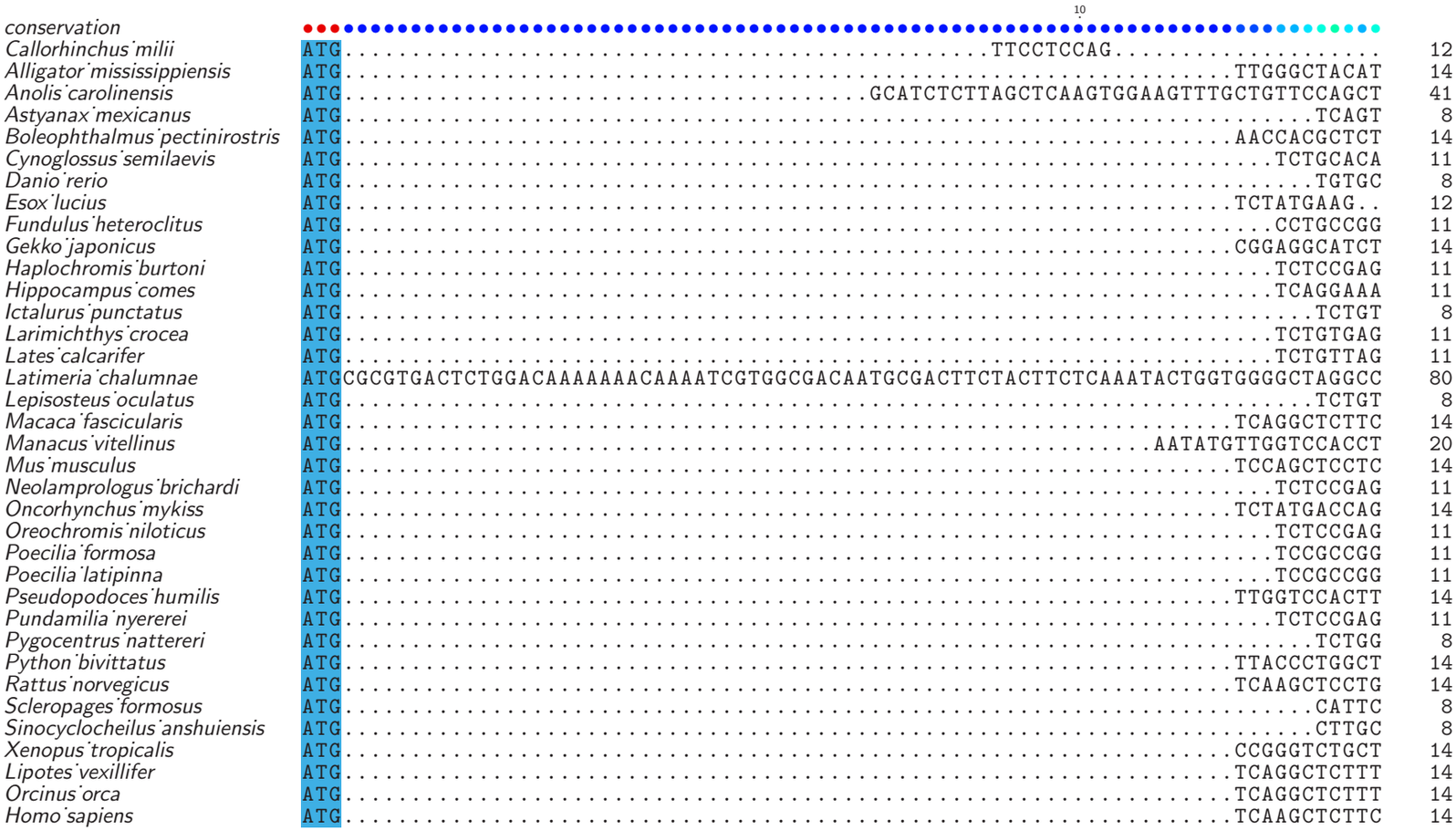
conservation
Callorhinchus milii
Alligator mississippiensis
Anolis carolinensis
Astyanax mexicanus
Boleophthalmus pectinirostris
Cynoglossus semilaevis
Danio rerio
Esox lucius
Fundulus heteroclitus
Gekko japonicus
Haplochromis burtoni
Hippocampus comes
Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
Python bivittatus
Rattus norvegicus
Scleropages formosus
Sinocyclocheilus anshuiensis
Xenopus tropicalis
Lipotes vexillifer
Orcinus orca
Homo sapiens
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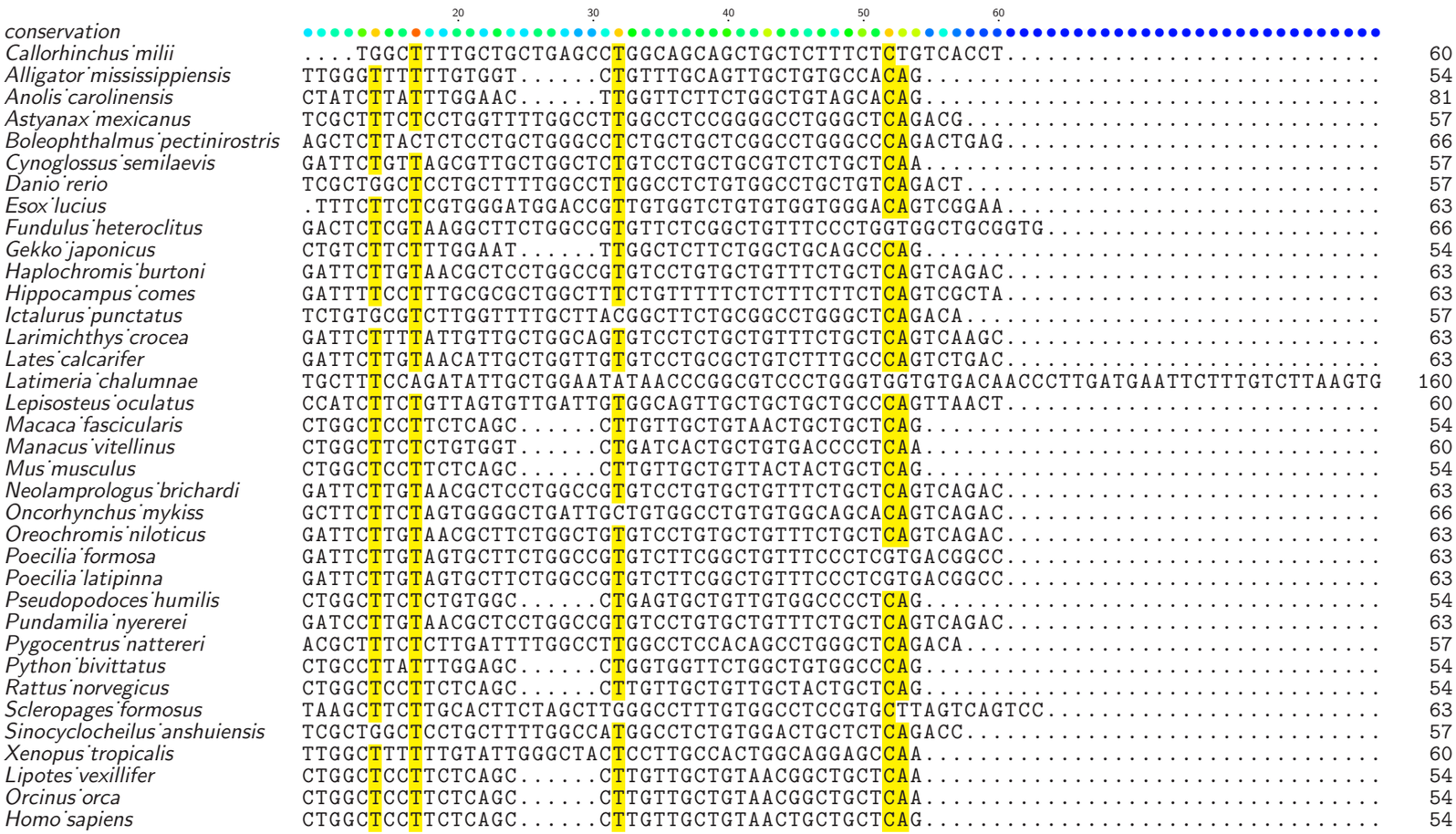
conservation
Callorhinchus milii
Alligator mississippiensis
Anolis carolinensis
Astyanax mexicanus
Boleophthalmus pectinirostris
Cynoglossus semilaevis
Danio rerio
Esox lucius
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Gekko japonicus
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Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
Python bivittatus
Rattus norvegicus
Scleropages formosus
Sinocyclocheilus anshuiensis
Xenopus tropicalis
Lipotes vexillifer
Orcinus orca
Homo sapiens
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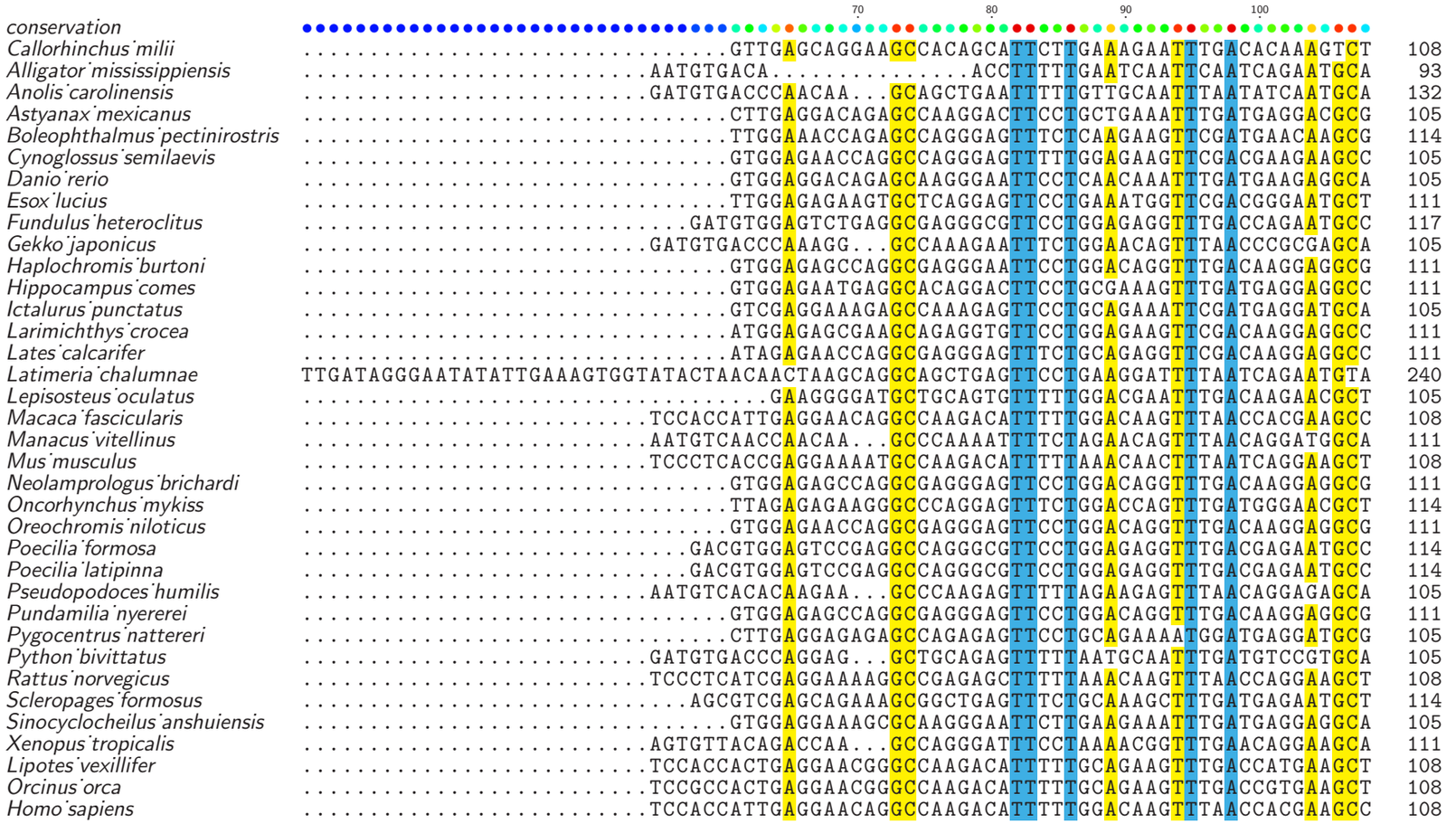
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conservation
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Alligator mississippiensis ..... AATGTGACA..... ACCTTTTTGAATCAATTCAATCAGAATGCA 93
Anolis carolinensis ..... GATGTGACCCAACAA...GCAGCTGAATTTTTGTTGCAATTTAATATCAATGCA 132
Astyanax mexicanus ..... CTTGAGGACAGAGCCAAGGACTTCCTGCTGAAATTTGATGAGGACGCG 105
Boleophthalmus pectinirostris ..... TTGGAAACCAGAGCCAGGGAGTTTCTCAAGAAGTTCGATGAACAAGCG 114
Cynoglossus semilaevis ..... GTGGAGAACCAGGCCAGGGAGTTTTTGGAGAAGTTCGACGAAGAAGCC 105
Danio rerio ..... GTGGAGGACAGAGCAAGGGAATTCCTCAACAAATTTGATGAAGAGGCA 105
Esox lucius ..... TTGGAGAGAAGTGCTCAGGAGTTCCTGAAATGGTTCGACGGGAATGCT 111
Fundulus heteroclitus ..... GATGTGGAGTCTGAGGCGAGGGCGTTCCTGGAGAGGTTTGACCAGAATGCC 117
Gekko japonicus ..... GATGTGACCCAAAGG...GCCAAAGAATTTCTGGAACAGTTTAACCCGCGAGCA 105
Haplochromis burtoni ..... GTGGAGAGCCAGGCGAGGGAATTCCTGGACAGGTTTGACAAGGAGGCG 111
Hippocampus comes ..... GTGGAGAATGAGGCACAGGACTTCCTGCGAAAGTTTGATGAGGAGGCC 111
Ictalurus punctatus ..... GTCGAGGAAAGAGCCAAAGAGTTCCTGCAGAAATTCGATGAGGATGCA 105
Larimichthys crocea ..... ATGGAGAGCGAAGCAGAGGTGTTCCTGGAGAAGTTCGACAAGGAGGCC 111
Lates calcarifer ..... ATAGAGAACCAGGCGAGGGAGTTTCTGCAGAGGTTCGACAAGGAGGCC 111
Latimeria chalumnae TTGATAGGGAATATATTGAAAGTGGTATACTAACAACTAAGCAGGCAGCTGAGTTCCTGAAGGATTTTAATCAGAATGTA 240
Lepisosteus oculatus ..... GAAGGGGATGCTGCAGTGTTTTTGGACGAATTTGACAAGAACGCT 105
Macaca fascicularis ..... TCCACCATTGAGGAACAGGCCAAGACATTTTTGGACAAGTTTAACCACGAAGCC 108
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Mus musculus ..... TCCCTCACCGAGGAAAATGCCAAGACATTTTTAAACAACTTTAATCAGGAAGCT 108
Neolamprologus brichardi ..... GTGGAGAGCCAGGCGAGGGAGTTCCTGGACAGGTTTGACAAGGAGGCG 111
Oncorhynchus mykiss ..... TTAGAGAGAAGGGCCCAGGAGTTTCTGGACCAGTTTGATGGGAACGCT 114
Oreochromis niloticus ..... GTGGAGAACCAGGCGAGGGAGTTCCTGGACAGGTTTGACAAGGAGGCG 111
Poecilia formosa ..... GACGTGGAGTCCGAGGCCAGGGCGTTCCTGGAGAGGTTTGACGAGAATGCC 114
Poecilia latipinna ..... GACGTGGAGTCCGAGGCCAGGGCGTTCCTGGAGAGGTTTGACGAGAATGCC 114
Pseudopodoces humilis ..... AATGTCACACAAGAA...GCCCAAGAGTTTTTAGAAGAGTTTAACAGGAGAGCA 105
Pundamilia nyererei ..... GTGGAGAGCCAGGCGAGGGAGTTCCTGGACAGGTTTGACAAGGAGGCG 111
Pygocentrus nattereri ..... CTTGAGGAGAGAGCCAGAGAGTTCCTGCAGAAAATGGATGAGGATGCG 105
Python bivittatus ..... GATGTGACCCAGGAG...GCTGCAGAGTTTTTAATGCAATTTGATGTCCGTGCA 105
Rattus norvegicus ..... TCCCTCATCGAGGAAAAGGCCGAGAGCTTTTTAAACAAGTTTAACCAGGAAGCT 108
Scleropages formosus ..... AGCGTCGAGCAGAAAGCGGCTGAGTTTCTGCAAAGCTTTGATGAGAATGCT 114
Sinocyclocheilus anshuiensis ..... GTGGAGGAAAGCGCAAGGGAATTCTTGAAGAAATTTGATGAGGAGGCA 105
Xenopus tropicalis ..... AGTGTTACAGACCAA...GCCAGGGATTTCCTAAAACGGTTTGAACAGGAAGCA 111
Lipotes vexillifer ..... TCCACCACTGAGGAACGGGCCAAGACATTTTTGCAGAAGTTTGACCATGAAGCT 108
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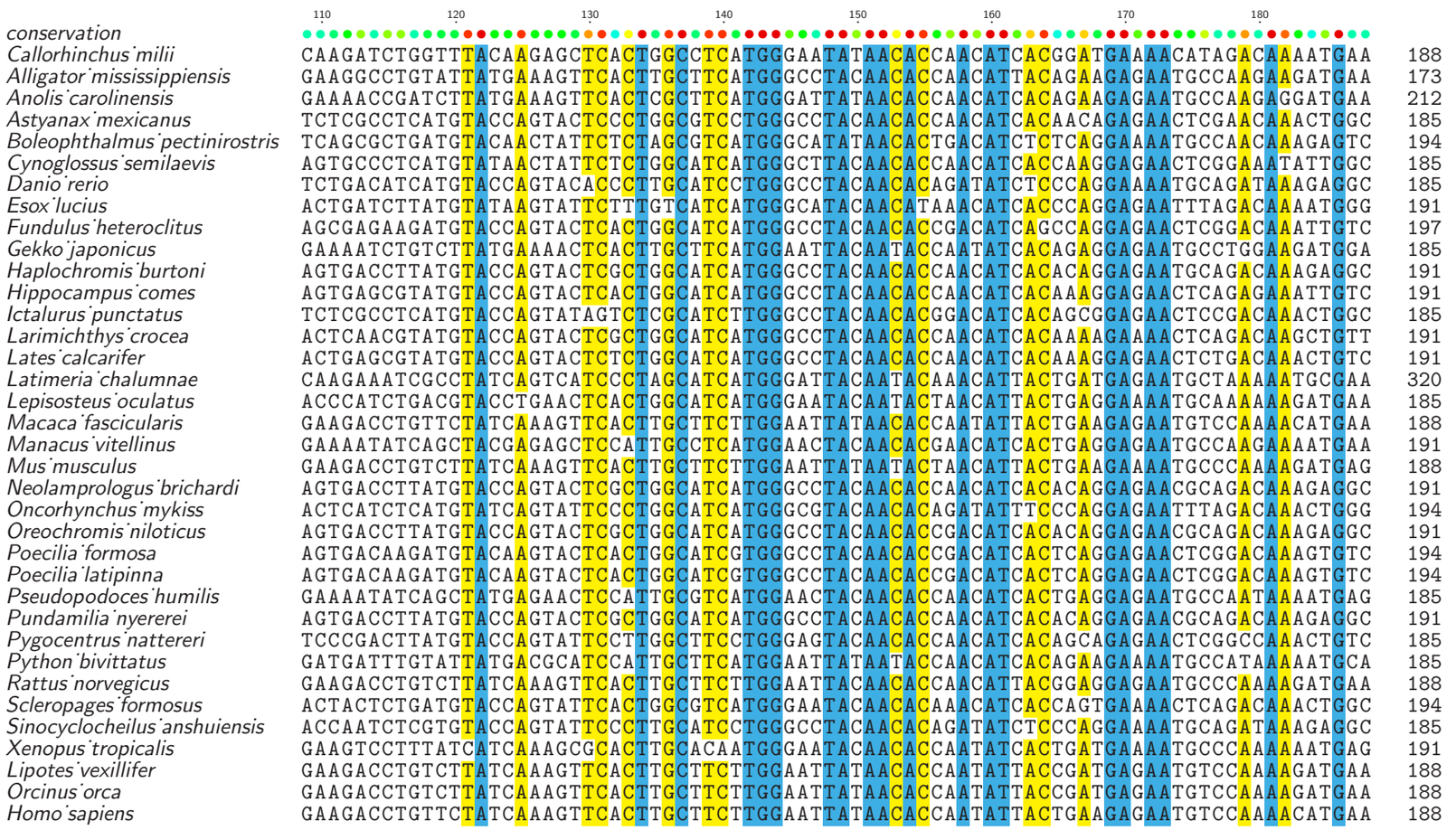
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conservation
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Alligator mississippiensis GAAGGCCTGTATTATGAAAGTTCACTTGCTTCATGGCCTACAACACCAACATTACAGAAGAGAATGCCAAGAAGATGAA 173
Anolis carolinensis GAAAACCGATCTTATGAAAGTTCACTCGCTTCATGGGATTATAACACCAACATCACAGAAGAGAATGCCAAGAGGATGAA 212
Astyanax mexicanus TCTCGCCTCATGTACCAGTACTCCCTGGCGTCCTGGCCTACAACACCAACATCACAACAGAGAACTCGAACAAACTGGC 185
Boleophthalmus pectinirostris TCAGCGCTGATGTACAACTATTCTCTAGCGTCATGGGCATATAACACTGACATCTCTCAGGAAAATGCCAACAAAGAGTC 194
Cynoglossus semilaevis AGTGCCCTCATGTATAACTATTCTCTGGCATCATGGGCTTACAACACCAACATCACCAAGGAGAAACTCGGAAATATTGGC 185
Danio rerio TCTGACATCATGTACCAGTACACCCTTGCATCCTGGGCCTACAACACAGATATCTCCCAGGAAAATGCAGATAAAGAGGC 185
Esox lucius ACTGATCTTATGTATAAGTATTCTTTGTCATCATGGGCATACAACATAAACATCACCCAGGAGAAATTTAGACAAAATGGG 191
Fundulus heteroclitus AGCGAGAAGATGTACCAGTACTCACTGGCATCATGGGCCTACAACACCGACATCAGCCAGGAGAAACTCGGACAAATTGTC 197
Gekko japonicus GAAAATCTGTCTTATGAAAACTCACTTGCTTCATGGAATTACAATACCAAACATTACAGAGGAGAATGCCTGGAAGATGGA 185
Haplochromis burtoni AGTGACCTTATGTACCAGTACTCGCTGGCATCATGGGCCTACAACACCAACATCACACAGGAGAATGCAGACAAAGAGGC 191
Hippocampus comes AGTGAGCGTATGTACCAGTACTCACTGGCATCATGGGCCTACAACACCAACATCACAAAGGAGAAACTCAGAGAAATTGTC 191
Ictalurus punctatus TCTCGCCTCATGTACCAGTATAGTCTCGCATCTTGGGCCTACAACACGGACATCACAGCGGAGAAACTCCGACAAACTGGC 185
Larimichthys crocea ACTCAACGTATGTACCAGTACTCGCTGGCATCATGGGCCTACAACACCAACATCACAAAAGAAAACTCAGACAAGCTGTT 191
Lates calcarifer ACTGAGCGTATGTACCAGTACTCTCTGGCATCATGGGCCTACAACACCAACATCACAAAGGAGAACTCTGACAAACTGTC 191
Latimeria chalumnae CAAGAAATCGCCTATCAGTCATCCCTAGCATCATGGGATTACAATACAAACATTACTGATGAGAATGCTAAAAATGCGAA 320
Lepisosteus oculatus ACCCATCTGACGTACCTGAACTCACTGGCATCATGGGAATACAATACTAACATTACTGAGGAAAATGCAAAAAAGATGAA 185
Macaca fascicularis GAAGACCTGTTCTATCAAAGTTCACTTGCTTCTTGGAATTATAACACCAATATTACTGAAGAGAATGTCCAAAACATGAA 188
Manacus vitellinus GAAAATATCAGCTACGAGAGCTCCATTGCCTCATGGAACTACAACACGAACATCACTGAGGAGAATGCCAAGAAAATGAA 191
Mus musculus GAAGACCTGTCTTATCAAAGTTCACTTGCTTCTTGGAATTATAATACTAACATTACTGAAGAAAATGCCCAAAAGATGAG 188
Neolamprologus brichardi AGTGACCTTATGTACCAGTACTCGCTGGCATCATGGGCCTACAACACCAACATCACACAGGAGAACGCAGACAAAGAGGC 191
Oncorhynchus mykiss ACTCATCTCATGTATCAGTATTCCCTGGCATCATGGCGTACAACACAGATATTTCCCAGGAGAATTTAGACAAACTGGG 194
Oreochromis niloticus AGTGACCTTATGTACCAGTACTCGCTGGCATCATGGGCCTACAACACCGACATCACACAGGAGAACGCAGACAAAGAGGC 191
Poecilia formosa AGTGACAAGATGTACAAGTACTCACTGGCATCGTGGGCCTACAACACCGACATCACTCAGGAGAACTCGGACAAAGTGTC 194
Poecilia latipinna AGTGACAAGATGTACAAGTACTCACTGGCATCGTGGGCCTACAACACCGACATCACTCAGGAGAACTCGGACAAAGTGTC 194
Pseudopodoces humilis GAAAATATCAGCTATGAGAACTCCATTGCGTCATGGAACTACAACACCAACATCACTGAGGAGAATGCCAATAAAATGAG 185
Pundamilia nyererei AGTGACCTTATGTACCAGTACTCGCTGGCATCATGGGCCTACAACACCAACATCACACAGGAGAACGCAGACAAAGAGGC 191
Pygocentrus nattereri TCCCGACTTATGTACCAGTATTCCTTGGCTTCCTGGGAGTACAACACCAACATCACAGCAGAGAACTCGGCCAAACTGTC 185
Python bivittatus GATGATTTGTATTATGACGCATCCATTGCTTCATGGAATTATAATACCAACATCACAGAAGAAAATGCCATAAAAATGCA 185
Rattus norvegicus GAAGACCTGTCTTATCAAAGTTCACTTGCTTCTTGGAATTACAACACCAACATTACGGAGGAGAATGCCCAAAAGATGAA 188
Scleropages formosus ACTACTCTGATGTACCAGTATTCACTGGCGTCATGGGAATACAACACAAACATCACCAGTGAAAACTCAGACAAACTGGC 194
Sinocyclocheilus anshuiensis ACCAATCTCGTGTACCAGTATTCCCTTGCATCCTGGGCCTACAACACAGATATCTCCCAGGAAAATGCAGATAAAGAGGC 185
Xenopus tropicalis GAAGTCCTTTATCATCAAAGCGCACTTGCACAATGGGAATACAACACCAATATCACTGATGAAAATGCCCAAAAAATGAG 191
Lipotes vexillifer GAAGACCTGTCTTATCAAAGTTCACTTGCTTCTTGGAATTATAACACCAATATTACCGATGAGAATGTCCAAAAGATGAA 188
Orcinus orca GAAGACCTGTCTTATCAAAGTTCACTTGCTTCTTGGAATTATAACACCAATATTACCGATGAGAATGTCCAAAAGATGAA 188
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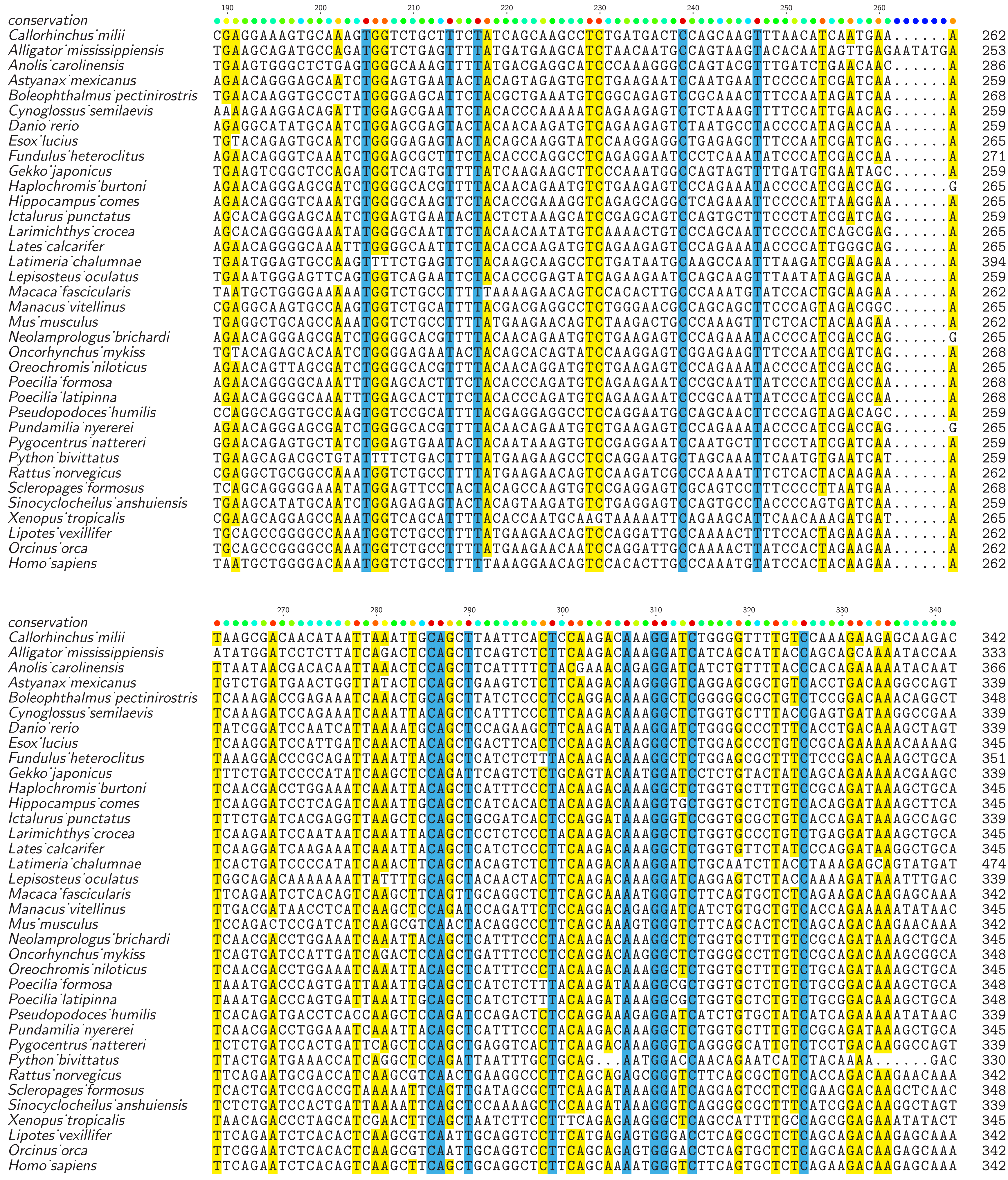

conservation
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Alligator mississippiensis TGAAGCAGATGCCAGATGGTCTGAGTTTTATGATGAAGCATCTAACAATGCCAGTAAGTACACAATAGTTGAGAATATGA 253
Anolis carolinensis TGAAGTGGGCTCTGAGTGGCAAAGTTTTATGACGAGGCATCCCAAAGGGCCAGTACGTTTGATCTGAACAAC......A 286
Astyanax mexicanus AGAACAGGGAGCAATCTGGAGTGAATACTACAGTAGAGTGTCTGAAGAATCCAATGAATTCCCCATCGATCAA......A 259
Boleophthalmus pectinirostris TGAACAAGGTGCCCTATGGGGAGCATTCTACGCTGAAATGTCGGCAGAGTCCGCAAACTTTCCAATAGATCAA......A 268
Cynoglossus semilaevis AAAAGAAGGACAGATTTGGAGCGAATTCTACACCCAAAAATCAGAAGAGTCTCTAAAGTTTTCCATTGAACAG......A 259
Danio rerio AGAGGCATATGCAATCTGGAGCGAGTACTACAACAAGATGTCAGAAGAGTCTAATGCCTACCCCATAGACCAA......A 259
Esox lucius TGTACAGAGTGCAATCTGGGGAGAGTACTACAGCAAGGTATCCAAGGAGGCTGAGAGCTTTCCAATCGATCAG......A 265
Fundulus heteroclitus AGAACAGGGTCAAATCTGGAGCGCTTTCTACACCCAGGCCTCAGAGGAATCCCTCAAATATCCCATCGACCAA......A 271
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Haplochromis burtoni AGAACAGGGAGCGATCTGGGGCACGTTTTACAACAGAATGTCTGAAGAGTCCCAGAAATACCCCATCGACCAG......G 265
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Larimichthys crocea AGCACAGGGGGAAATATGGGGCAATTTCTACAACAATATGTCAAAACTGTCCCAGCAATTCCCCATCAGCGAG......A 265
Lates calcarifer AGAACAGGGGCAAATTTGGGGCAATTTCTACACCAAGATGTCAGAAGAGTCCCAGAAATACCCCATTGGGCAG......A 265
Latimeria chalumnae TGAATGGAGTGCCAAGTTTTCTGAGTTCTACAAGCAAGCCTCTGATAATGCAAGCCAATTTAAGATCGAAGAA......A 394
Lepisosteus oculatus TGAAATGGGAGTTCAGTGGTCAGAATTCTACACCCCGAGTATCAGAAGAATCCAGCAAGTTTAATATAGAGCAA......A 259
Macaca fascicularis TAATGCTGGGGAAAAATGGTCTGCCTTTTTAAAAGAACAGTCCACACTTGCCCAAATGTATCCACTGCAAGAA......A 262
Manacus vitellinus CGAGGCAAGTGCCAAGTGGTCTGCATTTTACGACGAGGCCTCTGGGAACGCCAGCAGCTTCCCAGTAGACGGC......A 265
Mus musculus TGAGGCTGCAGCCAAATGGTCTGCCTTTTATGAAGAACAGTCTAAGACTGCCCAAAGTTTCTCACTACAAGAA......A 262
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Oncorhynchus mykiss TGTACAGAGCACAATCTGGGGAGAATACTACAGCACAGTATCCAAGGAGTCGGAGAAGTTTCCAATCGATCAG......A 268
Oreochromis niloticus AGAACAGTTAGCGATCTGGGGCACGTTTTACAACAGGATGTCTGAAGAGTCCCAGAAATACCCCATCGACCAG......A 265
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Poecilia latipinna AGAACAGGGGCAAATTTGGAGCACTTTCTACACCCAGATGTCAGAAGAATCCCGCAATTATCCCATCGACCAA......A 268
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Pundamilia nyererei AGAACAGGGAGCGATCTGGGGCACGTTTTACAACAGAATGTCTGAAGAGTCCCAGAAATACCCCATCGACCAG......G 265
Pygocentrus nattereri GGAACAGAGTGCTATCTGGAGTGAATACTACAATAAAGTGTCCGAGGAATCCAATGCTTTCCCTATCGATCAA......A 259
Python bivittatus TGAAGCAGACGCTGTATTTTCTGACTTTTATGAAGAAGCCTCCAGGAATGCTAGCAAATTCAATGTGAATCAT......A 259
Rattus norvegicus CGAGGCTGCGGCCAAATGGTCTGCCTTTTATGAAGAACAGATCGCCCAAAATTTCTCACTACAAGAA......A 262
Scleropages formosus TCAGCAGGGGGAAATATGGAGTTCCTACTACAGCCAAGTGTCCGAGGAGTCGCAGTCCTTCCCCTTAATGAA......A 268
Sinocyclocheilus anshuiensis TGAAGCATATGCAATCTGGAGAGAGTACTACAGTAAGATGTCTGAGGAGTCCAGTGCCTACCCCAGTGATCAA......A 259
Xenopus tropicalis CGAAGCAGGAGCCAAATGGTCAGCATTTTACACCAATGCAAGTAAAAATTCAGAAGCATTCAACAAAGATGAT......A 265
Lipotes vexillifer TGCAGCCGGGGCCAAATGGTCTGCCTTTTATGAAGAACAGTCCAGGATTGCCAAAACTTTTCCACTAGAAGAA......A 262
Orcinus orca TGCAGCCGGGGCCAAATGGTCTGCCTTTTATGAAGAACAATCCAGGATTGCCAAAACTTATCCACTAGAAGAA......A 262
Homo sapiens TAATGCTGGGGACAAATGGTCTGCCTTTTAAAGGAACAGTCCACACTTGCCCAAATGTATCCACTACAAGAA......A 262
conservation
Callorhinchus milii TAAGCGACAACATAATTAAATTGCAGCTTAATTCACTCCAAGACAAAGGATCTGGGGTTTTGTCCAAAGAAGAGCAAGAC 342
Alligator mississippiensis ATATGGATCCTCTTATCAGACTCCAGCTTCAGTCTCTTCAAGACAAAGGATCATCAGCATTACCAGCAGCAAAATACCAA 333
Anolis carolinensis TTAATAACGACACAATTAAACTCCAGCTTCATTTTCTACGAAACAGAGGATCATCTGTTTTACCCACAGAAAAATACAAT 366
Astyanax mexicanus TGTCTGATGAACTGGTTATACTCCAGCTGAAGTCTCTTCAAGACAAGGGTCAGGAGCGCTGTCACCTGACAAGGCCAGT 339
Boleophthalmus pectinirostris TCAAAGACCGAGAAATCAAACTGCAGCTTATCTCCCTCCAGGACAAGGGCTCGGGGCGCTGTCTCCGGACAAACAGGCT 348
Cynoglossus semilaevis TCAAAGATCCAGAAATCAAATTACAGCTCATTTCCCTTCAAGACAAAGGCTCTGGTGCTTTACCGAGTGATAAGGCCGAA 339
Danio rerio TATCGGATCCAATCATTAAAATGCAGCTCCAGAAGCTTCAAGATAAAGGATCTGGGGCCCTTTCACCTGACAAAGCTAGT 339
Esox lucius TCAAGGATCCATTGATCAAACTACAGCTGACTTCACTCCAAGACAAGGGCTCTGGAGCCCTGTCCGCAGAAAAACAAAAG 345
Fundulus heteroclitus TAAAGGACCCGCAGATTAAATTACAGCTCATCTCTTTACAAGACAAAGGCTCTGGAGCGCTTTCTCCGGACAAAGCTGCA 351
Gekko japonicus TTTCTGATCCCCATATCAAGCTCCAGATTCAGTCTCTGCAGTACAATGGATCCTCTGTACTATCAGCAGAAAAACGAAGC 339
Haplochromis burtoni TCAACGACCTGGAAATCAAATTACAGCTCATTTCCCTACAAGACAAAGGCTCTGGTGCTTTGTCCGCAGATAAAGCTGCA 345
Hippocampus comes TCAAGGATCCTCAGATCAAATTGCAGCTCATCACACTACAAGACAAAGGTGCTGGTGCTCTGTCACAGGATAAAGCTTCA 345
Ictalurus punctatus TTTCTGATCACGAGGTTAAGCTCCAGCTGCGATCACTCCAGGATAAAGGGTCCGGTGCGCTGTCACCAGATAAAGCCAGC 339
Larimichthys crocea TCAAGAATCCAATAATCAAATTACAGCTCCTCTCCCTACAAGACAAAGGCTCTGGTGCCCTGTCTGAGGATAAAGCTGCA 345
Lates calcarifer TCAAGGATCAAGAAATCAAATTACAGCTCATCTCCCTTCAAGACAAAGGCTCTGGTGTTCTATCCCAGGATAAGGCTGCA 345
Latimeria chalumnae TCACTGATCCCCATATCAAACTTCAGCTACAGTCTCTTCAAGACAAAGGATCTGCAATCTTACCTAAAGAGCAGTATGAT 474
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Manacus vitellinus TTGACGATAACCTCATCAAGCTCCAGATCCAGATTCTCCAGGACAGAGGATCATCTGTGCTGTCACCAGAAAAATATAAC 345
Mus musculus TCCAGACTCCGATCATCAAGCGTCAACTACAGGCCCTTCAGCAAAGTGGGTCTTCAGCACTCTCAGCAGACAAGAACAAA 342
Neolamprologus brichardi TCAACGACCTGGAAATCAAATTACAGCTCATTTCCCTACAAGACAAAGGCTCTGGTGCTTTGTCCGCAGATAAAGCTGCA 345
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Oreochromis niloticus TCAACGACCTGGAAATCAAATTACAGCTCATTTCCCTACAAGACAAAGGCTCTGGTGCTTTGTCTGCAGATAAAGCTGCA 345
Poecilia formosa TAAATGACCCAGTGATTAAATTGCAGCTCATCTCTTTACAAGATAAAGGCGCTGGTGCTCTGTCTGCGGACAAAGCTGCA 348
Poecilia latipinna TAAATGACCCAGTGATTAAATTGCAGCTCATCTCTTTACAAGATAAAGGCGCTGGTGCTCTGTCTGCGGACAAAGCTGCA 348
Pseudopodoces humilis TCACAGATGACCTCACCAAGCTCCAGATCCAGACTCTCCAGGAAAGAGGATCATCTGTGCTATCATCAGAAAAATATAAC 339
Pundamilia nyererei TCAACGACCTGGAAATCAAATTACAGCTCATTTCCCTACAAGACAAAGGCTCTGGTGCTTTGTCCGCAGATAAAGCTGCA 345
Pygocentrus nattereri TCTCTGATCCACTGATTCAGCTCCAGCTGAGGTCACTTCAAGACAAAGGGTCAGGGGCATTGTCTCCTGACAAGGCCAGT 339
Python bivittatus TTACTGATGAAACCATCAGGCTCCAGATTAATTTGCTGCAG...AATGGACCAACAGAATCATCTACAAAA......GAC 330
Rattus norvegicus TTCAGAATGCGACCATCAAGCGTCAACTGAAGGCCCTTCAGCAGAGCGGGTCTTCAGCGCTGTCACCAGACAAGAACAAA 342
Scleropages formosus TCACTGATCCGACCGTAAAAATTCAGTTGATAGCGCTTCAAGATAAAGGATCAGGAGTCCTCTCGAAGGACAAGCTCAAC 348
Sinocyclocheilus anshuiensis TCTCTGATCCACTGATTAAAATTCAGCTCAAAAGCTCCAAGATAAAGGGTCAGGGGCGCTTTCATCGGACAAGGCTAGT 339
Xenopus tropicalis TAACAGACCCTAGCATCGAACTTCAGCTAATCTTCCTTTCAGAGAAGGGCTCAGCCATTTTGCCAGCGGAGAAATATACT 345
Lipotes vexillifer TTCAGAATCTCACACTCAAGCGTCAATTGCAGGTCCTTCATGAGAGTGGGACCTCAGCGCTCTCAGCAGACAAGAGCAAA 342
Orcinus orca TTCGGAATCTCACACTCAAGCGTCAATTGCAGGTCCTTCAGCAGAGTGGGACCTCAGTGCTCTCAGCAGACAAGAGCAAA 342
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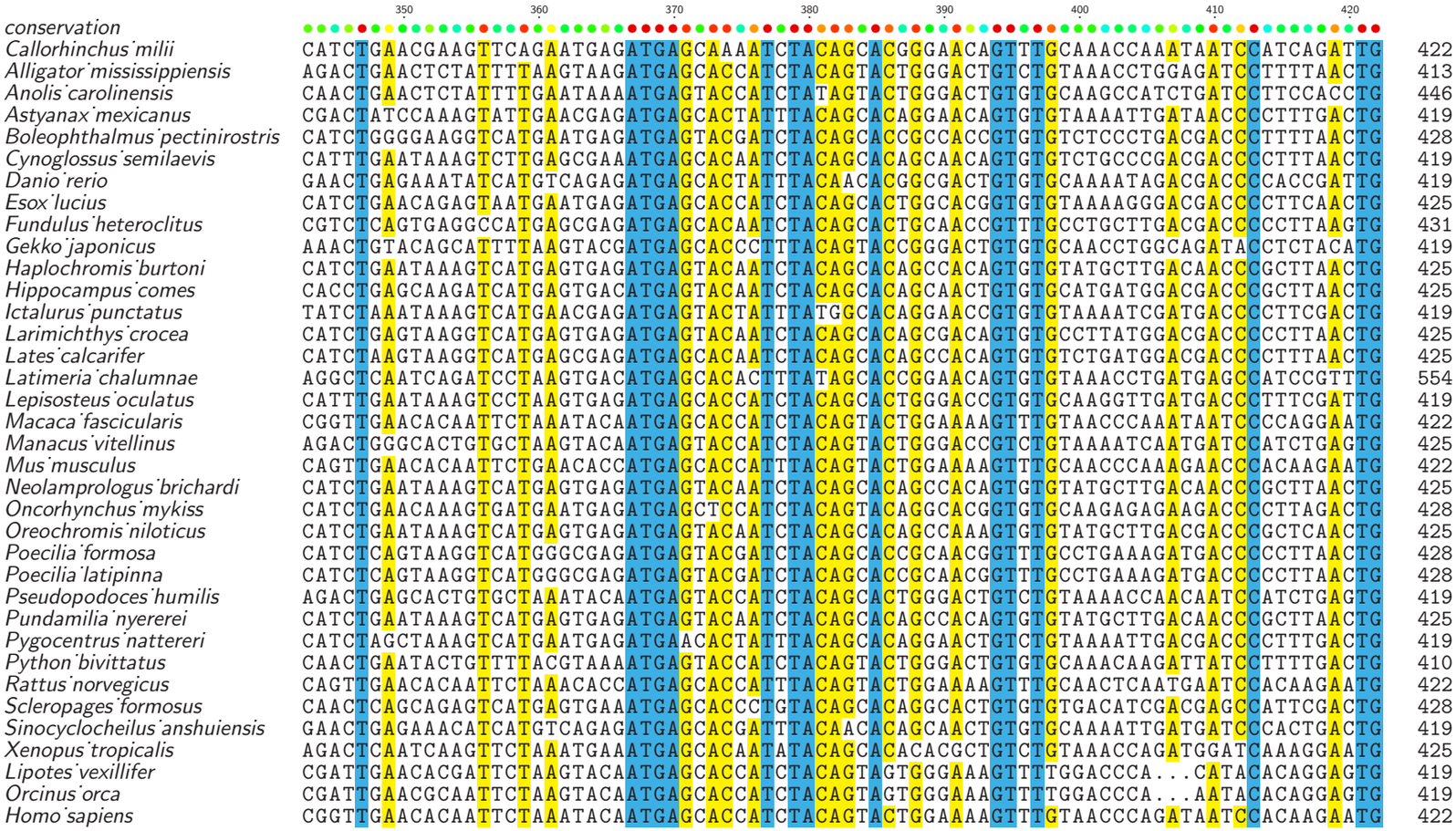
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conservation
Callorhinchus milii CATCTGAACGAAGTTCAGAATGAGATGAGCAAAATCTACAGCACGGGAACAGTTTGCAAACCAAATAATCCATCAGATTG 422
Alligator mississippiensis AGACTGAACTCTATTTTAAGTAAGATGAGCACCATCTACAGTACTGGGACTGTCTGTAAACCTGGAGATCCTTTTAACTG 413
Anolis carolinensis CAACTGAACTCTATTTTGAATAAAATGAGTACCATCTATAGTACTGGGACTGTGTGCAAGCCATCTGATCCTTCCACCTG 446
Astyanax mexicanus CGACTATCCAAAGTATTGAACGAGATGAGCACTATTTACAGCACAGGAACAGTGTGTAAAATTGATAACCCTTTGACTG 419
Boleophthalmus pectinirostris CATCTGGGGAAGGTCATGAATGAGATGAGTACGATCTACAGCACCGCCACCGTGTGTCTCCCTGACGACCCTTTTAACTG 428
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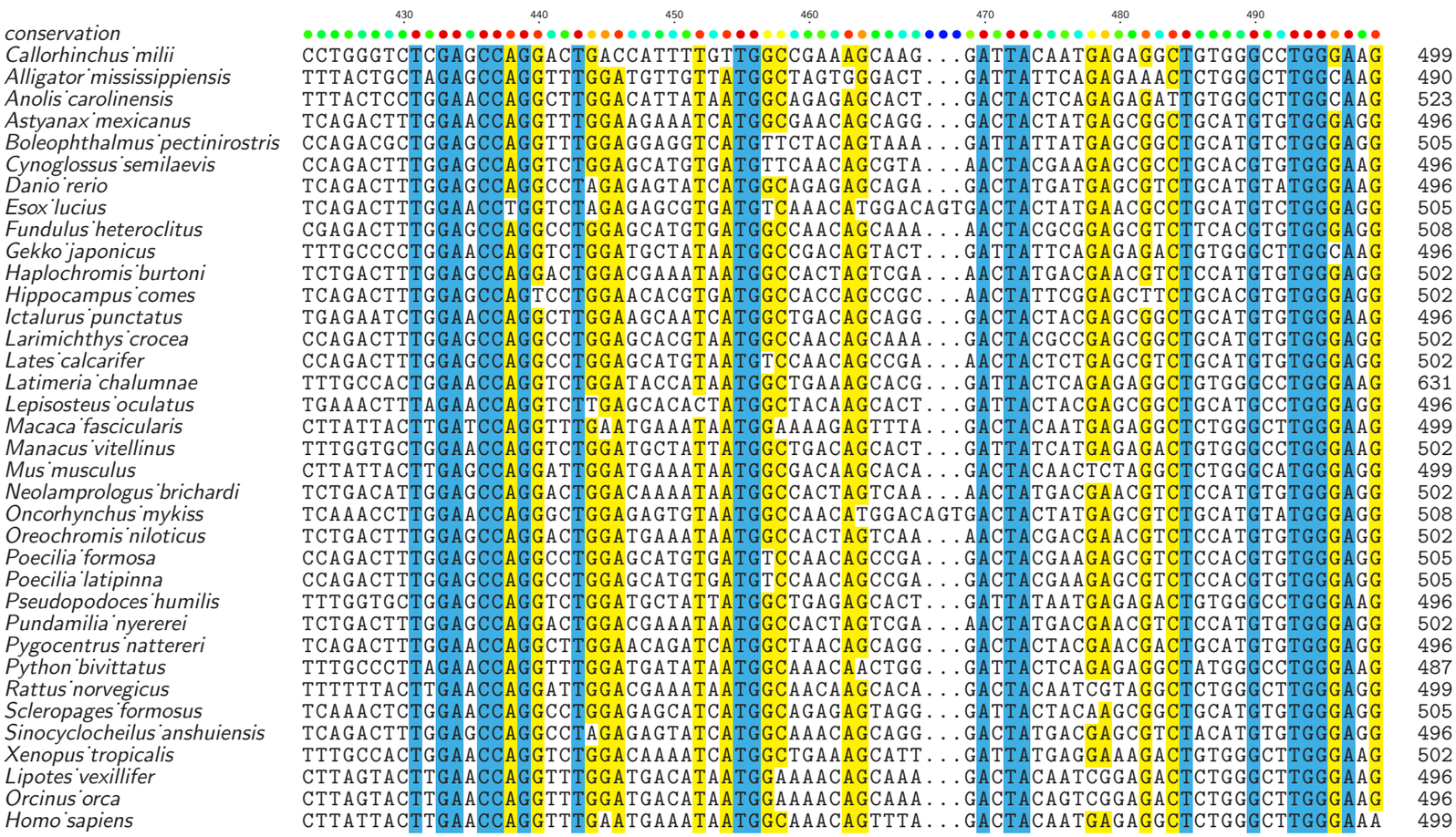
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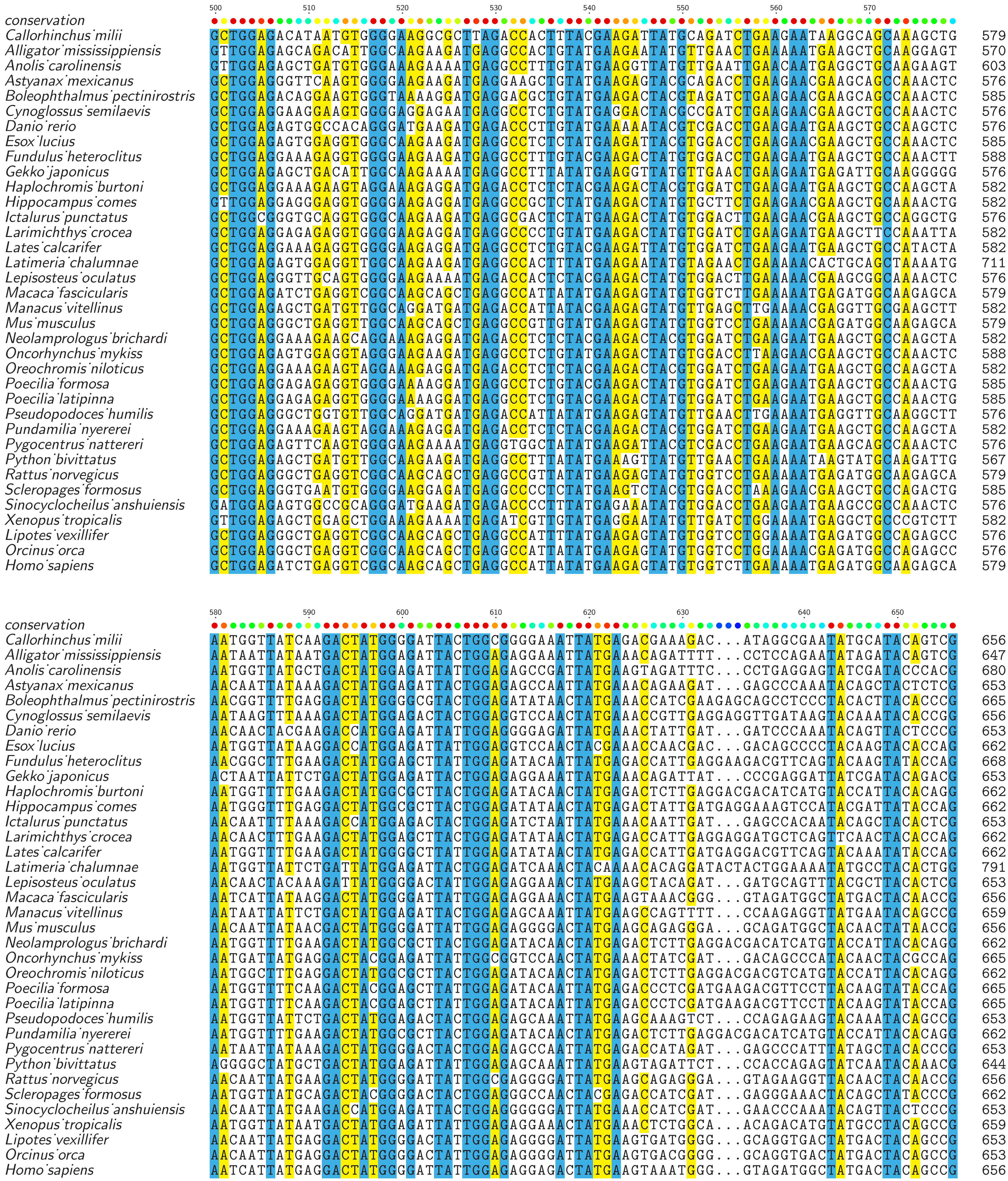

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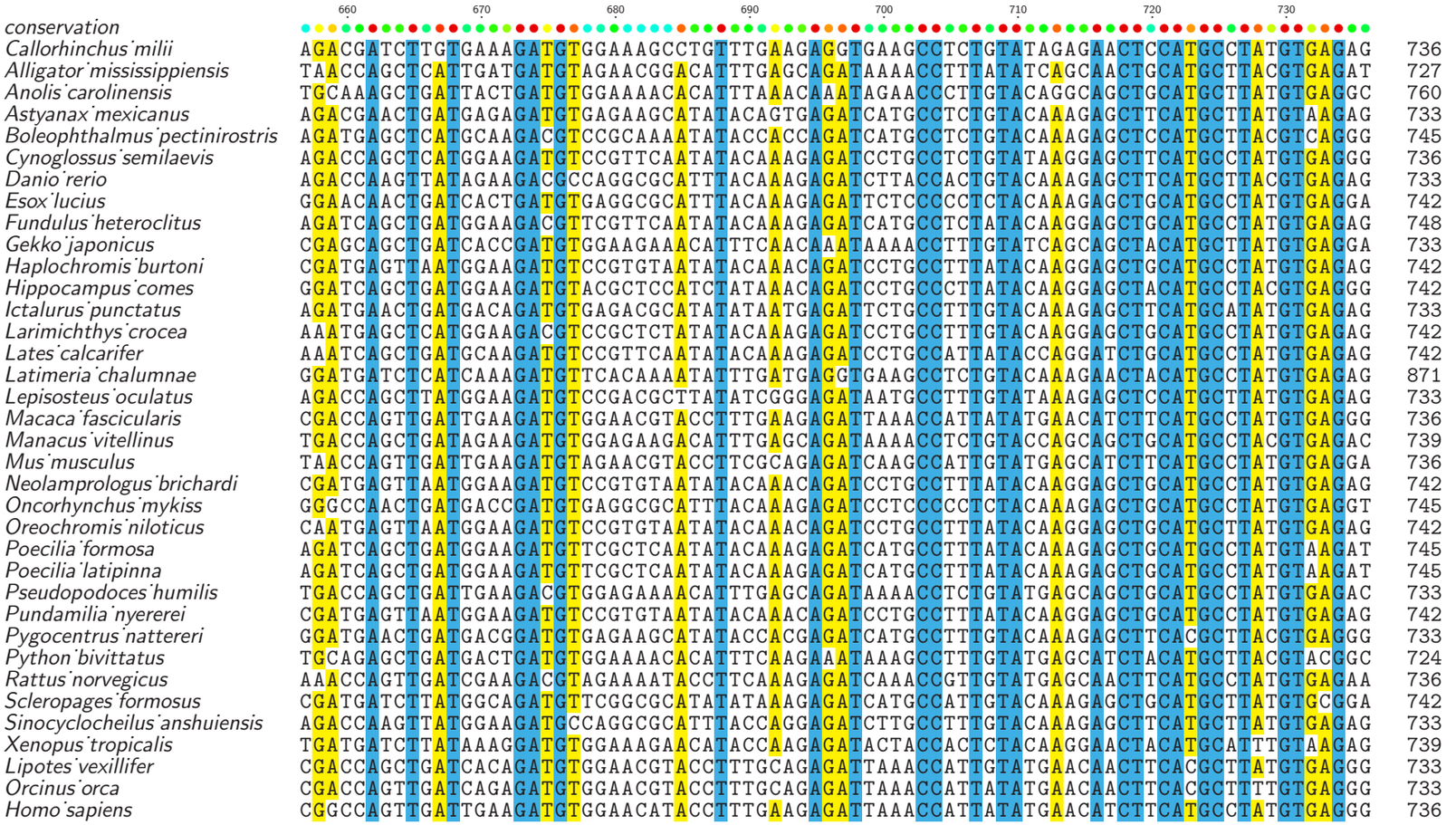
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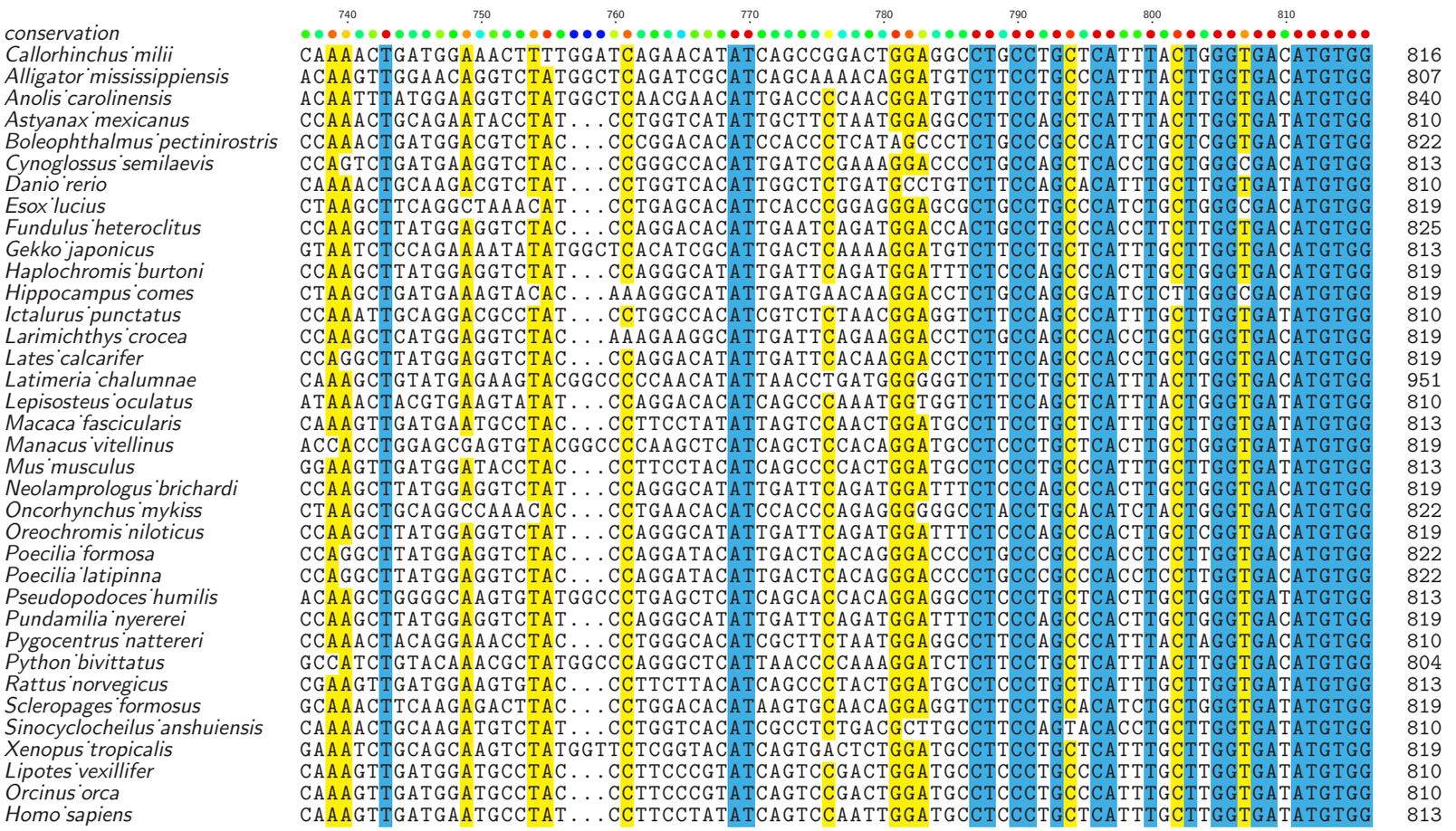
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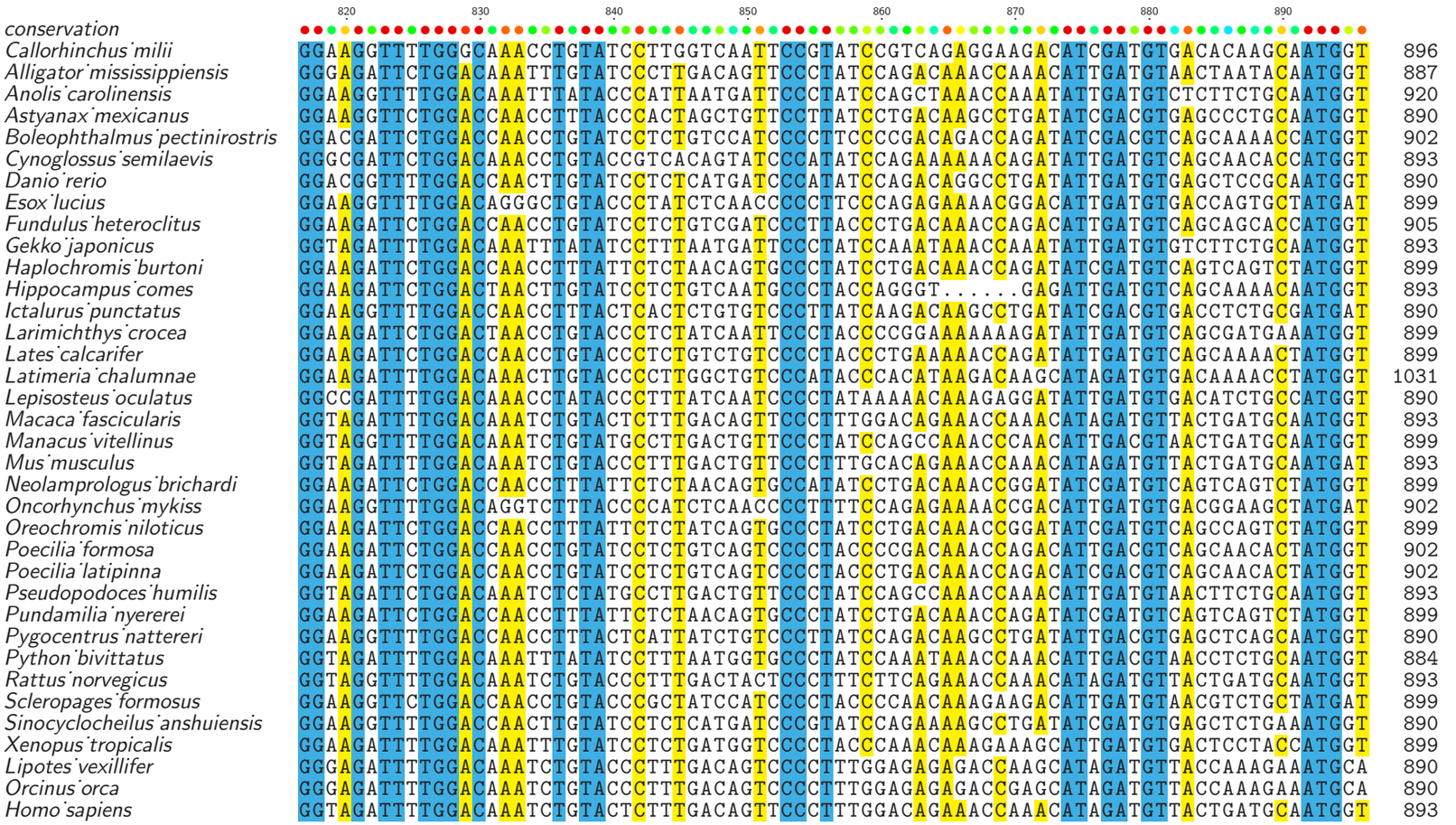
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Cynoglossus semilaevis
Danio rerio
Esox lucius
Fundulus heteroclitus
Gekko japonicus
Haplochromis burtoni
Hippocampus comes
Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
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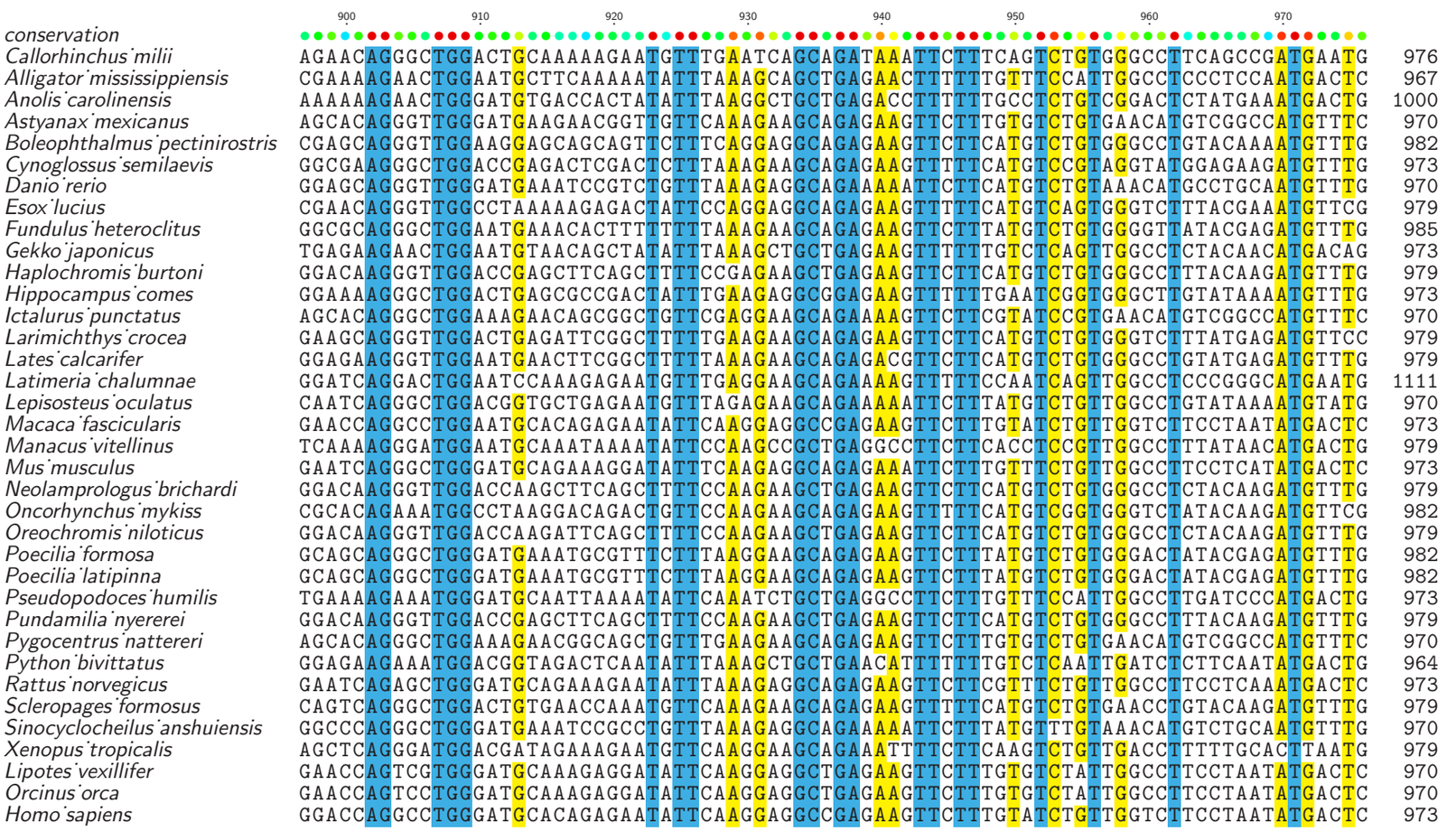
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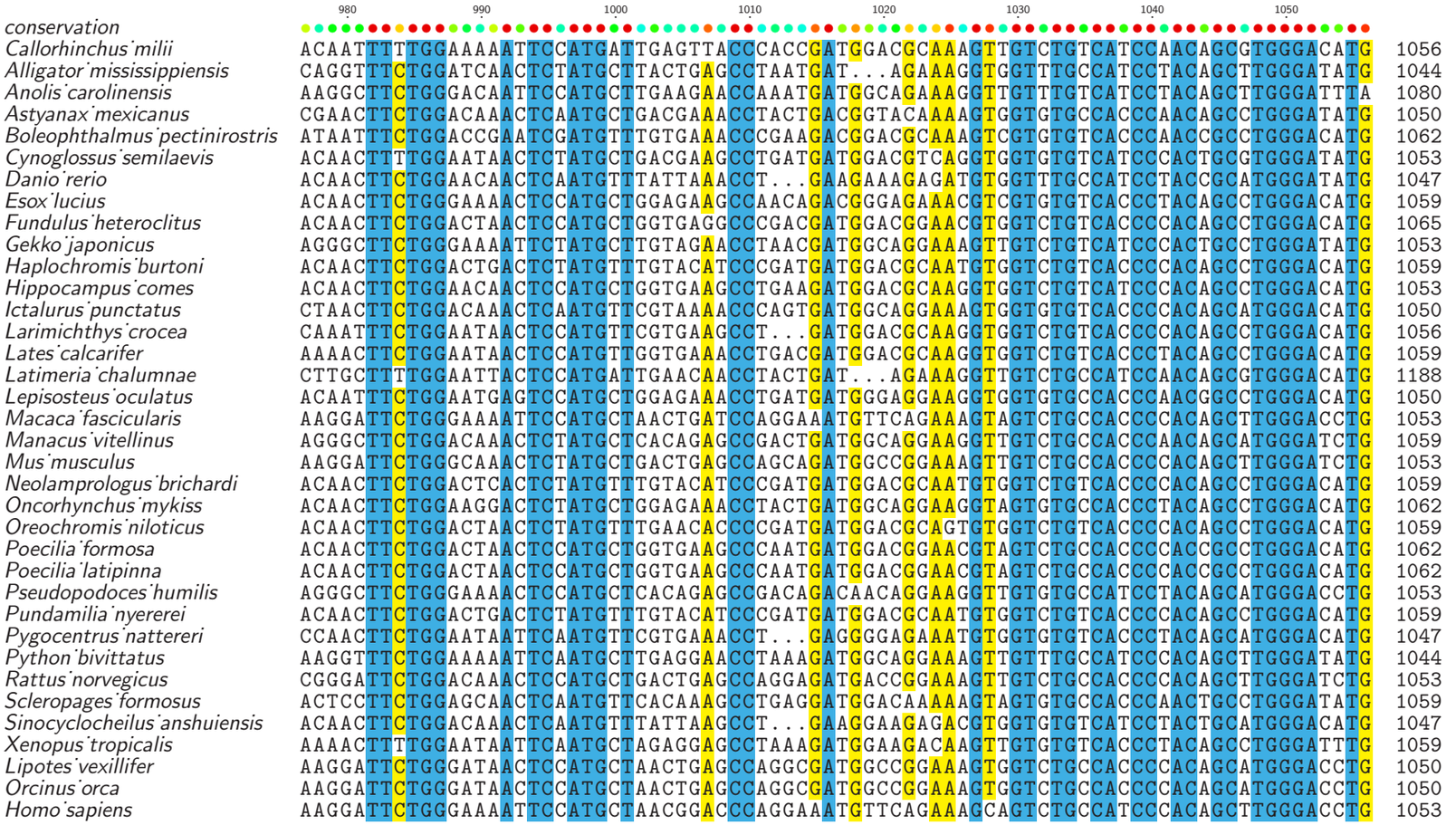
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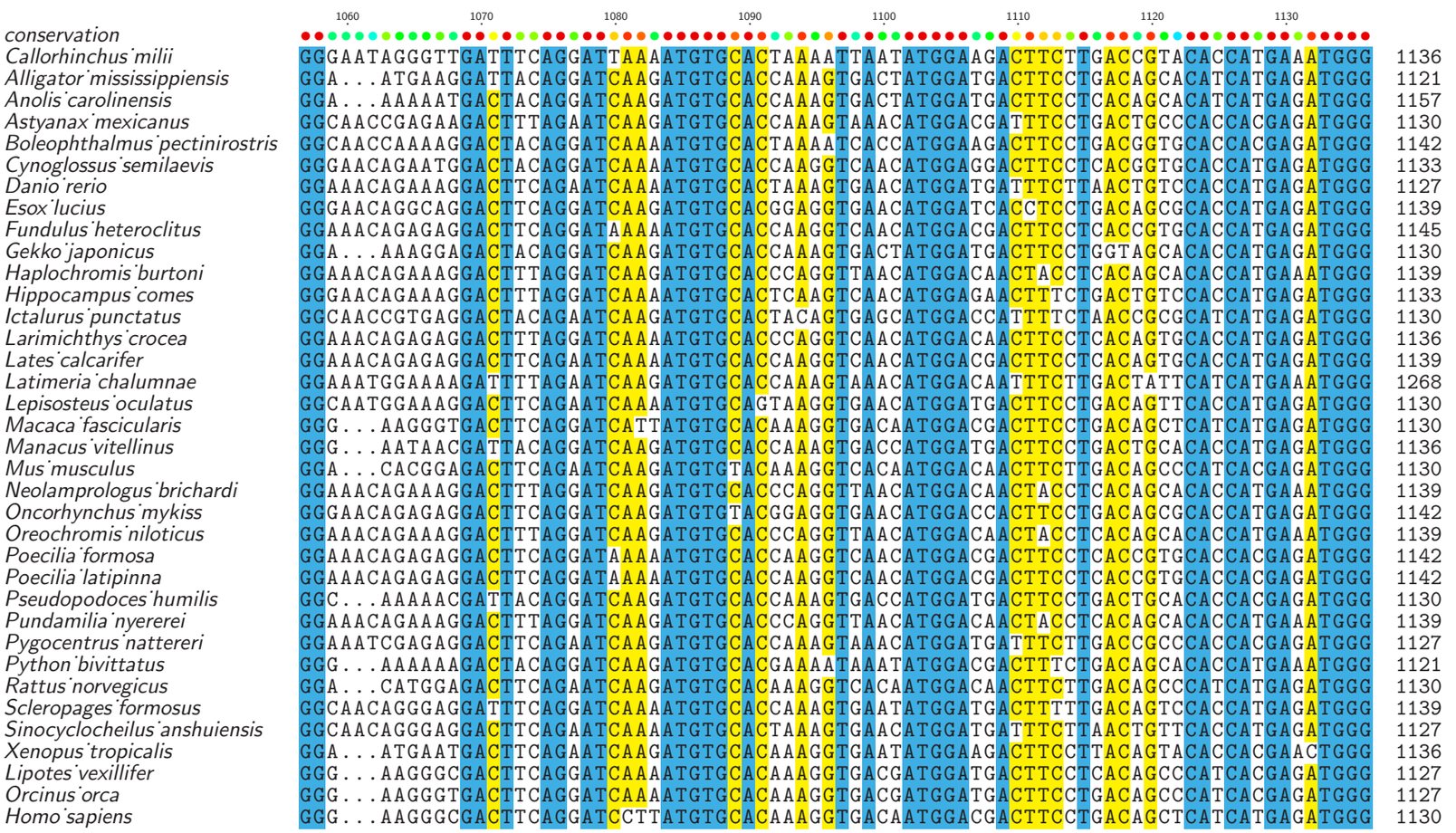
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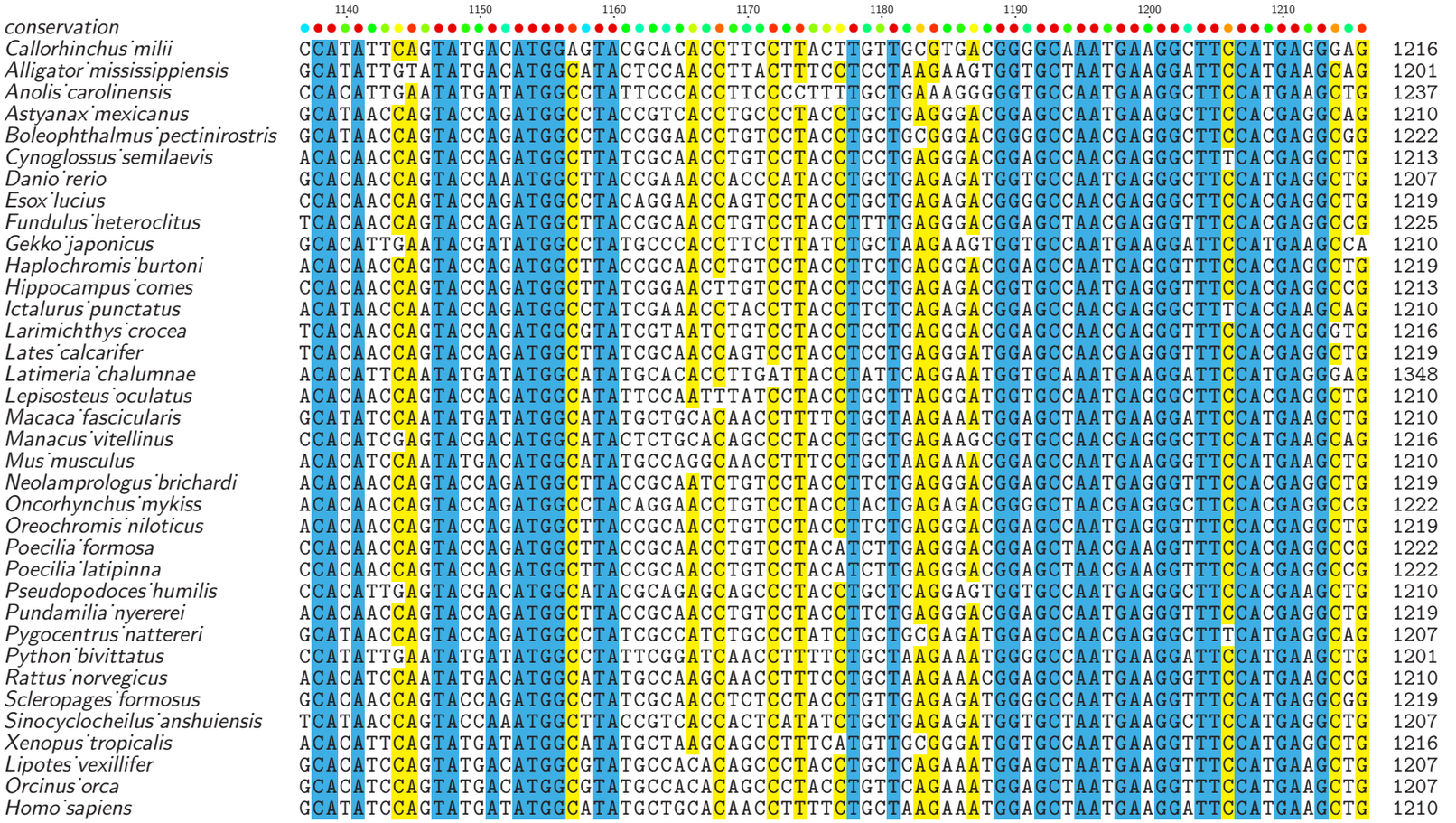
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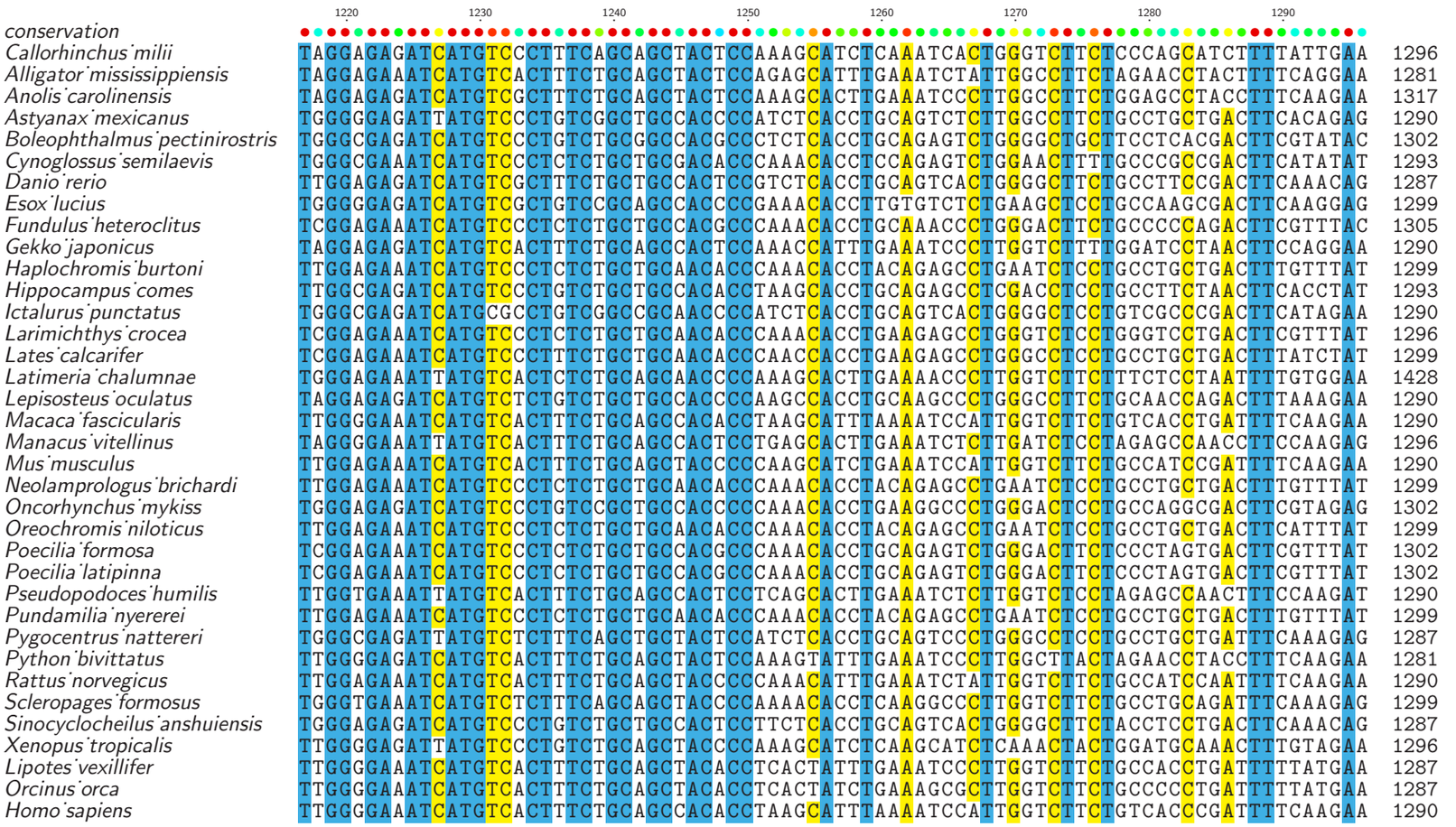
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Latimeria chalumnae 1428
Lepisosteus oculatus 1290
Macaca fascicularis 1290
Manacus vitellinus 1296
Mus musculus 1290
Neolamprologus brichardi 1299
Oncorhynchus mykiss 1302
Oreochromis niloticus 1299
Poecilia formosa 1302
Poecilia latipinna 1302
Pseudopodoces humilis 1290
Pundamilia nyererei 1299
Pygocentrus nattereri 1287
Python bivittatus 1281
Rattus norvegicus 1290
Scleropages formosus 1299
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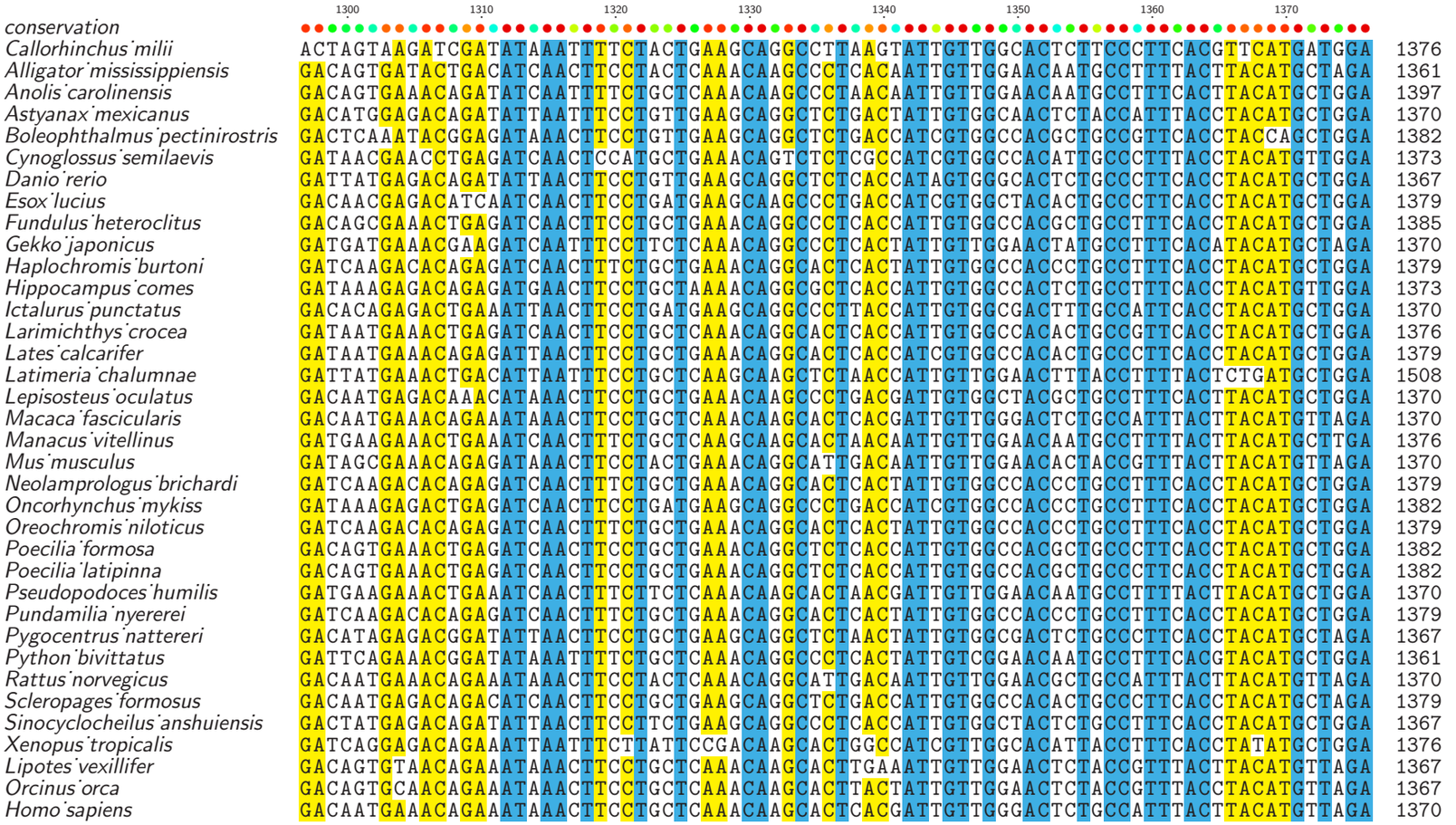
Xenopus tropicalis 1296
Lipotes vexillifer 1287
Orcinus orca 1287
Homo sapiens 1290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Mus musculus GATAGCGAAACAGAGATAAACTTCCTACTGAAACAGGCATTGACAATTGTTGGAACACTACCGTTTACTTACATGTTAGA 1370
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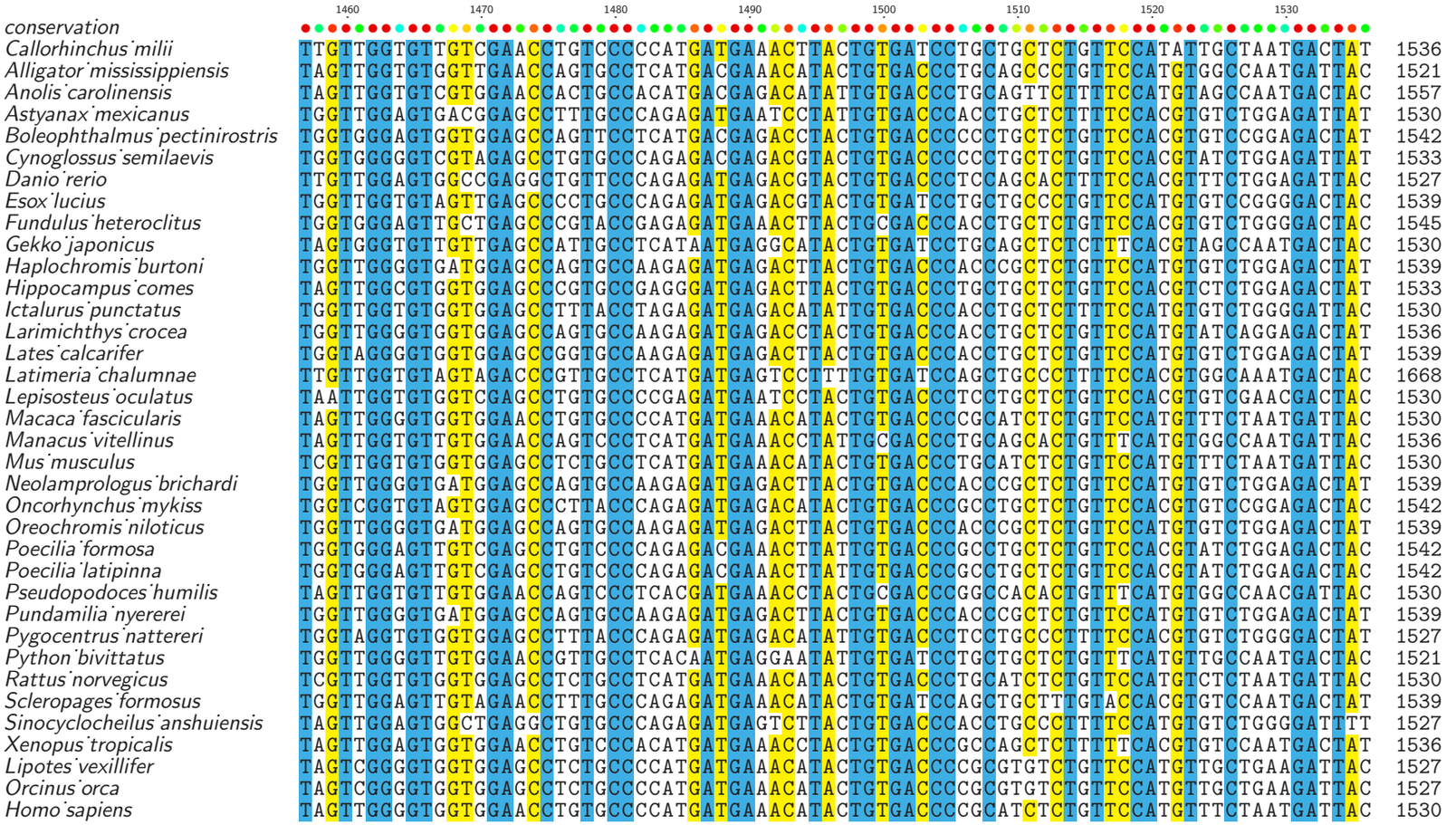
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Boleophthalmus pectinirostris
Cynoglossus semilaevis
Danio rerio
Esox lucius
Fundulus heteroclitus
Gekko japonicus
Haplochromis burtoni
Hippocampus comes
Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
Python bivittatus
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Scleropages formosus
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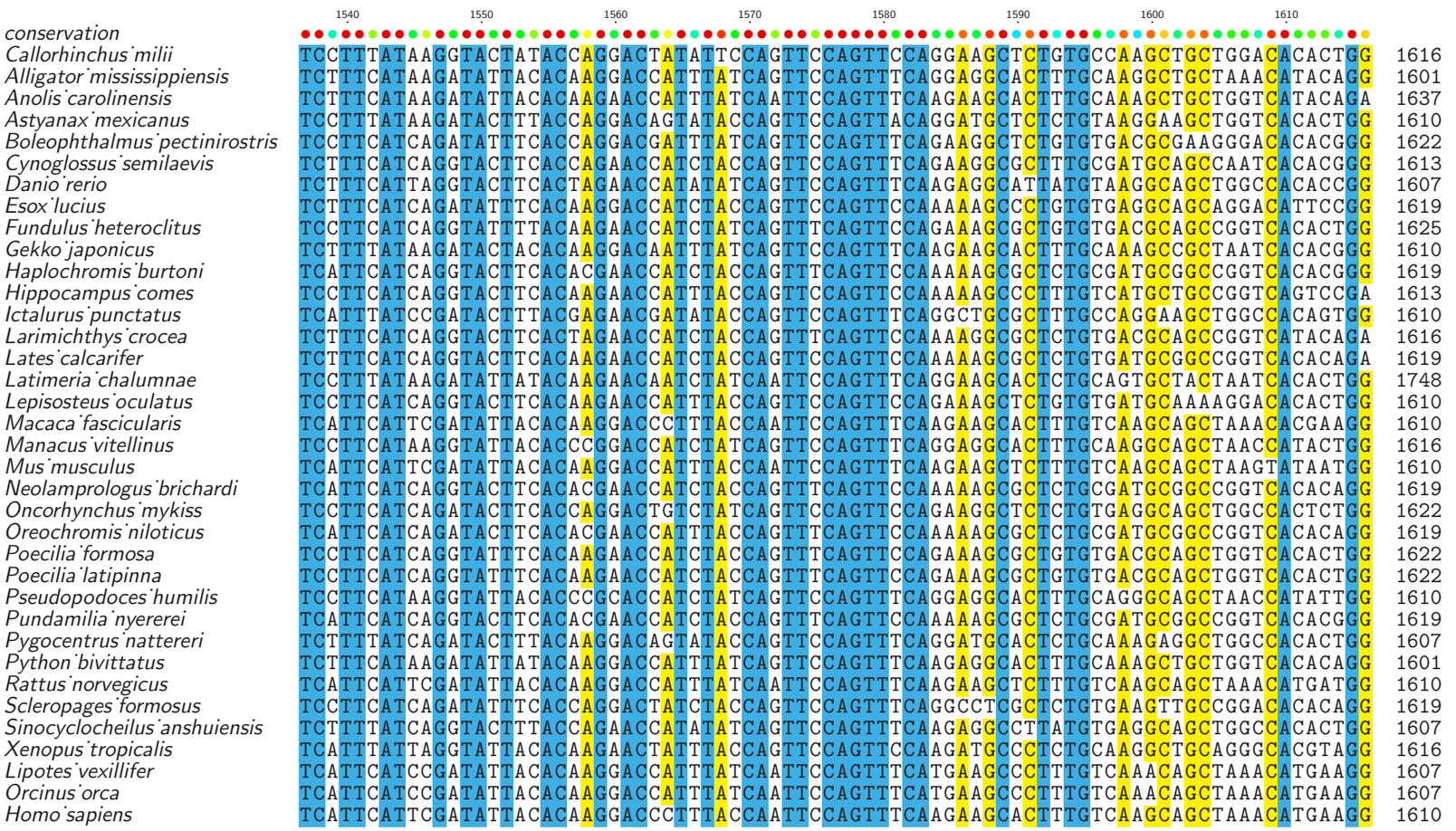
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Boleophthalmus pectinirostris
Cynoglossus semilaevis
Danio rerio
Esox lucius
Fundulus heteroclitus
Gekko japonicus
Haplochromis burtoni
Hippocampus comes
Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
Python bivittatus
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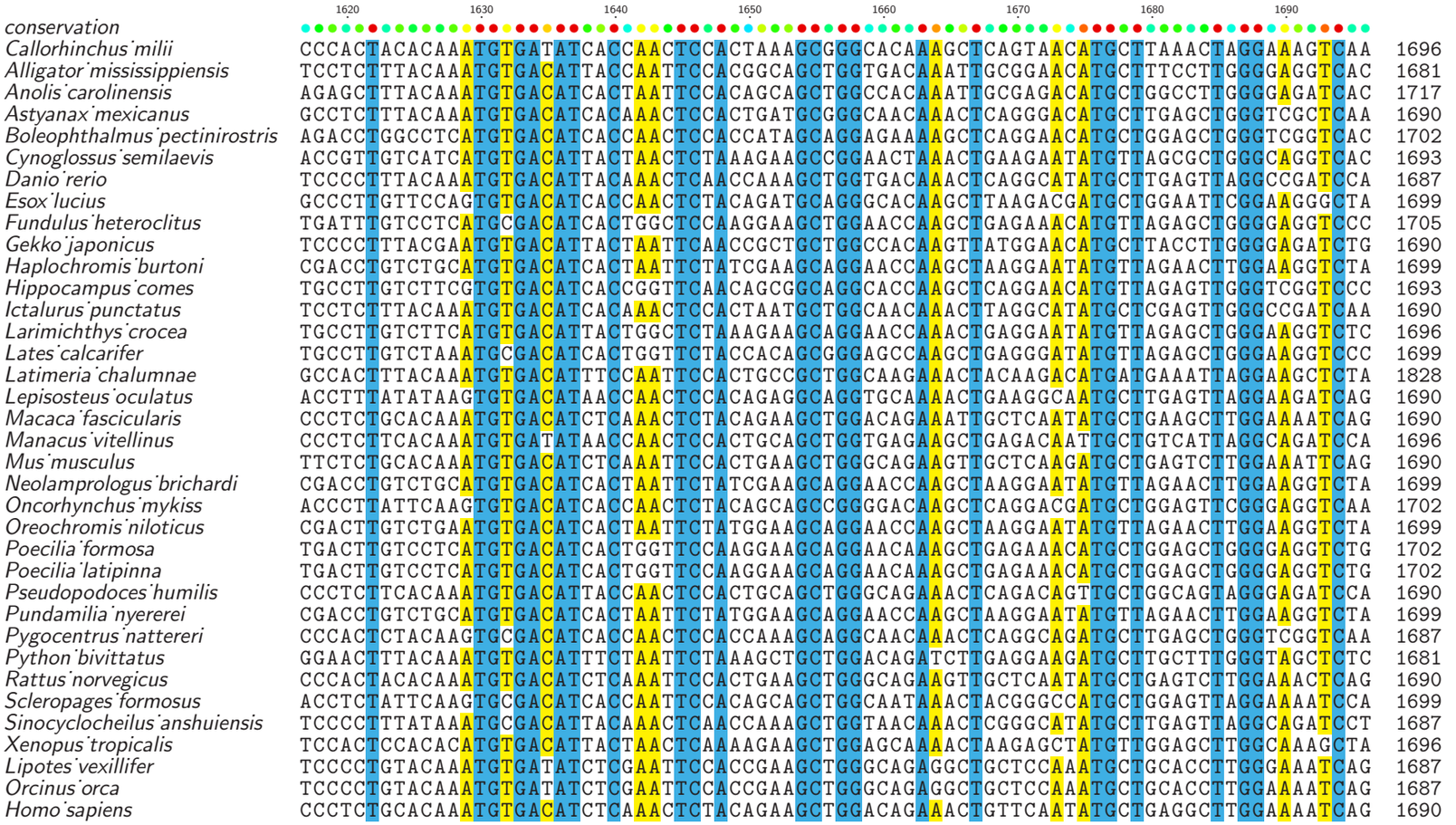
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Alligator mississippiensis TCCTCTTTACAAATGTGACATTACCAATTCCACGGCAGCTGGTGACAAATTGCGGAACATGCTTTCCTTGGGGAGGTCAC 1681
Anolis carolinensis AGAGCTTTACAAATGTGACATCACTAATTCCACAGCAGCTGGCCACAAATTGCGAGACATGCTGGCCTTGGGGAGATCAC 1717
Astyanax mexicanus GCCTCTTTACAAATGTGACATCACAAACTCCACTGATGCGGGCAACAAACTCAGGGACATGCTTGAGCTGGGTCGCTCAA 1690
Boleophthalmus pectinirostris AGACCTGGCCTCATGTGACATCACCAACTCCACCATAGCAGGAGAAAAGCTCAGGAACATGCTGGAGCTGGGTCGGTCAC 1702
Cynoglossus semilaevis ACCGTTGTCATCATGTGACATTACTAACTCTAAAGAAGCCGGAACTAAACTGAAGAATATGTTAGCGCTGGGCAGGTCAC 1693
Danio rerio TCCCCTTTACAAATGTGACATTACAAACTCAACCAAAGCTGGTGACAAACTCAGGCATATGCTTGAGTTAGGCCGATCCA 1687
Esox lucius GCCCTTGTTCCAGTGTGACATCACCAACTCTACAGATGCAGGGCACAAGCTTAAGACGATGCTGGAATTCGGAAGGGCTA 1699
Fundulus heteroclitus TGATTTGTCCTCATGCGACATCACTGGCTCCAAGGAAGCTGGAACCAAGCTGAGAAACATGTTAGAGCTGGGGAGGTCCC 1705
Gekko japonicus TCCCCTTTACGAATGTGACATTACTAATTCAACCGCTGCTGGCCACAAGTTATGGAACATGCTTACCTTGGGGAGATCTG 1690
Haplochromis burtoni CGACCTGTCTGCATGTGACATCACTAATTCTATCGAAGCAGGAACCAAGCTAAGGAATATGTTAGAACTTGGAAGGTCTA 1699
Hippocampus comes TGCCTTGTCTTCGTGTGACATCACCGGTTCAACAGCGGCAGGCACCAAGCTCAGGAACATGTTAGAGTTGGGTCGGTCCC 1693
Ictalurus punctatus TCCTCTTTACAAATGTGACATCACAAACTCCACTAATGCTGGCAACAAACTTAGGCATATGCTCGAGTTGGGCCGATCAA 1690
Larimichthys crocea TGCCTTGTCTTCATGTGACATTACTGGCTCTAAAGAAGCAGGAACCAAACTGAGGAATATGTTAGAGCTGGGAAGGTCTC 1696
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Latimeria chalumnae GCCACTTTACAAATGTGACATTTCCAATTCCACTGCCGCTGGCAAGAAACTACAAGACATGATGAAATTAGGAAGCTCTA 1828
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Mus musculus TTCTCTGCACAAATGTGACATCTCAAATTCCACTGAAGCTGGGCAGAAGTTGCTCAAGATGCTGAGTCTTGGAAATTCAG 1690
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Oreochromis niloticus CGACTTGTCTGAATGTGACATCACTAATTCTATGGAAGCAGGAACCAAGCTAAGGAATATGTTAGAACTTGGAAGGTCTA 1699
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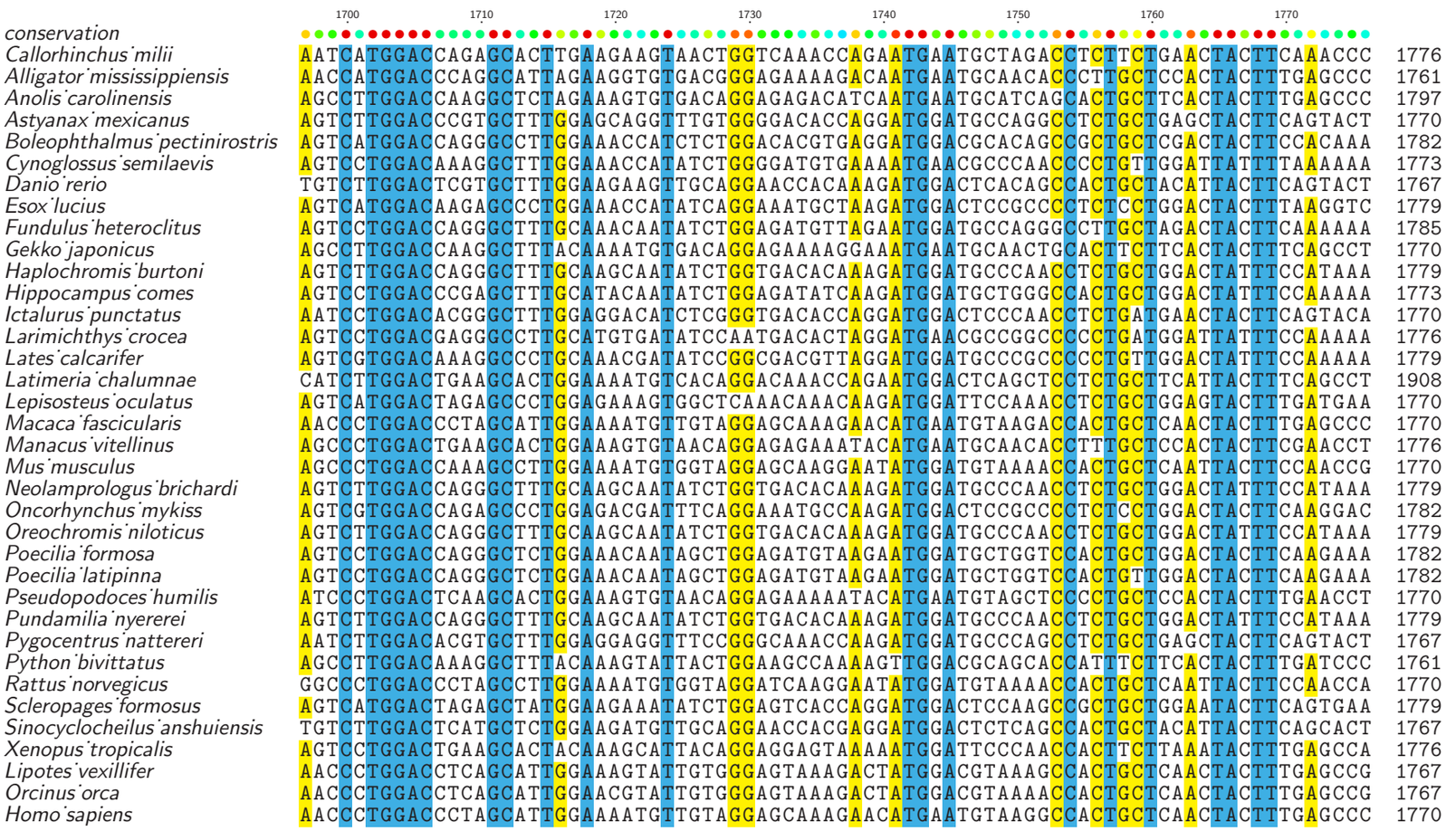
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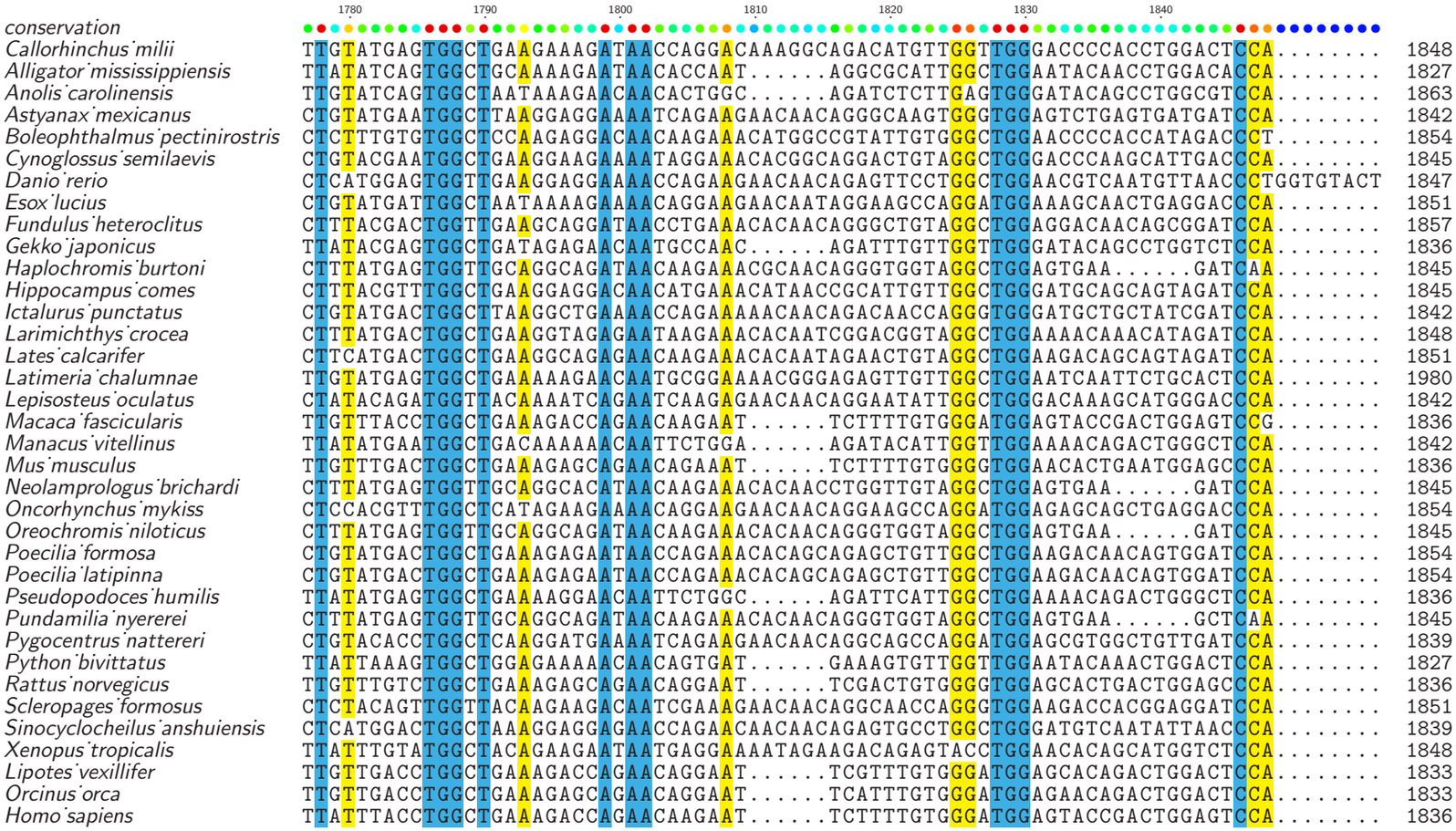
Oreochromis niloticus AGTCTTGGACCAGGGCTTTGCAAGCAATATCTGGTGACACAAAGATGGATGCCCAACCTCTGCTGGACTATTTCCATAAA 1779
Poecilia formosa AGTCCTGGACCAGGGCTCTGGAAACAATAGCTGGAGATGTAAGAATGGATGCTGGTCCACTGCTGGACTACTTCAAGAAA 1782
Poecilia latipinna AGTCCTGGACCAGGGCTCTGGAAACAATAGCTGGAGATGTAAGAATGGATGCTGGTCCACTGTTGGACTACTTCAAGAAA 1782
Pseudopodoces humilis ATCCCTGGACTCAAGCACTGGAAAGTGTAACAGGAGAAAAATACATGAATGTAGCTCCCCTGCTCCACTACTTTGAACCT 1770
Pundamilia nyererei AGTCTTGGACCAGGGCTTTGCAAGCAATATCTGGTGACACAAAGATGGATGCCCAACCTCTGCTGGACTATTTCCATAAA 1779
Pygocentrus nattereri AATCTTGGACACGTGCTTTGGAGGAGGTTTCCGGGCAAACCAAGATGGATGCCCAGCCTCTGCTGAGCTACTTCAGTACT 1767
Python bivittatus AGCCTTGGACAAAGGCTTTACAAAGTATTACTGGAAGCCAAAAGTTGGACGCAGCACCATTTCTTCACTACTTTGATCCC 1761
Rattus norvegicus GGCCCTGGACCCTAGCCTTGGAAAATGTGGTAGGATCAAGGAATATGGATGTAAAACCACTGCTCAATTACTTCCAACCA 1770
Scleropages formosus AGTCATGGACTAGAGCTATGGAAGAAATATCTGGAGTCACCAGGATGGACTCCAAGCCGCTGCTGGAATACTTCAGTGAA 1779
Sinocyclocheilus anshuiensis TGTCTTGGACTCATGCTCTGGAAGATGTTGCAGGAACCACGAGGATGGACTCCGAGCCACTGCTACATTACTTCAGCACT 1767
Xenopus tropicalis AGTCCTGGACTGAAGCACTACAAAGCATTACAGGAGGAGTAAAAATGGATTCCCAACCACTTCTTAAATACTTTGAGCCA 1776
Lipotes vexillifer AACCCTGGACCTCAGCATTGGAAAGTATTGTGGGAGTAAAGACTATGGACGTAAAGCCACTGCTCAACTACTTTGAGCCG 1767
Orcinus orca AACCCTGGACCTCAGCATTGGAACGTATTGTGGGAGTAAAGACTATGGACGTAAAACCACTGCTCAACTACTTTGAGCCG 1767
Homo sapiens AACCCTGGACCCTAGCATTGGAAAATGTTGTAGGAGCAAAGAACATGAATGTAAGGCCACTGCTCAACTACTTTGAGCCC 1770


1780
1790
1800
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1820
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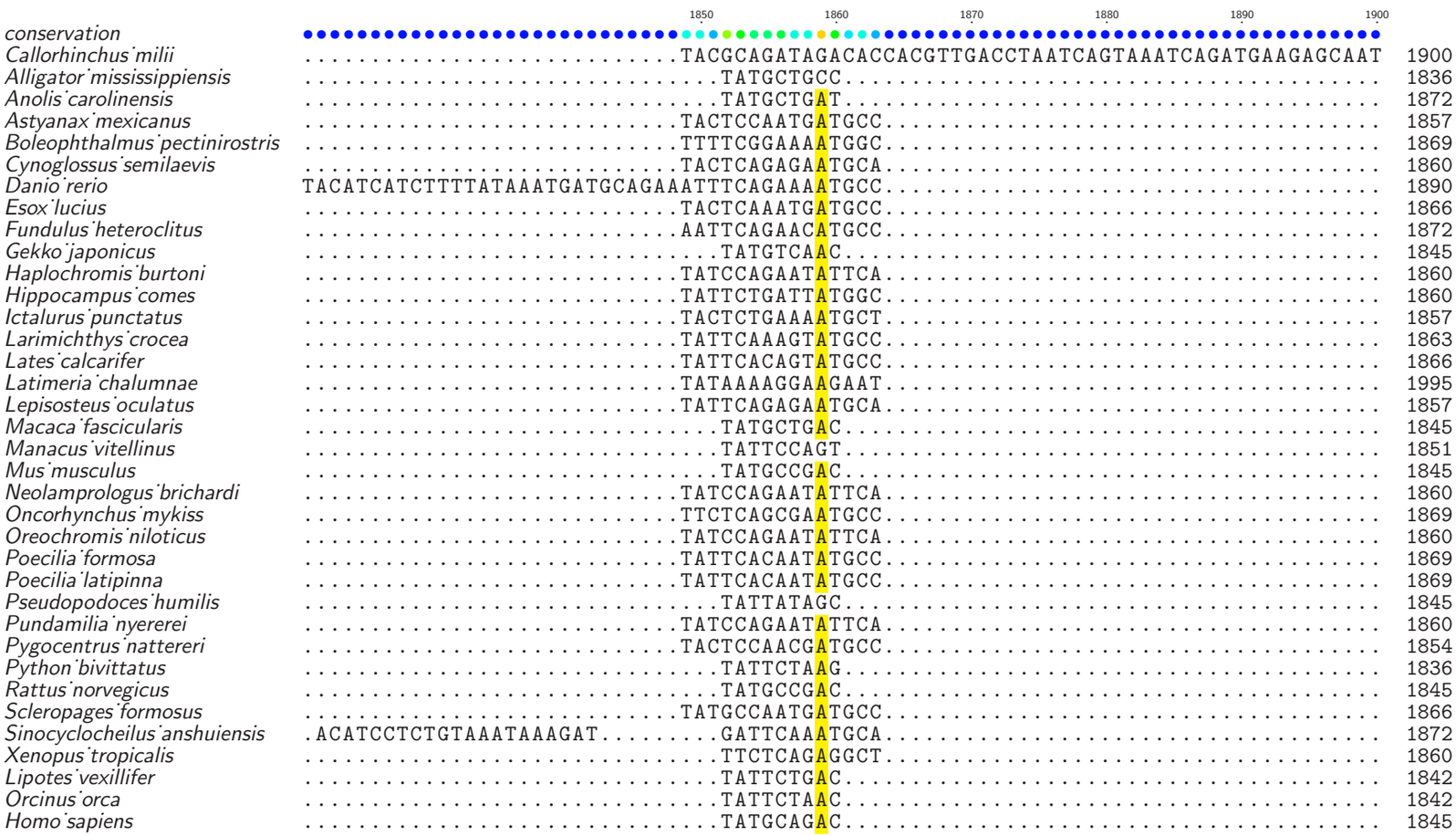
1840
conservation
Callorhinchus milii 1848
Alligator mississippiensis 1827
Anolis carolinensis 1863
Astyanax mexicanus 1842
Boleophthalmus pectinirostris 1854
Cynoglossus semilaevis 1845
Danio rerio 1847
Esox lucius 1851
Fundulus heteroclitus 1857
Gekko japonicus 1836
Haplochromis burtoni 1845
Hippocampus comes 1845
Ictalurus punctatus 1842
Larimichthys crocea 1848
Lates calcarifer 1851
Latimeria chalumnae 1980
Lepisosteus oculatus 1842
Macaca fascicularis 1836
Manacus vitellinus 1842
Mus musculus 1836
Neolamprologus brichardi 1845
Oncorhynchus mykiss 1854
Oreochromis niloticus 1845
Poecilia formosa 1854
Poecilia latipinna 1854
Pseudopodoces humilis 1836
Pundamilia nyererei 1845
Pygocentrus nattereri 1839
Python bivittatus 1827
Rattus norvegicus 1836
Scleropages formosus 1851
Sinocyclocheilus anshuiensis 1839
Xenopus tropicalis 1848
Lipotes vexillifer 1833
Orcinus orca 1833
Homo sapiens 1836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1860
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1880
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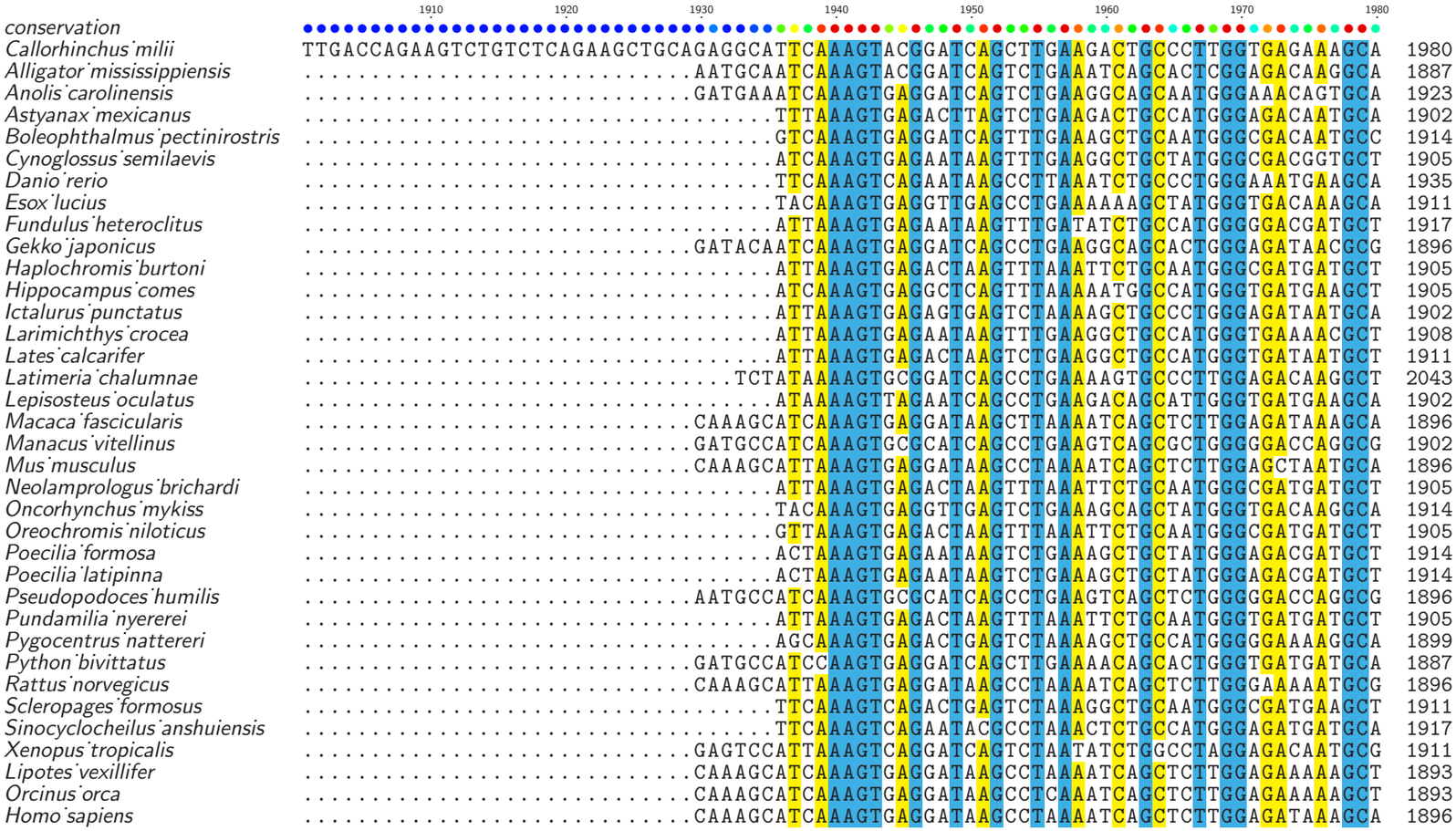
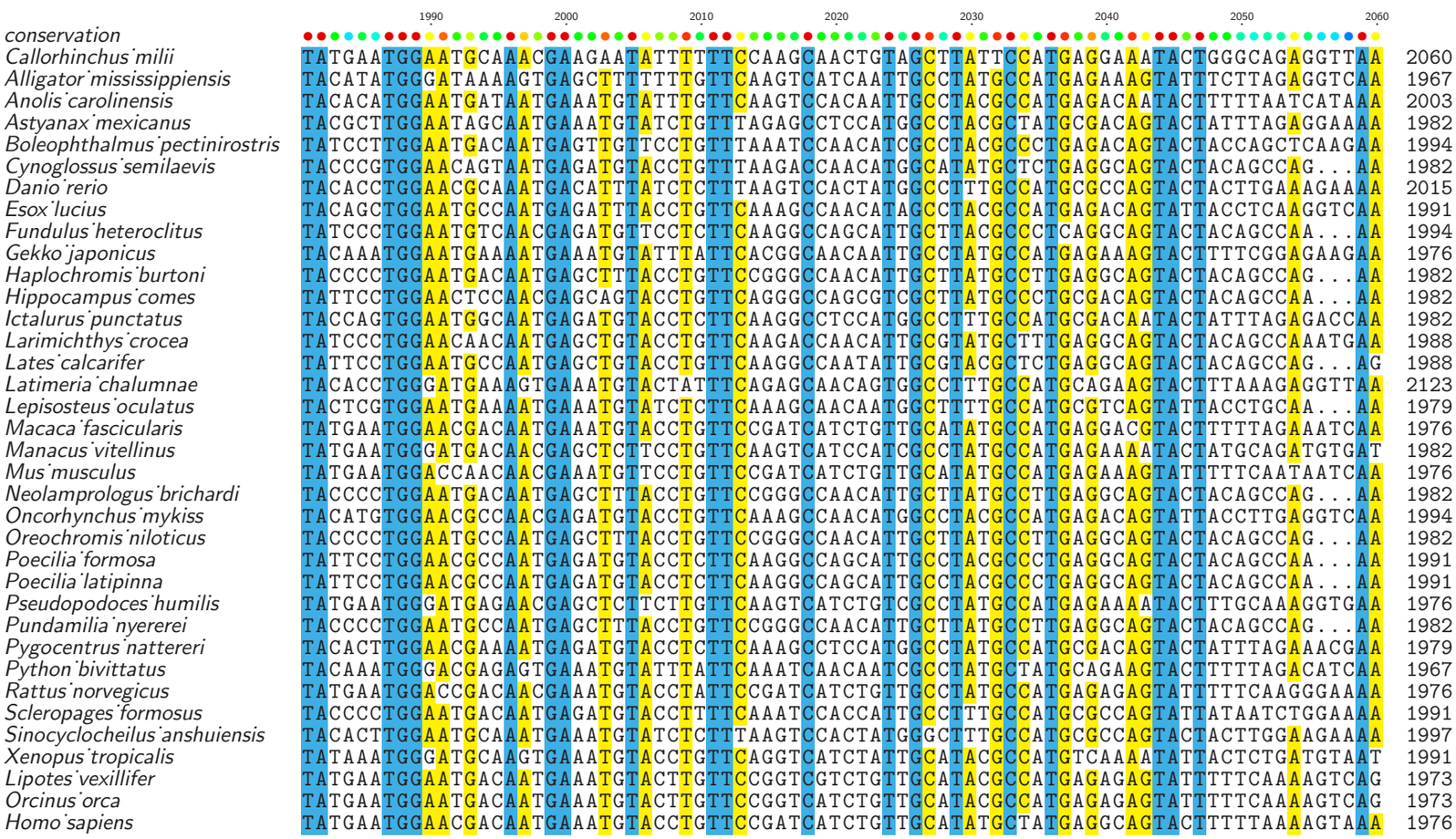
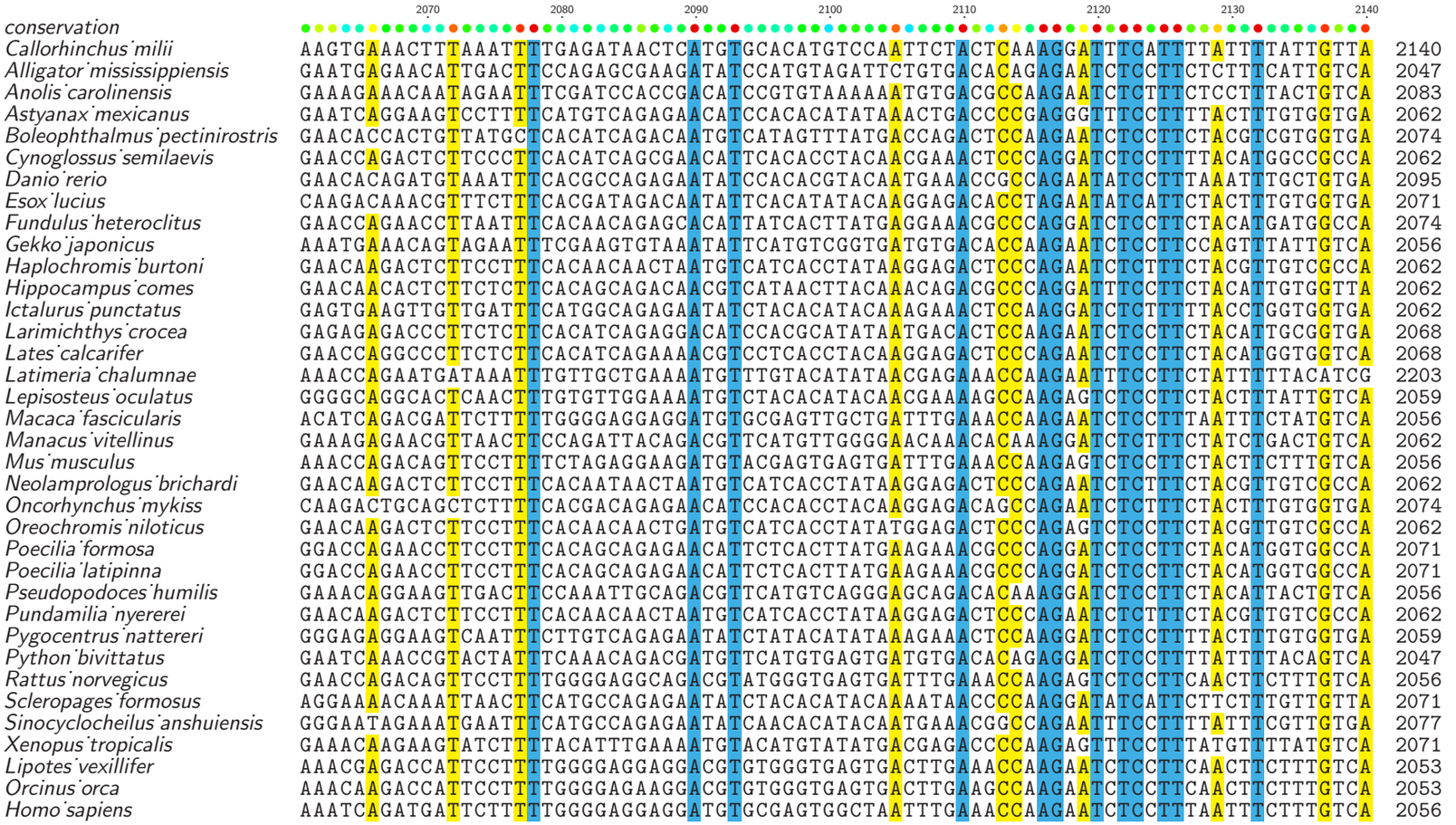
1900
conservation
Callorhinchus milii 1900
Alligator mississippiensis 1836
Anolis carolinensis 1872
Astyanax mexicanus 1857
Boleophthalmus pectinirostris 1869
Cynoglossus semilaevis 1860
Danio rerio 1890
Esox lucius 1866
Fundulus heteroclitus 1872
Gekko japonicus 1845
Haplochromis burtoni 1860
Hippocampus comes 1860
Ictalurus punctatus 1857
Larimichthys crocea 1863
Lates calcarifer 1866
Latimeria chalumnae 1995
Lepisosteus oculatus 1857
Macaca fascicularis 1845
Manacus vitellinus 1851
Mus musculus 1845
Neolamprologus brichardi 1860
Oncorhynchus mykiss 1869
Oreochromis niloticus 1860
Poecilia formosa 1869
Poecilia latipinna 1869
Pseudopodoces humilis 1845
Pundamilia nyererei 1860
Pygocentrus nattereri 1854
Python bivittatus 1836
Rattus norvegicus 1845
Scleropages formosus 1866
Sinocyclocheilus anshuiensis 1872
Xenopus tropicalis 1860
Lipotes vexillifer 1842
Orcinus orca 1842
Homo sapiens 1845


1910
1920
1930
1940
1950
1960
1970
1980
conservation
Callorhinchus milii TTGACCAGAAGTCTGTCTCAGAAGCTGCAGAGGCATTCAAAGTACGGATCAGCTTGAAGACTGCCCTTGGTGAGAAAGCA 1980
Alligator mississippiensis .....AATGCAATCAAAGTACGGATCAGTCTGAAAATCAGCACTCGGAGACAAGGCA 1887
Anolis carolinensis .....GATGAAATCAAAGTGAGGATCAGTCTGAAGGCAGCAATGGGAAACAGTGCA 1923
Astyanax mexicanus .....TTTAAAGTGAGACTTAGTCTGAAGACTGCCATGGGAGACAATGCA 1902
Boleophthalmus pectinirostris .....GTCAAAGTGAGGATCAGTTTGAAAGCTGCAATGGGCGACAATGCC 1914
Cynoglossus semilaevis .....ATCAAAGTGAGAATAAGTTTGAAGGCTGCTATGGGCGACGGTGCT 1905
Danio rerio .....TTCAAAGTCAGAATAAGCCTTAAATCTGCCCTGGGAAATGAAGCA 1935
Esox lucius .....TACAAAGTGAGGTTGAGCCTGAAAAAAGCTATGGGTGACAAAGCA 1911
Fundulus heteroclitus .....ATTAAAGTGAGAATAAGTTTGATATCTGCCATGGGGGACGATGCT 1917
Gekko japonicus .....GATACAATCAAAGTGAGGATCAGCCTGAAGGCAGCACTGGGAGATAACGCG 1896
Haplochromis burtoni .....ATTAAAGTGAGACTAAGTTTAAATTCTGCAATGGGCGATGATGCT 1905
Hippocampus comes .....ATCAAAGTGAGGCTCAGTTTAAAAATGGCCATGGGTGATGAAGCT 1905
Ictalurus punctatus .....ATTAAAGTGAGAGTGAGTCTAAAAGCTGCCCTGGGAGATAATGCA 1902
Larimichthys crocea .....ATTAAAGTGAGAATAAGTTTGAAGGCTGCCATGGGTGAAAACGCT 1908
Lates calcarifer .....ATTAAAGTGAGACTAAGTCTGAAGGCTGCCATGGGTGATAATGCT 1911
Latimeria chalumnae .....TCTATAAAAGTGCGGATCAGCCTGAAAAGTGCCCTTGGAGACAAGGCT 2043
Lepisosteus oculatus .....ATAAAAGTTAGAATCAGCCTGAAGACAGCATTGGGTGATGAAGCA 1902
Macaca fascicularis .....CAAAGCATCAAAGTGAGGATAAGCTTAAAATCAGCTCTTGGAGATAAAGCA 1896
Manacus vitellinus .....GATGCCATCAAAGTGCGCATCAGCCTGAAGTCAGCGCTGGGGGACCAGGCG 1902
Mus musculus .....CAAAGCATTAAAGTGAGGATAAGCCTAAAATCAGCTCTTGGAGCTAATGCA 1896
Neolamprologus brichardi .....ATTAAAGTGAGACTAAGTTTAAATTCTGCAATGGGCGATGATGCT 1905
Oncorhynchus mykiss .....TACAAAGTGAGGTTGAGTCTGAAAGCAGCTATGGGTGACAAGGCA 1914
Oreochromis niloticus .....GTTAAAGTGAGACTAAGTTTAAATTCTGCAATGGGCGATGATGCT 1905
Poecilia formosa .....ACTAAAGTGAGAATAAGTCTGAAAGCTGCTATGGGAGACGATGCT 1914
Poecilia latipinna .....ACTAAAGTGAGAATAAGTCTGAAAGCTGCTATGGGAGACGATGCT 1914
Pseudopodoces humilis .....AATGCCATCAAAGTGCGCATCAGCCTGAAGTCAGCTCTGGGGGACCAGGCG 1896
Pundamilia nyererei .....ATTAAAGTGAGACTAAGTTTAAATTCTGCAATGGGTGATGATGCT 1905
Pygocentrus nattereri .....AGCAAAGTGAGACTGAGTCTAAAAGCTGCCATGGGGGAAAAGGCA 1899
Python bivittatus .....GATGCCATCCAAGTGAGGATCAGCTTGAAAACAGCACTGGGTGATGATGCA 1887
Rattus norvegicus .....CAAAGCATTAAAGTGAGGATAAGCCTAAAATCAGCTCTTGGGAAAAATGCG 1896
Scleropages formosus .....TTCAAAGTCAGACTGAGTCTAAAGGCTGCAATGGGCGATGAAGCT 1911
Sinocyclocheilus anshuiensis .....TTCAAAGTCAGAATACGCCTAAACTCTGCCATGGGAGATGATGCA 1917
Xenopus tropicalis .....GAGTCCATTAAAGTCAGGATCAGTCTAATATCTGGCCTAGGAGACAATGCG 1911
Lipotes vexillifer .....CAAAGCATCAAAGTGAGGATAAGCCTAAAATCAGCTCTTGGAGAAAAAGCT 1893
Orcinus orca .....CAAAGCATCAAAGTGAGGATAAGCCTCAAATCAGCTCTTGGAGAAAAAGCT 1893
Homo sapiens .....CAAAGCATCAAAGTGAGGATAAGCCTAAAATCAGCTCTTGGAGATAAAGCA 1896


1990
2000
2010
2020
2030
2040
2050
2060
conservation
Callorhinchus milii TATGAATGGAATGCAAACGAAGAATATTTTTTCCAAGCAACTGTAGCTTATTCCATGAGGAAATACTGGGCAGAGGTTAA 2060
Alligator mississippiensis TACATATGGGATAAAAGTGAGCTTTTTTTGTTCAAGTCATCAATTGCCTATGCCATGAGAAAGTATTTCTTAGAGGTCAA 1967
Anolis carolinensis TACACATGGAATGATAATGAAATGTATTTGTTCAAGTCCACAATTGCCTACGCCATGAGACAATACTTTTAATCATAAA 2003
Astyanax mexicanus TACGCTTGGAATAGCAATGAAATGTATCTGTTTAGAGCCTCCATGGCCTACGCTATGCGACAGTACTATTTAGAGGAAAA 1982
Boleophthalmus pectinirostris TATCCTTGGAATGACAATGAGTTGTTCCTGTTTAAATCCAACATCGCCTACGCCCTGAGACAGTACTACCAGCTCAAGAA 1994
Cynoglossus semilaevis TACCCGTGGAACAGTAATGAGATGTACCTGTTTAAGACCAACATGGCATATGCTCTGAGGCAGTACTACAGCCAG...AA 1982
Danio rerio TACACCTGGAACGCAAATGACATTTATCTCTTTAAGTCCACTATGGCCTTTGCCATGCGCCAGTACTACTTGAAAGAAAA 2015
Esox lucius TACAGCTGGAATGCCAATGAGATTTACCTGTTCAAAGCCAACATAGCCTACGCCATGAGACAGTATTACCTCAAGGTCAA 1991
Fundulus heteroclitus TATCCCTGGAATGTCAACGAGATGTTCCTCTTCAAGGCCAGCATTGCCTACGCCCTCAGGCAGTACTACAGCCAA...AA 1994
Gekko japonicus TACAAATGGAATGAAAAATGAAATGTATTTATTCACGGCAACAATTGCCTATGCCATGAGAAAGTACTTTCGGAGAAGAA 1976
Haplochromis burtoni TACCCCTGGAATGACAATGAGCTTTACCTGTTCCGGGCCAACATTGCTTATGCCTTGAGGCAGTACTACAGCCAG...AA 1982
Hippocampus comes TATTCCTGGAACTCCAACGAGCAGTACCTGTTCAGGGCCAGCGTCGCTTATGCCCTGCGACAGTACTACAGCCAA...AA 1982
Ictalurus punctatus TACCAGTGGAATGGCAATGAGATGTACCTCTTCAAGGCCTCCATGGCCTTTGCCATGCGACAATACTATTTAGAGACCAA 1982
Larimichthys crocea TATCCCTGGAACAACAATGAGCTGTACCTGTTCAAGACCAACATTGCGTATGCTTTGAGGCAGTACTACAGCCAAATGAA 1988
Lates calcarifer TATTCCTGGAATGCCAATGAGCTGTACCTGTTCAAGGCCAATATTGCGTACGCTCTGAGGCAGTACTACAGCCAG...AG 1988
Latimeria chalumnae TACACCTGGGATGAAAGTGAAATGTACTATTTCAGAGCAACAGTGGCCTTTGCCATGCAGAAGTACTTTAAAGAGGTTAA 2123
Lepisosteus oculatus TACTCGTGGAATGAAAAATGAAATGTATCTCTTCAAAGCAACAATGGCTTTGCCATGCGTCAGTATTACCTGCAA...AA 1979
Macaca fascicularis TATGAATGGAACGACAATGAAATGTACCTGTTCCGATCATCTGTTGCATATGCCATGAGGACGTACTTTTAGAAATCAA 1976
Manacus vitellinus TATGAATGGGATGACAACGAGCTCTTCCTGTTCAAGTCATCCATCGCCTATGCCATGAGAAAATACTATGCAGATGTGAT 1982
Mus musculus TATGAATGGACCAACAACGAAATGTTCCTGTTCCGATCATCTGTTGCATATGCCATGAGAAAGTATTTTTCAATAATCAA 1976
Neolamprologus brichardi TACCCCTGGAATGACAATGAGCTTTACCTGTTCCGGGCCAACATTGCTTATGCCTTGAGGCAGTACTACAGCCAG...AA 1982
Oncorhynchus mykiss TACATGTGGAACGCCAACGAGATGTACCTGTTCAAAGCCAACATGGCCTACGCCATGAGACAGTATTACCTTGAGGTCAA 1994
Oreochromis niloticus TACCCCTGGAATGCCAATGAGCTTTACCTGTTCCGGGCCAACATTGCTTATGCCTTGAGGCAGTACTACAGCCAG...AA 1982
Poecilia formosa TATTCCTGGAACGCCAATGAGATGTACCTCTTCAAGGCCAGCATTGCCTACGCCCTGAGGCAGTACTACAGCCAA...AA 1991
Poecilia latipinna TATTCCTGGAACGCCAATGAGATGTACCTCTTCAAGGCCAGCATTGCCTACGCCCTGAGGCAGTACTACAGCCAA...AA 1991
Pseudopodoces humilis TATGAATGGGATGAGAACGAGCTCTTCTTGTTCAAGTCATCTGTCGCCTATGCCATGAGAAAATACTTTGCAAAGGTGAA 1976
Pundamilia nyererei TACCCCTGGAATGCCAATGAGCTTTACCTGTTCCGGGCCAACATTGCTTATGCCTTGAGGCAGTACTACAGCCAG...AA 1982
Pygocentrus nattereri TACACTTGGAACGAAAATGAGATGTACCTCTTCAAAGCCTCCATGGCCTATGCCATGCGACAGTACTATTTAGAAACGAA 1979
Python bivittatus TACAAATGGGACGAGAGTGAAATGTATTTATTCAAATCAACAATCGCCTATGCTATGCAGAAGTACTTTTTAGACATCAA 1967
Rattus norvegicus TATGAATGGACCGACAACGAAATGTACCTATTCCGATCATCTGTTGCCTATGCCATGAGAGAGTATTTTTCAAGGGAAAA 1976
Scleropages formosus TACCCCTGGAATGACAATGAGATGTACCTCTTCAAATCCACCATTGCCTTTGCCATGCGCCAGTATTATAATCTGGAAAA 1991
Sinocyclocheilus anshuiensis TACACTTGGAATGCAAATGAAATGTATCTCTTTAAGTCCACTATGGGCTTTGCCATGCGCCAGTACTACTTGGAAGAAAA 1997
Xenopus tropicalis TATAAATGGGATGCAAGTGAAATGTACCTGTTCAGGTCATCTATTGCATACGCCATGTCAAAATATTACTCTGATGTAAT 1991
Lipotes vexillifer TATGAATGGAATGACAATGAAATGTACTTGTTCCGGTCGTCTGTTGCATACGCCATGAGAGAGTATTTTTCAAAAGTCAG 1973
Orcinus orca TATGAATGGAATGACAATGAAATGTACTTGTTCCGGTCATCTGTTGCATACGCCATGAGAGAGTATTTTTCAAAAGTCAG 1973
Homo sapiens TATGAATGGAACGACAATGAAATGTACCTGTTCCGATCATCTGTTGCATATGCTATGAGGCAGTACTTTTTAAAAGTAAA 1976


2070
2080
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2100
2110
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2140
conservation
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Alligator mississippiensis GAATGAGAACATTGACTTCCAGAGCGAAGATATCCATGTAGATTCTGTGACACAGAGAATCTCCTTCTCTTTCATTGTCA 2047
Anolis carolinensis GAAAGAAACAATAGAATTTCGATCCACCGACATCCGTGTAAAAAATGTGACGCCAAGAATCTCTTTCTCCTTTACTGTCA 2083
Astyanax mexicanus GAATCAGGAAGTCCTTTTCATGTCAGAGAACATCCACACATATAAACTGACCCGAGGGTTTCCTTTTACTTTGTGGTGA 2062
Boleophthalmus pectinirostris GAACACCACTGTTATGCTCACATCAGACAATGTCATAGTTTATGACCAGACTCCAAGAATCTCCTTCTACGTCGTGGTGA 2074
Cynoglossus semilaevis GAACCAGACTCTTCCCTTCACATCAGCGAACATTCACACCTACAACGAAACTCCCAGGATCTCCTTTTACATGGCCGCCA 2062
Danio rerio GAACACAGATGTAAATTTCACGCCAGAGAATATCCACACGTACAATGAAACCGCCAGAATATCCTTTAAATTTGCTGTGA 2095
Esox lucius CAAGACAAACGTTTCTTTCACGATAGACAATATTCACATATACAAGGAGACACCTAGAATATCATTCTACTTTGTGGTGA 2071
Fundulus heteroclitus GAACCAGAACCTTAATTTCACAACAGAGCACATTATCACTTATGAGGAAACGCCCAGGATCTCCTTCTACATGATGGCCA 2074
Gekko japonicus AAATGAAACAGTAGAATTTCGAAGTGTAAATATTCATGTCGGTGATGTGACACCAAGAATCTCCTTCCAGTTTATTGTCA 2056
Haplochromis burtoni GAACAAGACTCTTCCTTTCACAACAACTAATGTCATCACCTATAAGGAGACTCCCAGAATCTCTTTCTACGTTGTCGCCA 2062
Hippocampus comes GAACAACACTCTTCTCTTCACAGCAGACAACGTCATAACTTACAAACAGACGCCCAGGATTTCCTTCTACATTGTGGTTA 2062
Ictalurus punctatus GAGTGAAGTTGTTGATTTCATGGCAGAGAATATCTACACATACAAAGAAACTCCAAGGATCTCTTTTACCTGGTGGTGA 2062
Larimichthys crocea GAGAGAGACCCTTCTCTTCACATCAGAGGACATCCACGCATATAATGACACTCCAAGAATCTCCTTCTACATTGCGGTGA 2068
Lates calcarifer GAACCAGGCCCTTCTCTTCACATCAGAAAACGTCCTCACCTACAAGGAGACTCCCAGAATCTCCTTCTACATGGTGGTCA 2068
Latimeria chalumnae AAACCAGAATGATAAATTTGTTGCTGAAAATGTTTGTACATATAACGAGAAACCAAGAATTTCCTTCTATTTTACATCG 2203
Lepisosteus oculatus GGGGCAGGCACTCAACTTTGTGTTGGAAAATGTCTACACATACAACGAAAAGCCAAGAGTCTCCTTCTACTTTATTGTCA 2059
Macaca fascicularis ACATCAGACGATTCTTTTTGGGGAGGAGGATGTGCGAGTTGCTGATTTGAAACCAAGAATCTCCTTTAATTTCTATGTCA 2056
Manacus vitellinus GAAAGAGAACGTTAACTTCCAGATTACAGACGTTCATGTTGGGGAACAAACACAAAGGATCTCTTTCTATCTGACTGTCA 2062
Mus musculus AAACCAGACAGTTCCTTTTCTAGAGGAAGATGTACGAGTGAGTGATTTGAAACCAAGAGTCTCCTTCTACTTCTTTGTCA 2056
Neolamprologus brichardi GAACAAGACTCTTCCTTTCACAATAACTAATGTCATCACCTATAAGGAGACTCCCAGAATCTCTTTCTACGTTGTCGCCA 2062
Oncorhynchus mykiss CAAGACTGCAGCTCTTTTCACGACAGAGAACATCCACACCTACAAGGAGACAGCCAGAATCTCTTTCTACTTTGTGGTGA 2074
Oreochromis niloticus GAACAAGACTCTTCCTTTCACAACAACTGATGTCATCACCTATATGGAGACTCCCAGAGTCTCCTTCTACGTTGTCGCCA 2062
Poecilia formosa GGACCAGAACCTTCCTTTCACAGCAGAGAACATTCTCACTTATGAAGAAACGCCCAGGATCTCCTTCTACATGGTGGCCA 2071
Poecilia latipinna GGACCAGAACCTTCCTTTCACAGCAGAGAACATTCTCACTTATGAAGAAACGCCCAGGATCTCCTTCTACATGGTGGCCA 2071
Pseudopodoces humilis GAAACAGGAAGTTGACTTCCAAATTGCAGACGTTCATGTCAGGGAGCAGACACAAAGGATCTCCTTCTACATTACTGTCA 2056
Pundamilia nyererei GAACAAGACTCTTCCTTTCACAACAACTAATGTCATCACCTATAAGGAGACTCCCAGAATCTCTTTCTACGTTGTCGCCA 2062
Pygocentrus nattereri GGGAGAGGAAGTCAATTTCTTGTCAGAGAATATCTATACATATAAAGAAACTCCAAGGATCTCCTTTTACTTTGTGGTGA 2059
Python bivittatus GAATCAAACCGTACTATTTCAAACAGACGATGTTCATGTGAGTGATGTGACACAGAGGATCTCCTTTTATTTTACAGTCA 2047
Rattus norvegicus GAACCAGACAGTTCCTTTTGGGGAGGCAGACGTATGGGTGAGTGATTTGAAACCAAGAGTCTCCTTCAACTTCTTTGTCA 2056
Scleropages formosus AGGAAAACAAATTAACTTCATGCCAGAGAATATCTACACATACAAAATAACCCCAAGGATATCATTCTTCTTTGTTGTTA 2071
Sinocyclocheilus anshuiensis GGGAATAGAAATGAATTTCATGCCAGAGAATATCAACACATACAATGAAACGGCCAGAATTTCCTTTTATTTCGTTGTGA 2077
Xenopus tropicalis GAAACAAGAAGTATCTTTTACATTTGAAAATGTACATGTATATGACGAGACCCCAAGAGTTTCCTTTATGTTTTATGTCA 2071
Lipotes vexillifer AAACGAGACCATTCCTTTTGGGGAGGAGGACGTGTGGGTGAGTGACTTGAAACCAAGAATCTCCTTCAACTTCTTTGTCA 2053
Orcinus orca AAACAAGACCATTCCTTTTGGGGAGAAGGACGTGTGGGTGAGTGACTTGAAGCCAAGAATCTCCTTCAACTTCTTTGTCA 2053
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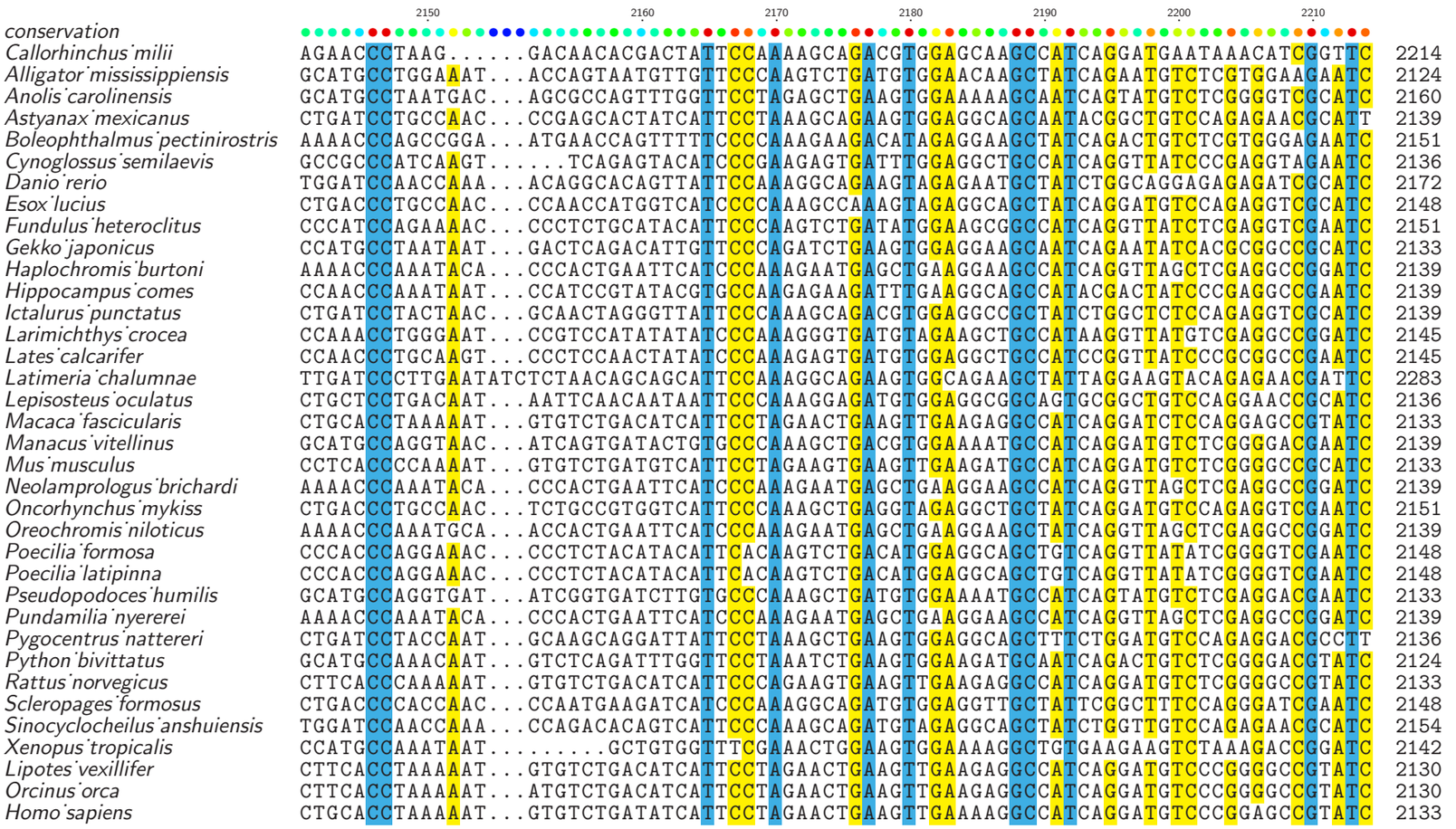
2150
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conservation
Callorhinchus milii AGAACCTAAG.....GACAACACGACTATTCCAAAAGCAGACGTGGAGCAAGCCATCAGGATGAAATAAACATCGGTTC 2214
Alligator mississippiensis GCATGCCTGGAAAT...ACCAGTAATGTTGTTCCCAAGTCTGATGTGGAACAAGCTATCAGAATGTCTCGTGGAAGAATC 2124
Anolis carolinensis GCATGCCTAATGAC...AGCGCCAGTTTGGTTCCTAGAGCTGAAGTGGAAAAAGCAATCAGTATGTCTCGGGGTCGCATC 2160
Astyanax mexicanus CTGATCCTGCCAAC...CCGAGCACTATCATTCCTAAAGCAGAAGTGGAGGCAGCAATACGGCTGTCCAGAGAACGCATT 2139
Boleophthalmus pectinirostris AAAACCCAGCCGGA...ATGAACCAGTTTTTCCCCAAAGAAGACATAGAGGAAGCTATCAGACTGTCTCGTGGGAGAATC 2151
Cynoglossus semilaevis GCCGCCCATCAAGT.....TCAGAGTACATCCCGAAGAGTGATTTGGAGGCTGCCATCAGGTTATCCCGAGGTAGAATC 2136
Danio rerio TGGATCCAACCAAA...ACAGGCACAGTTATTCCAAAGGCAGAAGTAGAGAATGCTATCTGGCAGGAGAGAGATCGCATC 2172
Esox lucius CTGACCTGCCAAC...CCAACCATGGTCATCCCCAAAGCCAAAGTAGAGGCAGCTATCAGGATGTCCAGAGGTCGCATC 2148
Fundulus heteroclitus CCCATCCAGAAAAC...CCCTCTGCATACATTCCCAAGTCTGATATGGAAGCGGCCATCAGGTTATCTCGAGGTCGAATC 2151
Gekko japonicus CCATGCCTAATAAT...GACTCAGACATTGTTCCCAGATCTGAAGTGGAGGAAGCAATCAGAATATCACGCGGCCGCATC 2133
Haplochromis burtoni AAAACCCAAATACA...CCCACTGAATTCATCCCAAAGAATGAGCTGAAGGAAGCCATCAGGTTAGCTCGAGGCCGGATC 2139
Hippocampus comes CCAACCCAAATAAT...CCATCCGTATACGTGCCAAGAGAAGATTTGAAGGCAGCCATACGACTATCCCGAGGCCGAATC 2139
Ictalurus punctatus CTGATCCTACTAAC...GCAACTAGGGTTATTCCCAAAGCAGACGTGGAGGCCGCTATCTGGCTCTCCAGAGGTCGCATC 2139
Larimichthys crocea CCAAACCTGGGAAT...CCGTCCATATATATCCCAAAGGGTGATGTAGAAGCTGCCATAAGGTTATGTCGAGGCCGGATC 2145
Lates calcarifer CCAACCTGCAAGT...CCCTCCAACTATATCCCAAAGAGTGATGTGGAGGCTGCCATCCGGTTATCCCGCGGCCGAATC 2145
Latimeria chalumnae TTGATCCCTTGAATATCTCTAACAGCAGCATTCCCAAAGGCAGAAGTGGCAGAAGCTATTAGGAAGTACAGAGAACGATTC 2283
Lepisosteus oculatus CTGCTCCTGACAAT...AATTCAACAATAATTCCCAAAGGAGATGTGGAGGCGGCAGTGCGGCTGTCCAGGAACCGCATC 2136
Macaca fascicularis CTGCACCTAAAAAT...GTGTCTGACATCATTCCTAGAACTGAAGTTGAAGAGGCCATCAGGATCTCCAGGAGCCGTATC 2133
Manacus vitellinus GCATGCCAGGTAAC...ATCAGTGATACTGTGCCCAAAGCTGACGTGGAAAATGCCATCAGGATGTCTCGGGGACGAATC 2139
Mus musculus CCTCACCCCAAAAT...GTGTCTGATGTCATTCCTAGAAGTGAAGTTGAAGATGCCATCAGGATGTCTCGGGGCCGCATC 2133
Neolamprologus brichardi AAAACCCAAATACA...CCCACTGAATTCATCCCAAAGAATGAGCTGAAGGAAGCCATCAGGTTAGCTCGAGGCCGGATC 2139
Oncorhynchus mykiss CTGACCTGCCAAC...TCTGCCGTGGTCATTCCCAAAGCTGAGGTAGAGGCTGCTATCAGGATGTCCAGAGGTCGAATC 2151
Oreochromis niloticus AAAACCCAAATGCA...ACCACTGAATTCATCCCAAAGAATGAGCTGAAGGAAGCCTATCAGGTTAGCTCGAGGCCGGATC 2139
Poecilia formosa CCCACCCAGGAAAC...CCCTCTACATACATTCACAAGTCTGACATGGAGGCAGCTGTCAGGTTATATCGGGGTCGAATC 2148
Poecilia latipinna CCCACCCAGGAAAC...CCCTCTACATACATTCACAAGTCTGACATGGAGGCAGCTGTCAGGTTATATCGGGGTCGAATC 2148
Pseudopodoces humilis GCATGCCAGGTGAT...ATCGGTGATCTTGTGCCCAAAGCTGATGTGGAAAATGCCATCAGTATGTCTCGAGGACGAATC 2133
Pundamilia nyererei AAAACCCAAATACA...CCCACTGAATTCATCCCAAAGAATGAGCTGAAGGAAGCCATCAGGTTAGCTCGAGGCCGGATC 2139
Pygocentrus nattereri CTGATCCTACCAAT...GCAAGCAGGATTATTCCTAAAGCTGAAGTGGAGGCAGCTTTCTGGATGTCCAGAGGACGCCTT 2136
Python bivittatus GCATGCCAAACAAT...GTCTCAGATTTGGTTCCTAAATCTGAAGTGGAAGATGCCAATCAGACTGTCTCGGGGACGTATC 2124
Rattus norvegicus CTTCACCCAAAAAT...GTGTCTGACATCATTCCCAGAAGTGAAGTTGAAGAGGCCATCAGGATGTCTCGGGGCCGTATC 2133
Scleropages formosus CTGACCCACCAAC...CCAATGAAGATCATCCCAAAGGCAGATGTGGAGGTTGCTATTCGGCTTCCAGGGATCGAATC 2148
Sinocyclocheilus anshuiensis TGGATCCAACCAAA...CCAGACACAGTCATTCCCAAAGCAGATGTAGAGGCAGCTATCTGGTTGTCCAGAGAACGCATC 2154
Xenopus tropicalis CCATGCCAAATAAT.........GCTGTGGTTTCGAAACTGGAAGTGGAAAAGGCTGTGAAGAAGTCTAAAGACCGGATC 2142
Lipotes vexillifer CTTCACCTAAAAAT...GTGTCTGACATCATTCCTAGAACTGAAGTTGAAGAGGCCATCAGGATGTCCCGGGGCCGTATC 2130
Orcinus orca CTTCACCTAAAAAT...ATGTCTGACATCATTCCTAGAACTGAAGTTGAAGAGGCCATCAGGATGTCCCGGGGCCGTATC 2130
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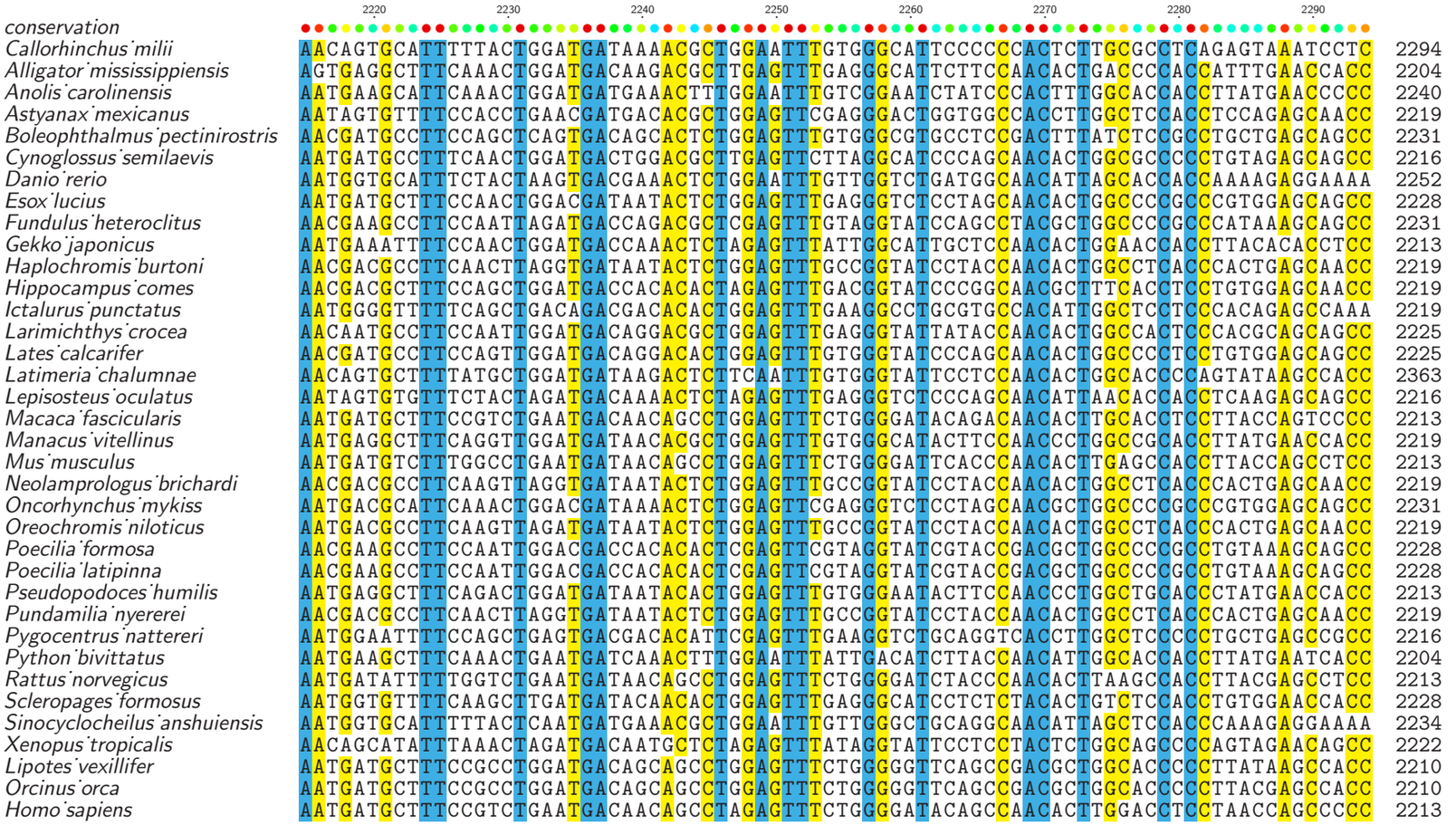
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conservation
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Alligator mississippiensis AGTGAGGCTTTCAAACTGGATGACAAGACGCTTGAGTTTGAGGGCATTCTTCCAACACTGACCCACCATTTGAACCACC 2204
Anolis carolinensis AATGAAGCATTCAAACTGGATGATGAAACTTTGGAATTTGTCGGAATCTATCCCACTTTGGCACCACCTTATGAACCCCC 2240
Astyanax mexicanus AATAGTGTTTTCCACCTGAACGATGACACGCTGGAGTTCGAGGGACTGGTGGCCACCTTGGCTCCACCTCCAGAGCAACC 2219
Boleophthalmus pectinirostris AACGATGCCTTCCAGCTCAGTGACAGCACTCTGGAGTTTGTGGGCGTGCCTCCGACTTTATCTCCGCCTGCTGAGCAGCC 2231
Cynoglossus semilaevis AATGATGCCTTTCAACTGGATGACTGGACGCTTGAGTTCTTAGGCATCCCAGCAACACTGGCGCCCCTGTAGAGCAGCC 2216
Danio rerio AATGGTGCATTTCTACTAAGTGACGAAACTCTGGAATTTGTTGGTCTGATGGCAACATTAGCACCACCAAAAGAGGAAAA 2252
Esox lucius AATGATGCTTTCCAACTGGACGATAATACTCTGGAGTTTGAGGGTCTCCTAGCAACACTGGCCCCGCCCGTGGAGCAGCC 2228
Fundulus heteroclitus AACGAAGCCTTCCAATTAGATGACCAGACGCTCGAGTTTGTAGGTATCCAGCCTACGCTGGCCCGCCCATAAAGCAGCC 2231
Gekko japonicus AATGAAATTTTCCAACTGGATGACCAAACTCTAGAGTTTATTGGCATTGCTCCAACACTGGAACCACCTTACACACCTCC 2213
Haplochromis burtoni AACGACGCCTTCAACTTAGGTGATAATACTCTGGAGTTTGCCGGTATCCTACCAACACTGGCCTCACCCACTGAGCAACC 2219
Hippocampus comes AACGACGCTTTCCAGCTGGATGACCACACACTAGAGTTTGACGGTATCCCGGCAACGCTTTCACCTCCTGTGGAGCAACC 2219
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Larimichthys crocea AACAATGCCTTCCAATTGGATGACAGGACGCTGGAGTTTGAGGGTATTATACCAACACTGGCCACTCCCACGCAGCAGCC 2225
Lates calcarifer AACGATGCCTTCCAGTTGGATGACAGGACACTGGAGTTTGTGGGTATCCCAGCAACACTGGCCCCTCCTGTGGAGCAGCC 2225
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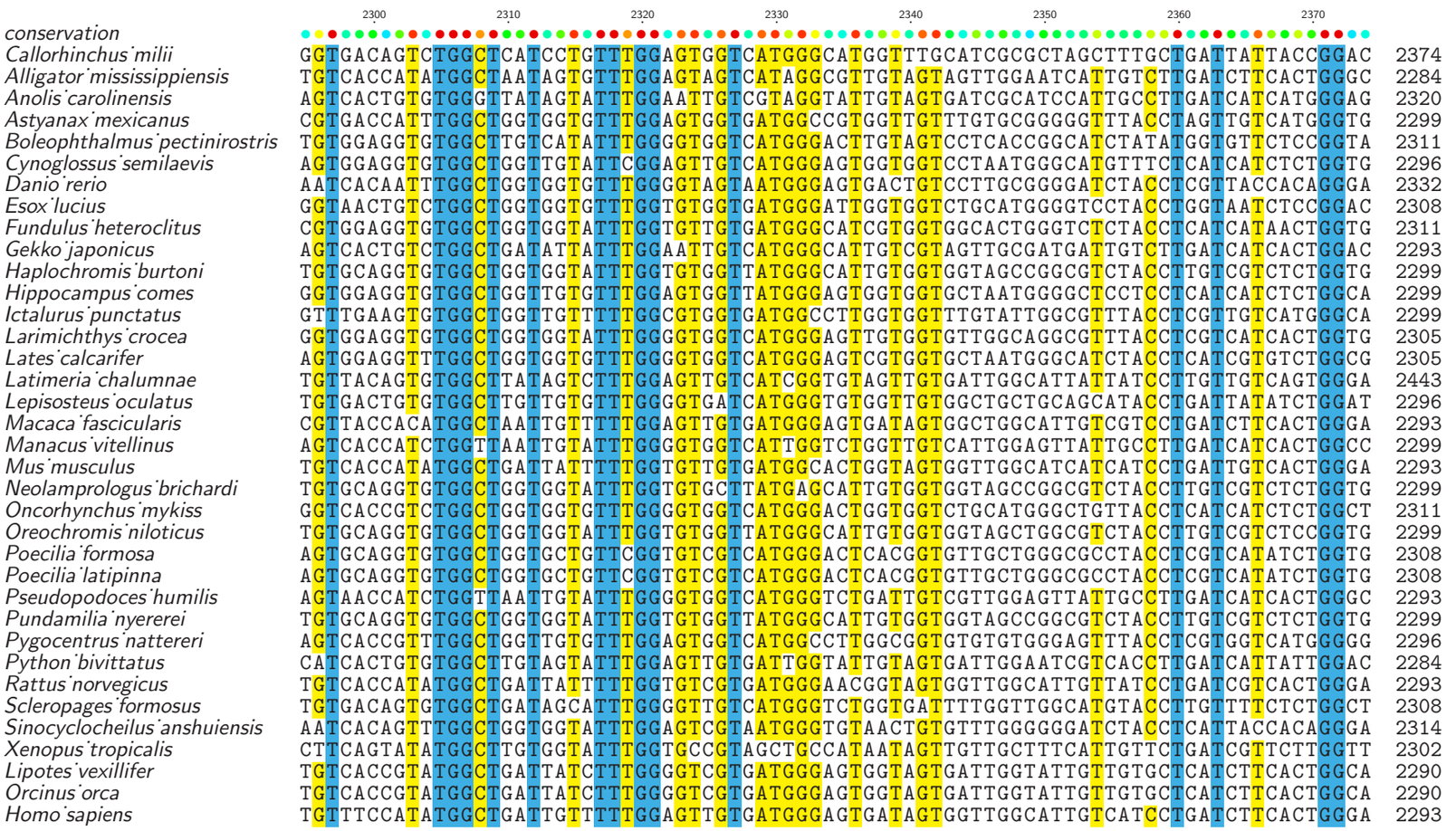
Lepisosteus oculatus AATAGTGTGTTTCTACTAGATGACAAAACTCTAGAGTTTGAGGGTCTCCCAGCAACATTAACACCACCTCAAGAGCAGCC 2216
Macaca fascicularis AATGATGCTTTCCGTCTGAATGACAACAGCCTGGAGTTTCTGGGGATACAGACAACACTTGCACCTCCTTACCAGTCCCC 2213
Manacus vitellinus AATGAGGCTTTCAGGTTGGATGATAACACGCTGGAGTTTGTGGGCATACTTCCAACCCTGGCCGCACCTTATGAACCACC 2219
Mus musculus AATGATGTCTTTGGCCTGAATGATAACAGCCTGGAGTTTCTGGGGATTCACCCAACACTTGAGCCACCTTACCAGCCTCC 2213
Neolamprologus brichardi AACGACGCCTTCAAGTTAGGTGATAATACTCTGGAGTTTGCCGGTATCCTACCAACACTGGCCTCACCCACTGAGCAACC 2219
Oncorhynchus mykiss AATGACGCATTCAAACTGGACGATAAAACTCTGGAGTTTCGAGGGTCTCCTAGCAACACTGGCCCCGCCCGTGGAGCAGCC 2231
Oreochromis niloticus AATGACGCCTTCAAGTTAGATGATAATACTCTGGAGTTTGCCGGTATCCTACCAACACTGGCCTCACCCACTGAGCAACC 2219
Poecilia formosa AACGAAGCCTTCCAATTGGACGACCACACACTCGAGTTCGTAGGTATCGTACCGACGCTGGCCCCGCCTGTAAAGCAGCC 2228
Poecilia latipinna AACGAAGCCTTCCAATTGGACGACCACACACTCGAGTTCGTAGGTATCGTACCGACGCTGGCCCCGCCTGTAAAGCAGCC 2228
Pseudopodoces humilis AATGAGGCTTTCAGACTGGATGATAATACACTGGAGTTTGTGGGAATACTTCCAACCCTGGCTGCACCCTATGAACCACC 2213
Pundamilia nyererei AACGACGCCTTCAACTTAGGTGATAATACTCTGGAGTTTGCCGGTATCCTACCAACACTGGCCTCACCCACTGAGCAACC 2219
Pygocentrus nattereri AATGGAATTTTCCAGCTGAGTGACGACACATTCGAGTTTGAAGGTCTGCAGGTCACCTTGGCTCCCCCTGCTGAGCCGCC 2216
Python bivittatus AATGAAGCTTTCAAACTGAATGATCAAACTTTGGAATTTATTGACATCTTACCAACACTTGGCACCACCTTATGAATCACC 2204
Rattus norvegicus AATGATATTTTTGGTCTGAATGATAACAGCCTGGAGTTTCTGGGGATCTACCCAACACTTAAGCCACCTTACGAGCCTCC 2213
Scleropages formosus AATGGTGTTTTCAAGCTTGATGATACAACACTGGAGTTTGAGGGCATCCTCTCTACACTGTCTCCACCTGTGGAACCACC 2228
Sinocyclocheilus anshuiensis AATGGTGCATTTTTACTCAATGATGAAACGCTGGAATTTGTTGGGCTGCAGGCAACATTAGCTCCACCCAAAGAGGAAAA 2234
Xenopus tropicalis AACAGCATATTTAAACTAGATGACAATGCTCTAGAGTTTATAGGTATTCCTCCTACTCTGGCAGCCCCAGTAGAACAGCC 2222
Lipotes vexillifer AATGATGCTTTCCGCCTGGATGACAGCAGCCTGGAGTTTCTGGGGGTTCAGCCGACGCTGGCACCCCTTATAAGCCACC 2210
Orcinus orca AATGATGCTTTCCGCCTGGATGACAGCAGCCTGGAGTTTCTGGGGGTTCAGCCGACGCTGGCACCCCTTACGAGCCACC 2210
Homo sapiens AATGATGCTTTCCGTCTGAATGACAACAGCCTAGAGTTTCTGGGGATACAGCCAACACTTGGACCTCCTAACCAGCCCCC 2213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conservation
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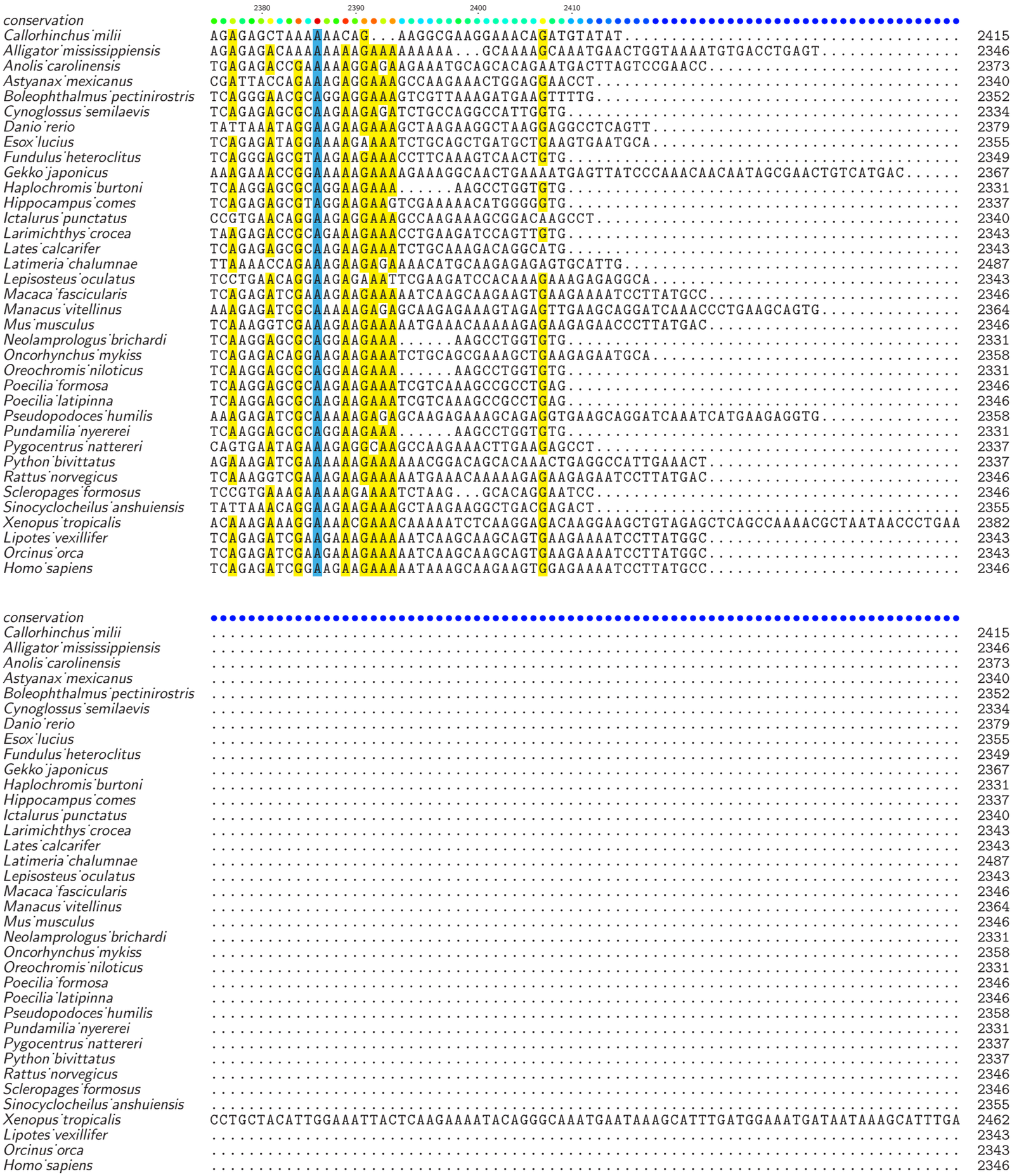
Alligator mississippiensis TGTCACCATATGGCTAATAGTGTTTGGAGTAGTCATAGGCGTTGTAGTAGTTGGAATCATTGTCTTGATCTTCACTGGGC 2284
Anolis carolinensis AGTCACTGTGTGGGTTATAGTATTTGGAATTGTCGTAGGTATTGTAGTGATCGCATCCATTGCCTTGATCATCATGGGAG 2320
Astyanax mexicanus CGTGACCATTTGGCTGGTGGTGTTTGGAGTGGTGATGGCCGTGGTTGTTTGTGCGGGGGTTTACCTAGTTGTCATGGGTG 2299
Boleophthalmus pectinirostris TGTGGAGGTGTGGCTTGTCATATTTGGGGTGGTCATGGGACTTGTAGTCCTCACCGGCATCTATATGGTGTTCTCCGGTA 2311
Cynoglossus semilaevis AGTGGAGGTGTGGCTGGTTGTATTCGGAGTTGTCATGGGAGTGGTGGTCCTAATGGGCATGTTTCTCATCATCTCTGGTG 2296
Danio rerio AATCACAATTTGGCTGGTGGTGTTTGGGGTAGTAATGGGAGTGACTGTCCTTGCGGGGATCTACCTCGTTACCACAGGGA 2332
Esox lucius GGTAACTGTCTGGCTGGTGGTGTTTGGTGTGGTGATGGGATTGGTGGTCTGCATGGGGTCCTACCTGGTAATCTCCGGAC 2308
Fundulus heteroclitus CGTGGAGGTGTGGCTGGTGGTATTTGGTGTTGTGATGGGCATCGTGGTGGCACTGGGTCTCTACCTCATCATAACTGGTG 2311
Gekko japonicus AGTCACTGTCTGGCTGATATTATTTGGAATTGTCATGGGCATTGTCGTAGTTGCGATGATTGTCTTGATCATCACTGGAC 2293
Haplochromis burtoni TGTGCAGGTGTGGCTGGTGGTATTTGGTGTGGTTATGGGCATTGTGGTGGTAGCCGGCGTCTACCTTGTCGTCTCTGGTG 2299
Hippocampus comes GGTGGAGGTGTGGCTGGTTGTGTTTGGAGTGGTTATGGGAGTGGTGGTGCTAATGGGGCTCCTCCTCATCATCTCTGGCA 2299
Ictalurus punctatus GTTTGAAGTGTGGCTGGTTGTTTTTGGCGTGGTGATGGCCTTGGTGGTTTGTATTGGCGTTTACCTCGTTGTCATGGGCA 2299
Larimichthys crocea GGTGGAGGTGTGGCTGGTGGTATTTGGGGTGGTCATGGGAGTTGTGGTGTTGGCAGGCGTTTACCTCGTCATCACTGGTG 2305
Lates calcarifer AGTGGAGGTTTGGCTGGTGGTGTTTGGGGTGGTCATGGGAGTCGTGGTGCTAATGGGCATCTACCTCATCGTGTCTGGCG 2305
Latimeria chalumnae TGTTACAGTGTGGCTTATAGTCTTTGGAGTTGTCATCGGTGTAGTTGTGATTGGCATTATTATCCTGTTGTCAGTGGGA 2443
Lepisosteus oculatus TGTGACTGTGTGGCTTGTTGTGTTTGGGGTGATCATGGGTGTGGTTGTGGCTGCTGCAGCATACCTGATTATATCTGGAT 2296
Macaca fascicularis CGTTACCACATGGCTAATTGTTTTTGGAGTTGTGATGGGAGTGATAGTGGCTGGCATTGTCGTCCTGATCTTCACTGGGA 2293
Manacus vitellinus AGTCACCATCTGGTTAATTGTATTTGGGGTGGTCATTGGTCTGGTTGTCATTGGAGTTATTGCCTTGATCATCACTGGCC 2299
Mus musculus TGTCACCATATGGCTGATTATTTTTGGTGTTGTGATGGCACTGGTAGTGGTTGGCATCATCATCCTGATTGTCACTGGGA 2293
Neolamprologus brichardi TGTGCAGGTGTGGCTGGTGGTATTTGGTGTGCTTATGAGCATTGTGGTGGTAGCCGGCGTCTACCTTGTCGTCTCTGGTG 2299
Oncorhynchus mykiss GGTCACCGTCTGGCTGGTGGTGTTTGGGGTGGTCATGGGACTGGTGGTCTGCATGGGCTGTTACCTCATCATCTCTGGCT 2311
Oreochromis niloticus TGTGCAGGTGTGGCTGGTGGTATTTGGTGTGGTTATGGGCATTGTGGTGGTAGCTGGCGTCTACCTTGTCGTCTCCGGTG 2299
Poecilia formosa AGTGCAGGTGTGGCTGGTGCTGTTCGGTGTCGTCATGGGACTCACGGTGTTGCTGGGCGCCTACCTCGTCATATCTGGTG 2308
Poecilia latipinna AGTGCAGGTGTGGCTGGTGCTGTTCGGTGTCGTCATGGGACTCACGGTGTTGCTGGGCGCCTACCTCGTCATATCTGGTG 2308
Pseudopodoces humilis AGTAACCATCTGGTTAATTGTATTTGGGGTGGTCATGGGTCTGATTGTCGTTGGAGTTATTGCCTTGATCATCACTGGGC 2293
Pundamilia nyererei TGTGCAGGTGTGGCTGGTGGTATTTGGTGTGGTTATGGGCATTGTGGTGGTAGCCGGCGTCTACCTTGTCGTCTCTGGTG 2299
Pygocentrus nattereri AGTCACCGTTTGGCTGGTTGTGTTTGGAGTGGTCATGGCCTTGGCGGTGTGTGTGGGAGTTTACCTCGTGGTCATGGGG 2296
Python bivittatus CATCACTGTGTGGCTTGTAGTATTTGGAGTTGTGATTGGTATTGTAGTGATTGGAATCGTCACCTTGATCATTATTGGAC 2284
Rattus norvegicus TGTCACCATATGGCTGATTATTTTTGGTGTCGTGATGGGAACGGTAGTGGTTGGCATTGTTATCCTGATCGTCACTGGGA 2293
Scleropages formosus TGTGACAGTGTGGCTGATAGCATTTGGGGTTGTCATGGGTCTGGTGATTTTGGTTGGCATGTACCTTGTTTTCTCTGGCT 2308
Sinocyclocheilus anshuiensis AATCACAGTTTGGCTGGTGGTAATTTGGAGTCGTAATGGGTGTAACTGTGTTTGGGGGGATCTACCTCATTACCACAGGGA 2314
Xenopus tropicalis CTTCAGTATATGGCTTGTGGTATTTGGTGCCGTAGCTGCCATAATAGTTGTTGCTTTCATTGTTCTGATCGTTCTTGGTT 2302
Lipotes vexillifer TGTCACCGTATGGCTGATTATCTTTGGGGTCGTGATGGGAGTGGTAGTGATTGGTATTGTTGTGCTCATCTTCACTGGCA 2290
Orcinus orca TGTCACCGTATGGCTGATTATCTTTGGGGTCGTGATGGGAGTGGTAGTGATTGGTATTGTTGTGCTCATCTTCACTGGCA 2290
Homo sapiens TGTTTCCATATGGCTGATTGTTTTTGGAGTTGTGATGGGAGTGATAGTGGTTGGCATTGTCATCCTGATCTTCACTGGGA 2293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conservation
Callorhinchus milii
Alligator mississippiensis
Anolis carolinensis
Astyanax mexicanus
Boleophthalmus pectinirostris
Cynoglossus semilaevis
Danio rerio
Esox lucius
Fundulus heteroclitus
Gekko japonicus
Haplochromis burtoni
Hippocampus comes
Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
Python bivittatus
Rattus norvegicus
Scleropages formosus
Sinocyclocheilus anshuiensis
Xenopus tropicalis
Lipotes vexillifer
Orcinus orca
Homo sapiens
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conservation
Callorhinchus milii
Alligator mississippiensis
Anolis carolinensis
Astyanax mexicanus
Boleophthalmus pectinirostris
Cynoglossus semilaevis
Danio rerio
Esox lucius
Fundulus heteroclitus
Gekko japonicus
Haplochromis burtoni
Hippocampus comes
Ictalurus punctatus
Larimichthys crocea
Lates calcarifer
Latimeria chalumnae
Lepisosteus oculatus
Macaca fascicularis
Manacus vitellinus
Mus musculus
Neolamprologus brichardi
Oncorhynchus mykiss
Oreochromis niloticus
Poecilia formosa
Poecilia latipinna
Pseudopodoces humilis
Pundamilia nyererei
Pygocentrus nattereri
Python bivittatus
Rattus norvegicus
Scleropages formosus
Sinocyclocheilus anshuiensis
Xenopus tropicalis
Lipotes vexillifer
Orcinus orca
Homo sapiens
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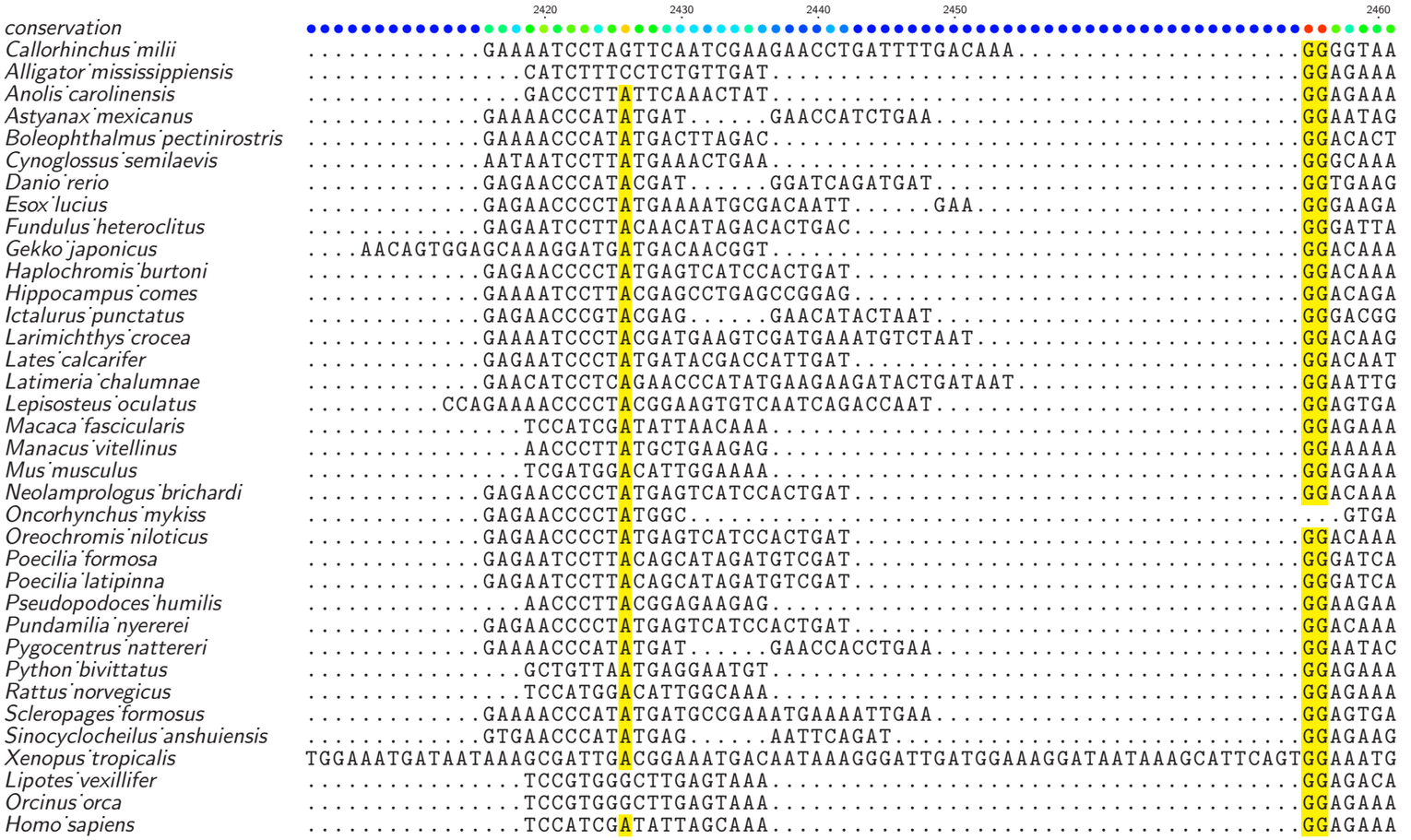
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Alligator mississippiensis .....CATCTTTCCTCTGTTGAT.....GGAGAAA 2371
Anolis carolinensis .....GACCCTTATTCAAACTAT.....GGAGAAA 2398
Astyanax mexicanus .....GAAAACCCATATGAT.....GAACCATCTGAA.....GGAATAG 2374
Boleophthalmus pectinirostris .....GAAAACCCATATGACTTAGAC.....GGACACT 2380
Cynoglossus semilaevis .....AATAATCCTTATGAAACTGAA.....GGGCAAA 2362
Danio rerio .....GAGAACCCATACGAT.....GGATCAGATGAT.....GGTGAAG 2413
Esox lucius .....GAGAACCCCTATGAAAATGCGACAATT.....GAA.....GGGAAGA 2392
Fundulus heteroclitus .....GAGAATCCTTACAACATAGACACTGAC.....GGGATTA 2383
Gekko japonicus ....AACAGTGGAGCAAAGGATGATGACAACGGT.....GGACAAA 2404
Haplochromis burtoni .....GAGAACCCCTATGAGTCATCCACTGAT.....GGACAAA 2365
Hippocampus comes .....GAAAATCCTTACGAGCCTGAGCCGGAG.....GGACAGA 2371
Ictalurus punctatus .....GAGAACCCGTACGAG.....GAACATACTAAT.....GGGACGG 2374
Larimichthys crocea .....GAAAATCCCTACGATGAAGTCGATGAAATGTCTAAT.....GGACAAG 2386
Lates calcarifer .....GAGAATCCCTATGATACGACCATTGAT.....GGACAAT 2377
Latimeria chalumnae .....GAACATCCTCAGAACCCATATGAAGAAGATACTGATAAT.....GGAATTG 2533
Lepisosteus oculatus .....CCAGAAAACCCCTACGGAAGTGTCAATCAGACCAAT.....GGAGTGA 2386
Macaca fascicularis .....TCCATCGATATTAACAAA.....GGAGAAA 2371
Manacus vitellinus .....AACCCTTATGCTGAAGAG.....GGAAAAA 2389
Mus musculus .....TCGATGGACATTGGAAAA.....GGAGAAA 2371
Neolamprologus brichardi .....GAGAACCCCTATGAGTCATCCACTGAT.....GGACAAA 2365
Oncorhynchus mykiss .....GAGAACCCCTATGGC.....GTGA 2377
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Poecilia latipinna .....GAGAATCCTTACAGCATAGATGTCGAT.....GGGATCA 2380
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Pundamilia nyererei .....GAGAACCCCTATGAGTCATCCACTGAT.....GGACAAA 2365
Pygocentrus nattereri .....GAAAACCCATATGAT.....GAACCACCTGAA.....GGAATAC 2371
Python bivittatus .....GCTGTTAATGAGGAATGT.....GGAGAAA 2362
Rattus norvegicus .....TCCATGGACATTGGCAAA.....GGAGAAA 2371
Scleropages formosus .....GAAAACCCATATGATGCCGAAATGAAAATTGAA.....GGAGTGA 2386
Sinocyclocheilus anshuiensis .....GTGAACCCATATGAG.....AATTCAGAT.....GGAGAAG 2386
Xenopus tropicalis TGGAAATGATAATAAAGCGATTGACGGAAATGACAATAAAGGGATTGATGGAAAGGATAATAAAGCATTCAGTGGAAATG 2542
Lipotes vexillifer .....TCCGTGGGCTTGAGTAAA.....GGAGACA 2368
Orcinus orca .....TCCGTGGGCTTGAGTAAA.....GGAGAAA 2368
Homo sapiens .....TCCATCGATATTAGCAAA.....GGAGAAA 2371
2470
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conservation
Callorhinchus milii AGAATTCAGCTTTTACCATTGAAGAATCATTGAATAATACAGCAATGTAA 2511
Alligator mississippiensis GCAATGCTGGGTTTGAACCAAGCGAAGATAGACAAACATCATTTTAG... 2418
Anolis carolinensis ACAAGTTAATGTCCCAAGAAGGAATTAACAACTCAACGACATTCTAA... 2445
Astyanax mexicanus CAAACAAAGCTTTTGAG...AGTGAGAATGAACAAACAGGATTTTAA... 2418
Boleophthalmus pectinirostris CCAACAAAGGTTTTGAG...AGCGAGAATGAACAAACTGGATTTTAG... 2424
Cynoglossus semilaevis CCAACAAGGCTTTCGAGGACAACGAAGGTGAACAAACTGGATTCTGA... 2409
Danio rerio TGAACAAAGCCTTTGAG...GAAGACATTGAACAAACAGGACTGTAA... 2457
Esox lucius CCAACAAAATCTTTGATAGTGAAGAAGATCAACAGACAGGATTCTGA... 2439
Fundulus heteroclitus GTAACGCCGCCTATGATGACTTTAACAATGAACAAACTGGACTTTAA... 2430
Gekko japonicus ATAATCTAAATTATCTGCAAGATGATGAGTGCTCATCAGCATTCTAA... 2451
Haplochromis burtoni GCAACAAAGCCTATGATGACAGTGACAATGAGCAAACTGGATTCTGA... 2412
Hippocampus comes CCAACAGAGCCTATGATGACACGAATGATGAACAAACCGGTCTCTGA... 2418
Ictalurus punctatus TGAACAAGGCTTATGAG...AGCGACAGTGAGCAAACGGGGTTTTAA... 2418
Larimichthys crocea TTAACAAAGCCTATGATGACAGTGGCCATGAACAAACTGGATTCTAA... 2433
Lates calcarifer CTAACAAAGCCTTTGAGGATGGTGATGATGAACAGACTGGATTCTGA... 2424
Latimeria chalumnae AAAATGAAGCTTTCAGCAAAGAGGGAGAATTGCAAACAGATTTCTAA... 2580
Lepisosteus oculatus CAAATGTAGCGTATTCT...GACGAAGATAATCACACGGGATTGTAA... 2430
Macaca fascicularis ATAATCCAGGATTCCAAAACACTGATGATGTTCAGACCTCCTTTTAG... 2418
Manacus vitellinus GCAACCTGGGCTTTGAGCCATCTGAAGAGACACAAACATCATTTTGA... 2436
Mus musculus GCAATGCAGGATTCCAAAACAGTGATGATGCTCAGACTTCCTTTTAG... 2418
Neolamprologus brichardi GCAACAAAGCCTATGATGACAGTGACAATGAGCAAACTGGATTCTGA... 2412
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Poecilia latipinna GTAACGCTGCCTATGAGGACAATAAGGACGAACAAACTGGACTTTAA... 2427
Pseudopodoces humilis GCAACCTGGGCTTTGAGCCAGCTGAAGAGACACAAACATCATTTTAA... 2430
Pundamilia nyererei GCAACAAAGCCTATGATGACAGTGACAATGAGCAAACTGGATTCTGA... 2412
Pygocentrus nattereri CTAACAAAGCCTTTGAG...AGCGACAGTGAGCAAACAGGATTTTAA... 2415
Python bivittatus GCAATTCAGCATTTCAACAGGATGAAGCTGCCTTAACAACTTTATAA... 2409
Rattus norvegicus GTAACGCAGGATTCCAAAACAGTGATGATGCTCAAACTTCATTCTAA... 2418
Scleropages formosus CCAACAAAAGCTTTGAA...CGTGATGATGAACAAACAGGATTTTGA... 2430
Sinocyclocheilus anshuiensis AGAACAAAGCCTTTGAG...GAAGACATTGAACAAACAGGACTATAA... 2430
Xenopus tropicalis ATAATAAAGCATATGAAGAAGTAGAGACTATGAATACAACATTTTAA... 2589
Lipotes vexillifer ATAATTCAGGATTCCAAAATAGTGATGATGTTCAGACTTCGTTTTAG... 2415
Orcinus orca ATAATCCAGGATTCCAAAATAGTGATGATGTTCAGACTTCGTTTTAG... 2415
Homo sapiens ATAATCCAGGATTCCAAAACACTGATGATGTTCAGACCTCCTTTTAG... 2418

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