AAAGAG	AGGAGTATA	AACACCATCT	TGAGCACCAT	428
<i>Hippocampus comes</i>	ATGAGCAACG	TCCAGACCT	TGGGAG	CCGCCAAC	CTGCCCTCGGAAG	AAAGAG	GAGAGTAC	AAACACCATCTT	TAGCACCAT	413
<i>Ictalurus punctatus</i>	ATCAAAAAGA	TGATGTCT	TAGGAC	CTGCCAAC	CTCCCTACCACAG	AGCGAG	AGGTACA	AATTTGATT	CTGAGTCAGAT	416
<i>Larimichthys crocea</i>	ATGAAAAAGA	TCACGCTT	CTGGGAG	CTGCCAAC	CTGGCTCCAAAAG	AAAGAG	AGGAGTAC	AAACACAATT	CTGAGCACCAT	422
<i>Lates calcarifer</i>	ATGGAAAAGA	TCATGATG	CTAGGAG	CTGCCAAC	CTGCTCCAGAAAAG	AAAGAG	AGGAGTAC	AAACACCATCTC	TAGCACCAT	425
<i>Latimeria chalumnae</i>	ATTAGACAGA	TTAGAGTC	CTAGGAG	TGGCTAAT	TAAAAGTAGAAG	AAAGAC	AAAAGTAC	AAACACTTTAT	TGAGCCAAAT	398
<i>Lepisosteus oculatus</i>	ATAAAGAAGA	TCAGTGTC	CTGGGAG	CAGCTAAC	CTCAACACCACGG	AGCGAA	AGAAGTACA	AAACACCATCTT	TGAGTGACAT	404
<i>Macaca fascicularis</i>	ATCGGAGCTG	TGGGCACC	CTGGGCT	CTGCCAAC	CTGCCCTGGCTA	AGCGGC	AGCAGTACA	AATGCCCTGT	TAGCAACAT	443
<i>Manacus vitellinus</i>	ATCGGCTCCA	TCCAGACC	CTGGGAC	CCTCCAAC	CTGCCCTGGACA	AGAGAG	AGCAGTACA	AAACACCATCTC	TGAGCGACAT	401
<i>Mus musculus</i>	ATCGGATCTA	TTCGGACC	CTAGGAC	CTGCCAAT	CTGCCCTGGCCC	AGCGGC	AGCAGTACA	AACTCTCTG	TAGCAACAT	455
<i>Neolamprologus brichardi</i>	ATGGAAAAGA	TCAAGCAC	CTTGGTG	CTGCCAAC	CTTCTACAGGAAG	AAAGAG	AGGAGTATA	AACACCATCT	TGAGCACCAT	428
<i>Oncorhynchus mykiss</i>	CTCAAGAAGA	TCAACATC	CTGGGAG	CGGCTAAC	CTACCTGCGAGAG	AAAGAA	TGAGTACA	AAAGTCATAC	TAGCAAGAT	419
<i>Oreochromis niloticus</i>	ATGGAAAAGA	TCAAGCTA	CTGGTG	CTGCCAAC	CTTCTCCCGGAAG	AAAGAG	AGAAGTATA	AAACACCATCTT	TGAGCACCAT	428
<i>Poecilia formosa</i>	ATTGAAAAGA	TCAAGTCA	CTGGGAG	CTGCCAAC	CTTCCACAGGCTG	AACGAG	AGGAGTATA	AACACCATCT	TGAGCACCAT	434
<i>Poecilia latipinna</i>	ATTGAAAAGA	TCAAGTCA	CTGGGAG	CTGCCAAC	CTTCCACAGGCTG	AACGAG	AGGAGTATA	AACACCATCT	TGAGCACCAT	434
<i>Pseudopodoces humilis</i>	ATTGGATCCA	TCCAGACCT	TGGGAC	CCTCCAAC	CTGCCCTGGAGAT	GAGAG	AGCAGTATA	AAACACCATCTC	TGAGTGACAT	401
<i>Pundamilia nyererei</i>	ATGGAAAAGA	TCATGCTA	CTGGTG	CTGCCAAC	CTTCTCCCGGAAG	AAAGAG	AGAAGTATA	AAACACCATCTT	TGAGCACCAT	428
<i>Pygocentrus nattereri</i>	ATCAAAAAGA	TCAATGTG	CTGGGAC	CTGCCAAC	CTCGTTCAAACGG	AAAGAG	AGAAGTACA	AATACCATT	TTTGAGTCAGAT	401
<i>Python bivittatus</i>	ATCAGCTCCA	TTCAGACC	CTGGGCC	CTTCCAAT	TACCAATGAACA	AGCGAC	ACGAGTATA	AATACTGTT	CTGAGTGAGAT	407
<i>Rattus norvegicus</i>	ATCGGATCCG	TACAGACC	CTAGGAC	CTGCCAAC	CTGCCCTGACCC	AGCGGT	GCAGTACA	AACTCTCTG	TAGCAACAT	458
<i>Scleropages formosus</i>	ATAAAGGGTA	TCAGTATC	CTCGGCC	CTGCTAAT	CTAGCTCCAGCAG	AGAGAG	AGAAGTACA	AAACAGCATT	CTGAGTAAGAT	404
<i>Sinocyclocheilus anshuiensis</i>	ATCAATAATA	TCAATGTT	CTGGGAC	CCGCCAAT	CTCCCAACTGCTG	AGAGAG	AGAAGTACA	AATACATT	CTGAGCCAGAT	404
<i>Xenopus tropicalis</i>	ATCAGTTCTA	TAAAGACC	CTGGGAC	CTCAAACT	TGAACCTGACTG	CAAGAG	AGGAGTATA	AAACACCATCTT	TAGCAGAT	404
<i>Lipotes vexillifer</i>	ATCAGTGCCG	TGCGCACC	CTGGGCC	CCGCCAAC	CTGCCCTGGAGG	AGCGGC	AGCAGTACA	AACTCTCTG	TAGCAACAT	464
<i>Orcinus orca</i>	ATCAGTGCCG	TGCGCACC	CTGGGCC	CTGCCAAC	CTGCCCTGGAGG	AGCGGC	AGCAGTACA	AACTCTCTG	TAGCAACAT	449
<i>Homo sapiens</i>	ATCGGAGCTG	TGCGCACC	CTGGGCT	CTGCCAAC	CTGCCCTGGCTA	AGCGGC	AGCAGTACA	AAACGCCCTG	TAGCAACAT	440

		420	430	440	450	460	470	480	490	
conservation										
<i>Callorhinchus milii</i>	GGAT	AATATCTATTTC	CACAGCGAAGGT	GTGTCTCCCCAAGCC	AAGAGAATATCACTAAGT	GCTGGTCGCTTTGAACCGGATC				493
<i>Alligator mississippiensis</i>	GGACAATATCTATTTC	CACTGCCAAGGT	GTGTCTCCACACCAAGATG	.....	TCCAACCTGCTGGTCATTGGAACCAAGAGG					478
<i>Anolis carolinensis</i>	GGACAACATCTATTTC	CACTTCCAAGGT	GTGTCTACCAAAACCAGACC	.....	TCCAATTGCTGGGCTCTAGAACCAAGATA					550
<i>Astyanax mexicanus</i>	GGACAACATCTACTCC	ACGGCAAAAGT	GTGTCTCT	.....	AAACCA	.....	GAGGAGTGCTGGGCTTTGGAACCTGAGC			475
<i>Boleophthalmus pectinirostris</i>	GGACAACATTTACTCC	ACAGCCAAAGT	CCACCCA	.....	CAAGAA	.....	AATGTTAGCTGGAGTCTGGAGCCAGAAC			496
<i>Cynoglossus semilaevis</i>	GGACAGTATCTATTCA	ACAGCAAAAGT	GCATCCA	.....	TCCCCA	.....	AATGTCACTGGAGCCTAGAACCTGAAC			499
<i>Danio rerio</i>	GGACAGCATCTACTCC	ACTGCAAGGT	GTGTCCC	.....	TCTCCA	.....	GAGGAATGCTGGTCTTTGGAGCCTGAGC			598
<i>Esox lucius</i>	GTCTTCAATATACTCC	ACTGCCAAAGT	GTGTCCA	.....	AAGCCT	.....	GAGGAATGCTGGTCTCTCGAGCCAGAGC			487
<i>Fundulus heteroclitus</i>	GGACAGTATTTATTCA	ACAGCTAAGGT	GTACCCA	.....	CAGCCA	.....	AACATTAGCTGGAGCCTGGATCCTGAAC			505
<i>Gekko japonicus</i>	GGACAACATCTACTCA	ACTGCCAAAGT	GTGCCACCAAACCAGAAC	.....	TCCAGCTGTTGGGCCCTTGATCCAGAGA					490
<i>Haplochromis burtoni</i>	GGACAATATTTATTTC	GACATCTAAGGT	GCACCCA	.....	CAGCCA	.....	AACATCAGCTGGAGCTGGAACCTGAGC			496
<i>Hippocampus comes</i>	GGACAGTATTTATTCA	ACCGCTAAAGT	GCATCCG	.....	CAGCCC	.....	AACGTCACTGGAGCCTGGAACCTCATC			481
<i>Ictalurus punctatus</i>	GGGCAGCATCTACTCC	ACGGCAAAAGT	TATGTCC	.....	AAACCA	.....	GCGGAGTGCTGGTCTTTGGAGCCTGAGT			484
<i>Larimichthys crocea</i>	GGACAATATTTATTCA	ACAGCCAAAGT	GCATCCA	.....	CAGCCA	.....	AACATAAGCTGGAGCCTGGAACCTGAAC			490
<i>Lates calcarifer</i>	GGACAATATTTATTCA	ACATCAAGGT	GCATCCA	.....	GAGCCA	.....	AACGTAAGCTGGAGCTTGGAACCCCATC			493
<i>Latimeria chalumnae</i>	GGACAATATTTACTCC	ACTGCTAAAGT	GTGTCCACCAAATCAAAGT	.....	ACTGGCTGCTGGTCCCTGGAACCTGATC					472
<i>Lepisosteus oculatus</i>	GGACAGTATTTATTCT	ACTGCTAATGT	GTGTCCACCTGGAGAGAAT	.....	ATTAAGTGCTGGTCCCTTGAGCCGACA					478
<i>Macaca fascicularis</i>	GAGCAGGATCTACTCC	ACGGCAAGGT	TCTGCC	.....	TCCCCA	ACAAGACT	.....	GCCACCTGCTGGTCCCTGGACCCAGACC		517
<i>Manacus vitellinus</i>	GGACAAGATCTACTCC	ACGGCAAGGT	GTGCTGCCCAAC	.....	.....	GGCACCTGCTGGGATCTGGAGCCAGACC				469
<i>Mus musculus</i>	GAGCAGAATCTACTCC	ACTGGCAAGGT	CTGCTTCCCCAACAAGACT	.....	GCCACCTGCTGGTCCCTTGACCCAGAGC					529
<i>Neolamprologus brichardi</i>	GGACAATATTTATTTC	GACATCTAAGGT	GCACCCA	.....	CAGCCA	.....	AACATCAGCTGGAGTCTGGAACCTGAGC			496
<i>Oncorhynchus mykiss</i>	GTCTGAAATATACTCT	ACGGCCAAAGT	GTGTCCA	.....	AAGACT	.....	AATGAATGCTGGTCTATTGAGCCAGAGC			487
<i>Oreochromis niloticus</i>	GGACAATATTTATTTC	GACATCTAAGGT	GCACCCA	.....	CAGCCA	.....	AACATCAGCTGGAGTCTGGAACCTGAGC			496
<i>Poecilia formosa</i>	GGACAGCATTTATTCA	ACAGCTAAGGT	GTACCCA	.....	CAGCCA	.....	GACATAAGCTGGAGCCTGGAACCTGAAC			502
<i>Poecilia latipinna</i>	GGACAGCATTTATTCA	ACAGCTAAGGT	GTACCCA	.....	CAGCCA	.....	GACATAAGCTGGAGCCTGGAACCTGAAC			502
<i>Pseudopodoces humilis</i>	GGACAAAATCTACTCC	ACGGCCAAAGT	GTGCTGCCCAAT	.....	.....	GGCACCTGCTGGGATCTGGAGCCAGACC				469
<i>Pundamilia nyererei</i>	GGACAATATTTATTTC	GACATCTAAGGT	GCACCCA	.....	CAGCCA	.....	AACATCAGCTGGAGTCTGGAACCTGAGC			496
<i>Pygocentrus nattereri</i>	GGACAACATCTACTCC	ACTGCCAAAGT	GTGTCTCT	.....	AAAGAA	.....	GGAGAGTGCTGGTCTTTGGAACCTGAGT			469
<i>Python bivittatus</i>	GGACAACATCTACTCC	ACTTCCAAGT	TTTGTCTACCAAACCAGAGC	.....	TCCAGCTGCTGGGCTTTAGAGCCAGATA					481
<i>Rattus norvegicus</i>	GAGCAGAATCTACTCC	ACGGCAAGGT	CTGCTTCCCCAACAAGACT	.....	GCCACCTGCTGGTCCCTTGACCCAGAGC					532
<i>Scleropages formosus</i>	GGACAACATATACTCC	ACAGCAAAAGT	GTGCTCCCCAGGACAGGAG	.....	ATAAACTGCTGGTCAATTGGAGCCGAGC					478
<i>Sinocyclocheilus anshuiensis</i>	GGACAGCATCTACTCA	ACTGCAAGGT	GTGTCTCT	.....	TCA	.....	GAGGAATGCTGGTCTTTGGAGCCTGAGC			469
<i>Xenopus tropicalis</i>	GGACAGCATCTATTCA	ACAGCCAAAGT	TTGCCCTCCCAATGCAACT	.....	GCGAAATGCTGGTCTTTGGAACCCGAAA					478
<i>Lipotes vexillifer</i>	GTCCAGGATTTACTCC	ACGGCCAAAGT	CTGCTTCCCCAACAAGACT	.....	GCCACCTGCTGGTCCCTTGACCCAGAGC					538
<i>Orcinus orca</i>	GTCCAGGATTTACTCC	ACGGCCAAAGT	CTGCTTCCCCAACAAGACT	.....	GCCACCTGCTGGTCCCTTGACCCAGAGC					523
<i>Homo sapiens</i>	GAGCAGGATCTACTCC	ACGGCCAAAGT	CTGCTTCCCCAACAAGACT	.....	GCCACCTGCTGGTCCCTTGACCCAGATC					514

conservation	500	510	520	530	540	550	560	570	
<i>Callorhinchus milii</i>	T	C	G	T	G	C	A	A	573
<i>Alligator mississippiensis</i>	T	A	T	C	T	G	A	C	578
<i>Anolis carolinensis</i>	T	T	A	C	A	T	T	C	630
<i>Astyanax mexicanus</i>	T	G	A	A	G	G	A	G	555
<i>Boleophthalmus pectinirostris</i>	T	G	A	C	A	A	A	T	576
<i>Cynoglossus semilaevis</i>	T	C	A	C	A	A	T	C	579
<i>Danio rerio</i>	T	C	C	A	A	A	T	C	678
<i>Esox lucius</i>	T	G	A	C	A	A	T	C	567
<i>Fundulus heteroclitus</i>	T	C	A	C	A	A	T	C	585
<i>Gekko japonicus</i>	T	A	A	C	A	A	T	C	570
<i>Haplochromis burtoni</i>	T	C	A	C	A	A	T	C	576
<i>Hippocampus comes</i>	T	C	A	C	A	A	T	C	561
<i>Ictalurus punctatus</i>	T	G	A	C	A	A	T	C	564
<i>Larimichthys crocea</i>	T	C	A	C	A	A	T	C	570
<i>Lates calcarifer</i>	T	C	A	C	A	A	T	C	573
<i>Latimeria chalumnae</i>	T	G	G	T	A	A	C	T	552
<i>Lepisosteus oculatus</i>	T	C	G	T	A	A	C	T	558
<i>Macaca fascicularis</i>	T	C	A	C	A	A	T	C	597
<i>Manacus vitellinus</i>	T	C	T	C	G	G	A	C	549
<i>Mus musculus</i>	T	C	A	C	A	A	T	C	609
<i>Neolamprologus brichardi</i>	T	C	A	C	A	A	T	C	576
<i>Oncorhynchus mykiss</i>	T	G	A	C	A	A	T	C	567
<i>Oreochromis niloticus</i>	T	C	A	C	A	A	T	C	576
<i>Poecilia formosa</i>	T	C	A	C	A	A	T	C	582
<i>Poecilia latipinna</i>	T	C	A	C	A	A	T	C	582
<i>Pseudopodoces humilis</i>	T	C	T	C	G	G	A	C	549
<i>Pundamilia nyererei</i>	T	C	A	C	A	A	T	C	576
<i>Pygocentrus nattereri</i>	T	G	A	A	G	A	G	A	549
<i>Python bivittatus</i>	T	T	A	C	A	A	T	C	561
<i>Rattus norvegicus</i>	T	C	A	C	A	A	T	C	612
<i>Scleropages formosus</i>	T	G	A	C	A	A	T	C	558
<i>Sinocyclocheilus anshuiensis</i>	T	C	A	C	A	A	T	C	549
<i>Xenopus tropicalis</i>	T	A	A	C	A	A	T	C	558
<i>Lipotes vexillifer</i>	T	C	A	C	A	A	T	C	618
<i>Orcinus orca</i>	T	C	A	C	A	A	T	C	603
<i>Homo sapiens</i>	T	C	A	C	A	A	T	C	594

conservation	580	590	600	610	620	630	640	650	
<i>Callorhinchus milii</i>	C	C	T	G	A	G	A	G	653
<i>Alligator mississippiensis</i>	C	C	C	T	G	A	G	A	638
<i>Anolis carolinensis</i>	C	C	C	T	G	A	G	A	710
<i>Astyanax mexicanus</i>	C	C	A	C	T	C	A	A	635
<i>Boleophthalmus pectinirostris</i>	C	C	C	T	C	A	A	A	656
<i>Cynoglossus semilaevis</i>	C	C	T	C	T	G	A	G	659
<i>Danio rerio</i>	C	C	T	C	T	A	A	T	758
<i>Esox lucius</i>	C	C	A	C	T	A	A	T	647
<i>Fundulus heteroclitus</i>	C	C	C	T	A	A	G	A	665
<i>Gekko japonicus</i>	C	C	T	C	T	G	A	G	650
<i>Haplochromis burtoni</i>	C	C	A	C	T	C	A	A	656
<i>Hippocampus comes</i>	C	C	C	T	C	A	A	T	641
<i>Ictalurus punctatus</i>	C	C	A	C	T	C	A	A	644
<i>Larimichthys crocea</i>	C	C	T	C	T	A	A	T	650
<i>Lates calcarifer</i>	C	C	T	C	T	A	A	T	653
<i>Latimeria chalumnae</i>	C	C	A	C	T	G	A	G	632
<i>Lepisosteus oculatus</i>	C	C	G	T	G	C	G	A	638
<i>Macaca fascicularis</i>	C	C	G	T	G	A	G	A	677
<i>Manacus vitellinus</i>	C	C	G	T	G	A	G	A	629
<i>Mus musculus</i>	C	C	A	C	T	G	A	G	689
<i>Neolamprologus brichardi</i>	C	C	A	C	T	C	A	A	656
<i>Oncorhynchus mykiss</i>	C	C	A	C	T	C	A	A	647
<i>Oreochromis niloticus</i>	C	C	A	C	T	C	A	A	656
<i>Poecilia formosa</i>	C	C	T	C	T	A	A	T	662
<i>Poecilia latipinna</i>	C	C	T	C	T	A	A	T	662
<i>Pseudopodoces humilis</i>	C	C	G	T	G	C	G	A	629
<i>Pundamilia nyererei</i>	C	C	A	C	T	C	A	A	656
<i>Pygocentrus nattereri</i>	C	C	A	C	T	C	A	A	629
<i>Python bivittatus</i>	C	C	T	C	T	G	A	G	641
<i>Rattus norvegicus</i>	C	C	A	C	T	G	A	G	692
<i>Scleropages formosus</i>	C	C	T	C	T	G	A	G	638
<i>Sinocyclocheilus anshuiensis</i>	C	C	A	C	T	C	A	A	629
<i>Xenopus tropicalis</i>	C	C	A	C	T	A	A	T	638
<i>Lipotes vexillifer</i>	C	C	G	T	G	A	G	A	698
<i>Orcinus orca</i>	C	C	G	T	G	A	G	A	683
<i>Homo sapiens</i>	C	C	G	T	G	A	G	A	674

conservation	820	830	840	850	860	870	880	890	
<i>Callorhinchus milii</i>	GCACATCTCCTGGGTAATATGTGGGCACAGCAGTGGAAATAATATCTATGAAATGATGATCCCATTCCAGACAAAGACAA	893							
<i>Alligator mississippiensis</i>	GCTCATTTCGCTGGGCAACATGTGGGCTCAGCAGTGGAAACAACATCTATGACATGATGATCCCCTACCCAAACAAGCCCAA	878							
<i>Anolis carolinensis</i>	GCTCATTTCGCTGGGTAACATGTGGGCCAGCAAATGGAAATAATATTTATGATATGATGATCCCCTTCCCAAATAAACCTAA	950							
<i>Astyanax mexicanus</i>	GCCCATCTTCTCGGTAATATGTGGTCACAAACC	875							
<i>Boleophthalmus pectinirostris</i>	GCTCACCTCCTCGGAAACATGTGGTCTCAGACGTGGAAACAACATCTATGGGATGATGATACCTTTTCCAAACAAACCTAA	896							
<i>Cynoglossus semilaevis</i>	GCTCACCTGTTAGGAAACATGTGGGCCAGACCTGGAAACAACATTTATGTTTGATGATTCCATTTCCAGAGAAACCCAA	899							
<i>Danio rerio</i>	GCTCATCTATTGGGCAACATGTGGTCACAAACATGGAAACAACATCTACAATATGATGATCCCTTCCCTAACAGACCCAA	998							
<i>Esox lucius</i>	GCTCACCTTCTAGGAAACATGTGGGCGCAAACCTGGAAACAACATCTATGACATGATGATCCCTTCCCGGAAACCTAA	887							
<i>Fundulus heteroclitus</i>	GCTCACCTGTTGGGAAATATGTGGGCCAGTCGTGGGATAACATTTATAGTATGATGATCCCATTTCCTGACAAACCCAA	905							
<i>Gekko japonicus</i>	GCTCACTTACTGGGTAACATGTGGGCCAGCAGTGGAAACAACATTTACGATATGATGATTCCCTTCCCAGACAAAGCCCAA	890							
<i>Haplochromis burtoni</i>	GCTCACTTGCTAGGAAATATGTGGGCCAGACCTGGAAACAACATTTATGATATGATGATCCCATTTCCTGACAAACCTAA	896							
<i>Hippocampus comes</i>	GCTCATCTGCTGGGAAACATGTGGGCCAGACCTGGAAACAACATCTACGGCTTGATGATACCGTTTCCCTGACAAACCCAA	881							
<i>Ictalurus punctatus</i>	GCCCATCTGCTTTGGAAACATGTGGGCAACAAAGCTGGAAACAACATCTATGACTTGATGATCCCTTCCCTAACAGCCCAA	884							
<i>Larimichthys crocea</i>	GCTCACCTGCTTGGAAATATGTGGGCCAGACCTGGAAACAATATTTATGGTCTAATGATCCCATTTCCTGAGAAACCCAA	890							
<i>Lates calcarifer</i>	GCCCACCTGCTAGGAAATATGTGGGCCAGACCTGGAAATAATATTTATGGTATGATGATCCCATTTCCTGACAAACCTAA	893							
<i>Latimeria chalumnae</i>	GCCCACCTATTAGGTAAACATGTGGGCTCAGCAAATGGAAATAACATCTATGACATGATGATTCCATTCCACAAAAAACAAA	872							
<i>Lepisosteus oculatus</i>	GCACACTTACTTTGGAAACATGTGGGCTCAACAGTGGAAACAACATCTATGATATGATGGTACCCTTTCTCTACAAAGCCCAA	878							
<i>Macaca fascicularis</i>	GCTCATCTGCTGGGAGACATGTGGGCCAGAGCTGGGAAAACATCTACGACATGGTGGTGCCTTTCCCGACAAAGCCCAA	917							
<i>Manacus vitellinus</i>	GCTCACCTCCTGGGGAACATGTGGGCTCAGCAGTGGAAACAACATCTACGACCTGATGGTCCCTTACCCTGAGAAAGCCCAA	869							
<i>Mus musculus</i>	GCCCATTTCGCTGGGAGACATGTGGGCCAGAGCTGGGAGAACATCTACGACATGGTAGTGCTTTCCCGACAAACCCAA	929							
<i>Neolamprologus brichardi</i>	GCTCACTTGCTAGGAAATATGTGGGCCAGACCTGGAAACAACATTTATGATATGATGATCCCATTTCCTGACAAACCTAA	896							
<i>Oncorhynchus mykiss</i>	GCTCACCTGCTGGGAAACATGTGGTCCGAAACCTGGAAACAACATCTATGGCATGATGATCCCTTCCCGGCAAAACCCAA	887							
<i>Oreochromis niloticus</i>	GCTCACTTGCTAGGAAATATGTGGGCCAGACCTGGAAACAACATTTATGATATGATGATCCCATTTCTCTGACAAACCTAA	896							
<i>Poecilia formosa</i>	GCACACCTGTTGGGAAATATGTGGGCCAGACATGGAAATAACATTTATGATATGATGATCCCATTTCCTGACAAACCCAA	902							
<i>Poecilia latipinna</i>	GCACACCTGTTGGGAAATATGTGGGCCAGACATGGAAATAACATTTATGATATGATGATCCCATTTCCTGACAAACCCAA	902							
<i>Pseudopodoces humilis</i>	GCTCACCTCCTGGGGAATATGTGGGCTCAGCAGTGGAAACAACATCTATGACCTGATGATCCCTTACCCTGAGAAAGCCCAA	869							
<i>Pundamilia nyererei</i>	GCTCACTTGCTAGGAAATATGTGGGCCAGACCTGGAAACAACATTTATGATATGATGATCCCATTTCCTGACAAACCTAA	896							
<i>Pygocentrus nattereri</i>	GCCCATCTTCTTTGGAAACATGTGGTCCGAAACCTGGAAATAACATCTACGACATGATGATTCCGTTCCCTGATAAGCCAAA	869							
<i>Python bivittatus</i>	GCTCACTTATTGGGTAACATGTGGGCCAACAAATGGAAACAACATTTACGACATGATGGTGCCTTTTGCAATAAGCCAAA	881							
<i>Rattus norvegicus</i>	GCTCATCTGCTGGGAGACATGTGGGCGCAGAGCTGGGAGAACATTTACGACATGGTAGTGCTTTCCCGGACAAACCCAA	932							
<i>Scleropages formosus</i>	GCACATCTCTTAGGAAACATGTGGGCACAAACTGGAAACAACATCTATGACATGATGATCCCTTCCCGAGGAAGCCCAA	878							
<i>Sinocyclocheilus anshuiensis</i>	GCCCACCTCTTGGGCAACATGTGGTCACAAACGTGGAAACAACATCTACAACATGATGATTCCCTTTCCTGACAAAGCCCAA	869							
<i>Xenopus tropicalis</i>	GCTCATCTGTTTGGTAAACATGTGGTCCAGCAGTGGAAATAATATCTACGACATGATGATTCCCTTCCCGACAAAGCCCAA	878							
<i>Lipotes vexillifer</i>	GCTCACCTGCTGGGGGACATGTGGGCCAGAGCTGGGACAAAATCTACGACATGGTGGTGCCTTTCTCTGCCAAGCCCAA	938							
<i>Orcinus orca</i>	GCTCACCTGCTGGGGGACATGTGGGCCAGAGCTGGGACAAAATCTACGACATGGTGGTGCCTTTCTCTGACAAAGCCCAA	923							
<i>Homo sapiens</i>	GCTCATCTGCTGGGAGACATGTGGGCCAGAGCTGGGAAAACATCTACGACATGGTGGTGCCTTTCCCGACAAAGCCCAA	914							

conservation	900	910	920	930	940	950	960	970	
<i>Callorhinchus milii</i>	CATTGATGTTACTGATGCAATGTTTCAGCAAAAATTGGAAACGCCACCCGTATGTT	CAGAGTTGCTGAGGATTTCTTCAAAAT	973						
<i>Alligator mississippiensis</i>	TCTGGATGTGCACAAATGCCATGAATCAGAAAAAATCTGGAAACGCCACGCACATGTT	CCGGGTCTCGGAGGAGTTCTTCACTT	958						
<i>Anolis carolinensis</i>	TGTGGACGTGCACCAACACCATGCAGCAACAAAATTGGAAACGTAACACGCATGTT	CCGGGTGTCTGGAGGAATTTCTTCACTT	1030						
<i>Astyanax mexicanus</i>	TGTGGATGTGACTAATGCCATGTTTGAGAAAGAACTACAACGCCACACATATGTT	CCGGGTAGCTGAAGAGTTCTTCAAT	955						
<i>Boleophthalmus pectinirostris</i>	CCTAGATGTGACAGCTGAAATGGAGAGACAAGGCTACAATGCCACACACATGTT	CAGAGTAGCAGAGGAGTTCTTCACTT	976						
<i>Cynoglossus semilaevis</i>	CCTGGATGTGACTGAGGAGATGGTCAACCAGGGTTACAATGCTACACACATGTT	CCGTGTGGCTGAGGAGTTCTTCACTT	979						
<i>Danio rerio</i>	TGTAGATGTGACCAATACCATGATCGCTAAAGGTTATAATGCCACGCACATGTT	CCGGGTAGCAGAGGAGTTTCTTCACTT	1078						
<i>Esox lucius</i>	TGTGGATGTGACCAAGAAAATGGAGGCCATAAATGGAAACGCCACTCACATGTT	CCGTGTGGCTGAGGAGTTCTTCACAT	967						
<i>Fundulus heteroclitus</i>	CCTGGATGTGACCGATGAGATGGTCAGACAAGGTTACAATGCCACACACATGTTT	CGTTTATCTGAGGAGTTCTTCACTT	985						
<i>Gekko japonicus</i>	TCTCGATGTGCACCAATACAATGAAACAAAAAAATTTGGAAATGCCACACACATGTT	CCGGGTGGCAGAGGAGTTCTTCACTT	970						
<i>Haplochromis burtoni</i>	CATTGATGTGACTGATGAAATGTCAGACAAGGCTATAACGCCACACACATGTTT	CGTGTGGCCGAGGAGTTCTTCACTT	976						
<i>Hippocampus comes</i>	CATGGACGTGACTGAAGAAATGCTCAACCAGGGCTACAACGCCACGCCCATGTTT	CCGGTTGCGGAGGAGTTCTTCAAT	961						
<i>Ictalurus punctatus</i>	TGTGGACGTGACTAACACCATGGTTGCCCAAGGCTACAATGCCACCCATATGTTT	CCGGTGGCTGAAGAGTTCTTCACTT	964						
<i>Larimichthys crocea</i>	CTTGGATGTGACTAATGAAATGATCAACCACGCTATAATGCCTGCACATGTT	CCGTGTGTCTGAGGAGTTCTTCACTT	970						
<i>Lates calcarifer</i>	CATGGATGTGACTGATGAAATGTCAGACAAGGCTACAATGCCACACACATGTTT	CGTGTGGCCGAGGAGTTCTTCACTT	973						
<i>Latimeria chalumnae</i>	CGTAGATGTGCACGGATGCTATGATTAAGAAAGAACTGGAATGCTACCCATATGTT	CAAAGTTTCTGAAGAGTTCTTCACTT	952						
<i>Lepisosteus oculatus</i>	CCTTGACGTGACACAAACTATGGTGAATCTGAAGTGGAAATGCCACCCACATGTT	CCGAGTCTCCGAAGAGTTCTTCACTT	958						
<i>Macaca fascicularis</i>	CCTCGACGTGACAGTACTATGCTGCAGCAGGGCTGGAATGCCACGCACATGTTT	CCGGTGGCAGAGGAGTTCTTCACTT	997						
<i>Manacus vitellinus</i>	CCTTGATGTGCACGATGCCATGGTGCAGCAGGGCTGGAATGCCACCCACATGTT	CCGGGTCTCAGAGGAGTTCTTCACTT	949						
<i>Mus musculus</i>	CCTCGATGTCCACAGTACAATGGTACAGAAAGGGCTGGAACGCCACACACATGTT	CCGGGTATCAGAGGAATTTCTTCACTT	1009						
<i>Neolamprologus brichardi</i>	CATTGATGTGACTGATGAAATGGGCAGACAAGGCTATAACGCCACACACATGTTT	CGTGTGGCCGAGGAGTTCTTCACTT	976						
<i>Oncorhynchus mykiss</i>	TGTGGACGTGACCGATGAAATGGTGGCCAAAAAATGGAAATGTTACTCACATGTT	CCGGGTGGCTGAGGAGTTCTTCACTT	967						
<i>Oreochromis niloticus</i>	CATTGATGTGACTGATGAAATGGTGCAGACAAGGCTATAACGCCACACACATGTTT	CGTGTGGCCGAGGAGTTCTTCACTT	976						
<i>Poecilia formosa</i>	CCTGGATGTGACAGTGAGATGGTCAATCAGGGCTACAATGCTACACACATGTTT	CCGTGTAGCTGAGGAGTTCTTCACTT	982						
<i>Poecilia latipinna</i>	CCTGGATGTGACAAGCGAGATGGTCAATCAGGGCTACAATGCTACACACATGTTT	CCGTGTGGCTGAGGAGTTCTTCACTT	982						
<i>Pseudopodoces humilis</i>	CCTTGATGTGCACGAGCAGCATGGTGCAGCAGGGCTGGAATGCCACCCACATGTT	CCGAGTCTCGGAGGAGTTCTTCACTT	949						
<i>Pundamilia nyererei</i>	CATTGATGTGACTGATGAAATGGTGCAGACAAGGCTATAACGCCACACACATGTTT	CGTGTGGCCGAGGAGTTCTTCACTT	976						
<i>Pygocentrus nattereri</i>	TGTGGATGTGACTAGCAACATGTTGCACAAGGCTACAATGCCACCCACATGTTT	CCGTGTGGCTGAGGAGTTCTTCACTT	949						
<i>Python bivittatus</i>	TCTAGATGTTACCAACGTCATGAAGCAGAAAAAATGGAAACGTAACAGT	CATGTTCCGGGTGGCAGAGGAGTTCTTCACTT	961						
<i>Rattus norvegicus</i>	CCTCGATGTCCACGATACAATGGTACAGAAAGGGCTGGAATGCCACGCACATGTT	CCGGTTCGACAGGAATTTCTTCACTT	1012						
<i>Scleropages formosus</i>	TGTTGATGTGCACGGATGCTATGATTGCACAAGACTGGACCACCACAAAAATGTT	CAGAGTCTCAGATGAGTTCTTCACTT	958						
<i>Sinocyclocheilus anshuiensis</i>	TGTAGATGTGACGGACACCATGGTTGCTAAAGGTTATAATGCCACTCACATGTT	CCGGGTGGCCGAGGAGTTCTTCACTT	949						
<i>Xenopus tropicalis</i>	TATAGATGTCACATAATACAATGAGGGAAAAAGGATGGAATGCTACCCATATGTT	CAGAGTTTCTCAGAGGAGTTCTTCACTT	958						
<i>Lipotes vexillifer</i>	TCTTGACGTTACAGTACTATGGTGCAGAAAGGATGGAACGCTACACACATGTT	CCGGTGGCAGAGGAGTTCTTCACTT	1018						
<i>Orcinus orca</i>	TCTTGACGTTACAGTACTATGGTGCAGAAAGGATGGAACGCTACACACATGTT	CCGGTGGCAGAGGAGTTCTTCACTT	1003						
<i>Homo sapiens</i>	CCTCGATGTCCACAGTACTATGCTGCAGCAGGGCTGGAACGCCACGCACATGTT	CCGGTGGCAGAGGAGTTCTTCACTT	994						

	1140	1150	1160	1170	1180	1190	1200	1210	
conservation	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div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	1220	1230	1240	1250	1260	1270	1280	1290	
conservation	●●●								

conservation	1300	1310	1320	1330	1340	1350	1360	1370	
<i>Callorhinchus milii</i>	CTGCTGCAAA	CAGTCTCAGAC	GGACACGAGGCTGAAATCAATTATCTTCTGAAAGATGGCTCTAGAAAAAATTGCCTT	CCT	1373				
<i>Alligator mississippiensis</i>	CTCCTTGACCAGGTGCTCCAGGATACAGGAAATGACATCAATTATCTGCTAAAAATGGCCCTGGAGAAGATTGCCTT	CCT	1358						
<i>Anolis carolinensis</i>	TTGCTCAGTGAAGTCACTGAA	GATAAAGAGAGTGATATCAATTACCTGTTGAAAAATGGCCCTGCAAAAGATTGCATTTAT	1430						
<i>Astyanax mexicanus</i>	CTTCTGGACACTCTGCTAAT	GATAATGAGACAGACATCAATTACCTATTGAAAAATGGCTTTGGAGAAGATAGCTTT	CCT	1355					
<i>Boleophthalmus pectinirostris</i>	CTGCTGGGCTCCAGTG	CATCTGACACAGAAACCGACATTA	AACTATTGTTGAAAGATGGCTTTGGAGAAAAATAGCTTT	CCT	1373				
<i>Cynoglossus semilaevis</i>	CTGCTAGATGATCCCTCTTCCA	ATAATGAAACTGACCTGA	AACTACCTGTTAAAGATGGCTTTGGAGAAGATCGCTT	CCT	1376				
<i>Danio rerio</i>	CTCCTGGACCAACTAAC	CGATGACGCTGAGAGTGACATCAATTACCTGTTGAAGATGGCCTTGGAAAAAGATCGCTT	CCT	1478					
<i>Esox lucius</i>	CTTTTGCCCAATGCGAC	CAATGATCCTGAGAGCGACATCA	AACTACCTACTGAAGATGGCTCTGGAGAAGATTGCCTT	CCT	1364				
<i>Fundulus heteroclitus</i>	CTGCTGGAATCTGTGAC	CTCTGACGTTGAAACTGACCTGA	AACTTCC	TGCTGAAGACTGCTCTGGATAAGATAGCCTT	CCT	1382			
<i>Gekko japonicus</i>	CTGCTCGACCAGGTCACTGAG	GATGCAGACAGTGATATCA	AACTATCTCCTGAAAAATGGCCCTGGAGAAGATTGCCTT	CCT	1370				
<i>Haplochromis burtoni</i>	CTTCTGGAATCTGTGAC	CATCTGACATCGAAACTGACACCA	AACTACCTGCTAAAAATGGCTCTGGAGAAGATAGCCTT	CCT	1373				
<i>Hippocampus comes</i>	CTGCTGAAGTCGGCGAGTCC	GACCTGAATCCGACATCA	AACTACCTGTTAAAGATGGCACTGGAGAAGATAGCCTT	CCT	1358				
<i>Ictalurus punctatus</i>	CTGTTGGACACACTA	AACTGACACTGAAACTGACACAA	ATTACCTGTTAAAGATGGCTTTAGAGAAGATAGCCTT	CCT	1364				
<i>Larimichthys crocea</i>	CTGCTGGAATCTGCGAC	CATCTGATATTCAAACTGATACCA	AACTACCTGTTAAAGATGGCTTTGGAGAAGATAGCCTT	CCT	1367				
<i>Lates calcarifer</i>	CTACTGGAATCTGTGAC	CTCTGATGCTGAAACCGATATCA	AACTACCTGTTGAAGATGGCTCTGGAGAAGATTGCCTT	CTT	1370				
<i>Latimeria chalumnae</i>	TTACTGTCACAGTTCACTAAT	GATACGGAAAGTGACATCA	AACTATCTTCTGAAGATGGCTCTTGAGAAAAATAGCCTT	CCT	1352				
<i>Lepisosteus oculatus</i>	CTACTGAAATCCTTTGTCCCG	GACAATGAAAGTGACATTA	AACTACCTGCTGAAAAATGGCCCTGGAGAAGATTGCCTT	CCT	1358				
<i>Macaca fascicularis</i>	CTGCTGGACCGTGTCACCAAT	GACACGGAAAGTGACATCA	AACTACTGCTAAAGATGGCACTGGAAAAAATGCCTT	CCT	1397				
<i>Manacus vitellinus</i>	CTCCTCAGCAATGCCACTGAG	GATGAAGAGAGCAACATCA	AACTACCTGCTGAAGATGGCCCTGGAGAAGATTGCCTT	CCT	1349				
<i>Mus musculus</i>	CTACTGGACCATGTTACCAAT	GACATAGAGAGTGACATCA	AACTACCTGCTAAAGATGGCCCTAGAGAAAAATCGCTT	CTT	1409				
<i>Neolamprologus brichardi</i>	CTTCTGGAATCTGTGAC	CATCTGACATCGAAACTGACACCA	AACTACCTGTTAAAAATGGCTCTGGAGAAGATAGCCTT	CCT	1373				
<i>Oncorhynchus mykiss</i>	CTATTGTCTAACGCGACCAAT	GACAACGAGAGTGACATCA	AACTACCTGCTGAAGATGGCTCTGGACAAGATGGCCTT	CCT	1364				
<i>Oreochromis niloticus</i>	CTTCTGGAATCTGTGAC	CATCTGACATCGAAACTGACACCA	AACTACCTGCTAAAAATGGCTCTGGAGAAGATAGCCTT	CCT	1373				
<i>Poecilia formosa</i>	CTTCTAGAGTCTGTGGCCACT	GACACAGAAACTGATCTGA	AACTTCC	TGTTGAAGACTGCTCTGGAGAAGATAGCCTT	CCT	1379			
<i>Poecilia latipinna</i>	CTTCTAGAGTCTGTGGCCACC	GACACAGAAACTGATCTGA	AACTTCC	TGTTGAAGACCGCTCTGGAGAAGATAGCCTT	CCT	1379			
<i>Pseudopodoces humilis</i>	CTCCTCAGCAGTGCTGCTGAG	GATGAAGAGAGCAATATCA	AACTACC	TGCTGAAGATGGCCCTGGAGAAGATTGCCTT	CCT	1349			
<i>Pundamilia nyererei</i>	CTTCTGGAATCTGTGAC	CATCTGACATCGAAACTGACACCA	AACTACCTGCTAAAAATGGCTCTGGAGAAGATAGCCTT	CCT	1373				
<i>Pygocentrus nattereri</i>	CTTCTGGAGACGCTGAC	CTGATGATAATGAGACCGACATCA	AACTACTATTAAAGATGGCTTTGGAGAAGATAGCGTT	CCT	1346				
<i>Python bivittatus</i>	CTGCTCACCATGCCAGTGAA	GATAAAGAGAGTGACATCA	AACTATCTTCTGAAAAATGGCCCTGGAAAAGATTGCCTT	CCT	1361				
<i>Rattus norvegicus</i>	CTGCTAGACCGTGTTGCAAT	GACATAGAAAGTGACATCA	AACTACTGCTAAAGATGGCCCTAGAGAAAAATGCCTT	CTT	1412				
<i>Scleropages formosus</i>	CTGCTGGAGAACCTGTTGAA	GATCATGAGAGTGATCTTA	AACTACCTATTGAAGATGGCTCTGGAGAAGATAGCCTT	CCT	1358				
<i>Sinocyclocheilus anshuiensis</i>	ATCCTGGAACAACGGA	CGATGATGCTGAGAGTGACATCA	AACTACCTGTTGAAGATGGCTTTGGAAAAGATCGCTT	CCT	1349				
<i>Xenopus tropicalis</i>	CTTCTTGAAACTGTCACTAAT	GATAAAGAAAGTGATATCA	AACTATCTGTTGAAAAATGGCTCTGGAGAAAAATGCCTT	CCT	1358				
<i>Lipotes vexillifer</i>	CTGCTGGACCATGTCA	CCAACGACACGGAAACCGACATCA	AACTACTGTTAAAGATGGCACTGGAAAAAATGCCTT	CCT	1418				
<i>Orcinus orca</i>	CTGCTGGACCATGTCA	CCAACGACAAGGAAAGCGACATCA	AACTACTGTTAAAGATGGCACTGGAAAAAATGCCTT	CCT	1403				
<i>Homo sapiens</i>	CTGCTGGACCGTGTCACCAAT	GACACGGAAAGTGACATCA	AACTACTGCTAAAAATGGCACTGGAAAAAATGCCTT	CCT	1394				

conservation	1380	1390	1400	1410	1420	1430	1440	1450	
<i>Callorhinchus milii</i>	TCCCTTTTGGCTATTGATAGACCAGTGGAGGTGGGGAGTGTTT	CAGTGGACGCATCTCT	CAATTGCATTACA	ACTACGAAT	1453				
<i>Alligator mississippiensis</i>	GCCTTTTGGGTACCTTATTGACCAGTGGCGCTGGAACGTCTT	CAGTGGGCACACCTC	ACCAACCGCTACA	ACTACGACT	1438				
<i>Anolis carolinensis</i>	TCCCTTTTGGCTACCTCATAGACCAGTGGCGATGGAACGTTTT	CAGTGGCCGCACCACT	CCAGCCGCTACA	ATTATGACT	1510				
<i>Astyanax mexicanus</i>	TCCGTTTGGATACCTCATTGATCAGTGGCGTTGGGGTGTGTT	CAGTGGACGTACGCC	ACCTGAGAGATACA	ATGCAGAGT	1435				
<i>Boleophthalmus pectinirostris</i>	TCCCTTTTGGATACCTCATTGACCAGTGGAGATGGAACGTTTT	CAGTGGAGATACAGC	AGCAGATCGTTACA	ACTATGACT	1453				
<i>Cynoglossus semilaevis</i>	TCCTTTTGGTTACCTCATTGACCAGTGGAGGTGGGGTGTGTT	CAGTGGACAACTCCT	CCAGAGAAATACA	ACTCAGAAT	1456				
<i>Danio rerio</i>	TCCTTTTGGGTACCTTATTGACCAGTGGCGATGGAGTGTGTT	CAGTGGAGAGACACCG	CTGACCGCTACA	ATGCAGATT	1558				
<i>Esox lucius</i>	TCCCTTTTGGCTATCTTATAGACCAATGGCGATGGAACGTGTTT	AGCGGTCACACTC	ACAGAGCGCTACA	ATGCAGACT	1444				
<i>Fundulus heteroclitus</i>	CCCCTTCGGCTACCTCATTGACCTCTGGAGATGGGGCGTGTTT	AGTGAAGCACCCCT	CCGGAGAAGTACA	ACTCGGACT	1462				
<i>Gekko japonicus</i>	TCCCTTTTGGCTACCTGATAGATCAGTGGCGATGGAACGTCTT	CAGTGGGCGCACCCCT	CCAACCGTTACA	ATTACGACT	1450				
<i>Haplochromis burtoni</i>	TCCCTTTTGGCTACCTTATTGACCTCTGGAGATGGGATGTCTT	AGTGGAAAGACCCCT	CCGGAGCGTTACA	ATGCTGACT	1453				
<i>Hippocampus comes</i>	TCCTTTTGGCTACCTGATCGACCAATGGAGATGGGGCGTATTT	GGGGCAACATCCC	CCGGAGCGATACA	ACGCAGAAT	1438				
<i>Ictalurus punctatus</i>	TCCTTTTGGATACCTCATTGATCAGTGGCGCTGGGGTGTGTT	CAGTGGACATACACCA	CTGAACGCTACA	ACTCAGAGT	1444				
<i>Larimichthys crocea</i>	TCCCTTTTGGTTACCTCATCGACCAGTGGAGATGGAGTGTGTT	CAGTGGACGCACACCT	CCAGAGCGGTACA	ATGCTGACT	1447				
<i>Lates calcarifer</i>	GCCCTTTTGGCTATCTCATTGACCAGTGGAGATGGGGCGTCTT	CAGTGAAGCACCT	CTAAGGAGCGGTACA	ACTCTGACT	1450				
<i>Latimeria chalumnae</i>	ACCTTTTGGTTACCTGATTGACCAATGGCGTTGGGGGTGTTT	AGTGGACGCATCAC	CCCTCAAGACTACA	ATTATGAGT	1432				
<i>Lepisosteus oculatus</i>	GCCCTTCGGATACCTCATCGACCAGTGGAGGTGGGGGTGTTT	AGCGGACGCACCCCA	CCCTGAGCGCTACA	ATGCAGACT	1438				
<i>Macaca fascicularis</i>	GCCCTTTTGGCTACCTTGGTGGACCAGTGGCGCTGGGGGTCTT	AATGGGCGTACTCT	CTTCCCCTACA	ACTTCGACT	1477				
<i>Manacus vitellinus</i>	ACCCTTTGGCTACCTCATCGACCAGTGGCGCTGGAACGTGTT	CAGTGGCCGCACGCC	CCGAGCCGCTACA	ACTCCGACT	1429				
<i>Mus musculus</i>	GCCCTTTTGGCTACCTGGTGGACCAGTGGCGTTGGGGGTCTT	CAGTGGACGGACCCCA	CCCTCTCGCTACA	ACTTCGACT	1489				
<i>Neolamprologus brichardi</i>	TCCCTTTTGGCTACCTTATTGACCTCTGGAGATGGGATGTCTT	AGTGGAAAGACCCCT	CAGGAGCGTTACA	ATGCTGACT	1453				
<i>Oncorhynchus mykiss</i>	TCCCTTTTGGCTATCTCATTGACCAGTGGAGATGGAGTGTGTT	AGTGGGCGCACCCCC	CCAGAGCGATACA	ACGCAGACT	1444				
<i>Oreochromis niloticus</i>	TCCTTTTGGCTACCTTATCGACCTCTGGAGATGGGATGTGTT	AGTGGAAAGACCCCT	CCGGAGCGTTACA	ATGCTGACT	1453				
<i>Poecilia formosa</i>	TCCCTTTTGGCTACCTCATTGACCTCTGGAGATGGGGCGTGTT	AGTGGAAAGCATTCT	CCAGAGAAGTACA	ACTCGGAAT	1459				
<i>Poecilia latipinna</i>	TCCCTTTTGGCTACCTCATTGACCTCTGGAGATGGGGCGTGTT	AGTGGAAAGCATTCT	CCAGAGAAGTACA	ACTCAGAAT	1459				
<i>Pseudopodoces humilis</i>	GCCCTTTTGGCTACCTCATCGACCAGTGGCGCTGGAATGTGTT	CAGTGGCCACACGCC	CCAAGCCGTTACA	ACTACGACT	1429				
<i>Pundamilia nyererei</i>	TCCCTTTTGGCTACCTTATTGACCTCTGGAGATGGGATGTCTT	AGTGGAAAGACCCCT	CCGGAGCGTTACA	ATGCTGACT	1453				
<i>Pygocentrus nattereri</i>	TCCTTTTGGATACCTCATTGATCAGTGGCGCTGGGGTGTGTT	CAGTGGATATACACCG	CTGAACGCTACA	ATGCAGAGT	1426				
<i>Python bivittatus</i>	ACCCTTTTGGCTACCTAATAGACCAGTGGCGGTGGAATGTCTT	CAGTGGGCACACCCCT	CCAAGCCGTTACA	ATTATGATT	1441				
<i>Rattus norvegicus</i>	GCCCTTTTGGTTACCTTGGTGGACCAGTGGCGCTGGGGGTCTT	CAGTGGACGTACCCA	CCCTCTCGCTACA	ACTACGACT	1492				
<i>Scleropages formosus</i>	GCCTTTTGGGTTCTCATTGACCAGTGGAGATGGGGAGTATT	CAGTGGCAAGACCC	CCCTGAGCGCTACA	ATGCAGATT	1438				
<i>Sinocyclocheilus anshuiensis</i>	TCCTTTTGGATATCTTATTGATCAGTGGCGCTGGGGTGTGTT	AGTGGACGAACACCG	CCAGAACGTTACA	ATGCAGAAT	1429				
<i>Xenopus tropicalis</i>	GCCATTTTGGCTTCTGATTGATCAGTGGAGATGGAATGTCTT	CAGTGGCCGCACACCT	CCCACCATACA	ACTACGACT	1438				
<i>Lipotes vexillifer</i>	GCCCTTTTGGCTACTTGGTGGACCAGTGGCGTTGGGGGTCTT	AGTGGGCGTACCC	CCCTTCCCTCTACA	ACTATGACT	1498				
<i>Orcinus orca</i>	GCCCTTTTGGCTACTTGGTGGACCAGTGGCGTTGGGGGTCTT	AGTGGGCGTACCC	CCCTTCCCTCTACA	ACTATGACT	1483				
<i>Homo sapiens</i>	GCCCTTTTGGCTACTTGGTGGACCAGTGGCGTTGGGGGTCTT	AGTGGGCGTACCC	CCCTTCCCGCTACA	ACTTCGACT	1474				

	1460	1470	1480	1490	1500	1510	1520	1530	
conservation	●●●								

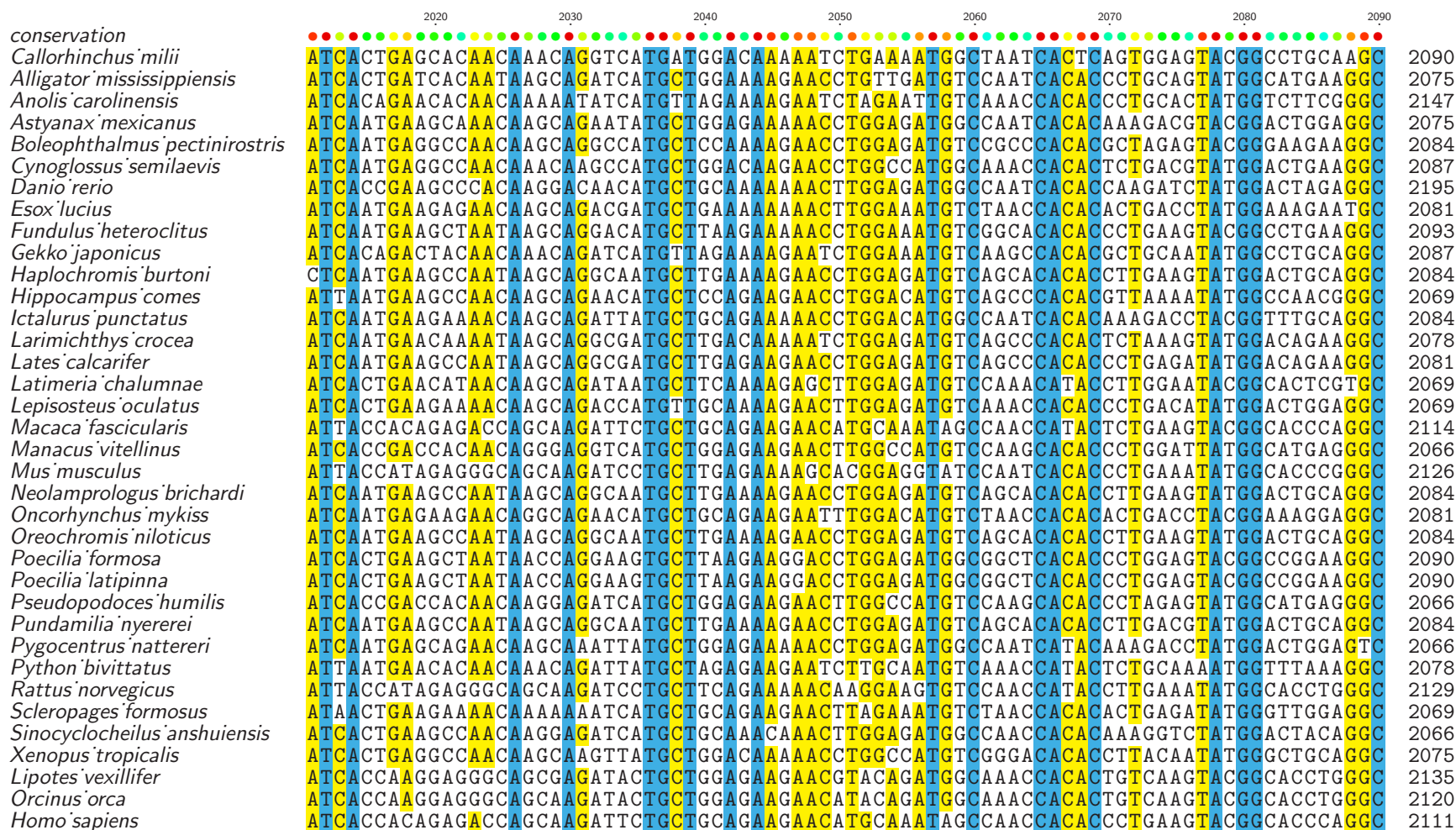
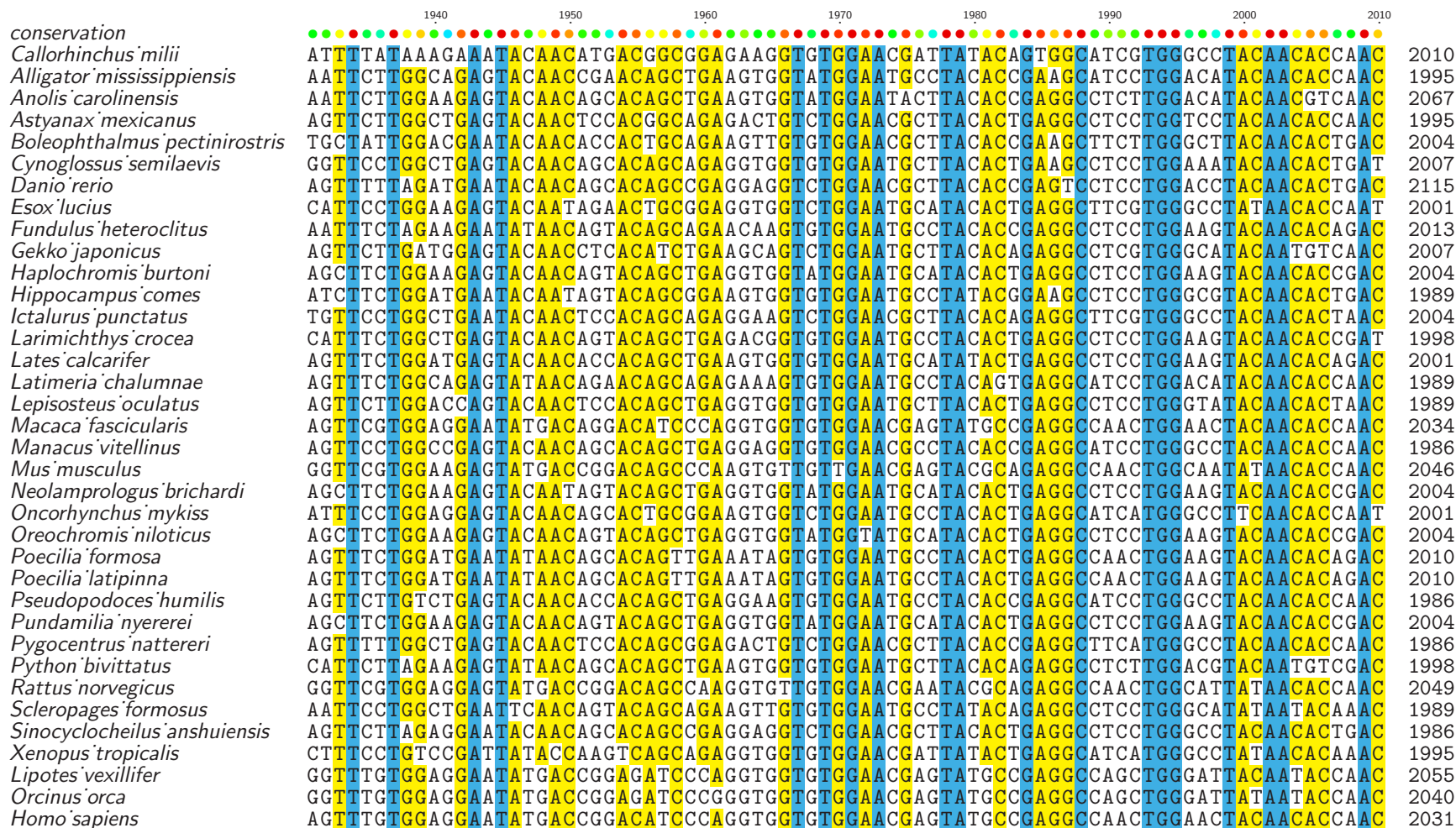
	1540	1550	1560	1570	1580	1590	1600	1610	
conservation	●●●								

	1620	1630	1640	1650	1660	1670	1680	1690	
conservation	●●●								

	1700	1710	1720	1730	1740	1750	1760	1770	
conservation	●●●								

	1780	1790	1800	1810	1820	1830	1840	1850	
conservation	●●●								

	1860	1870	1880	1890	1900	1910	1920	1930	
conservation	●●●								



	2410	2420	2430	2440	2450	2460	2470	2480	
conservation									
<i>Callorhinchus milii</i>	ACAAGGCGGCACGATTAATAATC	ACGCA	GATGCT	GGAGCTTT	CTGGAGGTCGCT	TGATGATTCTGAAA	CATTTGAGGCA		2487
<i>Alligator mississippiensis</i>	ACAAGGCAGCCAGACTCAATGGTC	ATGCT	GACAAT	GGTGCCTT	CTGGAGATCCCT	CTATGAAACACCCAC	CTTTGAAGAG		2472
<i>Anolis carolinensis</i>	ATAAGGCTGCCAGACTAAATGGTC	ATGCA	GACAAT	GGTGCTTT	CTGGAGATCACT	TATATGAAACACAGCT	TTTGAAGAA		2544
<i>Astyanax mexicanus</i>	ATTTGGCTGCCCGCAGTAACGGTC	ATGCT	GACAAT	GGGGCTTT	CTGGCGTTCCCT	TATATGAAACCCCACT	TTTGAAGAG		2472
<i>Boleophthalmus pectinirostris</i>	ACAAGGCTGCCACACTCAATGGTC	ACAGT	GATAAC	GGGGCATT	CTGGCGCTCTCT	CTATGAAACTCCCACT	TTTGAACAA		2481
<i>Cynoglossus semilaevis</i>	ATAAAGCTGCCAAACTCAACGGTC	ACCCT	GATAAC	GGAGCTTT	CTGGCGTTCCCT	TGATGAATCCCCAACCT	TTTGAACAA		2484
<i>Danio rerio</i>	ACTCCGCTGCTAAAAGCAATGGTC	ACACT	GATAAC	GGAGCATT	CTGGCGCTCGCT	TGATGAGACTCCCACT	TTTGAACAG		2592
<i>Esox lucius</i>	ATAAAGCTGCCACACTTAATGGAC	ACTCT	GACAAT	GGAGCATT	TTTGGCGCTCCCT	TGATGAGACCCCACT	TTTGAAGAG		2478
<i>Fundulus heteroclitus</i>	ATAAAGCTGCCACACTCAATGGTC	ATTCT	GATAAT	GGGGCTTT	CTGGCGGTCCCT	TGACGAAACTCCTACCT	TTTGAAGAG		2490
<i>Gekko japonicus</i>	ATAAAGCTGCCACACTGAATGGC	ATGCA	GACAGC	GGTGCTTT	CTGGAGGTCTCT	TGATGAATACCCCACT	TTTGAAGCG		2484
<i>Haplochromis burtoni</i>	ACAAGGCTGCCACACTAAATGGTC	ACTCT	GATAAT	GGAGCTTT	CTGGCGTTCCCT	TGATGAAACGCCCTA	CTTTGAAGAA		2481
<i>Hippocampus comes</i>	ACCAAGCTGCCAGACTCAACGGTC	ACAGC	GACAAC	GGTGCTTT	CTGGCGCTCGCT	TGACGAAACGCCGAC	CTTTGAGGAG		2466
<i>Ictalurus punctatus</i>	ACTTAGCTGCCAGGAGTAACGGTC	ACGCT	GACAAT	GGCGCTTT	CTGGCGCTCTTT	TGACGAAACACCCACT	TTTGAAGAG		2481
<i>Larimichthys crocea</i>	ACAAGGCTGCCACACTCAATGGAC	ACTCT	GACAAT	GGGGCTTT	CTGGCGTTCCCT	TGATGAAACCCCTA	CTTTGAAGAA		2475
<i>Lates calcarifer</i>	ACAAGGCAGCAACACTCAATGGTC	ACCCT	GATAAT	GGAGCTTT	CTGGCGCTCCCT	TGATGAGACCCCTAC	CTTTGAAGAA		2478
<i>Latimeria chalumnae</i>	ACAAGGCAGCAAGACTGAATGGCC	ATCCA	GATAAT	GGAGCCTTT	TGGCGATCCCT	TTATGAGTCTCCAACT	TTTGAAGCT		2466
<i>Lepisosteus oculatus</i>	ACAAGCAGCCAGACTGAATGGTC	ACCCC	GACAAT	GGGGCTAC	TGGCGCTCGCT	CTACGAGACGCCACCT	TTTGAAGAG		2466
<i>Macaca fascicularis</i>	ACCAGGCTGCCCGGCTCAATGGCT	ATGTA	GATGCC	GGGACATT	CTGGAGGTCTAT	TGACGAGACCCAT	CCCTGGAGCAA		2511
<i>Manacus vitellinus</i>	ACAAGGCAGCCGTGCTCAATGGTT	ACACA	GACAAT	GGGGCCTA	CTGGAGATCCCT	TGATGAGACATCCACCT	TTTGAAGAA		2463
<i>Mus musculus</i>	ACAAGATTGCCAAGCTCAATGGCT	ACACG	GATGCA	GGGGATT	CTATGGAGATCCCT	TATACGAGTCTGACA	ACCTGGAGCAA		2523
<i>Neolamprologus brichardi</i>	ACAAGGCTGCCACACTAAATGGTC	ACTCT	GATAAT	GGAGCTTT	CTGGCGTTCCCT	TGATGAAATGCCCTA	CTTTGAAGAA		2481
<i>Oncorhynchus mykiss</i>	ACAAGGCTGCTGCGCTTAACGGC	ACTCT	GACAAT	GGGGCGTT	CTGGCGTCCCAT	TGACGAGACCCACT	CTTTGAAGAG		2478
<i>Oreochromis niloticus</i>	ACAAGGCTGCCACACTAAATGGTC	ACTCT	GATAAT	GGAGCTTT	CTGGCGTTCCCT	TGATGAAACGCCCTA	CTTTGAAGAA		2481
<i>Poecilia formosa</i>	ATAAGGCTGCCACACTCAATGGC	ATTCT	GATAAT	GGGGCTTT	CTGGCGGTCCCT	TGATGAAACCCCACT	TTTGAAGAG		2487
<i>Poecilia latipinna</i>	ATAAGGCTGCCACACTCAATGGC	ATTCT	GATAAT	GGGGCTTT	CTGGCGGTCCCT	TGATGAAACCCCACT	TTTGAAGAG		2487
<i>Pseudopodoces humilis</i>	ACAAGGCAGCCATGCTCAATGGCT	ACAAA	GACAAT	GGGGCCTA	CTGGAGATCCCT	TGATGAGACATCCACCT	TTTGAAGAA		2463
<i>Pundamilia nyererei</i>	ACAAGGCTGCCACACTAAATGGTC	ACTCT	GATAAT	GGAGCTTT	CTGGCGTTCCCT	TGATGAAACGCCCTA	CTTTGAAGAA		2481
<i>Pygocentrus nattereri</i>	ACTTGCTGCCCGCAGTAACGGTC	ACATT	GACAAC	GGGGCATT	CTGGCGCTCCCT	TATACGAAACCCCACT	TTTGAAGAA		2463
<i>Python bivittatus</i>	ATAAGGCTGCCAGATTAATGGAC	ATGCA	GACAAT	GGTGCTTT	CTGGAGATCCCT	TTATGAAACTCCAACT	TTTGAAGAA		2475
<i>Rattus norvegicus</i>	ACAAGATGCCAAGCTCAACGGCT	ACTCT	GATGCA	GGGGATT	CCTGGAGATCCT	CATATGAGTCCGACGAC	TTGGAGCAA		2526
<i>Scleropages formosus</i>	ACAAGGCTGCTAGACTTAATGGTC	ATGCT	GACAAT	GGGGCATT	CTGGCGCTCCCT	TGATGAGACAAACAACT	TTTGAAGAG		2466
<i>Sinocyclocheilus anshuiensis</i>	ACTTAGCTGCCAAGAGCAATGGTC	ACACG	GATAAT	GGGGATT	TTGGCGTTCCCT	TGATGAGACCCCACT	TTTGAAGAG		2463
<i>Xenopus tropicalis</i>	ACAAGCTGCCACAGCTCAATGGTT	ACAAAT	GACAAT	GGAGCATA	CTGGAGATCTTG	GATGAGACCCCACT	TTTGAATCA		2475
<i>Lipotes vexillifer</i>	ACAAGGCTGCCAGGCTCAATGGCT	ACGAG	GACGGA	GGGGACTC	CTGGAGATCTAT	TGACGAGATGCCATT	CCTGGAGTAT		2532
<i>Orcinus orca</i>	ACAAGGCTGCCAGGCTCAATGGCT	ACAAG	GACGGA	GGGGACTC	CTGGAGATCTAT	TGACGAGATGCCATT	CCTGGAGTAC		2517
<i>Homo sapiens</i>	ACCAGGCTGCCCGGCTCAATGGCT	ATGTA	GATGCA	GGGGACTC	GTTGGAGGTCTAT	TGACGAGACACCAT	CCCTGGAGCAA		2508

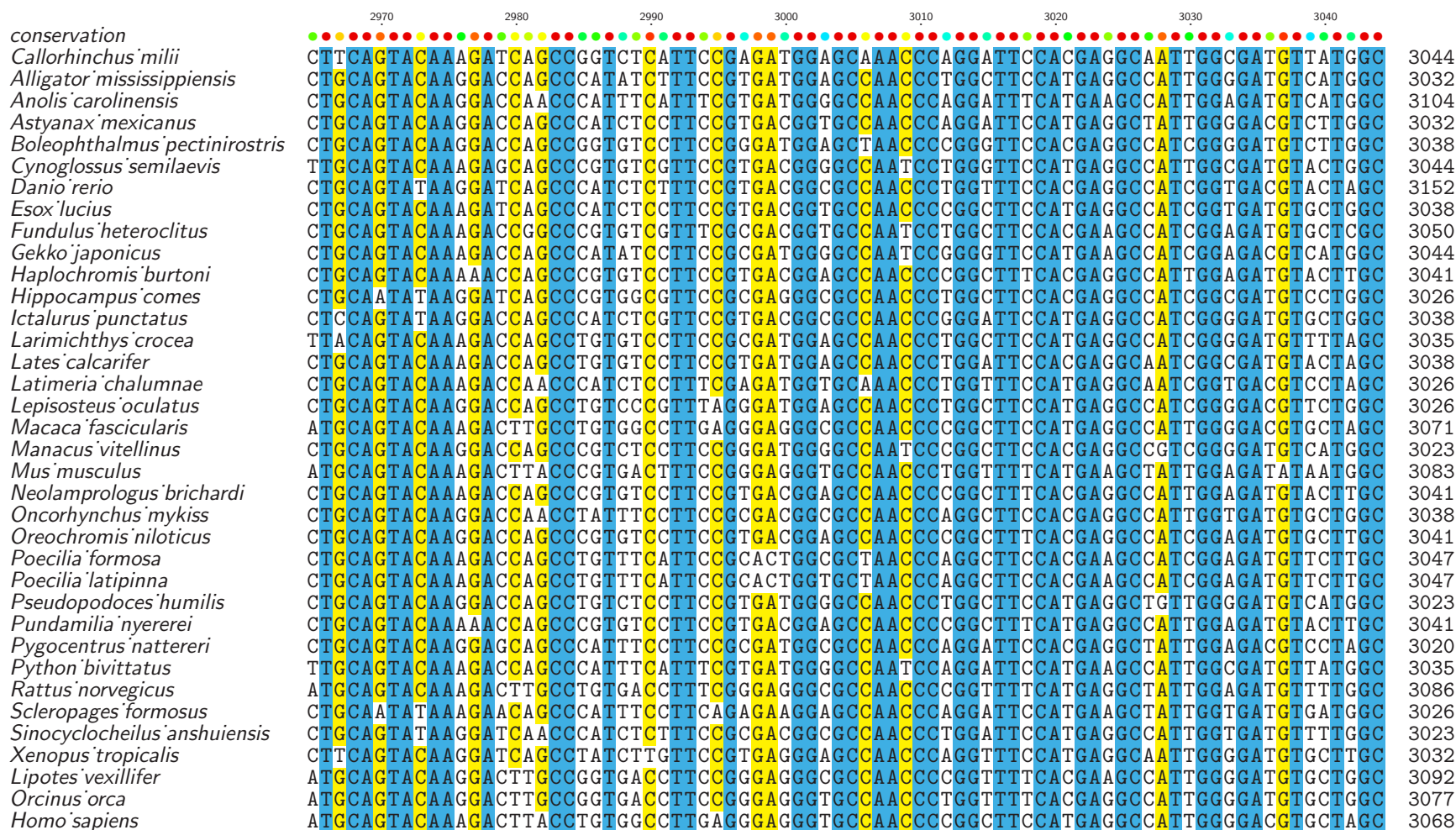
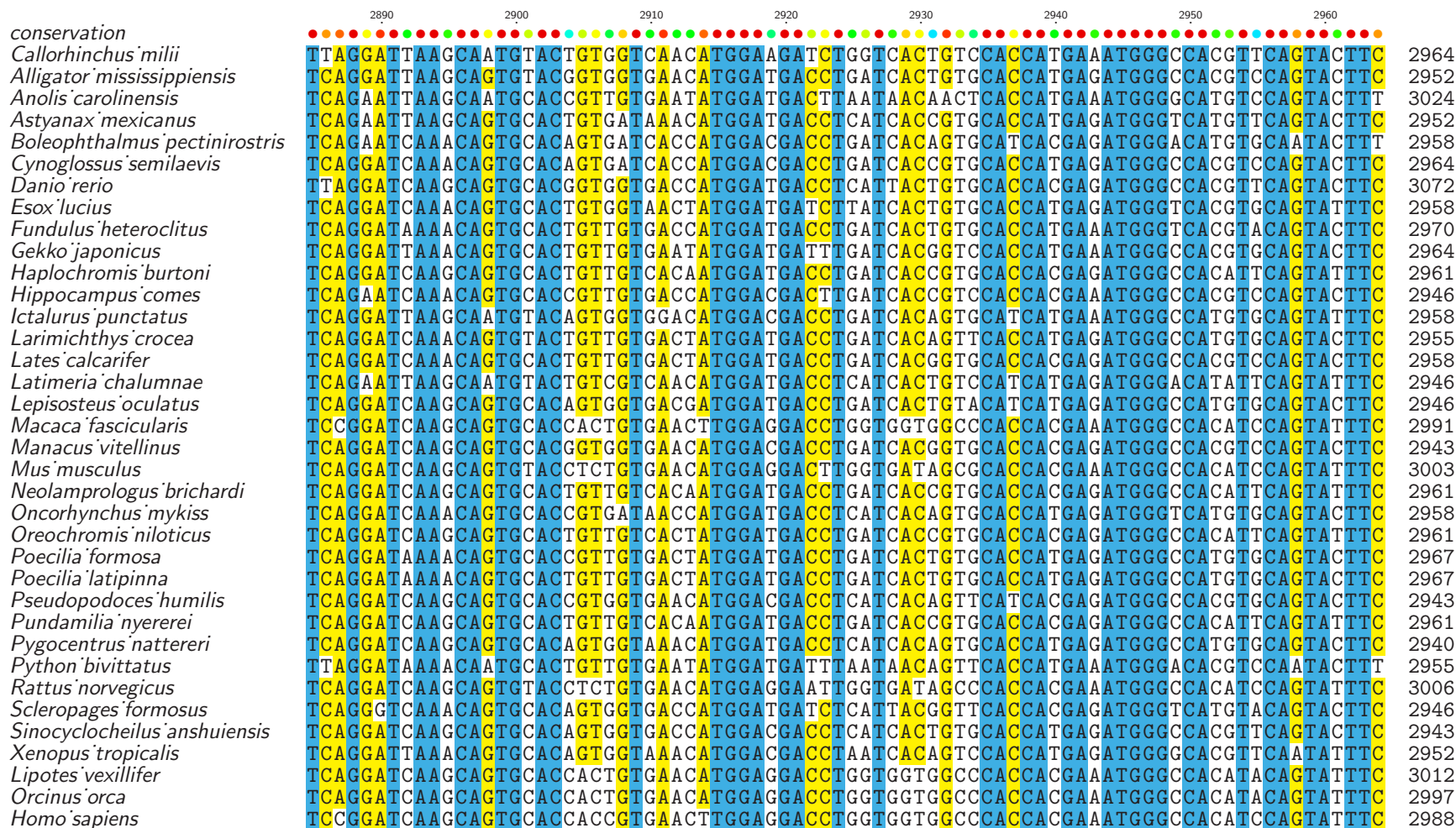
	2490	2500	2510	2520	2530	2540	2550	2560	
conservation									
<i>Callorhinchus milii</i>	GATTGGAGAGGATTTACAAACCAG	CTCCAGCCT	CTATACT	TGAATCT	GCATGCT	TATGTCCGACGT	GGATTGT	ATCAGAA	2567
<i>Alligator mississippiensis</i>	GACCTAGAGAAGCTCTACCTGCA	ACTGCAGCC	CTGTAC	CTCAACCTT	CATGCC	TATGTGCGCCG	GACCCCT	CTACAACAA	2552
<i>Anolis carolinensis</i>	GATCTAGAGAGGATCTGCCTGCA	CTTGCAT	TGTACT	TCAATTT	TACAT	GCCTATGTAC	GTGCGGCT	CTCTACAAAAA	2624
<i>Astyanax mexicanus</i>	GATCTGGAAGCATATGGAAAGAT	CTACAGCCG	CTCTAC	CTCAATCTT	CACTCT	TACGTCCGCGG	TGCCCT	CTTCAAAAA	2552
<i>Boleophthalmus pectinirostris</i>	GACCTGGAGGCGCTGTGGAAGAG	CTGGAGCCA	CTCTAT	CACAACG	TGCACG	CCATATGTCCG	CCCGGCACT	CTACAAGAA	2561
<i>Cynoglossus semilaevis</i>	GACCTGGAGACTCTGTGGTTGGAG	CTGGAGCCA	CTCTAC	CAGAACG	TCCACG	CTTATGTCCG	TAGAGCTTT	TGACAAAAA	2564
<i>Danio rerio</i>	GATCTGGAGGCTTGTGGAAGAT	CTAGAACCG	CTCTAC	CTCAGCG	TTTCAT	GCTTATGTG	CGCAGGCACT	GTACAAGAA	2672
<i>Esox lucius</i>	GATCTTGAGTCTCTCTGGAAGGAG	CTTGAAACCC	CTCTAT	CTCAATG	TACACG	CATATGTG	CGCAGGTC	CCCTCTATAAGAA	2558
<i>Fundulus heteroclitus</i>	GACCTGGAGGCTCTGTGGAAGGAG	CTGGAGCCA	CTCTAC	CTCAATG	TGCATG	CCATATGTT	CGAAGGG	CTCTTCAAAAA	2570
<i>Gekko japonicus</i>	GACCTGGAGAGGATCTGGCAGCA	ACTTCAGCC	GTTATAC	CTCAACT	TGCACG	CCATACGTG	CGCAGGG	CACTCCACAAGAC	2564
<i>Haplochromis burtoni</i>	GATCTGGAGACTCTGTGGAAGAG	CTGGAGCCA	CTCTAT	CTAAACT	TGCATG	CTTATGTT	CGAAGGG	GTCTATATAATAA	2561
<i>Hippocampus comes</i>	GACCTGGAGAGACTGTGGAAGAA	CTTGAGCCG	CTCTAC	CTGAACG	TGCAC	CTCTATGTT	CGCAGGG	GTCTGTACAACAA	2546
<i>Ictalurus punctatus</i>	GATTTGGAGGCGTTATGGAAGAG	CTACAGCCG	CTCTAT	CTCAACCT	TCCAT	CGGTATGT	CCGAGAG	CACTCTTCAAAAA	2561
<i>Larimichthys crocea</i>	GACCTGGAGACTCTCTGGAAGAG	CTGGAGCCA	CTCTAT	CAGAAAT	TGTCAT	GATATGTT	CGCAGAG	CTTTGTACAAGAA	2555
<i>Lates calcarifer</i>	GACCTGGAGTCCCTGTGGAAGGAG	CTGGAGCCG	CTTTAT	CAGAACG	TGCATG	CTTATGTT	CGTAGAG	CTTTGTACAAGAA	2558
<i>Latimeria chalumnae</i>	GACCTGGAAAACTCTATCATCAG	CTACAGCCC	CTGTAC	CTCAACCT	TCCAT	GCTTATGT	CCGTCAGG	CACTCCACAGAAA	2546
<i>Lepisosteus oculatus</i>	GACCTGGAGAGGCTGTACAGGAG	ATGCAAGCC	CTCTAC	CTCAACT	TGCACG	CCATATGTG	CGCAAG	CCCCCTGTACAAGAA	2546
<i>Macaca fascicularis</i>	GACCTGGAGGCGCTCTTCCAGGAG	CTGCAGCCG	CTGTAC	CTGAACCT	TGCATG	CCATATGTG	CGCGGG	CCCCCTGCACGCCA	2591
<i>Manacus vitellinus</i>	GATCTGGAGAGGCTGTACAGCAG	CTGCAGCCC	CTGTAC	CTCAACCT	TGCACG	CCATACGTG	CGCGGG	CCCCCTCTACAAGAA	2543
<i>Mus musculus</i>	GACCTGGAAAACTGTACAGGAG	CTGCAGCCA	CTCTAC	CTGAACCT	TGCATG	CCATATGTG	CGTCTG	TTCCTGCACGCCA	2603
<i>Neolamprologus brichardi</i>	GATCTGGAGACTCTGTGGAAGGAG	CTGGAGCCA	CTCTAT	CTAAACT	TGCATG	CTTATGTT	CGAAGGG	GTCTATATAATAA	2561
<i>Oncorhynchus mykiss</i>	GATCTGGAGCATCTGTGGAAGGAG	CTGGAGCCG	CTCTAT	CTCAATG	TGCACG	CCATACGTG	CGCAGGT	CTCTTTACAGGAA	2558
<i>Oreochromis niloticus</i>	GATCTGGAGACTCTGTGGAAGGAG	CTGGAGCCA	CTCTAT	CTGAACCT	TGCATG	CTTATGTT	CGAAGGG	GTCTATATAATAA	2561
<i>Poecilia formosa</i>	GACCTGGAGGCTCTGTGGAAGGAA	CTGGAGCCG	CTCTAT	CTCAACG	TACACG	CCATACGTT	CGAAGGG	CTCTTTACAAGAA	2567
<i>Poecilia latipinna</i>	GACCTGGAGGCTCTGTGGAAGGAA	CTGGAGCCG	CTCTAT	CTCAACG	TACACG	CCATACGTT	CGAAGGG	CTCTTTACAAGAA	2567
<i>Pseudopodoces humilis</i>	GATCTGGAGAGGCTGTATCTGCAG	CTGCAGCCC	CTGTAC	CTCAACCT	TACATG	CTTATGT	ACGCCG	AGCCCTCTACAAGAA	2543
<i>Pundamilia nyererei</i>	GATCTGGAGAGCTTGTGGAAGGAG	CTGGAGCCA	CTCTAT	CTAAACT	TGCATG	CTTATGTT	CGAAGGG	GTCTATATAATAA	2561
<i>Pygocentrus nattereri</i>	GACCTGGAGGCTTATGGAAGAA	CTTAGAGCC	CTCTAC	CTCAACT	TGCACACT	TATGTCCG	CCCGGCT	CTCTTTAAAAA	2543
<i>Python bivittatus</i>	GACCTGGAGAACATCTGGCATCAG	CTTCAACCA	TTTACT	CTCAATG	TGCATG	CTTATGT	ACGTGCG	CGGCTTTATACAAGAA	2555
<i>Rattus norvegicus</i>	GACCTGGAAAACTATACAGGAG	CTGCAGCCG	CTCTAC	CTGAACCT	TGCATG	CCATATGTG	CGCGG	CTCCCTGCACGCCA	2606
<i>Scleropages formosus</i>	GATCTTGAGAGACTGTGGAAGGAG	CTTGAGCCA	CTCTAT	CTCAATG	TGCATG	CATATGTT	CGCAGAG	TGCTCTTTAAACA	2546
<i>Sinocyclocheilus anshuiensis</i>	GATCTAGAGGCCTTGTGGAAGAT	CTAGAGCCG	CTCTAC	CTCAACCT	TTCATG	CTTATGTG	CGCAGG	GCACTGTACAAGAA	2543
<i>Xenopus tropicalis</i>	GATGTTGAGAACTTTATGACGAG	TTCAGCC	CTCTAC	CTCAATT	TGCATG	CATATGTG	CGCAGG	GCTCTTTACAAGAA	2555
<i>Lipotes vexillifer</i>	GACCTGGAGCAGCTTTCCAGGAG	TTCAGCC	CTCTAC	CTGAACCT	TGCACG	CCATACGTG	CGCGG	GGCCCTGTATCGCTT	2612
<i>Orcinus orca</i>	GAGCTGGAGCAGCTTTCCAGGAG	TTCAGCC	CTCTAC	CTGAACCT	TGCACG	CCATACGTG	CGCGG	GGCGCTGTATCGCTT	2597
<i>Homo sapiens</i>	GACCTGGAGCGGCTTTCCAGGAG	TTCAGCC	CTCTAC	CTCAACCT	TGCATG	CCATACGTG	CGCGG	GGCCCTGCACGGTCA	2588

conservation	2570	2580	2590	2600	2610	2620	2630	2640	
<i>Callorhinchus milii</i>	GTACGGAGATAAATACATCAACCTTAAGGGCC	ATAAATCCAGGCTCACTTAT	TAGGAACATGTGGGCCAGT	GTGG	AATA				2647
<i>Alligator mississippiensis</i>	ATATGGGAAGGAGTACATCAACCTTGAAGGGCC	ATCCAGGCCACCTGCT	TAGGAACATGTGGGCCAGT	CATGGT	CTG				2632
<i>Anolis carolinensis</i>	ATATGGAGCAGATCACATCAATCTCAAGGGCC	ATCCAGGCTCATTACT	TAGGAACATGTGGGCCAGT	CATGGG	CAA				2704
<i>Astyanax mexicanus</i>	GTACGGAGCGAAGCGATCAACCTCAAGGGCC	ATCCAGGCTCATTACT	TAGGAACATGTGGGCCAAAC	GTGGT	CCG				2632
<i>Boleophthalmus pectinirostris</i>	GTACGGAGCAGAGCACATCAACCTCAAGGGCC	ATCCCGGCTCACTTACT	TGGGGAACATGTGGGCCGAG	AGCTGGT	CGG				2641
<i>Cynoglossus semilaevis</i>	GTACGGTGCCAAGTATGTCAACCTGAAGGGA	CCGATTCCCTGCTCATCTGCT	TGGCAACATGTGGGCCGAG	CATGGT	CTG				2644
<i>Danio rerio</i>	ATATGGACCAGAAGCGATCAACCTGAAGGGCC	ATTCCCTGCTACATCTGCTT	TGGAAACATGTGGGCTCAAA	CATGGT	CTG				2752
<i>Esox lucius</i>	ATACGGCGGAAATACATTAACCTGAAGGGA	CCAATCCCTGCCATCTTTT	TAGGTAAACATGTGGGCCAG	AGCTGGT	CTG				2638
<i>Fundulus heteroclitus</i>	GTATGGCTCAGAGTACATCAACTTAAAGGGT	CCCATTCCAGGCTCATTGTT	TGGGCAACATGTGGGCCAG	AGCTGGT	CTG				2650
<i>Gekko japonicus</i>	CTACGGTGCTGAGCACATCAACCTCAAGGGCC	AAATTCCAGGCTCATTGCT	TAGGGAACATGTGGGCCAGT	CTGGT	CAA				2644
<i>Haplochromis burtoni</i>	GTATGGCTCCAACATATCAACCTAAAGGGCC	ATTCCCTGCTCATTACTT	TGGCAACATGTGGGCCAG	AGCTGGT	CTG				2641
<i>Hippocampus comes</i>	GTACGGCCCTAAACGCGTCAACCCGAGGGGG	CCATACCTGCTCACTTGC	TGGTAACATGTGGGCGCAG	AGCTGGT	CTG				2626
<i>Ictalurus punctatus</i>	ATACGGAAAGGAGCGCATCAACCTTAAAGGT	CCCATCCCTGCACATTTACT	TAGGAACATGTGGGCCAG	AGCTGGT	CAG				2641
<i>Larimichthys crocea</i>	CTATGGCCCAGAGCGCATTAACCTGAAGGGA	CCAATTCCCTGCTCATTGCT	TGGCAACATGTGGGCCAG	AGCTGGT	CTG				2635
<i>Lates calcarifer</i>	ATATGGTCCTGAGTACATCAACCTGAAGGGA	CCCATCCCTGCTCATTGCT	TGGGCAACATGTGGGCCAG	AGCTGGT	CTG				2638
<i>Latimeria chalumnae</i>	ATATGGTGACAAGTATATCAATCTTAAAGGT	CCCATTCCCTGCTCATCTTT	TAGGAACATGTGGGCCAGT	CATGGT	TGA				2626
<i>Lepisosteus oculatus</i>	GTACGGATCTGAATACGTCAACCTGAAGGGA	CCCATCCCTGCCACCTGCT	TGGTAACATGTGGGCCAGT	CTGGT	CTA				2626
<i>Macaca fascicularis</i>	CTACGGGGCCCAGCACATCAATCTGGAGGGG	CCCATCCCTGCTCACCCTG	TGGGGAACATGTGGGCCAA	ACTTGGT	CCA				2671
<i>Manacus vitellinus</i>	GTACGGGGCAGAGCACATAAACCTGAGGGGG	CCCATCCCTGCTCATCTGCT	TAGGCAACATGTGGGCTCAGT	CATGGT	CCA				2623
<i>Mus musculus</i>	CTATGGGTCCGAGTACATCAACCTGGATGGC	CCCATTCCCTGCCATCTGCT	TAGGGAACATGTGGGCGCAG	AGCTGGT	CCA				2683
<i>Neolamprologus brichardi</i>	GTATGGCTCCAACATATCAACCTAAAGGGCC	ATTCCCTGCTCATTACTT	TGGCAACATGTGGGCCAG	AGCTGGT	CTG				2641
<i>Oncorhynchus mykiss</i>	GTATGGAGGCAACACATCAACCTGAAGGGA	CCCATCCCTGCACATCTTT	TAGGCAACATGTGGGCGCAG	AGCTGGT	CTG				2638
<i>Oreochromis niloticus</i>	GTATGGCTCCAACCATCAACCTAAAGGGCC	ATTCCCTGCTCATTACTT	TGGCAACATGTGGGCCAG	AGCTGGT	CTG				2641
<i>Poecilia formosa</i>	GTATGGCTCAGATAACATCAACTTAAAGGGG	CCCATCCCTGCTCACTTGT	TGGGCAACATGTGGGCCAG	AGCTGGT	CTG				2647
<i>Poecilia latipinna</i>	GTATGGCTCAGATAACATCAACTTAAAGGGG	CCCATCCCTGCTCACTTGT	TGGGCAACATGTGGGCCAG	AGCTGGT	CTG				2647
<i>Pseudopodoces humilis</i>	ATATGGTGCAAGAGCACATAAACCTGAAGGGT	CCCATCCCTGCCATCTGCT	TAGGCAACATGTGGGCTCAGT	CATGGT	CCA				2623
<i>Pundamilia nyererei</i>	GTATGGCTCCAACATATCAACCTAAAGGGCC	ATTCCCTGCTCATTACTT	TGGCAACATGTGGGCCAG	AGCTGGT	CTG				2641
<i>Pygocentrus nattereri</i>	GTATGGAGCAAAGCGATCAACCTCAAGGGG	CCAATTCCAGCACATTTACT	TAGGAACATGTGGTCCAG	AGCTGGT	CCA				2623
<i>Python bivittatus</i>	GTATGGAGAAACGCACATCAATCTCAAGGGT	CCAATTCCAGGCTCATTGCT	TAGGTAAACATGTGGGCCA	ATCATGGG	CAA				2635
<i>Rattus norvegicus</i>	TTATGGGTCTGAGTACATCAACCTGGATGGT	CCCATTCCCTGCTCACCTGCT	TAGGGAACATGTGGGCCAG	AGCTTGGT	CCA				2686
<i>Scleropages formosus</i>	TTATGGACCTGACCGAATCAACCTGAGAGGT	CCTATTCCAGCACATCTTT	TGGTAACATGTGGGCCAGT	CTTGGG	CTG				2626
<i>Sinocyclocheilus anshuiensis</i>	GTATGGACCAGAACATCAACCTTAAAGGA	CCAATTCCAGGCTCATCTGCT	TGGAAATATGTGGGCCCA	AGCTGGT	CTG				2623
<i>Xenopus tropicalis</i>	GTATGGAGATAAAGAATCAACCTAAAGGGG	CCAATTCCCTGCTCATCTCT	TGGTAACATGTGGGCCAG	AGCTGGT	CTA				2635
<i>Lipotes vexillifer</i>	CTACGGGTCCGAGCTCATCAACCTGGAGGGC	CCCATCCAGGCCACCTGCT	TGGGGAACATGTGGGCCAG	AGCTGGT	CCA				2692
<i>Orcinus orca</i>	CTACGGGTCCGAGCTCATCAACCTGGAGGGC	CCCATCCAGGCCACCTGCT	TGGGGAACATGTGGGCCAG	AGCTGGT	CCA				2677
<i>Homo sapiens</i>	CTACGGGGCCCAGCACATCAACCTGGAGGGC	CCCATTCCCTGCTCACCTGCT	TGGGGAACATGTGGGCCAG	AGCTGGT	CCA				2668

conservation	2650	2660	2670	2680	2690	2700	2710	2720	
<i>Callorhinchus milii</i>	ATATCTATGATCTGTTAACA	CCTTATCCTAAC	GTCTCTCATGTTCGATGCT	ACTCAGCAATGATTGCTC	AGGGTGGACT	2727			
<i>Alligator mississippiensis</i>	CCATTTTTGATCTGCTGACAC	CCTTTCCTAGTGCCAC	CAAAGTGGATGCC	ACCCAGCCATGAAAAGCC	AGAAC	TGGACC	2712		
<i>Anolis carolinensis</i>	ACATTTTTGACCTTGTGGCA	CCCTTCCCAAATGCTAT	CAAAGTGGATGCC	ACACAGCAATGAAAAGCA	AGGGCTGGACA	2784			
<i>Astyanax mexicanus</i>	GCATCATGGACCTGGTTAGAC	CCCTACCCCAACGCCG	CTCAGGTGGACGTCACA	CAAGCCATGATAGCCA	AGGGCTGGGAT	2712			
<i>Boleophthalmus pectinirostris</i>	GGATAATGGACCTGGTTATG	CCCTACCCAGACGCCA	CACAAGTTGACGCC	ACTCGGCCATGGTGGCTC	AGAAATGGGAT	2721			
<i>Cynoglossus semilaevis</i>	GAATCATGGATCTGGTCATG	CCCTACCCAGACGCCA	CACAGGTTGATGCC	ACACAGCAATGGTAGCCC	AGGGGTGGAAT	2724			
<i>Danio rerio</i>	GTATCATGTAGTCTCGTCAAT	CCGTACCCGTATGCCA	CACAAGTGGATGCC	ACGCCAGCCATGATCGCA	AAGGCTGGACC	2832			
<i>Esox lucius</i>	GCATCATGGACTTGGCCATT	CCCTACCCCAATGCCA	CACAGGTTGATGCC	ACGCCGCCATGATAGCCA	AGGGCTGGAAT	2718			
<i>Fundulus heteroclitus</i>	GCATCATGGATTTAGTCATG	CCCTATCCAGATGCCA	CACAAGTGGATGCC	ACACAGCTATGGTGGCGC	AGGGCTGGAAT	2730			
<i>Gekko japonicus</i>	ATATCTTTGGGCTTGTATG	CCCTTTCCTGATGCCAT	CAAAGTGGATGCC	ACGCCAGCTATGAAAAGTC	AGGGCTGGACC	2724			
<i>Haplochromis burtoni</i>	GCATAATGGATTGGTCATA	CCCTACCCAGACGCTA	CACAGGTCGACGCC	ACCCAGCCATGGTGCAGC	AGGGATGGGAT	2721			
<i>Hippocampus comes</i>	GCATCATGGACCTGGTCATG	CCCTATCCGATGCCA	CGAAGTCGATGCT	ACGCCAGCGATGGTGGCAA	AGGGCTGGAAT	2706			
<i>Ictalurus punctatus</i>	GAATCATGGACTTGGTGAAC	CCGTACCCGTAAGGCCA	CTCAAGTGGACGTC	ACACAAGCCATGATAGACA	AGGGCTGGGAC	2721			
<i>Larimichthys crocea</i>	GCATAATGGATTGGTCATG	CCCTACCCAGATGCCA	CGCAGGTTGACGCC	ACTCAGCTATGGTTGCAC	AGGGCTGGAAC	2715			
<i>Lates calcarifer</i>	GCATAATGGATCTTGTTCATG	CCCTACCCAGATGCCA	CGCAGGTTGACGCC	ACACCGGCCATGGTGGCAA	AGGGCTGGAAT	2718			
<i>Latimeria chalumnae</i>	GTATTTACAGTCTCCTTGTG	CCATACCCAGAAGCCA	CCCAGGTGGATGCT	ACACCTGCAATGATTGCTC	AGAAGTGGAAAT	2706			
<i>Lepisosteus oculatus</i>	ATATATATGATCTAGTGACT	CCCTTTCCGGATGCT	GGGCAGTTGATGCC	ACCCAGCAATGGTAGCCA	AGGGCTGGGAT	2706			
<i>Macaca fascicularis</i>	ACATCTATGACTTGGTGGTG	CCCTTCCCTTCA	GGCCCTCGATG	GACCCACGGAGCCATGCT	AAAGCAGGGCTGGACG	2751			
<i>Manacus vitellinus</i>	ATATTTTCGACCTGGTGATG	CCCTTCCCGAATGCCA	CAAGTGGATGCC	ACCCAGCCATGAAAAGC	AGGGCTGGACA	2703			
<i>Mus musculus</i>	ACATCTATGATTGGTGGCG	CCCTTCCCTTCC	GCCCCCAATATAGAT	GCCACGGAAGCCATGAT	AAAGCAGGGATGGACA	2763			
<i>Neolamprologus brichardi</i>	GCATAATGGATTGGTTCATA	CCCTACCCAGACGCTA	CACAGGTTGACGCC	ACCCAGCCATGGTGCAGC	AGGGATGGGAT	2721			
<i>Oncorhynchus mykiss</i>	GCATCATGGACTTGGCCATT	CCGTACCCCGATGCCA	CTCAAGTAGACGCC	ACACAGCCATGATAGCCA	AGGGCTGGAAT	2718			
<i>Oreochromis niloticus</i>	GCATAATGGATTGGTTCATG	CCCTTACCCAGACGCCA	CACAGGTTGACGCC	ACCCAGCCATGGTGCAGC	AGGGATGGGAT	2721			
<i>Poecilia formosa</i>	GAATCATGGATTTAGTCATG	CCCTTACCCAGATGCCA	CACAAGTCGATGCC	ACACCGGCTATGGTGGCGC	AGGGCTGGAAT	2727			
<i>Poecilia latipinna</i>	GAATCATGGATTAGTCATG	CCCTTACCCAGATGCCA	CACAAGTCGATGCC	ACACCGGCTATGGTGGCAC	AGGGCTGGAAT	2727			
<i>Pseudopodoces humilis</i>	ACATTTTCGACCTGGTGATA	CCCTTCCCGAATGCCA	CAAGTGGATGCC	ACCCAGCCATGAAAAAC	AGGGCTGGACA	2703			
<i>Pundamilia nyererei</i>	GCATAATGGATTGGTTCATA	CCCTACCCAGACGCTA	CACAGGTCGACGCC	ACCCAGCCATGGTGCAGC	AGGGATGGGAT	2721			
<i>Pygocentrus nattereri</i>	GCATCATGGACCTGGTTCATG	CCCTTACCCGACGCCA	CTCAGTTGATGTC	ACCAAGCCATGATAGCCA	ATGGCTGGAAT	2703			
<i>Python bivittatus</i>	ACATCTTTGACCTTGTTCATG	CCCTTCCCTTCA	GCTACCAAGTGGATGCT	ACACAGCCATGAAAAGTC	AGGGCTGGACC	2715			
<i>Rattus norvegicus</i>	ACATCTATGACTTGGTGGCA	CCCTTCCCTTCC	GCCCCCAGTATAGAT	GCCACGGAGGCCATGAT	AAAGCAGGGATGGACA	2766			
<i>Scleropages formosus</i>	CAATAATGGACTTGGCAGTC	CCATATCCAGATGCTA	CTCAAGTAGATGCT	ACCCCTGCCATGATAGCTA	AGAAATGGGAT	2706			
<i>Sinocyclocheilus anshuiensis</i>	CTATCATGGACCTTGTTCATT	CCGTACCCGTATGCCA	CACAAGTGGATGCC	ACGCCAGCCATGATTGCCA	AAGGTTGGGAC	2703			
<i>Xenopus tropicalis</i>	ACATTTATGAGTTGTTGGTT	CCATATCCCAATGCTG	CACAAGTGGATGCT	ACTCCAGCCATGATTGCTA	AGAAATGGACT	2715			
<i>Lipotes vexillifer</i>	ACATCTATGACTTGGTAGTA	CCCTTCCCTTCA	GCCCCCAGGATGGAT	GCCACAGAGGCCATGAT	AAAGCAGGGCTGGACA	2772			
<i>Orcinus orca</i>	ACATCTATGACTTGGTAGTA	CCCTTCCCTTCA	GCCCCCAGGATGGAT	GCCACAGAGGCCATGAT	AAAGCAGGGCTGGACA	2757			
<i>Homo sapiens</i>	ACATCTATGACTTGGTGGTG	CCCTTCCCTTCA	GCCCCCCTCGATGGAC	CCACAGAGGCTATGCT	AAAGCAGGGCTGGACG	2748			

	2730	2740	2750	2760	2770	2780	2790	2800	
conservation									
<i>Callorhinchus milii</i>	C	C	C	A	A	A	A	A	2807
<i>Alligator mississippiensis</i>	C	C	C	A	A	A	A	A	2792
<i>Anolis carolinensis</i>	C	C	C	A	A	A	A	A	2864
<i>Astyanax mexicanus</i>	G	C	T	A	A	T	C	G	2792
<i>Boleophthalmus pectinirostris</i>	G	C	T	C	A	T	A	G	2801
<i>Cynoglossus semilaevis</i>	G	C	T	G	T	G	A	A	2804
<i>Danio rerio</i>	C	C	C	A	A	A	A	A	2912
<i>Esox lucius</i>	G	C	C	G	T	A	A	A	2798
<i>Fundulus heteroclitus</i>	G	C	C	A	A	A	A	A	2810
<i>Gekko japonicus</i>	C	C	G	A	A	A	A	A	2804
<i>Haplochromis burtoni</i>	G	C	C	A	T	C	A	A	2801
<i>Hippocampus comes</i>	G	C	C	A	A	A	A	A	2786
<i>Ictalurus punctatus</i>	G	C	T	C	T	G	A	A	2801
<i>Larimichthys crocea</i>	C	C	C	A	T	C	A	A	2795
<i>Lates calcarifer</i>	G	C	C	A	A	A	A	A	2798
<i>Latimeria chalumnae</i>	G	C	G	G	A	A	A	A	2786
<i>Lepisosteus oculatus</i>	G	C	A	C	G	A	A	A	2786
<i>Macaca fascicularis</i>	C	C	C	C	G	A	A	A	2831
<i>Manacus vitellinus</i>	G	C	C	A	A	A	A	A	2783
<i>Mus musculus</i>	C	C	C	A	A	A	A	A	2843
<i>Neolamprologus brichardi</i>	G	C	C	A	T	C	A	A	2801
<i>Oncorhynchus mykiss</i>	G	C	C	A	A	A	A	A	2798
<i>Oreochromis niloticus</i>	G	C	C	A	T	C	A	A	2801
<i>Poecilia formosa</i>	G	C	A	C	C	A	A	A	2807
<i>Poecilia latipinna</i>	G	C	A	C	C	A	A	A	2807
<i>Pseudopodoces humilis</i>	C	C	C	A	A	A	A	A	2783
<i>Pundamilia nyererei</i>	G	C	C	A	T	C	A	A	2801
<i>Pygocentrus nattereri</i>	G	C	C	C	G	C	A	A	2783
<i>Python bivittatus</i>	C	C	A	A	A	A	A	A	2795
<i>Rattus norvegicus</i>	C	C	C	A	A	A	A	A	2846
<i>Scleropages formosus</i>	G	C	C	A	A	A	A	A	2786
<i>Sinocyclocheilus anshuiensis</i>	C	C	C	A	A	A	A	A	2783
<i>Xenopus tropicalis</i>	C	C	A	A	A	A	A	A	2795
<i>Lipotes vexillifer</i>	C	C	C	C	A	A	A	A	2852
<i>Orcinus orca</i>	C	C	C	C	A	A	A	A	2837
<i>Homo sapiens</i>	C	C	C	A	A	A	A	A	2828

	2810	2820	2830	2840	2850	2860	2870	2880	
conservation									
<i>Callorhinchus milii</i>	G	T	C	G	A	T	G	T	2884
<i>Alligator mississippiensis</i>	G	T	C	C	A	T	G	T	2872
<i>Anolis carolinensis</i>	A	T	C	C	A	T	G	T	2944
<i>Astyanax mexicanus</i>	G	T	C	C	A	T	G	T	2872
<i>Boleophthalmus pectinirostris</i>	G	T	C	A	A	T	G	T	2878
<i>Cynoglossus semilaevis</i>	A	T	C	C	A	T	G	T	2884
<i>Danio rerio</i>	G	T	C	C	A	T	G	T	2992
<i>Esox lucius</i>	A	T	C	C	A	T	G	T	2878
<i>Fundulus heteroclitus</i>	G	T	C	C	A	T	G	T	2890
<i>Gekko japonicus</i>	G	T	C	C	A	T	G	T	2884
<i>Haplochromis burtoni</i>	A	T	C	C	A	T	G	T	2881
<i>Hippocampus comes</i>	A	T	C	C	A	T	G	T	2866
<i>Ictalurus punctatus</i>	G	T	C	C	A	T	G	T	2878
<i>Larimichthys crocea</i>	G	T	C	C	A	T	G	T	2875
<i>Lates calcarifer</i>	G	T	C	C	A	T	G	T	2878
<i>Latimeria chalumnae</i>	A	T	C	C	A	T	G	T	2866
<i>Lepisosteus oculatus</i>	G	T	C	C	A	T	G	T	2866
<i>Macaca fascicularis</i>	G	T	C	C	A	T	G	T	2911
<i>Manacus vitellinus</i>	G	T	C	C	A	T	G	T	2863
<i>Mus musculus</i>	G	T	C	C	A	T	G	T	2923
<i>Neolamprologus brichardi</i>	A	T	C	C	A	T	G	T	2881
<i>Oncorhynchus mykiss</i>	G	T	C	C	A	T	G	T	2878
<i>Oreochromis niloticus</i>	A	T	C	C	A	T	G	T	2881
<i>Poecilia formosa</i>	A	T	C	C	A	T	G	T	2887
<i>Poecilia latipinna</i>	A	T	C	C	A	T	G	T	2887
<i>Pseudopodoces humilis</i>	G	T	C	C	A	T	G	T	2863
<i>Pundamilia nyererei</i>	A	T	C	C	A	T	G	T	2881
<i>Pygocentrus nattereri</i>	G	T	C	C	A	T	G	T	2860
<i>Python bivittatus</i>	G	T	C	C	A	T	G	T	2875
<i>Rattus norvegicus</i>	G	T	C	C	A	T	G	T	2926
<i>Scleropages formosus</i>	A	T	C	C	A	T	G	T	2866
<i>Sinocyclocheilus anshuiensis</i>	G	T	C	C	A	T	G	T	2863
<i>Xenopus tropicalis</i>	A	T	C	C	A	T	G	T	2872
<i>Lipotes vexillifer</i>	G	T	C	C	A	T	G	T	2932
<i>Orcinus orca</i>	G	T	C	C	A	T	G	T	2917
<i>Homo sapiens</i>	G	T	C	C	A	T	G	T	2908



conservation

<i>Callorhinchus milii</i>	TCTTTCCGTTTCCACTCCAAAACATCTGCACACCATCGGCCTACTCAGTGAACTAGAGGACAATATCGAATGGATATCA	3124
<i>Alligator mississippiensis</i>	CCTGTCAGTCTCCACCCCTAAGCACCTGCACAGCATCAACCTTCTTCTCAGGTTGAGGATAATATGGAGAGCGACATCA	3112
<i>Anolis carolinensis</i>	CCTATCGGTGTCTACTCCAAAACACTTATTCAGCATCAAGCTGCTAGATCAGGTGGAAGACAATCCTGAGAGTGACATTA	3184
<i>Astyanax mexicanus</i>	CCTGTCAGTGTCCACTCCAAAACATCTCCACACCATCGGCCTGCTGGACAAACTGGAGGAAAACGCAGAAAGCACCATTA	3112
<i>Boleophthalmus pectinirostris</i>	TCTGTCTGTGTCCACTCCCAAAACATCTACAGAGCATTTGGTCTGCTGGACAAAAGTGAAAAGCAACTCTGAGAGTGACATTA	3118
<i>Cynoglossus semilaevis</i>	ACTGTCAGTGTCAACACCCAAAACATCTGCACAGCATTTGGTCTCTGGACAAAAGTGAGAGCAACCACGAGAGCGACATCA	3124
<i>Danio rerio</i>	TCTGTCAGTAGCCACACCTAAACACTTTACAGAGCATCGGCCTGCTGGACAAGGTGGAGGACAATGCAGAGAGCACCATCA	3232
<i>Esox lucius</i>	CCTGTCCGTTGCCACTCCCAGACATTTAAAGGAGATTGGTTTACTAGATGTGGTGAAGCCAACAAGGAGAGTACAATCA	3118
<i>Fundulus heteroclitus</i>	ACTGTCAGTCTCCACGCCCAAAACATCTCCAGAGCATCGGCCTCTGGACAAAAGTGAGAGTAACCACGAGAGTGACATAA	3130
<i>Gekko japonicus</i>	CTTGTCAGTGTCCACCCCCAAAACACTGTACAGCATCAGTCTCTGGATCGGGTGAAGACAACCTGGAGGGTGACATTA	3124
<i>Haplochromis burtoni</i>	CTTGTCGTGTGTGCACACCCAAAACATCTGCAGAGCATCGGCCTCTGGACAAGGTTGAGAACAACATGAGAGTGACATCA	3121
<i>Hippocampus comes</i>	TTTGTCGCTGTCCACACCCAAAGCACCTGAAGAGCATCGGCCTCTGGACAAAAGTGAAAAACAATCACGAGAGTGACATCA	3106
<i>Ictalurus punctatus</i>	GCTTTCAGTGTCCACACCCAAAACACTTTCACACCATCGGCCTGCTTGATAAGGTGAGGACAACCCGGAGAGCACCATAA	3118
<i>Larimichthys crocea</i>	CCTGTCTGTTTCTACGCCCAAAACATCTGCAGAGCATCGGCCTCTGGACAAAAGTGAAGACAACCATGAGAGTGATATCA	3115
<i>Lates calcarifer</i>	CCTTCTGTGTCTACACCCAAAACATCTGCAGAGCATTTGGCCTCTGGACAAAAGTTGAGAACAACCATGAGAGTGATATCA	3118
<i>Latimeria chalumnae</i>	ACTATCTGTCTCCACCCAAAACACTTTCACAGTATTGGGCTACTTGACACAGTCAATGAAAATTATGAGAGTGACATTA	3106
<i>Lepisosteus oculatus</i>	CCTGTCCGTTTCCACACCCAAAGCACCTGCACAGCATCGGACTGCTGGACAAAAGTGAGAACAACATATGACAGTGACATTA	3106
<i>Macaca fascicularis</i>	CCTCTCAGTGTCTACGCCCAAAGCACCTGCACAGTCTGAACCTGCTGAGCAGTGAGGTGGCAGCCATGAGCATGATATCA	3151
<i>Manacus vitellinus</i>	CTTGTCGCTCTCCACCCAAAACACTGCACAGCATCAATCTGCTGGATGAAGTCAAGGAAGACCAAGAGAGTGACATTA	3103
<i>Mus musculus</i>	TCTCTCAGTGTCTACCCCCAAGCATCTATACAGTCTCAACCTGCTTAGCACTGAGGGCAGTGGCTACGAGTATGACATCA	3163
<i>Neolamprologus brichardi</i>	CTTGTCGTGTGTGCACACCCAAAACATCTGCAGAGCATCGGCCTCTGGACAAGGTTGAGAACAACATGAGAGTGACATCA	3121
<i>Oncorhynchus mykiss</i>	CCTGTCCGTCGCCACTCCCAGGCATCTAAAGGAGATTGGTTTACTGGATGTGTGTGAGGACAACCCAGAGAGTAGCATCA	3118
<i>Oreochromis niloticus</i>	CTTGTCGTGTGTCAACACCCAAAACACTGCAGAGCATCGGCCTCTGGACAAGGTTGAGAACAACATGAGAGTGACATCA	3121
<i>Poecilia formosa</i>	GCTGTCCGTCCTCCACGCCCAAAACATCTGCAGAGCATCGGCCTCTGGACAAAAGTGGAAGTAACCACGAGAGTGACATCA	3127
<i>Poecilia latipinna</i>	GCTGTCCGTCCTCCACGCCCAAAACATCTGCAGAGCATCGGCCTCTGGACAAAAGTGAGAGTAACCACGAGAGTGACATCA	3127
<i>Pseudopodoces humilis</i>	CTTGTCGTGTCTCCACCCAAAACACTGCATAGCATCAATCTGCTGGACCAAGTCATGGAAAATGAAGAAAGTGATATTA	3103
<i>Pundamilia nyererei</i>	CTTGTCGTGTGTGCACACCCAAAACACTGCAGAGCATCGGCCTCTGGACAAGGTTGAGAACAACATGAGAGTGACATCA	3121
<i>Pygocentrus nattereri</i>	CCTGTCCAGTGTCCACTCCTAAACACTCTCCACAGCATTTGGCTTGCTGGACAAGGTGAGGACAACCAAGAGAGCACCATTA	3100
<i>Python bivittatus</i>	CTTATCAGTATCAACCCAAAAGCACTTGTATAGCATCAAGCTGCTTGATCATATGGAAGACAACCTTGAGGGTGACATCA	3115
<i>Rattus norvegicus</i>	TCTGTCTGTGTCTACACCAAGGCATCTACACAGTCTCAACCTGCTCAGCAGTGAGGGCAGTGGCTACGAGCATGACATCA	3166
<i>Scleropages formosus</i>	TCTGTCTGTCTCCACACCAATGCATCTGCACAGCATTTGGTCTTCTGGACAATGCAGAATCCTCATATGAGAGTGACATTA	3106
<i>Sinocyclocheilus anshuiensis</i>	CCTGTCAGTGTCCACACCTAAAACATCTTAAGAGCATTTGGCCTGCTGGACAAGGTGAGGACAATAAAGAAAGCACCATTA	3103
<i>Xenopus tropicalis</i>	TCTTTCAGTCTCTACACCAAAAACACTTGCAAAAGCATTTGGCCTTTTGATAAGGTGAGGACAACCCAGAAAGTGATATTA	3112
<i>Lipotes vexillifer</i>	CCTCTCAGTGTCTACCCCCAAGCACCTGCACAAAGATCAACCTGCTGAGTAGTGGGACGGCAGCTATGAGGAGGACATCA	3172
<i>Orcinus orca</i>	CCTCTCAGTGTCTACCCCCAAGCACCTGCACAAAGATCAACCTGCTGAGTAGTGGGACGGCAGCTATGAGGAGGACATCA	3157
<i>Homo sapiens</i>	CCTCTCAGTGTCTACGCCCAAAGCACCTGCACAGTCTCAACCTGCTGAGCAGTGAGGGTGGCAGCGACGAGCATGACATCA	3148

conservation

<i>Callorhinchus milii</i>	ACTACCTGTTGAGCATTTGCTCTGGAAAAAATTGCTTTTATTCCATTTGGATATCTGATGGATAAGTGGCGATGGAAGGTT	3204
<i>Alligator mississippiensis</i>	ATTACCTGATGAGCATTTGCCCTTGACAAAGATTGCCCTTTGCTTTTGGCTACCTTATGGACCAGTGGAGGTGGAAGGTT	3192
<i>Anolis carolinensis</i>	ACTACTTGATGAGCATTTGCATTTGGATAAGATTGCTTTCCTGCCCTTTGGCTATCTGATGGACCAATGGAGATGGAAGGTT	3264
<i>Astyanax mexicanus</i>	ACTTCTGATGAGCATTTGCCCTTGACAAAATTGCATTCCTGCCGTTCCGGCTACCTAATGGACCAGTGGAGATGGAAGGTG	3192
<i>Boleophthalmus pectinirostris</i>	ACTTCTGATGAGCATGGCCCTTGATAAGATTGCCCTTCCTGCCCTTTGGTTACCTTATGGACCAGTGGAGATGGAAGGTA	3198
<i>Cynoglossus semilaevis</i>	ACTTCTGATGAGCATGGCTCTGGACAAGATTGCATTCCTACCTTTCCGGTTCTGATGGACCAGTGGAGATGGAAGGTG	3204
<i>Danio rerio</i>	ACTTTCTGATGAGCATTTGCATTTGGATAAGATTGCCCTTCTGCCATTTGGCTACCTGATGGACCAGTGGAGGTGGAAGGTG	3312
<i>Esox lucius</i>	ATTACCTCATGAGTATTGCTCTGGACAAAATCGCCTTCCTGCCCTTTGGTTACCTGATGGACCAGTGGAGGTGGAAGGTT	3198
<i>Fundulus heteroclitus</i>	ACTTTTTAATGAGCATGGCGCTGGACAAAATTGCCCTTCCTGCCCTTTGGTTACCTGATGGATCAGTGGAGGTGGAAGGTC	3210
<i>Gekko japonicus</i>	ACTACTTGATGAGCATTTGCCTTGACAAAGATTGCCCTTCTGCCCTTTGGCTACCTCATGGACCAGTGGAGGTGGAAGGTT	3204
<i>Haplochromis burtoni</i>	ACTTCTGATGAGCATTTGCATTTGACAAGATTGCCCTTCCTACCTTTCCGGCTACCTGATGGACCAATGGAGGTGGAAGGTT	3201
<i>Hippocampus comes</i>	ACTTTCTGATGAACATGGCGCTGCATAAAATCGCCTTCCTGCCGTTTGGCTACCTGATGGACCAGTGGAGATGGAAGGTT	3186
<i>Ictalurus punctatus</i>	ACTTCTGATGAGCATCGCCCTGGATAAAAATCGCCTTCCTGCCCTTTGGCTACCTGATGGACCAATGGAGGTGGAAGGTT	3198
<i>Larimichthys crocea</i>	ACTTCTGATGAACATGGCGCTTGACAAGATTGCCCTTCCTTCCCTTTGGCTACCTGATGGATCAGTGGAGATGGAAGGTT	3195
<i>Lates calcarifer</i>	ACTTCTGATGAGCATGGCACTTGACAAGATCGCCTTCCTACCTTTTGGCTACCTGATGGACCAGTGGAGATGGAAGGTA	3198
<i>Latimeria chalumnae</i>	ACTATCTAATGAGTATTGCCCTGGATAAGATTGCATTCCTGCCCTTTGGGTATCTCATGGATCAGTGGCGATGGAAGGTT	3186
<i>Lepisosteus oculatus</i>	ACTATCTGATGAGCATTTGCCCTTGACAAAATTGCCCTTCCTGCCCTTTGGCTACCTGATGGACCAGTGGCGCTGGAAGGTT	3186
<i>Macaca fascicularis</i>	ACTTTCTGATGAAGATGGCGCTTGACAAGATTGCCCTTATCCCTTACCTTACCTATCTCGTTGATCAGTGGCGCTGGAGGTT	3231
<i>Manacus vitellinus</i>	ACTACCTGATGAGCATTTGCCCTTGACAAAATCGCCTTCCTGCCCTTTGGGTACCTCATGGACCAGTGGCGCTGGAAGGTT	3183
<i>Mus musculus</i>	ACTTTCTAATGAAGATGGCCCTTGACAAGATCGCCTTTATCCCTTTCAGCTACCTCATCGACCAGTGGCGCTGGAGGTT	3243
<i>Neolamprologus brichardi</i>	ACTTCTGATGAGCATTTGCATTTGACAAGATTGCCCTTCCTACCTTTTGGCTACCTGATGGACCAATGGAGGTGGAAGGTT	3201
<i>Oncorhynchus mykiss</i>	ATTACCTCATGAGCATCGCCCTTGACAAAATTGCCCTTCCTGCCCTTTGGCTACTTGATGGACCAGTGGAGGTGGAAGGTT	3198
<i>Oreochromis niloticus</i>	ACTTCTGATGAGCATGGCACTTGACAAGATTGCCCTTCCTACCTTTTGGCTACCTAATGGACCAGTGGAGGTGGAAGGTT	3201
<i>Poecilia formosa</i>	ACTTTTTGATGAGCATGGCGCTTAGACAAAATTGCCCTTCCTGCCCTTTGGGTACCTGATGGACCAGTGGAGGTGGAAGGTT	3207
<i>Poecilia latipinna</i>	ACTTTTTGATGAGCATGGCGCTTAGACAAAATTGCCCTTCCTGCCCTTTTGGGTACCTGATGGACCAGTGGAGGTGGAAGGTT	3207
<i>Pseudopodoces humilis</i>	ACTACCTGATGAGCATCGCCCTGGATAAAAATTGCCCTTCCTGCCCTTTGGGTACCTCATGGACCAGTGGCGGTGGAAGGTT	3183
<i>Pundamilia nyererei</i>	ACTTCTGATGAGCATTTGCATTTGACAAGATTGCCCTTCCTACCTTTTGGGTACCTGATGGACCAATGGAGGTGGAAGGTT	3201
<i>Pygocentrus nattereri</i>	ACTTCTAATGAGCATTTGCCCTTGACAAAATTGCCCTTCCTGCAATTTGGCTACCTGATGGACCAGTGGCGGTGGAAGGTT	3180
<i>Python bivittatus</i>	ACTACCTGATGAGCATTTGCCTTGATAAGATTGCCCTTCCTGCCCTTTGGGTACCTGATGGACCAATGGAGGTGGAAGGTT	3195
<i>Rattus norvegicus</i>	ACTTTCTAATGAAGATGGCCCTTGACAAGATCGCCTTTCATCCCTTTCAGCTACCTCATGACCAGTGGCGCTGGAGGTT	3246
<i>Scleropages formosus</i>	ATTACTTGATGAGCATTTGCTCTGGACAAAATCGCCTTCCTGCCCTTTGGGTACCTTGATGGACCAGTGGAGGTGGAAGGTT	3186
<i>Sinocyclocheilus anshuiensis</i>	ACTTCTGATGAGCATGGCCCTTGATAAGATTGCCCTTCCTGCCCTTTTGGGTACCTGATGGACCAGTGGAGGTGGAAGGTA	3183
<i>Xenopus tropicalis</i>	ATTATCTCATGAGTATTGCCTTGATAAAAATTGCCCTTCCTTCCATTTGGTTTCTCATGGATCAGTGGCGCTGGAAGGTT	3192
<i>Lipotes vexillifer</i>	ACTTTCTGATGAAGATGGCGCTTGACAAGATCGCCTTTGTTCCCTTTCAGCTATCTTGTTGGACCAGTGGCGCTGGAGGTT	3252
<i>Orcinus orca</i>	ACTTTCTGATGAAGATGGCGCTTGACAAGATCGCCTTTGTTCCCTTTCAGCTATCTTGTTGGACCAGTGGCGCTGGAGGTT	3237
<i>Homo sapiens</i>	ACTTTCTGATGAAGATGGCCCTTGACAAGATCGCCTTTATCCCTTTCAGCTACCTCGTGCATCAGTGGCGCTGGAGGTT	3228

	3210	3220	3230	3240	3250	3260	3270	3280	
conservation	●●●								

	3290	3300	3310	3320	3330	3340	3350	3360	
conservation	●●●								




	3530	3540	3550	3560	3570	3580	3590	3600	
conservation									
<i>Callorhinchus milii</i>	GAAGT	TAATAACAGGGAAGC	CAGATATGTCT	GCTGAGCCTCTACT	GAACTACTTC	AAGCCACTG	CAGACTGGC	TTATTG	3604
<i>Alligator mississippiensis</i>	GCAGC	TTATCACCGGGCAGCC	AACATGTCT	GCAGATGCCCTGAT	GATGAT	TATTTGAGCCGCT	GATGACCTGGC	TGGTGG	3592
<i>Anolis carolinensis</i>	GCAAC	TTATCACAGGGCAAC	CCAAATGTCT	GCTGATGCTTGT	TGACTTATTT	CAACCCACTG	CAGACTGGC	TCATCA	3664
<i>Astyanax mexicanus</i>	GGCTA	TGATCACTGGCCAGC	CCAAATGTCT	GTGCAGCCTCTGAT	TGGAGTATTT	CCAGCCCCTC	ATCACC	TGGCTCGAGC	3592
<i>Boleophthalmus pectinirostris</i>	GGCCA	TGATCACCGGTCAGC	CCAAAATGAGC	GCCTGCCGCTCAT	TGGAGTATTT	CAACCCACTC	ATCACC	TGGTTGGAGG	3598
<i>Cynoglossus semilaevis</i>	GACCA	TGATCAGGGGCCAGC	CCAAAATGACA	CCGAGCCTCTCAT	TGGAGTACTTT	CAACCCCTC	ATCCAG	TGGCTGGAGT	3604
<i>Danio rerio</i>	GAAGAT	CATCACAGGTCAGCC	AAATGTCC	GTCCAGCCTCTGAT	TGGAGTATTTT	CAACCCGCTC	ATCCAG	TGGCTGGAGA	3712
<i>Esox lucius</i>	GGCCA	TGATCACTGGAGAGC	CCGTATGTCC	GCAAGCCACTGGT	TGAGTACTTT	CAACCCCTC	ACTGAT	TGGCTGGAGG	3598
<i>Fundulus heteroclitus</i>	GGCCA	TGATCACGGGTCAGT	CCAAAATGACT	GCCAGCCGCTCAT	TGCAGTACTTT	TGAACCTCTC	ATTAAAT	TGGCTTGAGG	3610
<i>Gekko japonicus</i>	GCAGC	TTATCACAGGACAGC	CCAAATGTCT	GAGAAGCATTGCT	TGACCTATTTT	CAACCCACTA	CAAACT	TGGCTAATCA	3604
<i>Haplochromis burtoni</i>	GGCTA	TGATCACTGGCGAGT	CCAAAATGAGT	GCCAGCCACTCAT	TGGAGTACTTT	CAACCTCTC	ATTGAA	TGGCTTGAGA	3601
<i>Hippocampus comes</i>	GACCAT	TGATCACAGGCGAGCC	ACGATGAGC	GCAAGCCGCTCAT	TGGAGTATTTT	TGAACCTCTC	ATTAAAT	TGGCTGGAGC	3586
<i>Ictalurus punctatus</i>	GGCCT	TGATCACAGGTAAGC	CCGTATGTCT	GTACAGCCTCTGAT	TGGAGTACTTT	TGAGCCCCTC	ATCACC	TGGCTAGAGA	3598
<i>Larimichthys crocea</i>	GGCCA	TGATCACTGGCCAGC	CCAAAATGACT	GCCAGCCACTCAT	TGCAGTATTTT	CAACCTCTC	ATTGAC	TGGCTGGAGA	3595
<i>Lates calcarifer</i>	GACCA	TGATCACTGGCCAGC	CCAAAATGAGT	GCCAGCCACTCAT	TGCAGTATTTT	CAACCTCTC	ATTCAA	TGGCTGGAGG	3598
<i>Latimeria chalumnae</i>	GACTC	TCATCACTGGACAGC	CTAACATGACA	CTGAGGCTCTGAT	TGAAGTATTTT	TGAACCACTG	ACAAAG	TGGCTTATTA	3586
<i>Lepisosteus oculatus</i>	GACGT	TGATCACTGGGCAGC	CCAAATGTCT	GCCAGGCTCTGCT	TGAAATACTTT	TGAGCCCCTG	ATTACC	TGGCTAGAGA	3586
<i>Macaca fascicularis</i>	GCAGC	TGATCACGGGCCAGC	CCAAATGAGC	CTCCGGCCATG	TGAGACTATTT	CAAGCCGCTC	TGCTGG	ACTGGCTCCGCA	3631
<i>Manacus vitellinus</i>	GCAGC	TCATCACGGGCCAGC	CCAAATGTCA	GAGAGGCCCTGAT	TGAGCTACTTT	TGAGCCGCTC	ATGACA	TGGCTGGAGA	3583
<i>Mus musculus</i>	GAAGC	TGATCACAGGCCAGC	CTAACATGTCA	GCTCCGCCATG	TGAATTACTTT	CAAGCCACTG	ACAGAA	TGGCTCGTCA	3643
<i>Neolamprologus brichardi</i>	GGCTA	TGATCACTGGCGAGT	CCAAAATGAGT	GCCAGCCACTCAT	TGGAGTACTTT	CCAGCCTCTC	ATTGAA	TGGCTTGAGA	3601
<i>Oncorhynchus mykiss</i>	GGCTA	TGATCACTGGAGAGC	CTACCATGTCT	GCAAGCCACTGGT	TACAGTACTTT	CAACCTCTC	ACTGAT	TGGCTGGAGG	3598
<i>Oreochromis niloticus</i>	GGCTA	TGATCACTGGCGAGT	CCAAAATGAGT	GCCAGCCACTCAT	TGGAGTACTTT	CCAGCCTCTT	ATTGAA	TGGCTCGAGA	3601
<i>Poecilia formosa</i>	GGCCA	TGATCACGGGTCAGT	CCAAGATGAGC	GCCAGCCTCTCAT	TGCAGTACTTT	CAACCTCTC	ATCACA	TGGCTGGAGG	3607
<i>Poecilia latipinna</i>	GGCCA	TGATCACGGGTCAGT	CCAAGATGAGC	GCCAGCCTCTCAT	TGCAGTACTTT	CAACCTCTC	ATCACA	TGGCTGGAGG	3607
<i>Pseudopodoces humilis</i>	GCAGC	TCATCACAGGGCAGC	CCAAATGTCA	GAGAGGCCCTTAT	TGAGCTACTTT	TGAGCCACTC	ATGACG	TGGCTGGAGA	3583
<i>Pundamilia nyererei</i>	GGCTA	TGATCACTGGCGAGT	CCAAAATGAGT	GCCAGCCACTCAT	TGGAGTACTTT	CAACCTCTC	ATTGAA	TGGCTTGAGA	3601
<i>Pygocentrus nattereri</i>	GGCTA	TGATCACTGGCCAGC	CTGAAATGTCT	GTGCAGCCTCTCAT	TGGAGTACTTT	CCAGCCCCTC	ATCACC	TGGTTAGAGC	3580
<i>Python bivittatus</i>	GCAAC	TTATCACAGGACAAT	CCAAATGTCT	GCTGAAGCTTT	TGCTGACCTATTTT	TGAACCACTG	ACAACT	TGGCTTATTG	3595
<i>Rattus norvegicus</i>	GAAGAT	AAATCACAGGCCAAC	CTAACATGTCA	GCTCTGCCATTAT	TGAATTACTTT	CAAGCCACTG	ACTGAA	TGGCTCGTCA	3646
<i>Scleropages formosus</i>	GACTA	TGATCACTGGTCAGC	CCAAATGTCT	GCGAGGCATTA	ATTGAATACTTT	CCAGCCTCTC	ATCAAG	TGGCTGGAGA	3586
<i>Sinocyclocheilus anshuiensis</i>	GACTT	TGATTACTGGCCAGC	CCAAAATGTCA	GCTCAGCCTCTGAT	TGAAATACTTT	CAACCCGCTC	ATCGAG	TGGCTGGTGG	3583
<i>Xenopus tropicalis</i>	GCAACA	ATTACTGTGACAA	AGGAACATGTCT	GCTCATGCCCTTCT	TCAAAATACTTT	CCAGCCCCTC	ATCACC	TGGCTTATCA	3592
<i>Lipotes vexillifer</i>	GCGGC	TCATCACAGGCCAGC	CCAAATGTCT	GCGCTGCCCTGAT	TGACCTACTTT	CAAGCCGCTC	TGCTGG	ACTGGCTCGTGA	3616
<i>Orcinus orca</i>	GCGGC	TCATCACAGGCCAGC	CCAAATGTCT	GCGCTGCCCTGAT	TGACCTACTTT	CAAGCCGCTC	TGCTGG	ACTGGCTCGTGA	3637
<i>Homo sapiens</i>	GCAGC	TGATCACGGGCCAGC	CCAAATGAGC	GCTCCGGCCAT	GTTTGAGCTACTTT	CAAGCCGCTC	TGCTGG	ACTGGCTCCGCA	3628

	3610	3620	3630	3640	3650	3660	3670	3680	
conservation									
<i>Callorhinchus milii</i>	AGAAG	AACATCAAGAAT	TGGAGAGACC	CTGGGA	TGGCCTGAAT	ACAATTGG	ACTCCAG	CTCTAGGCTCAGACAATCTGCCA	3684
<i>Alligator mississippiensis</i>	ATGTG	AAACAAGAA	AATGGGACATT	CTGGGC	TGGTCTGATT	ACAGCTGG	ACGCCAT	ATATGCAGCTCGA	3660
<i>Anolis carolinensis</i>	ACCAGA	AACCTTGAAAG	AATGGAACAACT	CTAGGC	TGGCCTGAAT	ATACCTTGG	CTACCC	TATGCGGGCCAA	3732
<i>Astyanax mexicanus</i>	AGGAGA	AACGCAAGA	AATGGAGATGTCT	CTGGGA	TGGCCTGAGT	ATAGCTGG	ATGCCAA	ACACAGCTGAGAGTAACTCT	3669
<i>Boleophthalmus pectinirostris</i>	AGGAGA	AATGCCAAGA	AATGGAGATGTT	CTTGGAT	TGGCCC	GAGTACGACT	TGGAAA	CCCTACGTGGTGTCAAAACAA	3672
<i>Cynoglossus semilaevis</i>	TAGAGA	AATAACAAGA	ACAGAGATGTT	CGTGGGTGGC	CTGACTACGACT	TGGAGACCT	TGGGAGT	GAA	3678
<i>Danio rerio</i>	AGGAGA	AACGAGA	AATGGCGAGTGT	CTGGGA	TGGCCAGAGT	ACGACTGG	ACACCTT	TACAAACTCAGCACA	3783
<i>Esox lucius</i>	CAGAGA	AACAACAAGA	AATGGCGAGGT	CAGAGGT	TGGCCTGAGT	ACGACTGG	AAAA	CCGCCAAGTCCCTGGCTCCGTAAACACTT	3678
<i>Fundulus heteroclitus</i>	AGGAGA	AACAACAAGA	AACAGCGAAGTCT	CGTGGGA	TGGCCC	GACTACGACT	TGGAAA	CCCTCAGATCCTGGCACTGAAGTC	3687
<i>Gekko japonicus</i>	ATGAGA	AACATGAAAA	ACGGGGAACCT	CTGGGC	TGGCCTGAAT	ACACCTGG	ACGCCCT	TACGCAGGCCAA	3672
<i>Haplochromis burtoni</i>	AGGAGA	AACAGCAAGA	ACAATGATGTT	CGCGGG	TGGCCAGATT	ACGACTGG	AAGCCTTTT	TAGT	3663
<i>Hippocampus comes</i>	GAGAGA	AACGATAA	ACGGGGACATCT	CGCGGG	TGGCCTGATT	ACGACTGG	AAGCCTTT	TGACGGGT	3657
<i>Ictalurus punctatus</i>	TGGAGA	AACAAAAA	AGCGGCAGCTCT	CGCTGGG	TGGCCC	GACTACAACTGG	ATGCGCA	ACCAGCATGCGAGTT	3669
<i>Larimichthys crocea</i>	CAGAAA	ACAACAAGA	ACAATGAGGTCT	CGCGGG	TGGCCC	GAATACGACTGG	AAAA	CCTTTAAGCTCC	3669
<i>Lates calcarifer</i>	CAGAGA	AACAACAAGA	ACAACGATATCT	CGCGGG	TGGCCTGAGT	ACAACTGG	AAACCT	TAGTATGCCT	3663
<i>Latimeria chalumnae</i>	AACAGA	AATGAAAAGA	ATAGAGTGACC	CTGGGC	TGGCCC	GAATACGATTGG	ACTCCA		3651
<i>Lepisosteus oculatus</i>	AGGAGA	AACAAGAAAA	AATGGGACATTTT	GGGATGG	CCC	GAGTACGACTGG	GTCC	AGTTTCAGGACCGGAGAAAGGG	3663
<i>Macaca fascicularis</i>	CGGAGA	AATGAGCTGC	ACGGGGAGAAGCT	TGGGC	TGGCCG	CAGTACAACTGG	ACACCG	AACTCCGCTCGCTCAGAAAGG	3708
<i>Manacus vitellinus</i>	AGGAGA	AATGAGA	AAGACGGGGAGGTCT	TGGGC	TGGCCC	GAGTACGACTGG	ACTCCT	GACTCAGCCACTCTGGTC	3657
<i>Mus musculus</i>	CCGAGA	AACAGGAGAC	ATGGAGAGACA	CTGGGC	TGGCCG	GAGTACAACTGG	GCGC	CAAAACACCGCTCGCGCAGAAGGC	3720
<i>Neolamprologus brichardi</i>	AGGAGA	AACAGCAAGA	ACAATGATGTT	CGCGGA	TGGCCAGATT	ACGACTGG	AAGCCTTTT	TAGTGAA	3672
<i>Oncorhynchus mykiss</i>	TAGAGA	AACAACAAGA	AATGGCGAGGT	CAGAGGC	TGGCCAGAAT	ATGACTGG	AAAA	CCCAAGTGACGGCTCAGAAACATCT	3678
<i>Oreochromis niloticus</i>	AGGAGA	AACAGCAAGA	ACAATGATGTT	CGCGGA	TGGCCAGATT	ACGACTGG	AAGCCTTTT	TAGTGAA	3672
<i>Poecilia formosa</i>	AGCAGA	AACAATAAGA	ACAACGAGGTCT	CGCGGG	TGGCCC	GACTACAACTGG	AGACCTT	CAGATATAGTTGAAGTTGCA	3684
<i>Poecilia latipinna</i>	AGCAGA	AACAATAAGA	ACAACGAGGTCT	CGTGGG	TGGCCC	GACTACAACTGG	AGACCTT	CAGGTATTTTGAAGTTGCA	3684
<i>Pseudopodoces humilis</i>	AAGAGA	AACAAGAAGA	ACGGGGAGGTCT	CTGGGC	TGGCCC	GAGTACAGCTGG	ACTCCTT	ACACAGCC	3651
<i>Pundamilia nyererei</i>	AGGAGA	AACAGCAAGA	ACAATGATGTT	CGCGGG	TGGCCAGATT	ACGACTGG	AAGCCTTTT	TAGTGAA	3672
<i>Pygocentrus nattereri</i>	AGGAAA	ACAAAAAAT	AATGGCGATATCT	CTGGGA	TGGCCTGAAT	ACAGCTGG	ATGCGCT	CACAACCTGAGAGT	3651
<i>Python bivittatus</i>	AAAAGA	AACCTTGCAAA	ATAATGAAACT	CTGGGC	TGGCCTGAAT	ACACCTGG	AAGCCAT	ATATACAGGT	3660
<i>Rattus norvegicus</i>	CAGAGA	AACAGGAGAC	ATGGAGAGACA	CTGGGC	TGGCCG	GAGTACACCTGG	ACACCA	AAACACCGCTCGTGCAGAAGGC	3723
<i>Scleropages formosus</i>	CAGAAA	ACAACAACAAAA	ACAATGATGTCT	CGTGGC	TGGCCTGAGT	ATAACTGG	AAACCT	ATCGCTCAAAGCACAGAA	3660
<i>Sinocyclocheilus anshuiensis</i>	AGGAGA	AACAAAAAGA	AATGGTGATGTCT	CTGGGA	TGGCCAGAGT	ACGATTGG	ACGCCCTT	ACAAAATCACTTCA	3654
<i>Xenopus tropicalis</i>	AGGAGA	AATACAAAG	ATGGCGAAACCTT	AGGATGG	CCAGAA	TACAACTGG	AGCCAGT	TACAATCCGTTCTCTGCCA	3669
<i>Lipotes vexillifer</i>	CCGAGA	AACAGCGGC	ACGGGGAGAAGCT	TGGGC	TGGCCTGAGT	ACAACTGG	ATGCGC	CAAACTCAGCTCGCTCGGAAGGC	3693
<i>Orcinus orca</i>	CCGAGA	AACAGCGGC	ACGGGGAGAAGCT	TGGGC	TGGCCTGAGT	ACAACTGG	ATGCGC	CAAACTCAGCTCGCTCGGAAGGC	3714
<i>Homo sapiens</i>	CGGAGA	AACGAGCTGC	ATGGGGAGAAGCT	TGGGC	TGGCCG	CAGTACAACTGG	ACGCCCA	AACTCCGCTCGCTCAGAAGGG	3705

conservation	3690	3700	3710	3720	3730	3740	
<i>Callorhinchus milii</i>	ATT.....	CCAACTTCAACACCAGAAGAGGGCGAAAGATAAG	GTGGATTTTCTGGGATTAAACAT	TGGATCC			3749
<i>Alligator mississippiensis</i>ACAGAGTCTACAGTCAATTTTCTGGGGATGTCTCT	TGGATCG				3701
<i>Anolis carolinensis</i>	GTGCAAGCAGACAACAAA	GTCAATTTCTTGGGATGTTGAT	GACCAG			3779
<i>Astyanax mexicanus</i>	ACTGTAGTGGTAGTGGAGAAGGACAGCCCC	GTGAACTTTCTGGGTTT	GAGTGTGGA	TGA		3728
<i>Boleophthalmus pectinirostris</i>GAAAAGAGTAAA	GTGGACTTCTCGGCATGAATCT	TGACAG			3713
<i>Cynoglossus semilaevis</i>GTGGTTGAATCCAATAAA	GTGGACTTCTGGGTATGAGTGT	TGA	TAA		3725
<i>Danio rerio</i>	GTGGTGGAGGAGTCGCCAAATCT	TGAATTTCTGGGGTTGAGTGT	TGGATGC			3836
<i>Esox lucius</i>	CCACTCACCACAGTCCCACATGATACCAGTCCAACAATTCCACCACATGCT	GTGGACTTCTTGGGGATGAAACT	TGACCA				3758
<i>Fundulus heteroclitus</i>	ATT.....GATAGTAAA	GTGAGTTCTGGGACTGAAGGT	TGACCA			3728
<i>Gekko japonicus</i>	GCGCAAGAGAGCAGCAGA	GTCCAGTTCTGGGCATGTCTT	TGACAG			3719
<i>Haplochromis burtoni</i>GAAGCTAAAACA	GTGGATTTCTGGGTTTAAATGT	TGAACAG			3704
<i>Hippocampus comes</i>GGGGTGGAGACCAGCACG	GTGGACTTCTGGGAATGAACGT	TGACAG			3704
<i>Ictalurus punctatus</i>	GTGGAGGAGGTCAAC...CCTACTACT	GTGGATTTCTTAGGGTTAAGTGT	TGGATGA			3722
<i>Larimichthys crocea</i>	CCAATTAAGGATAATAAA	GTGGACTTCTTGGCATGAATGT	TGGATGG			3716
<i>Lates calcarifer</i>GGTAAAGCTGGTAAA	GTGGACTTCTGGGTATGAATGT	TGACAG			3707
<i>Latimeria chalumnae</i>CAGACAGCTTCTCCCAACAATAATGGTGACAAA	GTGGATTTCTTGGCATGACACT	TAAACAG			3713
<i>Lepisosteus oculatus</i>	CCAGAGAAAGTGACCGGATCTGCCGAG	GTGAGCTTCTGGGCATGAACCT	TGACAG			3719
<i>Macaca fascicularis</i>	CCCCTCCCAGACAGTGCCCGC	GTACAGTTCTGGGCTGGACCT	TAGATGC			3758
<i>Manacus vitellinus</i>CCAGATGGCTCCAGCAAACTGAT	TTCTGGGAATGTCCCT	TGACCAA			3704
<i>Mus musculus</i>TCCACCGCAGAGTCCAACCGC	GTCAATTTCTGGGCTGTACCT	TGAGCC			3770
<i>Neolamprologus brichardi</i>ACAGGTGAAGCTAAAACA	GTGGATTTCTGGGTTTAAATGT	TGAACAG			3719
<i>Oncorhynchus mykiss</i>	CCCCCAGCCCCAATCCCA.....	.....GTTCTAGATAATGGTAAA	GTAACTTTCTGGGCATGAGTCT	TGATGG			3743
<i>Oreochromis niloticus</i>	ACAGGTGAAGCTAAAAC	GTGGATTTCTGGGTTTAAATGT	TGAACAG			3719
<i>Poecilia formosa</i>	ACGAAAGATGATGAGAAA	GTGAGTTCTGGGACTGAAAGT	TGACAA			3731
<i>Poecilia latipinna</i>	ACGAATGATGATGAGAAA	GTGAGTTCTGGGACTGAAAGT	TGACAA			3731
<i>Pseudopodoces humilis</i>GATGACTCCAGC...AAAAC	TGATTTCTGGGAATGTTCT	TGACCAA			3695
<i>Pundamilia nyererei</i>ACAGGTGAAGCTAAAACA	GTGGATTTCTGGGTTTAAATGT	TGAACAG			3719
<i>Pygocentrus nattereri</i>	ACTGCAGCGGTGGTGGAG...GACAGCTCA	GTAGACTTTTGGGCTTGAATAT	TAGACCA			3707
<i>Python bivittatus</i>GAATCAGAT	GTGAGTTCTTGGGATGTCGCT	TGAACCG			3698
<i>Rattus norvegicus</i>TCCCTCCCAGAGTCCAGTCGC	GTCAACTTCTGGGTATGTACCT	TGAAACC			3773
<i>Scleropages formosus</i>GAGAAAAAA	GTGGACTTCTTGGATTAAAGTGT	TAGACAG			3698
<i>Sinocyclocheilus anshuiensis</i>	GTGATGGACGAGAAGCCAAAGCAAT	CAGTTTCTGGGTTT	TGAGTGTGATGA			3707
<i>Xenopus tropicalis</i>CCGTCTGGAGATTCTAACCTGACT	TTCTTGGGACTGGCGGT	TAGCAA			3716
<i>Lipotes vexillifer</i>	TCCTTCCCTGGGCTCCGGCCGT	GTACAGTTCTTGGGCTGAACCT	TGAGGA			3743
<i>Orcinus orca</i>	TCCTTCCCGGGCTCCGGCCGT	GTACAGTTCTTGGGCTGAACCT	TGAGGA			3764
<i>Homo sapiens</i>	CCCCTCCCAGACAGCGGCCGC	GTACAGTTCTTGGGCTTGACCT	TGATGC			3755

conservation	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div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conservation		
<i>Callorhinchus milii</i>	TAA	3888
<i>Alligator mississippiensis</i>	TAA	3840
<i>Anolis carolinensis</i>	TAA	3918
<i>Astyanax mexicanus</i>	TAA	3867
<i>Boleophthalmus pectinirostris</i>	TCC	3849
<i>Cynoglossus semilaevis</i>	TAA	3861
<i>Danio rerio</i>	TAA	3975
<i>Esox lucius</i>	TAA	3894
<i>Fundulus heteroclitus</i>	CAA	3861
<i>Gekko japonicus</i>	TAG	3858
<i>Haplochromis burtoni</i>	CAA	3840
<i>Hippocampus comes</i>	CAA	3840
<i>Ictalurus punctatus</i>	TAG	3861
<i>Larimichthys crocea</i>	TAA	3852
<i>Lates calcarifer</i>	CAA	3843
<i>Latimeria chalumnae</i>	TAA	3852
<i>Lepisosteus oculatus</i>	TAG	3852
<i>Macaca fascicularis</i>	CAC	3918
<i>Manacus vitellinus</i>	TGA	3843
<i>Mus musculus</i>	CAC	3933
<i>Neolamprologus brichardi</i>	CAA	3855
<i>Oncorhynchus mykiss</i>	TAA	3879
<i>Oreochromis niloticus</i>	CAA	3855
<i>Poecilia formosa</i>	TAA	3867
<i>Poecilia latipinna</i>	TAA	3867
<i>Pseudopodoces humilis</i>	TAA	3834
<i>Pundamilia nyererei</i>	CAA	3855
<i>Pygocentrus nattereri</i>	TAG	3846
<i>Python bivittatus</i>	TGA	3837
<i>Rattus norvegicus</i>	CAC	3936
<i>Scleropages formosus</i>	TCC	3834
<i>Sinocyclocheilus anshuiensis</i>	TAA	3846
<i>Xenopus tropicalis</i>	TAG	3855
<i>Lipotes vexillifer</i>	CAC	3903
<i>Orcinus orca</i>	CAC	3924
<i>Homo sapiens</i>	CAC	3915

 non conserved
 $\geq 60\%$ conserved
 $\geq 85\%$ conserved