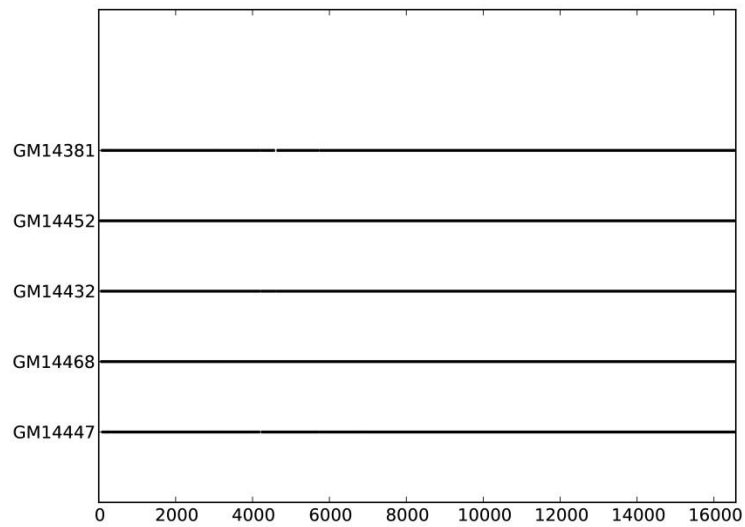
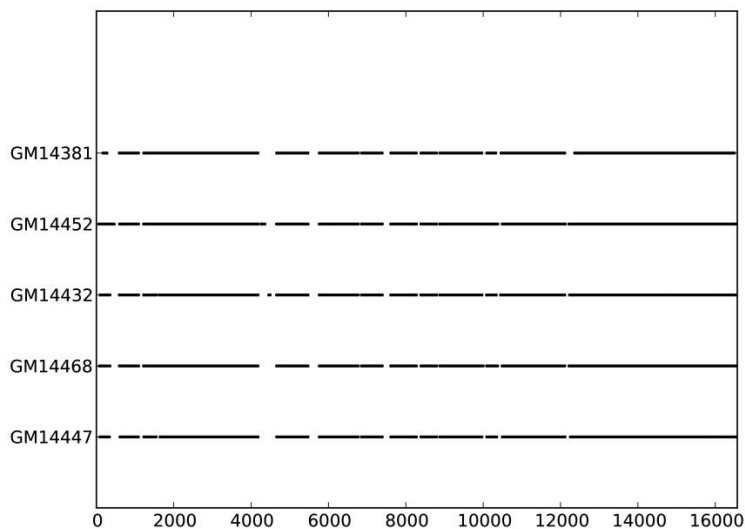


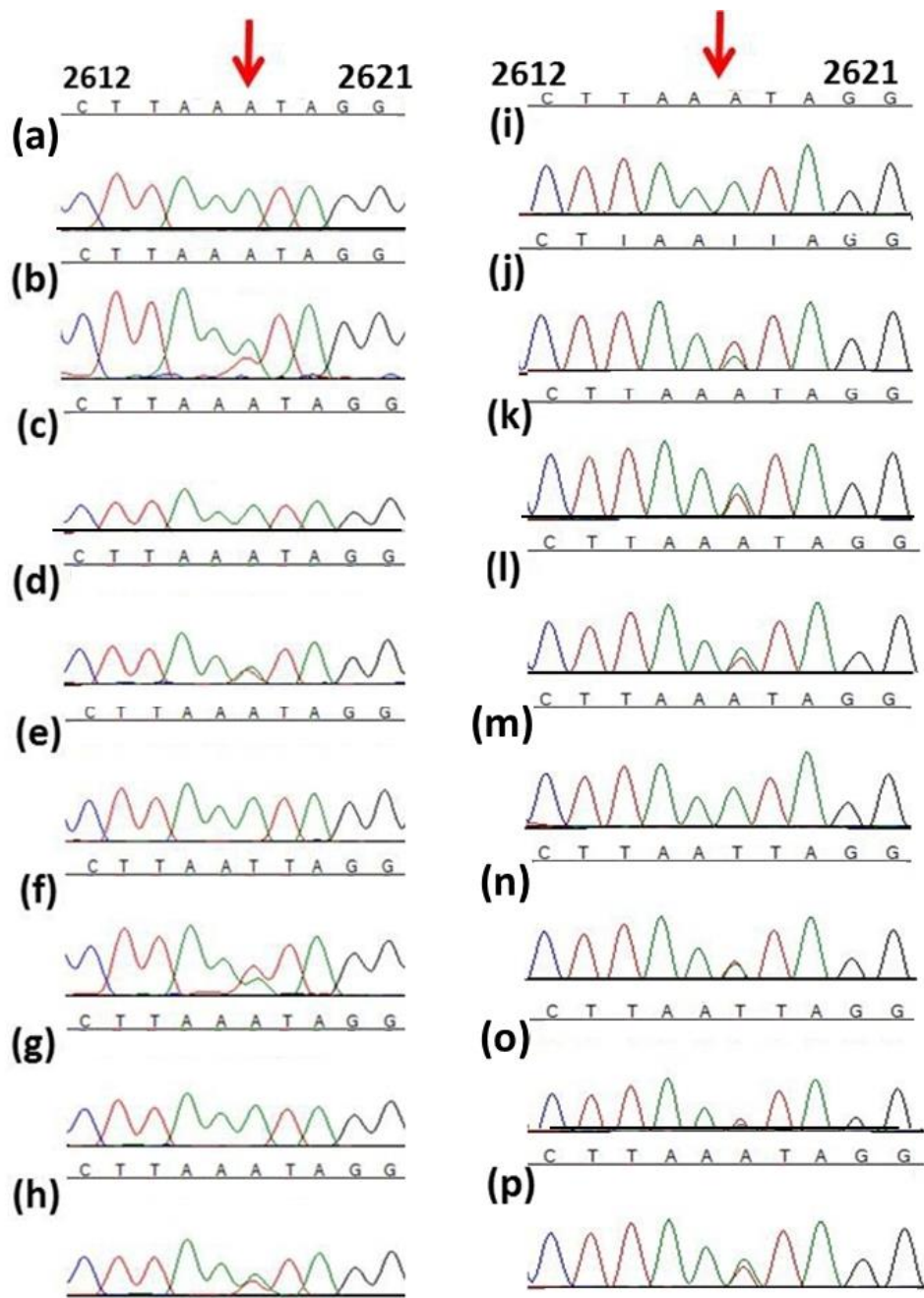
A



B



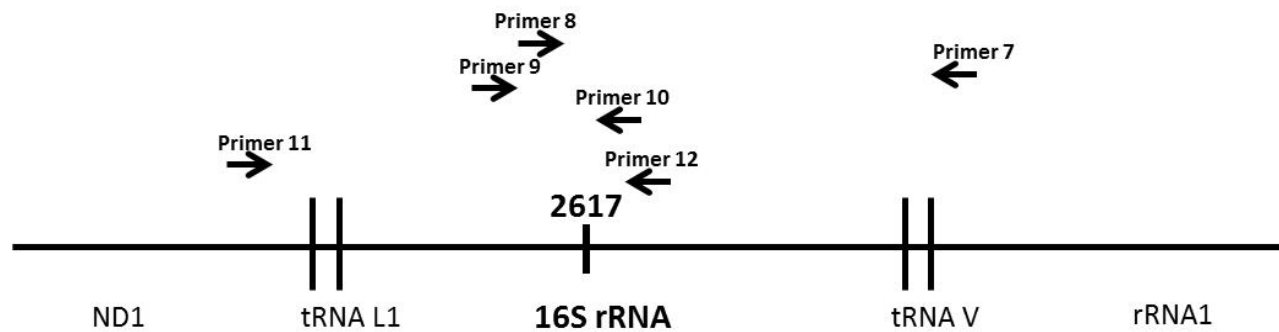
Supplementary Figure 1: MtDNA nucleotide positions with $\geq 1,000$ sequence reads coverage per individual. X axis – nucleotide positions with >1000 sequence reads coverage along the mtDNA in the tested samples. MtDNA positions 1-16,569 are from left to right. Each horizontal dotted line correspond to the indicated tested samples. Each position is indicated by a dot. Only the positions with a minimal coverage of 1,000 sequence reads are marked. Sample IDs are indicated in the Y axis in DNA (A) and RNA (B).



Supplementary Figure 2: Sanger sequencing of the 2617 RDD: Sanger sequence traces encompassing sites 2612 to 2622 in the human mtDNA in several cell types and individuals. The arrows indicate position 2617 in each individual. (a) GM14468 DNA. (b) GM14468 RNA. (c) SHSY5Y DNA. (d) SHSY5Y RNA. (e) ChubS7 DNA. (f) ChubS7 RNA. (g) Colon DNA. (h) Colon RNA. (i) 65080 DNA. (j) 65080 liver RNA. (k) 65080 skeletal muscle RNA. (l) 65080 brain RNA. (m) 64998 DNA. (n) 64998 liver RNA. (o) 64998 skeletal muscle RNA. (p) 64998 brain RNA.

MtDNA_2577-2676	GGCCGCGGTACCCTAACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTT
chr5:79945872-79945971	GGCCGCGGTACCCTAACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTT
chr3:96336084-96336183	GGCCGCGGTACCCTAACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTT
chr11:10529740-10529839	GGCCGCGGTACCCTAACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTT
chr17:22023322-22023421	GGC[REDACTED]GCGGTACCCTAACCGTG[REDACTED]AAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGT[REDACTED]TGAATGGCTCCACGAGGGTTCAGCTGTCTCTTACTTT
chr6:62284167-62284266	GGCCG[REDACTED]GTACCCTAACCGTGCAAAGGTAGCAT[REDACTED]ATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGCTC[REDACTED]ACGAGG[REDACTED]TTCAGCTGTCTCTTACTTT
chr9:33658607-33658698	-----GTACCCTGAC[REDACTED]CGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGCTCCAT[REDACTED]GAGGGTTCAGCTGTCTCTTACTTT-
chr1:5910327-5910421	-----CGGTACCCTGAC[REDACTED]GTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]CCAT[REDACTED]GAGGGTTCAGCTGTCT[REDACTED]TTACTTT
chr7:142375004-142375095	-----GTACCCTGACC[REDACTED]TGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATG[REDACTED]AC[REDACTED]CCACGAGGGTTCAGCTGTCTCTTACTTT-
chr3:40294788-40294886	-GCCGCGGTAC[REDACTED]CCTGACC[REDACTED]GTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]CATATGA[REDACTED]GGTTCAGCTGTCTCTTACTTT
chr4:156385614-156385698	-----ACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]GAAT[REDACTED]GCT[REDACTED]ACACGAGGGTTCAGCTGTCTCTTACTTT
chr8:77114295-77114374	-----ACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAA[REDACTED]TAGGGACCTCTATGAATGGC[REDACTED]CACACGAGGGTTCAGCTGTCTCTT-----
chr4:117220906-117220990	-----ACCGTGCAAAGGTAGCATAATC[REDACTED]CTTGTTCCTTAAATAGGGACCTGTATGAATGGACAC[REDACTED]AGGGTTCAGCTGTCTCTTACTTT
chrX:55208394-55208475	-----GTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGG[REDACTED]ACTGTATGAATG[REDACTED]AC[REDACTED]CACGAGGGTTCAGCTGTCTCTTACTTT
chr8:32870898-32870979	-----GTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]ACAT[REDACTED]GAGGGTTCAGCTGTCTCTTACTTT
chr20:55934062-55934146	-----ACCGTGC[REDACTED]AAGGTAGCATAATCACTTGTTC[REDACTED]TAAATAGGGACCTG[REDACTED]ATGAATGGC[REDACTED]CACGAGGGTTCAGCTGTCTCTTACTTT
chr14:84638453-84638536	-----ACCGTGC[REDACTED]AAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAAT[REDACTED]GC[REDACTED]CAC[REDACTED]AGGGTTCAGCTGTCTCTTACTTT
chr16:3421869-3421946	-----AAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]CAC[REDACTED]AGGGTTCAGCTGTCTCTTACTTT
chr11:103279706-103279787	-----GTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTAT[REDACTED]AATGGC[REDACTED]CACGAGGGTTCAGCTGTCTCTTACTTT
chr2:212639247-212639335	-----CCTAACCGT[REDACTED]CAAA[REDACTED]GTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGA[REDACTED]TGGC[REDACTED]CAGACGAGGGTTCAGCTGT[REDACTED]GCTTACTTT
chr1:238107594-238107674	-----GTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTTTTA[REDACTED]GAATGGC[REDACTED]CACACGAGGGTTCAGCTGTCT[REDACTED]TTACTTT-
chr10:57359613-57359693	-----TGCAAAGGTAGCATAATCACTTGTTCCTTAA[REDACTED]TAGGGACCTGTATGAATGGC[REDACTED]CAC[REDACTED]AGGGTT[REDACTED]AGCTGTCTCTTACTTT
chr17:19504198-19504273	-----AAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]ACGCGAGGGTTCAGCTGTCTCTTACTTT-
chr10:27162257-27162334	-----ACCGTGCAAAGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]CAC[REDACTED]GAGGGTT[REDACTED]AGCTGTCTC-----
chr10:37890939-37891019	-----TGCAAA[REDACTED]GTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]CACAGGAGGGTTC[REDACTED]GGCTG[REDACTED]CTCTTACTTT
chr2:117780774-117780853	-----GTGCA[REDACTED]AGGTAGCATAATCACTTGTTCCTTAAATAGGGACCTGTATGAATGG[REDACTED]TACATGAGG[REDACTED]TTCAGCTGTCT--TACTTT
chr2:140979684-140979768	-----ACCGTG[REDACTED]AAAGATAGCATAATCACTTGTTCCTTT[REDACTED]AATAGGGACCTGTATGAATGGC[REDACTED]ACATGAGGGTTCATCT[REDACTED]TCTCTTACTTT
chr8:104097139-104097219	-----GTGCAAAGGTAGCATAATCA[REDACTED]TTGTTCCTTAAATAGGGACCTGTATGAATG[REDACTED]AC[REDACTED]CAAGAGGGTTCAGCT[REDACTED]TCTCTTACTTT-
chr9:5093371-5093468	-----TGCAAAGGTA[REDACTED]ACATAATCACTTGTTCCTTAAATAGGGACCTAG[REDACTED]A[REDACTED]GAATGGC[REDACTED]---GAGGGTTCAGCTGTCTCTTACTTT
chr10:25927446-25927505	-----TTGTTCCTTAAATAGGGACCTGTATGAATGGC[REDACTED]CCACGAG[REDACTED]GGTTCAGCTGTCTCTTACTTT-

Supplementary Figure 3: Sequence alignment of the top 30 BLAT hits from UCSC to a 100 bp fragment encompassing the RDDs at mtDNA position 2617. The left column lists the BLAT hit loci and exact chromosomal coordinates in the human genome. MtDNA position 2617 is highlighted in yellow. Red highlight – nucleotide positions showing mutational differences from the mtDNA reference sequence. Notably, none of the red marked changes were identified in our DNA and RNA deep sequence data.



Supplementary Figure 4: Positions of primers used for PCR amplification of 16S rRNA and flanking sequences: Amplification of the 16S rRNA and its flanking regions was performed using four primer pairs as described in Materials and Methods. These fragments encompass human mtDNA nucleotide positions 1580-2640, 1580-2655, 2578-3414 and 2593-3414 respectively (rCRS NC_012920). The arrows above the horizontal line (the mtDNA) represent the amplification primers and their orientation.

Numbers indicate reverse and forward amplification primers pairs used for fragments 1-4 of the 16S flanking regions, respectively. Vertical lines indicate gene regions, with the caption underneath representing gene names. MtDNA position 2617 is indicated.

Organism	Stem	loop	stem
NC_011943-Abalistes_stellaris_(starry_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_011180-Ablennes_hians_(flat_needlefish)	GTTTTT	TAAAT	GAAGAC
NC_009064-Abudefduf_vaigiensis_(Indo-Pacific_sergeant)	GTCTTT	TAAAT	GGAGAC
NC_011947-Acanthaluteres_brownii_(spiny-tailed_leatherjacket)	GTCTCT	TAAAT	GGGGAC
NC_006131-Acanthogobius_hasta_(javeline_goby)	GTCTTT	TAAAT	GGAGAC
NC_010977-Acanthopagrus_latus_(yellowfin_seabream)	GTCTTT	TAAAT	GAAGAC
NC_009830-Acanthurus_leucosternon_(powder_blue_surgeon_fish)	GTCTTT	TAAAT	GGAGAC
NC_008669-Acantopsis_choirorhynchus_(longnose_loach)	GTCTTT	TAAAT	GAAGAC
NC_018064-Acentrogobius_pflaumii_(striped_sandgoby)	GTCTTT	TAAAT	AGAGAC
NC_015755-Acestrorhynchus_sp._NM-2010	GTCTTT	TAAAT	GAAGAC
NC_013705-Acheilognathus_intermedia_(Korean_slender_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_013704-Acheilognathus_koreensis_(Korean_oily_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_013711-Acheilognathus_macropterus_(deep_body_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_013702-Acheilognathus_signifer_(Korean_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_014882-Acheilognathus_somjinensis_(cyprinid)	GTCTTT	TAAAT	AAAGAC
NC_008668-Acheilognathus_typus_(zenitanago)	GTCTTT	TAAAT	AAAGAC
NC_013712-Acheilognathus_yamatsutae_(Korean_striped_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_017603-Acipenser_baerii_(Siberian_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_005451-Acipenser_dabryanus_(Yangtze_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_012576-Acipenser_gueldenstaedtii_(Russian_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_012646-Acipenser_sinensis_(Chinese_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_005795-Acipenser_stellatus_(stellate_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_004743-Acipenser_transmontanus_(white_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_011950-Acreichthys_tomentosus_(bristle-tail_file-fish)	GTCTCT	TAAAT	GGGGAC
NC_010270-Aeoliscus_strigatus_(razorfish)	GTCTTT	TAAAT	GAAGAC
NC_017876-Agonostomus_monticola_(mountain_mullet)	GTCTCT	TAAAT	GAAGAC
NC_005800-Albula_glossodonta_(roundjaw_bonfish)	GTCTTT	TAAAT	AAAGAC
NC_008659-Alburnus_alburnus_(bleak)	GTCTCT	TAAAT	AGAGAC
NC_017879-Aldrichetta_forsteri_(yellow-eye_mullet)	GTCCCT	TAAAT	GAGGAC
NC_005801-Aldrovandia_affinis_(Gilberts_halosaur)	GTCTTT	TAAAT	GAAGAC
NC_013564-Alepocephalus_agassizii_(Agassiz_slickhead)	GTCTTT	TAAAT	GAGGAC
NC_013566-Alepocephalus_australis_(small_scaled_brown_slickhead)	GTCTTT	TAAAT	GAGGAC
NC_013567-Alepocephalus_bairdii_(Bairds_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_011012-Alepocephalus_bicolor_(bicolor_slickhead)	GTCTTT	TAAAT	GAGGAC
NC_013570-Alepocephalus_productus_(smalleye_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_004590-Alepocephalus_tenebrosus_(California_slickhead)	GTCTTT	TAAAT	GAGGAC
NC_013572-Alepocephalus_umbriceps_(slickhead)	GTCTTT	TAAAT	GAGGAC
NC_004398-Alloctytus_niger_(black_oreo)	GTCTTT	TAAAT	GAAGAC
NC_009575-Alosa_alosa_(allis_shad)	GTCTTT	TAAAT	GGAGAC
NC_009576-Alosa_pseudoharengus_(alewife)	GTCTTT	TAAAT	GGAGAC
NC_014690-Alosa_sapidissima_(American_shad)	GTCTTT	TAAAT	GAAGAC
NC_011323-Aluterus_scriptus_(scrawled_filefish)	GTCTCT	TAAAT	AGAGAC
NC_011952-Amanses_scopas_(broom_filefish)	GTCTTT	TAAAT	AAAGAC
NC_014265-Amazonsprattus_scintilla_(Rio_Negro_pygmy_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_015745-Amblydoras_gonzalezi	GTCTTT	TAAAT	GAAGAC
NC_004742-Amia_calva_(bowfin)	GTCTTT	TAAAT	AAAGAC
NC_015746-Amphilius_sp._NM-2010	GTCTTT	TAAAT	AAAGAC
NC_016701-Amphiprion_bicinctus_(twoband_anemonefish)	GTCTTT	TAAAT	GAAGAC
NC_009065-Amphiprion_ocellaris_(clown_anemonefish)	GTCTTT	TAAAT	GAAGAC
NC_013613-Anarchias_sp._Ansp_(moray_eel)	GTCTTT	TAAAT	GGAGAC
NC_009773-Anarhichas_lupus_(Atlantic_wolffish)	GTCTTT	TAAAT	GAAGAC
NC_014269-Anchoviella_sp._LBP_2297_(anchovy)	GCCTTT	TAAAT	GAAGGC
NC_006531-Anguilla_anguilla_(European_eel)	GTCTTT	TAAAT	AGAGAC
NC_006532-Anguilla_australis_australis_(Australian_shortfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006533-Anguilla_australis_schmidti_(Australian_shortfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006543-Anguilla_bengalensis_labiata_(Indian_mottled_eel)	GTCTTT	TAAAT	AGAGAC
NC_006534-Anguilla_bicolor_bicolor_(Indonesian_shortfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006535-Anguilla_bicolor_pacifica_(Indonesian_shortfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006537-Anguilla_celebesensis_(Celebes_longfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006538-Anguilla_dieffenbachii_(New_Zealand_longfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006539-Anguilla_interioris_(highlands_long-finned_eel)	GTCTTT	TAAAT	AGAGAC
NC_002707-Anguilla_japonica_(Japanese_eel)	GTCTTT	TAAAT	AGAGAC
NC_011575-Anguilla_luzonensis_(Philippine_eel)	GTCTTT	TAAAT	AGAGAC
NC_006536-Anguilla_malgumora_(Anguilla_borneensis)	GTCTTT	TAAAT	AGAGAC
NC_006540-Anguilla_marmorata_(giant_mottled_eel)	GTCTTT	TAAAT	AGAGAC

NC_006541-Anguilla_megastoma_(Polynesian_longfinned_eel)	GTCTTT	TAAAT	AGAGAC
NC_006542-Anguilla_mossambica_(African_longfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006544-Anguilla_nebulosa_nebulosa_(mottled_eel)	GTCTTT	TAAAT	AGAGAC
NC_006545-Anguilla_obscura_(Pacific_shortfinned_eel)	GTCTTT	TAAAT	AGAGAC
NC_006546-Anguilla_reinhardtii_(speckled_longfin_eel)	GTCTTT	TAAAT	AGAGAC
NC_006547-Anguilla_rostrata_(American_eel)	GTCTTT	TAAAT	AGAGAC
NC_013435-Anguilla_sp._HYT-2008_(freshwater_eel)	GTCTTT	TAAAT	AGAGAC
NC_008128-Anomalops_katoptron_(splitfin_flashlightfish)	GTCTTT	TAAAT	GAAGAC
NC_011319-Anoplocapros_lenticularis_(white-barred_boxfish)	GTCTCT	TAAAT	GGGGAC
NC_004391-Anoplogaster_cornuta_(common_fangtooth)	GTCTTT	TAAAT	GAAGAC
NC_018119-Anoplopoma_fimbria_(sablefish)	GTCTTT	TAAAT	GAAGAC
NC_003191-Antigonia_capros_(deepbody_boarfish)	GTCTCT	TAAAT	GGAGAC
NC_012709-Anyperodon_leucogrammicus_(slender_grouper)	GTCTTT	TAAAT	AGGGAC
NC_015834-Apareiodon_affinis_(darter_characine)	GTCTTT	TAAAT	GGAGAC
NC_011580-Apeltos_quadracus_(fourspine_stickleback)	GTCTTT	TAAAT	GAAGAC
NC_004372-Aphredoderus_sayanus_(pirate_perch)	GTCTCT	TAAAT	AGGGAC
NC_008650-Aphyocypris_chinensis_(Chinese_bleak)	GTCTTT	TAAAT	AGAGAC
NC_011176-Aplocheilichthys_panchax_(blue_panchax)	GTCTTT	TAAAT	GAAGAC
NC_004692-Apteronotus_albifrons_(black_ghost)	GTTTCA	TAAAT	TGAAAC
NC_008129-Aptocyclus_ventriosus_(smooth_lumpsucker)	GTCTTT	TAAAT	GAAGAC
NC_010570-Arapaima_gigas_(arapaima)	GTCTTT	TAAAT	GAAGAC
NC_004413-Arcos_sp._KU-149_(clingfish)	GTCTTT	TAAAT	GAAGAC
NC_010122-Arctogadus_glacialis_(Arctic_cod)	GTCTTT	TAAAT	GAAGAC
NC_002812-Arctoscopus_japonicus_(sailfin_sandfish)	GTCTTT	TAAAT	GGAGAC
NC_017610-Argyrosomus_japonicus_(mulloay)	GTCTTT	TAAAT	GAAGAC
NC_013632-Ariosoma_shiroanago_(shiro-anago)	GTCTTT	TAAAT	AAAGAC
NC_010975-Arothron_firmamentum_(starry_toado)	GTCTTT	TAAAT	GGGGAC
NC_015336-Arothron_hispidus_(white-spotted_puffer)	GTCTTT	TAAAT	GGGGAC
NC_015371-Arothron_manilensis_(narrow-lined_puffer)	GTCTTT	TAAAT	GGGGAC
NC_015787-Arripis_trutta_(Australian_salmon)	GTCTTT	TAAAT	GAAGAC
NC_008130-Aspasma_minima_(clingfish)	GTCTTT	TAAAT	GAAGAC
NC_015536-Aspidoparia_morar_(aspidoparia)	GGCTTT	TAAAT	GGGGTC
NC_009058-Astronotus_ocellatus_(oscar)	GTCTTT	TAAAT	GAAGAC
NC_012045-Ataxolepis_apus_(whalefish)	GTCTTT	TAAAT	GAAGAC
NC_003178-Ateleopus_japonicus_(jellynose_fish)	GTCTTT	TAAAT	GAAGAC
NC_015809-Auchenoglanis_occidentalis_(bubu)	GTCTTT	TAAAT	GAAGAC
NC_011569-Aulichthys_japonicus_(tubenose)	GTCTTT	TAAAT	GAAGAC
NC_002674-Aulopus_japonicus_(Japanese_thread-sail_fish)	GTCTTT	TAAAT	GAGGAC
NC_010268-Aulorhynchus_flavidus_(tube-snout)	GTCTTT	TAAAT	GAAGAC
NC_010269-Aulostomus_chinensis_(Chinese_trumpetfish)	GTCTTT	TAAAT	TGAGAC
NC_015348-Auriglobus_modestus_(bronze_puffer)	GTCTTT	TAAAT	GAGGAC
NC_005313-Auxis_rochei_(bullet_tuna)	GTCTTT	TAAAT	GGAGAC
NC_005318-Auxis_thazard_(frigate_tuna)	GTCTTT	TAAAT	GGAGAC
NC_013624-Avocettina_infans_(avocet_snipe-eel)	GTCTTT	TAAAT	GAAGAC
NC_013577-Bajacalifornia_megalops_(bigeye_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_011946-Balistapus_undulatus_(orange-lined_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_011948-Balistes_vetula_(queen_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_011934-Balistoides_conspicillum_(clown_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_008670-Barbatula_toni_(Siberian_stone_loach)	GTCTTT	TAAAT	GAAGAC
NC_008655-Barbonymus_gonionotus_(Java_barb)	GTCTTT	TAAAT	AGAGAC
NC_012046-Barbourisia_rufa_(red_whalefish)	GTCTTT	TAAAT	GAAGAC
NC_008654-Barbus_barbus_(barbel)	GTCTTT	TAAAT	AGAGAC
NC_008666-Barbus_trimaculatus_(threespot_barb)	GTCTTT	TAAAT	AAAGAC
NC_015533-Barilius_bendelisis_(Hamiltons_barila)	GTCTTT	TAAAT	GGGGTC
NC_004374-Bassozetes_zenkevitchi_(cusk-eel)	GTCTCT	TAAAT	GGAGAC
NC_008222-Bathygadus_antrodus_(grenadier)	GTCTTT	TAAAT	GAAGAC
NC_011015-Bathyprius_danae_(fangtooth_smooth-head)	GTCTTT	TAAAT	GAAGAC
NC_013574-Bathytroctes_breviceps_(slickhead)	GTCTTT	TAAAT	GAGGAC
NC_013575-Bathytroctes_macrolepis_(Koefoeds_smooth-head)	GTCTTT	TAAAT	GAAGAC
NC_013579-Bathytroctes_michaelsarsi_(Michael_Sars_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_011017-Bathytroctes_microlepis_(smallscale_smooth-head)	GTCTTT	TAAAT	GAAGAC
NC_004393-Beryx_decadactylus_(alfonsino)	GTCTTT	TAAAT	GAAGAC
NC_013845-Beryx_mollis_(alfonsino)	GTCTTT	TAAAT	GAAGAC
NC_003188-Beryx_splendens_(splendid_alfonsino)	GTCTTT	TAAAT	GAAGAC
NC_008324-Biwa_zezera_(carp)	GTCTTT	TAAAT	AGAGAC
NC_016195-Boleophthalmus_pectinirostris_(great_blue-spotted_mudskipper)	GTCTTT	TAAAT	GGAGAC

NC_010121-Boreogadus_saida_(Polar_cod)	GTCTTT	TAAAT	GAAGAC
NC_017880-Bostrychus_sinensis_(four-eyed_sleeper)	GTCTTT	TAAAT	GAAGAC
NC_011940-Brachaluteres_ulvarum_(Japanese_inflator_filefish)	GTCTCT	TAAAT	AGGGAC
NC_015078-Brachyhypopomus_pinnicaudatus_(electric_fish)	GTCCCT	TAAAT	GAAGAC
NC_012905-Branchiostegus_albus_(white_horsehead)	GTCTTT	TAAAT	GGAGAC
NC_012907-Branchiostegus_argentatus_(silver_horsehead)	GTCTTT	TAAAT	GGAGAC
NC_012904-Branchiostegus_japonicus_(red_tilefish)	GTCTTT	TAAAT	GGAGAC
NC_008124-Bregmaceros_nectabanus_(smallscale_codlet)	GTCTTT	TAAAT	GAAGAC
NC_014266-Brevoortia_tyrannus_(Atlantic_menhaden)	GTCTTT	TAAAT	GGAGAC
NC_012705-Brienomyrus_niger_(elephantfish)	GTCTTT	TAAAT	GAAGAC
NC_013869-Bufoceratias_thele_(anglerfish)	GTCTTT	TAAAT	GGAGAC
NC_015811-Bunocephalus_coracoideus_(banjo_catfish)	GTCTTT	TAAAT	AAAGAC
NC_008102-Campostoma_anomalum_(central_stoneroller)	GTCTCT	TAAAT	GGAGAC
NC_011325-Cantherhines_pardalis	GTCTTT	TAAAT	AAAGAC
NC_011935-Canthidermis_maculata_(spotted_oceanic_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_010978-Canthigaster_coronata_(crowned_puffer)	GTCCCT	TAAAT	GGGGAC
NC_015372-Canthigaster_jactator_(Hawaiian_whitespotted_toby)	GTCCCT	TAAAT	GGGGAC
NC_010979-Canthigaster_rivulata_(brown-lined_puffer)	GTCCCT	TAAAT	GGGGAC
NC_015337-Canthigaster_valentini_(Valentinnis_sharppnose_puffer)	GTCCCT	TAAAT	GGGGAC
NC_010958-Capros_aper_(boar_fish)	GTCTTT	TAAAT	GGAGAC
NC_004405-Carangoides_armatus_(longfin_trevally)	GTCTTT	TAAAT	GAAGAC
NC_004406-Caranx_melampygus_(bluefin_trevally)	GTCTTT	TAAAT	GGAGAC
NC_004373-Carapus_bermudensis_(pearlfish)	GTCTCT	TAAAT	GGGGAC
NC_002079-Carassius_auratus_(goldfish)	GTCTTT	TAAAT	AGAGAC
NC_006580-Carassius_auratus_auratus_(goldfish)	GTCTTT	TAAAT	AGAGAC
NC_015142-Carassius_auratus_ssp._Pingxiang_(Pingxiang_red-transparent_crucian_carp)	GTCTTT	TAAAT	AGAGAC
NC_006136-Carassius_auratus_x_Cyprinus_carpio_(tetraploid_hybrids_of_red_crucian_carp_and_common_carp)	GTCTTT	TAAAT	AGAGAC
NC_006387-Carassius_auratus_x_Cyprinus_carpio_x_Carassius_cuvieri_(triploid_hybrids_of_tetraploid_and_Japanese_crucian_carp)	GTCTTT	TAAAT	AGAGAC
NC_013433-Carassius_auratus_x_Megalobrama_amblycephala_pentaploid_hybrid_(red_crucian_carp_x_blunt_snout_bream)	GTCTTT	TAAAT	AGAGAC
NC_013430-Carassius_auratus_x_Megalobrama_amblycephala_tetraploid_hybrid_(red_crucian_carp_x_blunt_snout_bream)	GTCTTT	TAAAT	AGAGAC
NC_013431-Carassius_auratus_x_Megalobrama_amblycephala_triploid_hybrid_(red_crucian_carp_x_blunt_snout_bream)	GTCTTT	TAAAT	AGAGAC
NC_006291-Carassius_carassius_(crucian_carp)	GTCTTT	TAAAT	AGAGAC
NC_010768-Carassius_cuvieri_(Japanese_crucian_carp)	GTCTTT	TAAAT	AGAGAC
NC_014177-Carassius_gibelio_(silver_crucian_carp)	GTCTTT	TAAAT	AGAGAC
NC_015350-Carinotetraodon_lorteti_(red-eye_puffer)	GTCCCT	TAAAT	GAGGAC
NC_015352-Carinotetraodon_salivator_(striped_red-eye_puffer)	GTCCCT	TAAAT	GAGGAC
NC_005257-Carpoides_carpio_(river_carpsucker)	GTCTTT	TAAAT	GAAGAC
NC_004375-Cataetx_rubrirostris_(rubynose_brotula)	GTCTCT	TAAAT	GGAGAC
NC_016892-Catla_catla_(catla)	GTCTTT	TAAAT	AGAGAC
NC_008647-Catostomus_commerstonii_(white_sucker)	GTCTTT	TAAAT	GAAGAC
NC_016020-Caulophryne_pelagica_(fanfin_anglerfish)	GTCTTT	TAAAT	GGAGAC
NC_015748-Centromochlus_perugiae	GTCTTT	TAAAT	GAAGAC
NC_009872-Centropyge_loricula	GTCTTT	TAAAT	GGAGAC
NC_013882-Ceratias_uranoscopus_(stargazing_seadevil)	GTCCCT	TAAAT	GGGGAC
NC_012048-Cetomimus_sp._AMS_I34481001_(whalefish)	GTCTTT	TAAAT	GGAGAC
NC_004389-Cetostoma_regani_(pink_flabby_whalefish)	GTCTTT	TAAAT	GAAGAC
NC_015654-Chaenoccephalus_aceratus_(blackfin_icefish)	GTCTCT	TAAAT	AGAGAC
NC_017881-Chaenomugil_proboscideus_(snouted_mullet)	GTCCCT	TAAAT	GAGGAC
NC_011951-Chaetodermis_penicilligerus_(prickly_leatherjacket)	GTCTCT	TAAAT	GGGGAC
NC_009870-Chaetodon_auripes_(oriental_butterflyfish)	GTCTTT	TAAAT	GAAGAC
NC_009873-Chaetodontoplus_septentrionalis_(bluestriped_angelfish)	GTCTTT	TAAAT	GGAGAC
NC_004700-Chalceus_macrolepidotus_(pinktail_chalceus)	GTCTTT	TAAAT	GAAGAC
NC_015191-Channa_argus_(snakehead)	GTCTTT	TAAAT	GAAGAC
NC_008683-Chanodichthys_mongolicus_(Mongolian_redfin)	GTCTTT	TAAAT	AGAGAC
NC_004693-Chanos_chanos_(milkfish)	GTCTCT	TAAAT	AGAGAC
NC_003159-Chauliodus_sloani_(Sloanes_viperfish)	GTCTCC	TAAAT	AGAGAC

NC_004381-Chaunax_abei_(sea_toad)	GTCTTT	TAAAT	TAAGAC
NC_013883-Chaunax_pictus_(pink_frogmouth)	GTCTTT	TAAAT	TAAGAC
NC_004382-Chaunax_tosaensis_(sea_toad)	GTCTTT	TAAAT	TAAGAC
NC_013842-Cheilinus_undulatus_(humphead_wrasse)	GTCTTT	TAAAT	GGAGAC
NC_017883-Chelon_labrosus_(thicklip_grey_mullet)	GTCTCT	TAAAT	GAGGAC
NC_011623-Chelonodon_patoca_(milkspotted_puffer)	GTCTCT	TAAAT	GGGGAC
NC_015369-Chelonodon_pleurospilus_(blaasop_beauty)	GTCCCT	TAAAT	GGGGAC
NC_015801-Chilodus_punctatus_(spotted_headstander)	GTCTTT	TAAAT	GAAGAC
NC_011331-Chilomycterus_reticulatus_(spotfin_burrfish)	GTCCCT	TAAAT	GGGGAC
NC_010689-Chionodraco_myersi_(crocodile_icefish)	GTCTCT	TAAAT	GGAGAC
NC_006913-Chirocentrus_dorab_(wolf-herring)	GTCTTT	TAAAT	GGAGAC
NC_012710-Chitala_blanci_(Indochina_featherback)	GTCTTT	TAAAT	GAAGAC
NC_012711-Chitala_lopis_(Indonesian_featherback)	GTCTTT	TAAAT	GAAGAC
NC_012712-Chitala_ornata_(clown_knifefish)	GTCTTT	TAAAT	GAAGAC
NC_003160-Chlorophthalmus_agassizi_(shortnose_greeneye)	GTCCCT	TAAAT	GGGGAC
NC_006355-Chlorurus_sordidus_(daisy_parrotfish)	GTCTTT	TAAAT	GGAGAC
NC_008108-Chondrostoma_lemmingii_(pardilla)	GTCTCT	TAAAT	AGAGAC
NC_008671-Chromobotia_macracanthus_(Clown_Loach)	GTCTTT	TAAAT	GAAGAC
NC_016987-Chrysochir_aureus_(yellowfin_corvina)	GTCTTC	TAAAT	AAAGAC
NC_017611-Cirrhinus_mrigala_(mrigala)	GCCTGA	CAAAAT	AGAGAC
NC_015805-Citharinus_congicus_(Congo_citharin)	GTCTTT	TAAAT	GAAGAC
NC_015749-Clarias_sp._NM-2010	GTCTTT	TAAAT	GAAGAC
NC_013828-Clinocottus_analis_(woolly_sculpin)	GTCTTT	TAAAT	GAAGAC
NC_009577-Clupea_harengus_(Atlantic_herring)	GTCTTT	TAAAT	GAAGAC
NC_009578-Clupea_pallasii_(Pacific_herring)	GTCTTT	TAAAT	GAAGAC
NC_016702-Clupeichthys_aesarnensis_(Thai_river_sprat)	GTCTCT	TAAAT	GGAGAC
NC_016705-Clupeichthys_perakensis_(Perak_river_sprat)	GTCTTT	TAAAT	GGAGAC
NC_016709-Clupeoides_borneensis_(Borneo_river_sprat)	GTCTTT	TAAAT	GAAGAC
NC_016714-Clupeoides_sp._Chao_Phraya_(sprat)	GTCTTT	TAAAT	GAAGAC
NC_015109-Clupeonella_cultriventris_(Black_Sea_sprat)	GTCTTT	TAAAT	GGAGAC
NC_010649-Cobitis_choii_(Miho_spined_loach)	GTCTTT	TAAAT	GAAGAC
NC_007229-Cobitis_sinensis_(Siberian_spiny_loach)	GTCTTT	TAAAT	GAAGAC
NC_004695-Cobitis_striata_(spined_loach)	GTCTTT	TAAAT	GAAGAC
NC_015306-Cobitis_takatsuensis_(Japanese_spinous_loach)	GTCTTT	TAAAT	GAAGAC
NC_013886-Coelophrys_brevicaudata_(anglerfish)	GTCTTT	TAAAT	AAAGAC
NC_003169-Coelorinchus_kishinouyei_(Mugura_grenadier)	GTCTTT	TAAAT	GAAGAC
NC_014271-Coilia_lindmani_(Lindmans_grenadier_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_009579-Coilia_nasus_(Japanese_grenadier_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_014276-Coilia_reynaldi_(Reynalds_grenadier_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_014350-Collichthys_lucidus_(big_head_croaker)	GTCTTT	TAAAT	AAAGAC
NC_014263-Collichthys_niveatus_(bighead_croaker)	GTCTTT	TAAAT	AAAGAC
NC_013606-Coloconger_cadenati_(congro)	GTCTTT	TAAAT	GAAGAC
NC_003183-Cololabis_saira_(Pacific_saury)	GTCTTT	TAAAT	GAAGAC
NC_015368-Colomesus_asellus_(Amazon_puffer)	GTCTTT	TAAAT	GAAGAC
NC_015370-Colomesus_psittacus_(banded_puffer)	GTCTTT	TAAAT	GAAGAC
NC_002761-Conger_myriaster_(whitespotted_conger)	GTCTTT	TAAAT	AAAGAC
NC_013581-Conocara_macropterygion_(longfin_smooth-head)	GTCTTT	TAAAT	AGGAC
NC_013583-Conocara_murrayi_(Murrays_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_002646-Coregonus_lavaretus_(common_whitefish)	GTCTTT	TAAAT	GAAGAC
NC_007783-Coreoleuciscus_splendidus_(Korean_splendid_dace)	GTCTTT	TAAAT	AGAGAC
NC_009868-Coreoperca_kawamebari_(Japanese_aucha_perch)	GTCTTT	TAAAT	GAAGAC
NC_016721-Corica_laciniata_(Bangkok_river_sprat)	GTCTTT	TAAAT	GGAGAC
NC_004698-Corydoras_rabauti_(rusty_cory)	GTCTTT	TAAAT	GAAGAC
NC_014851-Cottus_hangiongensis_(river_sculpin)	GTCTTT	TAAAT	GAAGAC
NC_014849-Cottus_poecilopus_(alpine_bullhead)	GTCTTT	TAAAT	GAAGAC
NC_004404-Cottus_reinii_(sculpin)	GTCTTT	TAAAT	GAAGAC
NC_008280-Cranoglanis_bouderius_(helmet_catfish)	GTCTTT	TAAAT	AGAGAC
NC_007881-Cromeria_occidentalis	GTCCCT	TAAAT	AGGGAC
NC_001727-Formosania_lacustris_(tasseled-mouth_loach)	GTCTTT	TAAAT	AAAGAC
NC_013880-Cryptopsaras_couesii_(triplewart_seadevil)	GTCCCT	TAAAT	GGGGAC
NC_010288-Ctenopharyngodon_idella_(grass_carp)	GTCTTT	TAAAT	AGAGAC
NC_018134-Ctenopharyngodon_idella_x_Megalobrama_amblycephala_(grass_carp_x_Wuchang_bream)	GTCTTT	TAAAT	AGAGAC
NC_013150-Cubiceps_pauciradiatus_(longfin_fathead)	GTCTTT	TAAAT	GGAGAC
NC_011577-Culaea_inconstans_(brook_stickleback)	GTCTTT	TAAAT	GGAGAC

NC_013616-Culter_alburnus_(topmouth_culter)	GTCTTT	TAAAT	AGAGAC
NC_008645-Cycleptus_elongatus_(blue_sucker)	GTCTTT	TAAAT	GAAGAC
NC_013609-Cyema_atrum_(bobtail_snipe_eel)	GTCTTT	TAAAT	GAAGAC
NC_009059-Cymatogaster_aggregata_(shiner_perch)	GTCTTT	TAAAT	GAAGAC
NC_014881-Cynoglossus_abbreviatus_(three-lined_tongue_sole)	GTCTTT	TAAAT	GAGGAC
NC_012825-Cynoglossus_semilaevis_(tongue_sole)	GTCTTT	TAAAT	GAGGAC
NC_013617-Cynoponticus_ferox_(Guinea_pike_conger)	GTCTTT	TAAAT	GAAGAC
NC_008643-Cyprinella_lutrensis_(red_shiner)	GTCTTT	TAAAT	AAAGAC
NC_008103-Cyprinella_spiloptera_(spotfin_shiner)	GTCTTT	TAAAT	AAAGAC
NC_009125-Cyprinodon_rubrofluvialis_(Red_River_pupfish)	GTCTTT	TAAAT	GAAGAC
NC_001606-Cyprinus_carpio_(common_carp)	GTCTTT	TAAAT	AGAGAC
NC_018035-Cyprinus_carpio_carpio_(Russian_scattered_scale_mirror_carp)	GTCTTT	TAAAT	AGAGAC
NC_018037-Cyprinus_carpio_haematopterus_(Yangtze_River_wild_common_carp)	GTCTTT	TAAAT	AGAGAC
NC_018039-Cyprinus_carpio_wuyuanensis_(Wuyuan_red_carp)	GTCTTT	TAAAT	AGAGAC
NC_018036-Cyprinus_carpio_xingguonensis_(Xingguo_red_carp)	GTCTTT	TAAAT	AGAGAC
NC_018038-Cyprinus_carpio_wuyuanensis_x_Carrassius_auratus_(Wuyuan_red_carp_x_goldfish)	GTCTTT	TAAAT	AGAGAC
NC_007403-Cypselurus_hiraii_(Japanese_flying_fish)	GTTTCT	TAAAT	GGAGAC
NC_003194-Dactyloptena_peterseni_(starry_flying_gurnard)	GTCTTT	TAAAT	GAAGAC
NC_004402-Dactyloptena_tiltoni_(flying_gurnard)	GTCTTT	TAAAT	GAAGAC
NC_004592-Dallia_pectoralis_(Alaska_blackfish)	GTCTTT	TAAAT	GAAGAC
NC_003185-Danacetichthys_galathenus_(flabby_whalefish)	GTCTTT	TAAAT	GAAGAC
NC_015525-Danio_dangila_(olive_danio)	GTCTTT	TAAAT	AGGGAC
NC_002333-Danio_rerio_(zebrafish)	GTCTTT	TAAAT	AGGGAC
NC_017606-Dendrophysa_russellii_(goatee_croaker)	GTCTTT	TAAAT	AAAGAC
NC_007889-Denticeps_clupeoides_(denticle_herring)	GTCTTT	TAAAT	GAAGAC
NC_013611-Derichthys_serpentinus_(narrownecked_oceanic_eel)	GTCTTT	TAAAT	GAAGAC
NC_009856-Diagramma_picta	GTCTCT	TAAAT	GGGGAC
NC_003164-Diaphus_splendidus_(lanternfish)	GTCTCT	TAAAT	GGAGAC
NC_013870-Diceratias_pileatus_(two_rod_lantern_angler)	GTCTTT	TAAAT	GGAGAC
NC_009866-Diodon_holocanthus_(long-spine_porcupinefish)	GTCTTT	TAAAT	GGGGAC
NC_004376-Diplacanthopoma_brachysoma_(viviparous_brotula)	GTCTCT	TAAAT	GGAGAC
NC_013994-diploid_Megalobrama_amblycephala_x_Xenocypris_davidi_(hybrid_carp)	GTCTTT	TAAAT	AGAGAC
NC_015838-diploid_Xenocypris_davidi_x_Megalobrama_amblycephala_(Davids_yellowfin_x_Wuchan_g_bream)	GTCTTT	TAAAT	AGAGAC
NC_015823-Diplomystes_nahuelbutaensis_(diplomystid_catfish)	GTCTTT	TAAAT	GAAGAC
NC_002647-Diplophos_taenia_(Pacific_portholefish)	GTCTTT	TAAAT	GAAGAC
NC_008126-Diretmoides_veriginae_(spiny_fish)	GTCTTT	TAAAT	GAAGAC
NC_008127-Diretmus_argenteus_(silver_spinyfin)	GTCTTT	TAAAT	GAAGAC
NC_018135-Dissostichus_eleginoides_(Patagonian_toothfish)	GTCTCT	TAAAT	GGAGAC
NC_015836-Distichodus_sexfasciatus_(sixbar_distichodus)	GTCTTT	TAAAT	GAAGAC
NC_011208-Distoechodon_tumirostris	GTCTTT	TAAAT	AGAGAC
NC_009060-Ditrema_temminckii_(sea_chub)	GTCTTT	TAAAT	GAAGAC
NC_009867-Doederleinia_berycoides_(blackthroat_seaperch)	GTCTTT	TAAAT	GAAGAC
NC_008107-Dorosoma_cepedianum_(American_gizzard_shad)	GTCTTT	TAAAT	GGAGAC
NC_009580-Dorosoma_petenense_(threadfin_shad)	GTCTTT	TAAAT	GGAGAC
NC_016717-Ehirava_fluviatilis_(Malabar_sprat)	GTCTTT	TAAAT	GAAGAC
NC_004701-Eigenmannia_sp._CBM-ZF-10620_(electric_fish)	GTCTTT	TAAAT	AAAGAC
NC_003175-Elassoma_evergladei_(Everglades_pygmy_sunfish)	GTCTTT	TAAAT	GAAGAC
NC_011388-Elassoma_zonatum_(banded_pygmy_sunfish)	GTCTTT	TAAAT	GAAGAC
NC_004415-Eleotris_acanthopoma_(sleeper_goby)	GTCTTT	TAAAT	GGAGAC
NC_005798-Elops_hawaiiensis_(Hawaiian_ladyfish)	GTCTTT	TAAAT	GAAGAC
NC_005803-Elops_saurus_(ladyfish)	GTCTTT	TAAAT	GAAGAC
NC_004407-Emmelichthys_struhsakeri_(rover)	GTCTTT	TAAAT	GGAGAC
NC_009581-Engraulis_encrasicolus_(European_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_003097-Engraulis_japonicus_(Japanese_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_013181-Enoplosus_armatus	GTCTTT	TAAAT	GGAGAC
NC_011113-Epinephelus_akaara_(Hong_Kong_grouper)	GTCTCT	TAAAT	GGGGAC
NC_013820-Epinephelus_bruneus_(longtooth_grouper)	GTCTTT	TAAAT	AGGGAC
NC_011111-Epinephelus_coioides_(orange-spotted_grouper)	GTCTTT	TAAAT	AGGGAC
NC_011715-Epinephelus_lanceolatus_(giant_grouper)	GTCTTT	TAAAT	AGGGAC
NC_017891-Epinephelus_moara_(kelp_grouper)	GTCTTT	TAAAT	AGGGAC
NC_013829-Hyporthodus_septemfasciatus_(convict_grouper)	GTCTTT	TAAAT	GGGGAC
NC_013064-Erimyzon_oblongus_(creek_chubsucker)	GTCTTT	TAAAT	GAAGAC
NC_005251-Erpetoichthys_calabaricus_(reedfish)	GTCTTT	TAAAT	AGGGAC

NC_016706-Escualosa_thoracata_(white_sardine)	GTCTCT	TAAAT	AGAGAC
NC_008660-Esomus_metallicus_(striped_flying_barb)	GTCCCT	TAAAT	GGGGAC
NC_004593-Esox_lucius_(northern_pike)	GTCTTT	TAAAT	GAAGAC
NC_005254-Etheostoma_radiosum_(orangebelly_darter)	GTCTTT	TAAAT	GGAGAC
NC_009582-Ethmalosa_fimbriata_(Bonga_shad)	GTCTTT	TAAAT	GGAGAC
NC_016710-Ethmidium_maculatum_(Pacific_menhaden)	GTCTTT	TAAAT	GAAGAC
NC_011179-Etroplus_maculatus_(orange_chromide)	GTCTTT	TAAAT	GAAGAC
NC_009583-Etrumeus_teres_(red-eye_round_herring)	GTCTTT	TAAAT	GGAGAC
NC_011953-Eubalichthys_mosaicus_(mosaic_leatherjacket)	GTCTCT	TAAAT	AGGGAC
NC_010264-Eurypegasus_draconis_(short_dragonfish)	GTCTTT	TAAAT	GAAGAC
NC_005299-Eurypharynx_pelecanoides_(pelican_eel)	GTCTTT	TAAAT	AAAGAC
NC_012043-Eutaeniophorus_festivus_(festive_ribbonfish)	GTCTTT	TAAAT	GAAGAC
NC_004390-Eutaeniophorus_sp._033-Miya_(tapetail)	GTCTTT	TAAAT	GAAGAC
NC_004530-Euthynnus_alletteratus_(little_tunny)	GTCTTT	TAAAT	GGAGAC
NC_003184-Exocoetus_volitans_(tropical_two-wing_flyingfish)	GTTCTT	TAAAT	GGAGAC
NC_013621-Facciolella_oxyrhyncha_(Facciolas_sorcerer)	GTCTTT	TAAAT	GAAGAC
NC_010274-Fistularia_commersonii_(bluespotted_cornetfish)	GTCTTT	TAAAT	GAAGAC
NC_012361-Fundulus_diaphanus_(banded_killifish)	GTCTTT	TAAAT	GAAGAC
NC_012377-Fundulus_grandis_(Gulf_killifish)	GTCTTT	TAAAT	GAAGAC
NC_012312-Fundulus_heteroclitus_(mummichog)	GTCTTT	TAAAT	GAAGAC
NC_011380-Fundulus_olivaceus_(blackspotted_topminnow)	GTCTTT	TAAAT	GAAGAC
NC_002081-Gadus_morhua_(Atlantic_cod)	GTCTTT	TAAAT	GAAGAC
NC_012323-Gadus_ogac_(Greenland_cod)	GTCTTT	TAAAT	GAAGAC
NC_015239-Galaxias_gollumoides_(Gollum_galaxias)	GTCTTT	TAAAT	GGAGAC
NC_004594-Galaxias_maculatus_(cowfish)	GTCTTT	TAAAT	GAAGAC
NC_015240-Galaxias_sp._southern_(southern_flathead_galaxias)	GTCTTT	TAAAT	GGAGAC
NC_008448-Galaxiella_nigrostriata_(black-stripe_minnow)	GTCTTT	TAAAT	GAAGAC
NC_004388-Gambusia_affinis_(western_mosquitofish)	GTCTTT	TAAAT	GAAGAC
NC_003174-Gasterosteus_aculeatus_(three-spined_stickleback)	GTCTTT	TAAAT	GGAGAC
NC_011570-Gasterosteus_wheatlandi_(blackspotted_stickleback)	GTCTTT	TAAAT	GGAGAC
NC_015086-Genyomys_donnyi_(elephant_fish)	GTCTTT	TAAAT	GAAGAC
NC_013885-Gigantactis_vanhoeffeni_(Vanhoffenis_pisheangler)	GTCTTT	TAAAT	GGAGAC
NC_013761-Gila_conspersa_(Nazas_chub)	GTCTCT	TAAAT	AGAGAC
NC_008105-Gila_robusta_(roundtail_chub)	GTCTCT	TAAAT	AGAGAC
NC_012906-Gillichthys_mirabilis_(long-jawed_mudsucker)	GTCTTT	TAAAT	GGAGAC
NC_012908-Gillichthys_setta_(shortjaw_mudsucker)	GTCTTT	TAAAT	GAAGAC
NC_013137-Girella_punctata_(largescale_blackfish)	GTCTTT	TAAAT	GGAGAC
NC_004595-Glossanodon_semifasciatus_(deepsea_smelt)	GTCTTT	TAAAT	GAAGAC
NC_016664-Glossogobius_olivaceus_(urohaze-goby)	GTCTTT	TAAAT	AGAGAC
NC_012717-Gnathonemus_petersii_(elephantnose_fish)	GTCTTT	TAAAT	GAAGAC
NC_008649-Gnathopogon_elongatus_(willow_shiner)	GTCTTT	TAAAT	AGAGAC
NC_008662-Gobio_gobio_(gudgeon)	GTCTTT	TAAAT	AGAGAC
NC_014878-Gobiobotia_brevibarba_(cyprinid)	GTCTTT	TAAAT	AGAGAC
NC_014877-Gobiobotia_macrocephala_(cyprinid)	GTCTTT	TAAAT	AGAGAC
NC_018099-Gobiocypris_rarus_(rare_gudgeon)	GTCTTT	TAAAT	AGAGAC
NC_011018-Gonorynchus_abbreviatus_(bighead_beaked_sandfish)	GTCTTT	TAAAT	GGAGAC
NC_004702-Gonorynchus_greyi_(beaked_salmon)	GTCTTT	TAAAT	GGAGAC
NC_007890-Grasseichthys_gabonensis_(shelleard)	GTCCCT	TAAAT	AGGGAC
NC_016715-Gudusia_chapra_(Indian_river_shad)	GTCTTT	TAAAT	GGAGAC
NC_012707-Gymnarchus_niloticus_(aba)	GTCTTT	TAAAT	GAAGAC
NC_008661-Gymnocypris_przewalskii_(scale-less_carp)	GTCTCT	TAAAT	GGAGAC
NC_008743-Gymnogobius_petschiliensis_(edohaze)	GTCTTT	TAAAT	GGAGAC
NC_015754-Gymnorhamphichthys_sp._NM-2010	GTTCTT	TAAAT	AAGGAC
NC_004417-Gymnothorax_kidako_(moray_eel)	GTCTTT	TAAAT	GGAGAC
NC_008672-Gyrinocheilus_aymonieri_(Siamese_algae-eater)	GTCTTT	TAAAT	GAAGAC
NC_012050-Gyrinomimus_myersi_(whalefish)	GTCTTT	TAAAT	GAAGAC
NC_012049-Gyrinomimus_sp._UW_113191_(whalefish)	GTCTTT	TAAAT	GAAGAC
NC_009066-Halichoeres_melanurus_(tail-spot_wrasse)	GTCTTT	TAAAT	GGAGAC
NC_011191-Halichoeres_tenuispinis_(Chinese_wrasse)	GTCTTT	TAAAT	GGAGAC
NC_011199-Halichoeres_trimaculatus_(threespot_wrasse)	GTCTTT	TAAAT	GGAGAC
NC_014404-Haplogenyis_nigripinnis_(short_barbeled_grunter)	GTCTTT	TAAAT	GGAGAC
NC_013865-Haplophryne_mollis_(solf_leafvent_angler)	GTCTTT	TAAAT	GGAGAC
NC_016667-Harengula_jaguana_(scaled_sardine)	GTCTTT	TAAAT	GGAGAC
NC_003161-Harpadon_microchir_(lizardfish)	GTCCCT	TAAAT	GAGGAC
NC_003195-Helicolenus_hilgendorfi_(Rockfish)	GTCTTT	TAAAT	GAAGAC
NC_008644-Hemibarbus_barbus_(Japanese_barbel)	GTCTTT	TAAAT	AGAGAC

NC_007785-Hemibarbus_labeo_(barbel_steed)	GTCTTT	TAAAT	AGAGAC
NC_007784-Hemibarbus_longirostris_(long-nosed_barbel)	GTCTTT	TAAAT	AGAGAC
NC_007786-Hemibarbus_myloodon_(Korean_doty_barbel)	GTCTTT	TAAAT	AGAGAC
NC_015548-Hemigrammocypripis_rasborella_(cyprinid_fish)	GTCTTT	TAAAT	AGAGAC
NC_015816-Hemiodopsis_gracilis_(slender_hemiodus)	GTTCTT	TAAAT	GAGGAC
NC_009871-Heniochus_diphreutes_(false_moorish_idol)	GTCTTT	TAAAT	GGGGAC
NC_015819-Hepsetus_odoe_(African_pike_characin)	GTCTTT	TAAAT	GAAGAC
NC_013555-Herwigia_kreffti_(Kreffts_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_013629-Heteroconger_hassi_(spotted_garden-eel)	GTCTTT	TAAAT	GAAGAC
NC_015827-Heteropneustes_fossilis_(stinging_catfish)	GTCTTT	TAAAT	GAAGAC
NC_015081-Heterotis_niloticus_(African_bonytongue)	GTCTTT	TAAAT	GAAGAC
NC_013867-Himantolophus_albinares	GTCTTT	TAAAT	GGAGAC
NC_013868-Himantolophus_groenlandicus_(Atlantic_footballfish)	GTCTTT	TAAAT	GGAGAC
NC_005145-Hiodon_alosoides_(goldeye)	GTCTTT	TAAAT	GAAGAC
NC_015082-Hiodon_tergisus_(mooneye)	GTCTTT	TAAAT	GAAGAC
NC_010272-Hippocampus_kuda_(spotted_seahorse)	GTCTTT	TAAAT	AAAGAC
NC_009709-Hippoglossus_hippoglossus_(Atlantic_halibut)	GTCTTT	TAAAT	GAAGAC
NC_009710-Hippoglossus_stenolepis_(Pacific_halibut)	GTCTTT	TAAAT	GAAGAC
NC_015105-Hippopotamyrus_wilverthi_(elephant_fish)	GTCTTT	TAAAT	GAAGAC
NC_015786-Histioporus_typus_(sailfin_armourhead)	GTCTTT	TAAAT	GGAGAC
NC_008673-Homaloptera_leonardi_(Leonards_chubucker)	GTCTTT	TAAAT	GAAGAC
NC_003187-Hoplostethus_japonicus_(flintperch)	GTCTTT	TAAAT	GAAGAC
NC_013623-Hoplunnis_punctata_(duckbill_eel)	GTCTTT	TAAAT	GAAGAC
NC_015544-Horadandia_atukorali_(golden_rasbora)	GTCCCT	TAAAT	GGGGAC
NC_015995-Hucho_bleekeri_(Sichuan_taimen)	GTCTTT	TAAAT	GAAGAC
NC_016426-Hucho_taimen_(taimen)	GTCTTT	TAAAT	GAAGAC
NC_005252-Huso_huso_(beluga)	GTCTTT	TAAAT	GAAGAC
NC_015813-Hydrolycus_scomberoides_(payara)	GTCTTT	TAAAT	GGAGAC
NC_008676-Hypentelium_nigricans_(northern_hog_sucker)	GTCTTT	TAAAT	GAAGAC
NC_016671-Hyperlophus_vittatus_(sandy_sprat)	GTCTTT	TAAAT	GAAGAC
NC_013149-Hyperoglyphe_japonica_(Pacific_barrelfish)	GTCTTT	TAAAT	GGAGAC
NC_004386-Hypoatherina_tsurugae_(cobaltcap_silverside)	GTCTTT	TAAAT	GAAGAC
NC_015242-Hypomesus_nipponensis_(Japanese_smelt)	GTCCCT	TAAAT	GAGGAC
NC_010156-Hypophthalmichthys_molitrix_(Chinese_silver_carp)	GTCTTT	TAAAT	AGAGAC
NC_010194-Hypophthalmichthys_nobilis_(bighead_carp)	GTCTTT	TAAAT	AGAGAC
NC_013832-Hypoplectrus_gemma_(blue_hamlet)	GTCTCT	TAAAT	GGGGAC
NC_004400-Hypoptichus_dybowskii_(Korean_sandeel)	GTCTTT	TAAAT	GAAGAC
NC_011173-Hyporhamphus_sajori_(Japanese_halfbeak)	GTCTTT	TAAAT	GAAGAC
NC_011168-Hypselecara_temporalis_(emerald_cichlid)	GTCCCT	TAAAT	GAAGAC
NC_015752-Ichthyoborus_sp._NM-2010	GTCTTT	TAAAT	GAAGAC
NC_003489-Ictalurus_punctatus_(channel_catfish)	GTCTCT	TAAAT	GGAGAC
NC_013071-Ictiobus_bubalus_(smallmouth_buffalo)	GTCTTT	TAAAT	GAAGAC
NC_003179-Ijimaia_dofleini_(jellynose_fish)	GTCTTT	TAAAT	GAAGAC
NC_009584-Ilisha_africana_(West_African_ilisha)	GTCTTT	TAAAT	GAAGAC
NC_009585-Ilisha_elongata_(elongate_ilisha)	GTCTTT	TAAAT	GAAGAC
NC_013634-Ilyopis_brunneus_(muddy_arrowtooth_eel)	GTCTTT	TAAAT	GAAGAC
NC_004401-Indostomus_paradoxus_(armoured_stickleback)	GTCTTT	TAAAT	GAAGAC
NC_008667-Ischikauia_steenackeri_(wataka)	GTCTTT	TAAAT	AGAGAC
NC_011178-Iso_hawaiiensis_(Hawaiian_surf_sardine)	GTCTTT	TAAAT	GAAGAC
NC_012676-Istiophorus_platypterus_(Indo-Pacific_sailfish)	GTCTTT	TAAAT	GAAGAC
NC_006917-Jenkinsia_lamprotaenia_(dwarf_round_herring)	GTCTTT	TAAAT	GAAGAC
NC_015076-Jenkinsia_sp._CL54_(round_herring)	GTCTTT	TAAAT	GAAGAC
NC_011387-Jordanella_floridae_(flagfish)	GTCTTT	TAAAT	GAAGAC
NC_003176-Kareius_bicoloratus_(stone_flounder)	GTCTTT	TAAAT	GAAGAC
NC_005316-Katsuwonus_pelamis_(skipjack_tuna)	GTCTTT	TAAAT	GGAGAC
NC_013607-Kaupichthys_hyoproroides_(false_moray)	GTCTTT	TAAAT	GAAGAC
NC_009864-Kentrocapros_acleatus_(basketfish)	GTCTCT	TAAAT	GGGGAC
NC_007882-Kneria_sp._SL-2004_(shellear)	GTCCCT	TAAAT	AGGGAC
NC_016694-Konosirus_punctatus_(Konoshiro_gizzard_shad)	GTCTTT	TAAAT	GGAGAC
NC_015798-Koreocobitis_naktongensis_(Nakdong_nose_loach)	GTCTTT	TAAAT	GAAGAC
NC_003290-Kryptolebias_marmoratus_(mangrove_rivulus)	GTCTTT	TAAAT	GAAGAC
NC_013142-Kuhlia_mugil_(barred_flagtail)	GTCTTT	TAAAT	GGAGAC
NC_013138-Kyphosus_cinerascens_(blue_seachub)	GTCTTT	TAAAT	GGAGAC
NC_015193-Labeo_bata_(bata)	GTCTTT	TAAAT	AGAGAC
NC_008656-Labeo_batesii_(cyprinid_fish)	GTCTCT	TAAAT	AGAGAC
NC_017614-Labeo_calbasu_(orange-fin_labeo)	GTCTTT	TAAAT	AGAGAC

NC_017608-Labeo_rohita_(rohu)	GTCTTT	TAAAT	AGAGAC
NC_008657-Labeo_senegalensis_(African_carp)	GTCTTT	TAAAT	AGAGAC
NC_013626-Labichthys_carinatus_(Labichthys_carinatus_Gill_Ryder_1883)	GTCTTT	TAAAT	GAAGAC
NC_009054-Labracinus_cyclophthalmus_(fire-tail_devil)	GTCTTT	TAAAT	AAAGAC
NC_013139-Labracoglossa_argentiventris_(yellowstripe_butterfish)	GTCTTT	TAAAT	GGAGAC
NC_011330-Lactoria_diaphana_(roundbelly_cowfish)	GTCTCT	TAAAT	GGGGAC
NC_015345-Lagocephalus_laevigatus_(smooth_puffer)	GTCCCT	TAAAT	GAGGAC
NC_015343-Lagocephalus_lagocephalus_(oceanic_puffer)	GTCTTT	TAAAT	GAGGAC
NC_013360-Lagocephalus_lunaris_(green_rough-backed_puffer)	GCCCTT	TAAAT	GAGGAC
NC_015340-Lagocephalus_scleratus_(silverstripe_blaasop)	GTCCCT	TAAAT	GGGGAC
NC_011637-Lagocephalus_wheeleri_(brown-backed_toadfish)	GTCCCT	TAAAT	GAGGAC
NC_003165-Lampris_guttatus_(opah)	GTCTTT	TAAAT	GAAGAC
NC_004378-Lamprogrammus_niger_(black_cusk)	GTCTCT	TAAAT	GGAGAC
NC_011710-Larimichthys_crocea_(large_yellow_croaker)	GTCTTT	TAAAT	AAAGAC
NC_013754-Larimichthys_polyactis_(small_yellow_croaker)	GTCTTT	TAAAT	AAAGAC
NC_018045-Lateolabrax_japonicus_(Japanese_seabass)	GTCTTT	TAATT	GGAGAC
NC_007439-Lates_calcarifer_(barramundi_perch)	GTCTTT	TAAAT	GAAGAC
NC_015750-Lebiasina_astrigata	GTCTTT	TAAAT	GAAGAC
NC_004696-Lefua_echigonia_(Japanese_eight-barbel_loach)	GTCTTT	TAAAT	GAAGAC
NC_014586-Leiocassis_longirostris_(Chinese_longsnout_catfish)	GTCTTT	TAAAT	GAAGAC
NC_004744-Lepisosteus_oculatus_(spotted_gar)	GTCTTT	TAAAT	GAAGAC
NC_008104-Lepisosteus_osseus_(longnose_gar)	GTCTTT	TAAAT	GAAGAC
NC_008131-Atractosteus_spatula_(alligator_gator)	GTCTTT	TAAAT	GAAGAC
NC_015984-Lepomis_macrochirus_(bluegill)	GTCTTT	TAAAT	GAAGAC
NC_015528-Leptobarbus_hoevenii_(mad_barb)	GTCTTT	TAAAT	AGAGAC
NC_008677-Leptobotia_mantschurica_(Manchurian_spiny_loach)	GTCTTT	TAAAT	GAGAC
NC_013615-Leptocephalus_sp_type_II_larva_(Smith_1989)_(duckbill_eel)	GTCTTT	TAAAT	GAAGAC
NC_011006-Leptochilichthys_agassizii_(Agassiz_smooth-head)	GTCTTT	TAAAT	GAGGAC
NC_013557-Leptoderma_lubricum_(namera-iwashi)	GTCTTT	TAAAT	AAAGAC
NC_015100-Leptoderma_macrophthalmum_(slickhead)	GTCTTT	TAAAT	AAAGAC
NC_013559-Leptoderma_retropinna_(yase-namera-iwashi)	GTCTTT	TAAAT	AAAGAC
NC_009855-Lethrinus_obsoletus_(orange_striped_emperor)	GTCTCT	TAAAT	GGGGAC
NC_008232-Liobagrus_obesus_(bull-head_torrent_catfish)	GTCTTT	TAAAT	GAAGAC
NC_004591-Lipolagus_ochotensis_(eared_blacksmelt)	GTCTTT	TAAAT	GAAGAC
NC_017887-Liza_affinis_(eastern_keelback_mullet)	GTCTCT	TAAAT	GAGGAC
NC_013872-Lophiodes_caulinaris_(spottedtail_angler)	GTTTTT	TAAAT	GAAGAC
NC_008125-Lophiomus_setigerus_(anglerfish)	GTCTTT	TAAAT	GAGGAC
NC_004380-Lophius_americanus_(American_angler)	GTCTTT	TAAAT	GAAGAC
NC_004379-Lota_lota_(burbot)	GTCTTT	TAAAT	GAAGAC
NC_015541-Luciosoma_bleekeri_(cyprinid_fish)	GTCCCT	TAAAT	GGGGTC
NC_016661-Lutjanus_argentimaculatus_(mangrove_red_snapper)	GTCTTT	TAAAT	GGAGAC
NC_011275-Lutjanus_bengalensis_(Bengal_snapper)	GTCTTT	TAAAT	GAGAC
NC_011578-Lutjanus_kasmira_(common_bluestripe_snapper)	GTCTTT	TAAAT	GGAGAC
NC_012736-Lutjanus_malabaricus_(Malabar_blood_snapper)	GTCTTT	TAAAT	GGAGAC
NC_009869-Lutjanus_rivulatus_(blubberlip_snapper)	GTCTTT	TAAAT	GGAGAC
NC_010963-Lutjanus_russellii_(Russells_snapper)	GTCTTT	TAAAT	GGAGAC
NC_012737-Lutjanus_sebae_(emperor_red_snapper)	GTCTTT	TAAAT	GGAGAC
NC_009851-Luvarus_imperialis_(luvar)	GTCTTT	TAAAT	GGAGAC
NC_014279-Lycengraulis_grossidens_(Atlantic_sabretooth_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_004409-Lycodes_toyamensis_(Petroschmidtia_toyamensis)	GTCTTT	TAAAT	GAAGAC
NC_014277-Lycotrisa_crocodilus_(sabretoothed_thryssa)	GCCTTT	TAAAT	GAAGGC
NC_015551-Macrochirichthys_macrochirus_(sward_minnow)	GTCTTT	TAAAT	AGAGAC
NC_010265-Macroramphosus_scolopax_(longspine_snipefish)	GTCTTT	TAAAT	GAAGAC
NC_009860-Macrorhamphosodes_uradoi_(trumpetsnout)	GTCTCT	TAAAT	GGAGAC
NC_012675-Makaira_indica_(black_marlin)	GTCTTT	TAAAT	GAAGAC
NC_012680-Makaira_mazara_(Indo-Pacific_blue_marlin)	GTCTTT	TAAAT	GAAGAC
NC_015833-Malapterurus_electricus_(electric_catfish)	GTCTTT	TAAAT	GAAGAC
NC_015244-Mallotus_villosus_(capelin)	GTCCCT	TAAAT	GAAGAC
NC_015090-Marcusenius_senegalensis_(elephant_fish)	GTCTTT	TAAAT	GAAGAC
NC_015351-Marilyna_darwinii_(Darwin_toadfish)	GTCCCT	TAAAT	GTGGAC
NC_003193-Mastacembelus_favus_(tire_track_eel)	GTCTTT	TAAAT	GAAGAC
NC_005837-Masturus_lanceolatus_(Sharp-tailed_sunfish)	GTCTTT	TAAAT	GGAGAC
NC_011007-Maulisia_mauli_(Mauls_searsid)	GTCTTT	TAAAT	GAGGAC
NC_010341-Megalobrama_amblycephala_(Wuchang_bream)	GTCTTT	TAAAT	AGAGAC
NC_005804-Megalops_atlanticus_(tarpon)	GTCTTT	TAAAT	GAAGAC
NC_005799-Megalops_cyprinoides_(Indo-Pacific_tarpon)	GTCTTT	TAAAT	GAAGAC

NC_013866-Melanocetus_johnsoni_(Johnsons_black_anglerfish)	GTCTTT	TAAAT	GGAGAC
NC_004384-Melanocetus_murrayi_(Murrays_abyssal_anglerfish)	GTCTTT	TAAAT	GGAGAC
NC_007396-Melanogrammus_aeglefinus_(haddock)	GTCTTT	TAAAT	GAAGAC
NC_004385-Melanotaenia_lacustris_(Lake_Kutubu_rainbowfish)	GTCTTT	TAAAT	GAAGAC
NC_011937-Melichthys_vidua_(pinktail_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_011174-Menidia_menidia_(Atlantic_silverside)	GTCTTT	TAAAT	GGAGAC
NC_007395-Merlangius_merlangus_(whiting)	GTCTTT	TAAAT	GAAGAC
NC_015120-Merluccius_merluccius_(European_hake)	GTCTTT	TAAAT	GAAGAC
NC_011956-Meuschenia_hippocrepis_(horse-shoe_leatherjacket)	GTCTCT	TAAAT	GGGGAC
NC_015753-Micralestes_sp._NM-2010	GTTTTT	TAAAT	GAAGAC
NC_013182-Microcanthus_strigatus_(stripey)	GTCTTT	TAAAT	GAAGAC
NC_015546-Microdevario_nana_(cyprinid_fish)	GTCCCT	TAAAT	AGGGAC
NC_015102-Micromesistius_poutassou_(blue_whiting)	GTCTTT	TAAAT	GAAGAC
NC_010273-Microphis_brachyurus_(short-tailed_pipefish)	GTCTTT	TAAAT	GAAGAC
NC_014880-Microphysogobio_koreensis_(cyprinid)	GTCTTT	TAAAT	GAAGAC
NC_011361-Micropterus_dolomieu_(smallmouth_bass)	GTCTTT	TAAAT	GAAGAC
NC_014689-Micropterus_floridanus_(Florida_largemouth_bass)	GTCTTT	TAAAT	GAAGAC
NC_008106-Micropterus_salmoides_(largemouth_bass)	GTCTTT	TAAAT	GAAGAC
NC_014686-Micropterus_salmoides_salmoides_(northern_largemouth_bass)	GTCTTT	TAAAT	GAAGAC
NC_016695-Microthrissa_congica_(bigscale_pellonuline)	GTCTTT	TAAAT	GGAGAC
NC_016683-Microthrissa_sp._AF2_(sprat)	GTCTTT	TAAAT	GAAGAC
NC_014351-Miichthys_miiuy_(Mi-iuy_croaker)	GTCTTT	TAAAT	GAAGAC
NC_008113-Minytrema_melanops_(spotted_sucker)	GTCTTT	TAAAT	GAAGAC
NC_011209-Misgurnus_anguillicaudatus_(oriental_weatherfish)	GTCTTT	TAAAT	GAAGAC
NC_008678-Misgurnus_nikolskyi_(loach)	GTCTTT	TAAAT	GAAGAC
NC_005836-Mola_mola_(ocean_sunfish)	GTCTTT	TAAAT	GGAGAC
NC_011925-Monacanthus_chinensis_(fan-bellied_leatherjacket)	GTCTCT	TAAAT	AGGGAC
NC_004392-Monocentris_japonicus_(pinecone_fish)	GTCTTT	TAAAT	GAAGAC
NC_009858-Monodactylus_argenteus_(silver_moonny)	GTCTTT	TAAAT	GAAGAC
NC_013612-Monognathus_jespersenii_(onejaw)	GTCTTT	TAAAT	AAAGAC
NC_003192-Monopterus_albus_(swamp_eel)	GTCTTT	TAATT	GAAGAC
NC_010957-Monotaxis_grandoculis_(humpnose_big-eye_bream)	GTCTCT	TAAAT	GGGGAC
NC_015366-Monotrete_cochinchinensis_(Fangs_Puffer)	GTCCCT	TAAAT	GAGGAC
NC_013622-Moringua_edwardsi_(spaghetti_eel)	GTCTCT	TAAAT	AGGGAC
NC_013602-Moringua_microchir_(lesser_thrush_eel)	GTCTCT	TAAAT	AGAGAC
NC_014353-Morone_saxatilis_(striped_sea-bass)	GTCTTT	TAAAT	GGAGAC
NC_013074-Moxostoma_congestum_(gray_redhorse)	GTCTTT	TAAAT	GAAGAC
NC_008674-Moxostoma_poecilurum_(blacktail_redhorse)	GTCTTT	TAAAT	GAAGAC
NC_003182-Mugil_cephalus_(flathead_mullet)	GTCCCT	TAAAT	GAGAAC
NC_017889-Mugil_curema_(white_mullet)	GTCCCT	TAAAT	GAGGAC
NC_013614-Muraenesox_bagio_(common_pike_conger)	GTCTCT	TAAAT	AGAGAC
NC_003163-Myctophum_affine_(metallic_lantern_fish)	GTCTCT	TAATT	AGGGAC
NC_015751-Myleus_sp._NM-2010	GTCTTT	TAAAT	GGGGAC
NC_013763-Mylocheilus_caurinus_(peamouth_chub)	GTCTCT	TAAAT	AGAGAC
NC_011141-Mylopharyngodon_piceus_(black_carp)	GTCTTT	TAAAT	AGAGAC
NC_015089-Myomys_macrops_(elephant_fish)	GTCTTT	TAAAT	GAAGAC
NC_013635-Myrichthys_maculosus_(tiger_snake_eel)	GTCTTT	TAAAT	GAAGAC
NC_003189-Myripristis_berndti_(blotcheye_soldierfish)	GTCTTT	TAAAT	GAAGAC
NC_013631-Myroconger_compressus_(red_eel)	GTCTTT	TAAAT	GAAGAC
NC_006401-Myxocyprinus_asiaticus_(Chinese_sucker)	GTCTTT	TAAAT	GAAGAC
NC_017892-Myxus_capensis_(freshwater_mullet)	GTCTCT	TAAAT	GAAGAC
NC_015542-Nannoperca_australis_(Tasmanian_pigmy_perch)	GTCTCT	TAAAT	GGGGAC
NC_015545-Nannoperca_obscura_(Yarra_pygmy_perch)	GTCTCT	TAAAT	GGGGAC
NC_004596-Nansenia_ardesiaca_(microstomatid_fish)	GTCTTT	TAAAT	GAAGAC
NC_011008-Narcetes_erimelas_(slickhead)	GTCTTT	TAAAT	GAGGAC
NC_013560-Narcetes_stomias_(blackhead_salmon)	GTCTTT	TAAAT	GAAGAC
NC_009853-Naso_lopezi_(elongate_unicornfish)	GTCTTT	TAAAT	GGAGAC
NC_012980-natural_gynogenetic_Carassius_auratus_red_var._(natural_gynogenetic_red_crucian_car p)	GTCTTT	TAAAT	AGAGAC
NC_011921-Nelusetta_ayraudi_(Chinaman-leatherjacket)	GTCTCT	TAAAT	GGGGAC
NC_009586-Nematalosa_japonica_(Japanese_gizzard_shad)	GTCTTT	TAAAT	GGAGAC
NC_013620-Nemichthys_scolopaceus_(slender_snipe_eel)	GTCTTT	TAAAT	GGAGAC
NC_013864-Neoceratias_spiniifer_(Tandangler)	GTCTCT	TAAAT	GGGGAC
NC_004399-Neocyttus_rhomboidalis_(spiky_oreo)	GTCTTT	TAAAT	GAAGAC
NC_009062-Neolamprologus_brichardi_(lyretail_cichlid)	GTCTTT	TAAAT	GAAGAC

NC_003180-Neoscopelus_microchir_(lanternfish)	GTCTTT	TAAAT	GGAGAC
NC_013608-Nessorhamphus_ingolfianus_(duckbill_oceanic_eel)	GTCTTT	TAAAT	GAAGAC
NC_013625-Nettastoma_parviceps_(shortsnouted_sorcerer)	GTCTTT	TAAAT	GAAGAC
NC_015205-Nibea_albiflora_(white_flower_croaker)	GTCTTC	TAAAT	AGAGAC
NC_015538-Nicholsicypris_normalis_(cyprinid_fish)	GTCTTT	TAAAT	AGAGAC
NC_015307-Niwaella_delicata_(Ajime_loach)	GTCTTT	TAAAT	GAAGAC
NC_011009-Normichthys_operosus_(multipore_searsid)	GTCTTT	TAAAT	GGGGAC
NC_005144-Notacanthus_chemnitzii_(spiny_eel)	GTCTTT	TAAAT	GAAGAC
NC_008646-Notemigonus_crysoleucas_(golden_shiner)	GTCTCT	TAAAT	AGAGAC
NC_011814-Nothobranchius_furzeri_(turquoise_killifish)	GTCTTT	TAAAT	GAAGAC
NC_012713-Notopterus_notopterus_(bronze_featherback)	GTCTTT	TAAAT	GAAGAC
NC_015653-Notothenia_coriiceps_(black_rockcod)	GTCTCT	TAAAT	GGAGAC
NC_008110-Notropis_stramineus_(sand_shiner)	GTCTTT	TAAAT	AGAGAC
NC_009061-Odax_cyanomelas_(herring_cale)	GTCTTT	TAAAT	GAAGAC
NC_016678-Odaxothrissa_sp._AF1_(fangtooth_pellonuline)	GTCTTT	TAAAT	GGAGAC
NC_009590-Odaxothrissa_vittata_(Regans_fangtooth_pellonuline)	GTCTTT	TAAAT	GGAGAC
NC_011175-Odontesthes_sp._Odsp-001_(neotropical_silverside)	GTCTTT	TAAAT	GAAGAC
NC_010199-Odontobutis_platycephala_(freshwater_sleeper)	GTCTCT	TAAAT	AGAGAC
NC_011938-Odonus_niger_(redtoothed_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_017893-Oedalechilus_labeo_(boxlip_mullet)	GTCTCT	TAAAT	GAGGAC
NC_015349-Omegophora_armilla_(ringed_toadfish)	GTCTTT	TAAAT	GAGGAC
NC_006897-Oncorhynchus_clarkii_henshawi_(Lahontan_cutthroat_trout)	GTCTTT	TAAAT	GAAGAC
NC_010959-Oncorhynchus_gorbuscha_(pink_salmon)	GTCTTT	TAAAT	GAAGAC
NC_017838-Oncorhynchus_keta_(chum_salmon)	GTCTTT	TAAAT	GAAGAC
NC_009263-Oncorhynchus_kisutch_(coho_salmon)	GTCTTT	TAAAT	GAAGAC
NC_009262-Oncorhynchus_masou_Biwa_(masu_salmon)	GTCTTT	TAAAT	GAAGAC
NC_008745-Oncorhynchus_masou_formosanus_(Taiwan_salmon)	GTCTTT	TAAAT	GAAGAC
NC_008746-Oncorhynchus_masou_ishikawae_(Ishikawas_cherry_salmon)	GTCTTT	TAAAT	GAAGAC
NC_008747-Oncorhynchus_masou_masou_(cherry_salmon)	GTCTTT	TAAAT	GAAGAC
NC_001717-Oncorhynchus_mykiss_(rainbow_trout)	GTCTTT	TAAAT	GAAGAC
NC_008615-Oncorhynchus_nerka_(sockeye_salmon)	GTCTTT	TAAAT	GAAGAC
NC_002980-Oncorhynchus_tshawytscha_(Chinook_salmon)	GTCTTT	TAAAT	GAAGAC
NC_013871-Oneirodes_thompsoni_(spiny_dreamer)	GTCTTT	TAAAT	GGAGAC
NC_018043-Onychostoma_lini_(Lins_shoveljaw_carp)	GTCTTT	TAAAT	AGAGAC
NC_005802-Ophisurus_macrorhynchus_(snake_eel)	GTCTTT	TAAAT	GGAGAC
NC_004600-Opisthoproctus_soleatus_(barrel-eye)	GTCTTT	TAAAT	GAAGAC
NC_017895-Opistognathus_jacksoniensis_(southern_smiler)	GTCTTT	TAAAT	GAAGAC
NC_010968-Oplegnathus_fasciatus_(barred_knifejaw)	GTCTTT	TAAAT	GGAGAC
NC_013143-Oplegnathus_punctatus_(spotted_knifejaw)	GTCTTT	TAAAT	GGAGAC
NC_008744-Opsariichthys_bidens_(carp)	GTCTTT	TAAAT	AGAGAC
NC_008652-Opsariichthys_uncirostris_(Hasu_fish)	GTCTTT	TAAAT	AGAGAC
NC_013750-Oreochromis_aureus_(blue_tilapia)	GTCTTT	TAAAT	GAAGAC
NC_007231-Oreochromis_mossambicus_(Mozambique_tilapia)	GTCTTT	TAAAT	GAAGAC
NC_013663-Oreochromis_niloticus_(Nile_tilapia)	GTCTTT	TAAAT	GAAGAC
NC_014060-Oreochromis_sp._red_tilapia_(red_tilapia)	GTCTTT	TAAAT	GAAGAC
NC_009057-Oreochromis_sp._KM-2006_(cichlid_fish)	GTCTTT	TAAAT	GAAGAC
NC_012976-Oryzias_dancena_(mundalkanni)	GCCTTT	TAAAT	GAAGGC
NC_012981-Oryzias_javanicus_(javanese_ricefish)	GCCTTT	TAAAT	GAAGGC
NC_004387-Oryzias_latipes_(Japanese_medaka)	GCCTTT	TAAAT	GAGGGC
NC_012979-Oryzias_luzonensis_(coscosleng)	GCCTTT	TAAAT	GAAGGC
NC_012975-Oryzias_minutillus_(dwarf_medaka)	GCCTTT	TAAAT	GAAGGC
NC_013434-Oryzias_sinensis_(Chinese_medaka)	GCCTTT	TAAAT	GAGGGC
NC_015246-Osmerus_mordax_(rainbow_smelt)	GTCCCT	TAAAT	GAAGAC
NC_003095-Osteoglossum_bicirrhosum_(silver_arawana)	GTCTTT	TAAAT	GAAGAC
NC_004394-Ostichthys_japonicus_(brocade_perch)	GTCTTT	TAAAT	GAAGAC
NC_009865-Ostracion_immaculatus_(bluespotted_boxfish)	GTCTCT	TAAAT	GGGGAC
NC_016194-Oxudercus_dentatus_(mudskipper)	GTCTTT	TAAAT	GAAGAC
NC_011927-Oxymonacanthus_longirostris_(harlequin_filefish)	GTCCCT	TAAAT	GGGGAC
NC_009502-Pagellus_bogaraveo_(blackspot_seabream)	GTCTTT	TAAAT	GAAGAC
NC_005146-Pagrus_auriga_(redbanded_seabream)	GTCTTT	TAAAT	GGAGAC
NC_003196-Pagrus_major_(red_seabream)	GTCTTT	TAAAT	GGAGAC
NC_011707-Pampus_sp._LY-2009	GTCTTT	TAAAT	GGAGAC
NC_006381-Pangasianodon_gigas_(Mekong_giant_catfish)	GTCTTT	TAAAT	GAAGAC
NC_015839-Pangasius_larnaudii_(spot_pangasius)	GTCTTT	TAAAT	GAAGAC
NC_008675-Pangio_anguillaris_(eel_loach)	GTCTTT	TAAAT	GAAGAC
NC_003096-Pantodon_buchholzi_(freshwater_butterflyfish)	GTCTTT	TAAAT	GAAGAC

NC_012714-Papycrocranus_congoensis_(Congo_knifefish)	GTCTTT	TAAAT	GAAGAC
NC_013630-Paraconger_notialis_(shiro-anago_(conger_eel))	GTCTTT	TAAAT	GAAGAC
NC_009459-Parajulis_poecilepterus_(multicolorfin_rainbowfish)	GTCTTT	TAAAT	GGAGAC
NC_007891-Parakneria_cameronensis_(shellear)	GTCCCT	TAAAT	AGGGAC
NC_015194-Paralaubuca_typus_(cyprinid_fish)	GTCTTT	TAAAT	AAAGAC
NC_002386-Paralichthys_olivaceus_(Japanese_flounder)	GTCTTT	TAAAT	GAAGAC
NC_011929-Paraluteres_prionurus_(blacksaddle_filefish)	GTCTCT	TAAAT	AGGGAC
NC_011931-Paramonacanthus_choirocephalus_(pig_faced_leather_jacket)	GTCTCT	TAAAT	AGGGAC
NC_015107-Paramormyrops_gabonensis_(elephant_fish)	GTCTTT	TAAAT	GAAGAC
NC_009857-Parapristipoma_trilineatum_(chicken_grunt)	GTCTTT	TAAAT	GGGGAC
NC_008616-Parargyrops_edita_(ribbon_fish)	GTCTTT	TAAAT	GGAGAC
NC_012044-Parataeniophorus_gulosus_(whalefish)	GTCTTT	TAAAT	GAAGAC
NC_011170-Paratilapia_polleni_(Pollens_cichlid)	GTCTTT	TAAAT	GAAGAC
NC_004396-Parazen_pacificus_(parazen)	GTCTTT	TAAAT	GGAGAC
NC_011177-Paretroplus_maculatus_(damba_mipentina)	GTCTTT	TAAAT	GAAGAC
NC_015837-Pareutropius_debauwi_(African_glass_catfish)	GTCTTT	TAAAT	GAAGAC
NC_010271-Pegasus_volitans_(longtail_seamoth)	GTCTTT	TAAAT	GAAGAC
NC_015353-Pelagocephalus_markii_(rippled_blaasop)	GTCCCT	TAAAT	GAGGAC
NC_008663-Pelecus_cultratus_(sabrefish)	GTCTCT	TAAAT	AGAGAC
NC_014268-Pellona_flavipinnis_(yellowfin_river_pellona)	GTCTTT	TAAAT	GAAGAC
NC_009591-Pellonula_leonensis_(smalltoothed_pellonula)	GTCTTT	TAAAT	GGAGAC
NC_015888-Pelteobagrus_fulvidraco_(yellow_catfish)	GTCTTT	TAAAT	GAAGAC
NC_014859-Pelteobagrus_nitidus_(bagrid_catfish)	GTCTTT	TAAAT	GAAGAC
NC_014862-Pelteobagrus_vachellii_(bagrid_catfish)	GTCTTT	TAAAT	GAAGAC
NC_015202-Pennahia_argentata_(silver_croaker)	GTCTTT	TAAAT	AAAGAC
NC_008111-Percina_macrolepida_(bigscale_logperch)	GTCTTT	TAAAT	GGAGAC
NC_003168-Percopsis_transmontana_(sand_roller)	GTCTCT	TAAAT	GGAGAC
NC_011932-Pervagor_janthinosoma_(blackbar_filefish)	GTCTCT	TAAAT	GGGGAC
NC_015098-Petrocephalus_microphthalmus_(elephant_fish)	GTCTTT	TAAAT	GAAGAC
NC_015092-Petrocephalus_soudanensis_(electric_fish)	GTCTTT	TAAAT	GAAGAC
NC_004411-Petrosirtes_breviceps_(striped_poison-fang_blenny_mimic)	GTCCCT	TAAAT	AGGGAC
NC_008112-Phenacobius_mirabilis_(suckermouth_minnow)	GTCTTT	TAAAT	AGAGAC
NC_004699-Phenacogrammus_interruptus_(Congo_tetra)	GTTTTT	TAAAT	GAAGAC
NC_004410-Pholis_crassispina_(gunnel)	GTCTTT	TAAAT	GAAGAC
NC_015364-Phoxinus_eos_(northern_redbelly_dace)	GTCTCT	TAAAT	AGAGAC
NC_015360-Phoxinus_percnurus_(Phoxinus_perenurus)	GTCTCT	TAAAT	AGAGAC
NC_008684-Phoxinus_percnurus_mantschuricus_(lake_minnow)	GTCTCT	TAAAT	AGAGAC
NC_015362-Phoxinus_percnurus_sachalinensis_(Phoxinus_perenurus_sachalinensis)	GTCTCT	TAAAT	AGAGAC
NC_015357-Phoxinus_steindachneri_(Amur_minnow)	GTCTCT	TAAAT	AGAGAC
NC_007892-Phractolaemus_ansorgii_(hingemouth)	GTCCCT	TAAAT	GAGGAC
NC_004377-Physiculus_japonicus_(Japanese_codling)	GTTTTT	TAAAT	GGAGAC
NC_015797-Pimelodus_pictus_(Pictus_cat)	GTCTTT	TAAAT	GAAGAC
NC_013136-Platax_orbicularis_(orbicular_batfish)	GTCCCT	TAAAT	GAAGAC
NC_010966-Platichthys_stellatus_(starry_flounder)	GTCTTT	TAAAT	GAAGAC
NC_004597-Platytrictes_apus_(legless_searsid)	GTCTTT	TAAAT	GAGGAC
NC_002734-Plecoglossus_altivelis_(ayu-fish)	GTCCCT	TAAAT	GAAGAC
NC_008449-Plectropomus_leopardus_(leopard_coralgrouper)	GTCTTT	TAAAT	GGAGAC
NC_015652-Pleuragramma_antarctica_(Antarctic_silverfish)	GTCTCT	TAAAT	GGAGAC
NC_015097-Pollachius_pollachius_(pollack)	GTCTTT	TAAAT	GAAGAC
NC_015094-Pollachius_virens_(saithe)	GTCTTT	TAAAT	GAAGAC
NC_002648-Polymixia_japonica_(silver_eye)	GTCTTT	TAAAT	GAAGAC
NC_003181-Polymixia_lowei_(beardfish)	GTCTTT	TAAAT	GAAGAC
NC_004419-Polyodon_spathula_(Mississippi_paddlefish)	GTCTTT	TAAAT	GAAGAC
NC_001778-Polypterus_ornatipinnis_(bichir)	GTTCTT	TAAAT	GAGGAC
NC_004418-Polypterus_senegalus_senegalus_(gray_bichir)	GTCCCT	TAAAT	GAGGAC
NC_015339-Polyspina_piosae_(orangebarred_puffer)	GTCCCT	TAAAT	GTGGAC
NC_006920-Porichthys_myriaster_(specklefin_midshipman)	GTCTTT	TAATT	GAAGAC
NC_003172-Poromitra_oscitans_(yawning)	GTCTTT	TAAAT	GAAGAC
NC_016674-Potamalosa_richmondia_(Australian_freshwater_herring)	GTCTTT	TAAAT	GAAGAC
NC_016688-Potamothrissa_sp_AF3_(sawtooth_pellonuline)	GTCTTT	TAAAT	GGAGAC
NC_016698-Potamothrissa_sp_Odzala	GTCTTT	TAAAT	GGAGAC
NC_012047-Procetichthys_kreffti_(whalefish)	GTCTTT	TAAAT	AAAGAC
NC_011192-Procypris_rabaudi_(rock_carp)	GTCTTT	TAAAT	GAAGAC
NC_013144-Psenes_cyanophrys_(freckled_driftfish)	GTCTTT	TAAAT	GGAGAC
NC_005834-Psephurus_gladus_(Chinese_swordfish)	GTCTTT	TAAAT	GAAGAC
NC_013183-Scophthalmus_maximus_(turbot)	GTCTCT	TAAAT	GGAGAC

NC_011955-Pseudalutarius_nasicornis_(rhino_leatherjacket)	GTCCCT	TAAAT	AGGGGC
NC_008681-Pseudaspisus_leptocephalus_(flathead_asp)	GTCTCT	TAAAT	AGAGAC
NC_015625-Pseudobagrus_brevicarpus_(Korean_stumpy_bullhead)	GTCTTT	TAAAT	GAAGAC
NC_004697-Pseudobagrus_tokiensis_(bagrid_catfish)	GTCTTT	TAAAT	GAAGAC
NC_011939-Pseudobalistes_flavimarginatus_(yellowmargin_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_013759-Pseudogobio_esocinus_(kamatsuka)	GTCTTT	TAAAT	AGAGAC
NC_012055-Pseudolabrus_eoethinus_(red-naped_wrasse)	GTCTTT	TAAAT	GGAGAC
NC_009067-Pseudolabrus_sieboldi_(bambooleaf_wrasse)	GTCTTT	TAAAT	GGAGAC
NC_011933-Pseudomonacanthus_peroni_(pot-bellied_leatherjacket)	GTCTCT	TAAAT	AGGGAC
NC_011161-Pseudopungtungia_nigra_(black_shiner)	GTCTTT	TAAAT	AGAGAC
NC_014873-Pseudopungtungia_tenuicarpus_(cyprinid)	GTCTTT	TAAAT	AGAGAC
NC_015614-Pseudorasbora_parva_(stone_moroko)	GTCTTT	TAAAT	AGAGAC
NC_008665-Pseudorasbora_pumila_(moroco)	GTCTTT	TAAAT	AGAGAC
NC_011210-Psilorhynchus_homaloptera_(torrent_stone_carp)	GTCTCT	TAAAT	AGAGAC
NC_015532-Psilorhynchus_sucatio_(river_stone_carp)	GTCTCT	TAAAT	AGAGAC
NC_010205-Pteragogus_flagellifer_(cocktail_wrasse)	GTCTTT	TAAAT	GAAGAC
NC_004408-Pterocaesio_tile_(dark-banded_fusilier)	GTCTTT	TAAAT	GGAGAC
NC_005796-Pterothrissus_gissu_(Japanese_gissu)	GTCTTT	TAAAT	GGAGAC
NC_015747-Pterygoplichthys_disjunctivus_(vermicualted_sailfin_catfish)	GTCTTT	TAAAT	GAAGAC
NC_011169-Ptychochromoides_katria_(katria_cichlid)	GTCTTT	TAAAT	GAAGAC
NC_014893-Pungitius_kaibarae	GTCTTT	TAAAT	GAAGAC
NC_011571-Pungitius_pungitius_(ninespine_stickleback)	GTCTTT	TAAAT	GAAGAC
NC_014889-Pungitius_sinensis_(Amur_stickleback)	GTCTTT	TAAAT	GAAGAC
NC_008664-Pungtungia_herzi_(mugitsuku)	GTCTTT	TAAAT	AGAGAC
NC_010110-Puntius_tetrazona_(Sumatra_barb)	GTCTTT	TAAAT	AAAGAC
NC_008658-Puntius_ticto_(Ticto_barb)	GTCTTT	TAAAT	AAAGAC
NC_015840-Pygocentrus_nattereri_(red-bellied_piranha)	GTCTTT	TAAAT	GAGGAC
NC_013601-Pythonichthys_microphthalmus_(mud_eel)	GTCTTT	TAAAT	GAAGAC
NC_011219-Rachycentron_canadum_(cobia)	GTCTTT	TAAAT	AGGGAC
NC_015547-Raiamas_guttatus_(Burmese_trout)	GTCCCT	TAAAT	GGGGTC
NC_013764-Raiamas_senegalensis_(Senegal_minnow)	GTCCCT	TAAAT	AGGGAC
NC_007887-Ranzania_laevis_(slender_sunfish)	GTCTTT	TAAAT	GGAGAC
NC_015527-Rasbora_daniconius_(slender_rasbora)	GTCCCT	TAAAT	GGGGAC
NC_015531-Rasbora_vaterifloris_(pearly_rasbora)	GTCCCT	TAAAT	GGGGAC
NC_013485-Rastrelliger_brachysoma_(short_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_009711-Reinhardtius_hippoglossoides_(Greenland_flounder)	GTCTTT	TAAAT	GAAGAC
NC_004598-Retropinna_retopinna_(cucumberfish)	GTCCCT	TAAAT	GAAGAC
NC_011941-Rhinecanthus_acleatus_(blackbar_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_017897-Rhinomugil_nasutus_(shark_mullet)	GTCCCT	TAAAT	GAGGAC
NC_013610-Rhinomuraena_quaesita_(ribbon_moray)	GTCTTT	TAAAT	GGAGAC
NC_011211-Rhodeus_ocellatus_(rosy_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_008642-Rhodeus_ocellatus_kurumeus_(Japanese_rosy_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_013709-Rhodeus_suigensis_(spring_bitterling)	GTCTTT	TAAAT	GAAGAC
NC_007885-Rhodeus_uyekii_(Korean_rose_bitterling)	GTCTTT	TAAAT	AAAGAC
NC_004414-Rhyacichthys_aspro_(loach_goby)	GTCTTT	TAAAT	GAAGAC
NC_013863-Rhynchactis_macrothrix_(anglerfish)	GTCTTT	TAAAT	GGAGAC
NC_015354-Rhynchocypris_lagowskii_(Amur_minnow)	GTCTCT	TAAAT	AGAGAC
NC_013141-Rhynchopelates_oxyrhynchus_(sharpbeak_terapon)	GTCTTT	TAAAT	GGAGAC
NC_013633-Robinsia_catherinae_(false_moray_eel)	GTCTTT	TAAAT	GAAGAC
NC_003186-Rondeletia_loricata_(redmouth_whalefish)	GTCTTT	TAAAT	GAAGAC
NC_011924-Rudarius_ercodes_(whitespotted_pygmy_filefish)	GTCTCT	TAAAT	GGAGAC
NC_005298-Saccopharynx_lavenbergi_(Lavenbergs_gulper-eel)	GTCTTT	TAAAT	AAAGAC
NC_011010-Sagamichthys_abei_(shining_tubeshoulder)	GTCTTT	TAAAT	GAGGAC
NC_004599-Salangichthys_microdon_(Japanese_icefish)	GTCCCT	TAAAT	GAGGAC
NC_006918-Salanx_ariakensis_(icefish)	GTCCCT	TAAAT	GAAGAC
NC_004412-Salarias_fasciatus_(jewelled_blenny)	GTCTTT	TAAAT	GAAGAC
NC_001960-Salmo_salar_(Atlantic_salmon)	GTCTTT	TAAAT	GAAGAC
NC_010007-Salmo_trutta_trutta_(sea_trout)	GTCTTT	TAAAT	GAAGAC
NC_015549-Salmostoma_bacaila_(large_razorbelly_minnow)	GTCCCT	TAAAT	GGGGTC
NC_000861-Salvelinus_alpinus_(Arctic_char)	GTCTTT	TAAAT	GAAGAC
NC_000860-Salvelinus_fontinalis_(brook_trout)	GTCTTT	TAAAT	GAAGAC
NC_004694-Sarcocheilichthys_variegatus_microoculus_(oily_gudgeon_Cobitis)	GTCTTT	TAAAT	AGAGAC
NC_009592-Sardina_pilchardus_(sardine)	GTCTTT	TAAAT	GGAGAC
NC_009587-Sardinella_maderensis_(Madeiran_sardinella)	GTCTTT	TAAAT	GGAGAC
NC_016726-Sardinella_sp._Madagascar-2009a_(sardinella)	GTCTTT	TAAAT	GGAGAC
NC_002616-Sardinops_melanostictus_(Japanese_pilchard)	GTCTTT	TAAAT	GGAGAC

NC_004395-Sargocentron_rubrum_(redcoat)	GTCTTT	TAAAT	GAAGAC
NC_015611-Sarotherodon_melanotheron_(blackchin_tilapia)	GTCTTT	TAAAT	GAAGAC
NC_004403-Scalicus_amiscus_(armored_gurnard)	GTCTTT	TAAAT	GAAGAC
NC_003162-Saurida_undosquamis_(brushtooth_lizardfish)	GTCTTT	TAAAT	GAAGAC
NC_004420-Scaphirhynchus_cf._albus_(pallid_sturgeon)	GTCTTT	TAAAT	GAAGAC
NC_017888-Scartelaos_histophorus_(walking_goby)	GTCTTT	TAAAT	GGAGAC
NC_011928-Scarus_forsteni_(Forstens_parrotfish)	GTCTTT	TAAAT	GGAGAC
NC_011599-Scarus_ghobban_(blue-barred_parrotfish)	GTCTTT	TAAAT	GGAGAC
NC_011343-Scarus_rubroviolaceus_(ember_parrotfish)	GTCTTT	TAAAT	GGAGAC
NC_011936-Scarus_schlegelii_(yellowband_parrotfish)	GTCTTT	TAAAT	GGAGAC
NC_008679-Schistura_balteata_(sumo-loach)	GTCTTT	TAAAT	GAAGAC
NC_017873-Schizothorax_biddulphi_(Tarim_schizothoracin)	GTCTTT	TAAAT	AGAGAC
NC_016867-Sciaenops_ocellatus_(red_drum)	GTCTTT	TAAAT	GAAGAC
NC_007012-Scleropages_formosus_(Asian_bonytongue)	GTCTTT	TAAAT	GAAGAC
NC_011926-Scobinichthys_granulatus_(rough_leatherjacket)	GTCTCT	TAAAT	GGGGAC
NC_013725-Scomber_australasicus_(blue_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_013724-Scomber_colias_(Atlantic_chub_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_013723-Scomber_japonicus_(chub_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_006398-Scomber_scombrus_(Atlantic_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_008109-Scomberomorus_cavalla_(king_mackerel)	GTCTTT	TAAAT	GGAGAC
NC_016420-Scomberomorus_nipponius_(Japanese_Spanish_mackerel)	GTCTTT	TAAAT	GGAGAC
NC_003171-Scopelogadus_mizolepis_(bigeye)	GTCTTT	TAAAT	GAAGAC
NC_013140-Scorpius_lineolata_(silver_sweep)	GTCTTT	TAAAT	GGAGAC
NC_005450-Sebastes_schlegelii_(Korean_rockfish)	GTCTTT	TAAAT	GAAGAC
NC_013812-Sebastiscus_marmoratus_(false_kelpfish)	GTCTTT	TAAAT	GAAGAC
NC_016870-Seriola_dumerili_(greater_amberjack)	GTCTTT	TAAAT	GGAGAC
NC_016869-Seriola_lalandi_(yellowtail_amberjack)	GTCTTT	TAAAT	GGAGAC
NC_016868-Seriola_quinqueradiata_(Japanese_amberjack)	GTCTTT	TAAAT	GGAGAC
NC_013627-Serrivomer_beanii_(Beans_sawtoothed_eel)	GTCTTT	TAAAT	AAAGAC
NC_013436-Serrivomer_sector_(sawtooth_eel)	GTCTTT	TAAAT	AGAGAC
NC_015534-Sewellia_lineolata_(tiger_hillstream_loach)	GTCTTT	TAAAT	GAAGAC
NC_017898-Sicamugil_casasia_(yellowtail_mullet)	GTCTTC	TAAAT	GAGGAC
NC_009572-Siganus_fuscescens_(mottled_spinefoot)	GTCTTT	TAAAT	GGAGAC
NC_013148-Siganus_unimaculatus_(blotched_foxface)	GTCTTT	TAAAT	GGAGAC
NC_002574-Sigmops_gracilis_(slender_fangjaw)	GTCTTT	TAAAT	AAAGAC
NC_016672-Sillago_sihama_(silver_sillago)	GTCTCT	TAAAT	GGGGGC
NC_015806-Silurus_asotus_(Amur_catfish)	GTCTTT	TAAAT	GAAGAC
NC_014261-Silurus_glanis_(European_catfish)	GTCTTT	TAAAT	GAAGAC
NC_015650-Silurus_lanzhouensis_(sheatfish_coral)	GTCTTT	TAAAT	GAAGAC
NC_014866-Silurus_meridionalis_(southern_catfish)	GTCTTT	TAAAT	GAAGAC
NC_013605-Simenchelys_parasitica_(snubnosed_eel)	GTCTTT	TAAAT	GAAGAC
NC_015822-Siniperca_chuatsi_(mandarin_fish)	GTCTTT	TAAAT	GGAGAC
NC_015987-Siniperca_knerii_(temperate_perch)	GTCTTT	TAAAT	GGAGAC
NC_015815-Siniperca_scherzeri_(Korean_perch)	GTCTTT	TAAAT	GGAGAC
NC_013186-Sinocyclocheilus_altishoulderus_(golden-line_fish)	GTCTTT	TAAAT	AAAGAC
NC_013189-Sinocyclocheilus_grahami_(golden-line_fish)	GTCTTT	TAAAT	AAAGAC
NC_011922-Sinogastromyzon_puliensis_(Taiwan_sucker)	GTCTTT	TAAAT	GAAGAC
NC_008123-Siremba_imberbis_(cusk-eel)	GTCTTT	TAAAT	GAAGAC
NC_013873-Sladenia_gardineri_(anglerfish)	GTCTTC	TAAAT	GAAGAC
NC_008327-Solea_senegalensis_(Senegalese_sole)	GTCTTT	TAAAT	GAAGAC
NC_010267-Solenostomus_cyanopterus_(ghost_pipefish)	GTCTTT	TAAAT	GAAGAC
NC_015344-Sphoeroides_annulatus_(bullseye_puffer)	GTCTTT	TAAAT	GGGGAC
NC_010960-Sphoeroides_pachygaster_(blunthead_puffer)	GTCTTT	TAAAT	GGGGAC
NC_015341-Sphoeroides_parvus_(least_puffer)	GTCTTT	TAAAT	GGGGAC
NC_015346-Sphoeroides_testudineus_(checkered_puffer)	GTCTTT	TAAAT	GGGGAC
NC_009854-Spicara_maena_(blotched_picarel)	GTCTTT	TAAAT	GGAGAC
NC_011582-Spinachia_spinachia_(sea_stickleback)	GTCTTT	TAAAT	GGAGAC
NC_009588-Spratelloides_delicatulus_(delicate_round_herring)	GTCTTT	TAAAT	GAAGAC
NC_009589-Spratelloides_gracilis_(silver-stripe_round_herring)	GTCTTT	TAAAT	GAAGAC
NC_016673-Sprattus_antipodum_(New_Zealand_blueback_sprat)	GTCTTT	TAAAT	GAAGAC
NC_016669-Sprattus_muelleri_(New_Zealand_sprat)	GTCTTT	TAAAT	GAAGAC
NC_009593-Sprattus_sprattus_(European_sprat)	GTCTTT	TAAAT	GAAGAC
NC_008223-Squalogadus_modificatus_(grenadier)	GTCTTT	TAAAT	GAAGAC
NC_013628-Stemonidium_hypomelas_(black_serrivomerid_eel)	GTCTTT	TAAAT	AGAGAC
NC_003177-Stephanolepis_cirrhifer_(thread-sail_filefish)	GTCTCT	TAAAT	AGAGAC
NC_018054-Stiphodon_alcedo_(amphidromous_goby)	GTCTTT	TAAAT	GGAGAC

NC_009948-Stylephorus_chordatus_(tube-eye)	GTCTTT	TAAAT	GAAGAC
NC_004416-Sufflamen_fraenatum_(masked_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_006919-Sundasilanx_mekongensis_(clupeiform_fish)	GTCTTT	TAAAT	GAAGAC
NC_016725-Sundasilanx_praecox_(dwarf_noodlefish)	GTCTTT	TAAAT	GGAGAC
NC_016663-Sundasilanx_sp._Chao_Phraya_(Sundaland_noodlefish)	GTCTTT	TAAAT	GAAGAC
NC_005805-Synaphobranchus_kaupii_(Kaups_arrowtooth_eel)	GTCTTT	TAAAT	GAAGAC
NC_015808-Synodontis_schoutedeni_(vermiculated_synodontis)	GTCTTT	TAAAT	GAAGAC
NC_007228-Synodus_variegatus_(variegated_lizardfish)	GTCCCT	TAAAT	GGGGAC
NC_011633-Takifugu_chinensis_(karasu)	GTCCCT	TAAAT	GTGGAC
NC_011624-Takifugu_chrysops_(akamefugu)	GTCCCT	TAAAT	GTGGAC
NC_011622-Takifugu_exascurus_(mushifugu)	GTCCCT	TAAAT	GTGGAC
NC_013087-Takifugu_fasciatus_(obscure_pufferfish)	GTCCCT	TAAAT	GTGGAC
NC_011625-Takifugu_niphobles_(grass_puffer)	GTCCCT	TAAAT	GTGGAC
NC_011634-Takifugu_oblongus_(lattice_blaasop)	GTCCCT	TAAAT	GTGGAC
NC_011626-Takifugu_obscurus_(mefugu)	GTCCCT	TAAAT	GTGGAC
NC_011635-Takifugu_ocellatus	GTCCCT	TAAAT	GTGGAC
NC_011627-Takifugu_pardalis_(panther_puffer)	GTCCCT	TAAAT	GTGGAC
NC_011621-Takifugu_poecilonotus_(finepatterned_puffer)	GTCCCT	TAAAT	GTGGAC
NC_011628-Takifugu_porphyreus_(purple_puffer)	GTCCCT	TAAAT	GTGGAC
NC_004299-Takifugu_rubripes_(Fugu_rubripes)	GTCCCT	TAAAT	GTGGAC
NC_011630-Takifugu_snyderi_(shosai-fugu)	GTCCCT	TAAAT	GTGGAC
NC_011629-Takifugu_stictonotus_(gomafugu)	GTCCCT	TAAAT	GTGGAC
NC_011631-Takifugu_vermicularis_(pear_puffer)	GTCCCT	TAAAT	GTGGAC
NC_011632-Takifugu_xanthopterus_(yellowfin_puffer)	GTCCCT	TAAAT	GTGGAC
NC_013562-Talismania_bifurcata_(threadfin_slickhead)	GTCTTT	TAAAT	GAAGAC
NC_015539-Tanichthys_albonubes_(white_cloud_mountain_minnow)	GTCTTT	TAAAT	AGAGAC
NC_016682-Tenualosa_ilisha_(Hilsa_shad)	GTCTTT	TAAAT	GGAGAC
NC_016700-Tenualosa_sp._cl03_(shad)	GTCTTT	TAAAT	GGAGAC
NC_016719-Tenualosa_thibaudeaui_(Mekong_herring)	GTCTTT	TAAAT	GGAGAC
NC_013879-Tetrabrachium_ocellatum_(four-armed_frogfish)	GTCTTT	TAAAT	AGAGAC
NC_015347-Tetractenos_glaber_(smooth_toadfish)	GTCCCT	TAAAT	GTGGAC
NC_015743-Tetranematichthys_quadrifilis	GTCTTT	TAAAT	GAAGAC
NC_015358-Tetraodon_biocellatus_(eyespot_pufferfish)	GTCCCT	TAAAT	GGGGAC
NC_015365-Tetraodon_cutcutia_(ocellated_pufferfish)	GCCCTT	TAAAT	GGGGGC
NC_015363-Tetraodon_mbu_(fresh_water_puffer_fish)	GTCCCT	TAAAT	GAGGAC
NC_015361-Tetraodon_miurus_(Congo_puffer)	GTCCCT	TAAAT	GAGGAC
NC_007176-Tetraodon_nigroviridis_(green-spotted_freshwater_pufferfish)	GTCCCT	TAAAT	GGGGAC
NC_015355-Tetraodon_palembangensis_(humpback_puffer)	GTCCCT	TAAAT	GAGGAC
NC_012679-Tetrapturus_angustirostris_(shortbill_spearfish)	GTCTTT	TAAAT	GAAGAC
NC_012678-Kajikia_audax_(striped_marlin)	GTCTTT	TAAAT	GAAGAC
NC_013618-Thalassenchelys_sp._Tht2_(false_moray_eel)	GTCTTT	TAAAT	GAAGAC
NC_011327-Thamnaconus_modestus_(black_scraper)	GTCTCT	TAAAT	AGGGAC
NC_013875-Thaumatichthys_pagidostomus_(wonderfish)	GTCTCT	TAAAT	GGGGAC
NC_014264-Thryssa_baelama_(Baelama_anchovy)	GCCTTT	TAAAT	GAAGGC
NC_005317-Thunnus_alalunga_(albacore)	GTCTTT	TAAAT	GGAGAC
NC_014061-Thunnus_albacares_(yellowfin_tuna)	GTCTTT	TAAAT	GGAGAC
NC_014101-Thunnus_maccoyii_(southern_bluefin_tuna)	GTCTTT	TAAAT	GGAGAC
NC_014059-Thunnus_obesus_(bigeye_tuna)	GTCTTT	TAAAT	GGAGAC
NC_008455-Thunnus_orientalis_(Pacific_bluefin_tuna)	GTCTTT	TAAAT	GGAGAC
NC_014052-Thunnus_thynnus_(northern_bluefin_tuna)	GTCTTT	TAAAT	GGAGAC
NC_004901-Thunnus_thynnus_thynnus_(Atlantic_northern_bluefin_tuna)	GTCTTT	TAAAT	GGAGAC
NC_012929-Thymallus_arcticus_(Arctic_grayling)	GTCTTT	TAAAT	GAAGAC
NC_012928-Thymallus_thymallus_(grayling)	GTCTTT	TAAAT	GAAGAC
NC_008648-Tinca_tinca_(tench)	GTCTTT	TAAAT	AGAGAC
NC_011636-Torquigener_brevipennis_(yellow-stripe_toadfish)	GTCCCT	TAAAT	GTGGAC
NC_015332-Torquigener_hypselogeneion_(orange-spotted_toadfish)	GTCCCT	TAAAT	GTGGAC
NC_015367-Torquigener_pleurogramma_(weeping_toado)	GTCCCT	TAAAT	GTGGAC
NC_013151-Toxotes_chatareus_(largescale_archerfish)	GTCTTT	TAAAT	GAAGAC
NC_017900-Trachinops_teniatus_(eastern_hulafish)	GTCTTT	TAAAT	GGAGAC
NC_003166-Trachipterus_trachipterus_(ribbon_fish)	GTCTTT	TAAAT	GGAGAC
NC_002813-Trachurus_japonicus_(Japanese_jack_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_006818-Trachurus_trachurus_(Atlantic_horse_mackerel)	GTCTTT	TAAAT	GAAGAC
NC_008224-Trachyrincus_murrayi_(roughnose_grenadier)	GTCTTT	TAAAT	GAAGAC
NC_009861-Triacanthodes_anomalus_(red_spikefish)	GTCTCT	TAAAT	GGAGAC
NC_009863-Triacanthus_biaculeatus_(short-nosed_tripodfish)	GTCTTT	TAAAT	GAAGAC
NC_008651-Tribolodon_nakamurai_(cyprinid_fish)	GTCTCT	TAAAT	AGAGAC

NC_011719-Trichiurus_japonicus_(largehead_hairtail)	GTCTTT	TAATT	GAGGAC
NC_015992-Tridentiger_bifasciatus_(Shimofuri_goby)	GTCTTT	TAAAT	GAGGAC
NC_015535-Trigonostigma_espei_(lambchop_rasbora)	GTCCCT	TAATT	AAGGAC
NC_009859-Triodon_macropterus_(threetooth_puffer)	GTCTTT	TAAAT	GGAGAC
NC_013995-triploid_Megalobrama_amblycephala_x_Xenocypris_davidi_(hybrid_carp)	GTCTTT	TAAAT	AGAGAC
NC_017890-Triplophysa_stoliczkai_(Tibetan_stone_loach)	GTCTTT	TAAAT	GAAGAC
NC_009862-Triphichthys_weberi_(blacktip_tripodfish)	GTCTTT	TAAAT	GAAGAC
NC_009063-Tropheus_duboisii_(dwarf_Tanganyikan_cichlid)	GTCTTT	TAAAT	GAAGAC
NC_016693-Trypauchen_vagina_(Indo-Pacific_burrowing_goby)	GTCTTT	TAAAT	GGAGAC
NC_015356-Tylerius_spinosissimus_(spiny_blaasop)	GTCCCT	TAAAT	GTGGAC
NC_011171-Tylochromis_polylepis_(cichlid)	GTCTTT	TAAAT	GGAGAC
NC_008680-Vaillantella_maassi_(fork-tail_loach)	GTTTTC	TAAAT	AAAGAC
NC_017902-Moolgarda_cunnesius_(longarm_mullet)	GTCCCT	TAAAT	GAGGAC
NC_008225-Ventrifossa_garmani_(Sagami_grenadier)	GTCTTT	TAAAT	GAAGAC
NC_008461-Verasper_moseri_(barfin_flounder)	GTCTTT	TAAAT	GAAGAC
NC_007939-Verasper_variegatus_(spotted_halibut)	GTCTTT	TAAAT	GAAGAC
NC_011945-Xanthichthys_auromarginatus_(gilded_triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_011321-Xenobalistes_tumidipectoris_(triggerfish)	GTCTCT	TAAAT	GGGGAC
NC_008682-Xenocypris_argentea_(yellowfin)	GTCTTT	TAAAT	AGAGAC
NC_013072-Xenocypris_davidi_(Davids_yellowfin)	GTCTTT	TAAAT	AGAGAC
NC_012715-Xenomystus_nigri_(African_knifefish)	GTCTTT	TAAAT	GAAGAC
NC_011172-Xenopoecilus_sarasinorum_(Sarasins_minnow)	GTCTTT	TAAAT	GAAGAC
NC_011381-Xenotoca_eiseni_(redtail_splitfin)	GTCTTT	TAAAT	GAAGAC
NC_012677-Xiphias_gladus_(swordfish)	GTCTTT	TAAAT	GAAGAC
NC_013089-Xiphophorus_hellerii_(green_swordtail)	GTCTTT	TAAAT	GAAGAC
NC_011379-Xiphophorus_maculatus_(southern_platyfish)	GTCTTT	TAAAT	GAAGAC
NC_010234-Xyrauchen_texasus_(razorback_sucker)	GTCTTT	TAAAT	GAAGAC
NC_015540-Yaoshanicus_arcus_(cyprinid_fish)	GTCTTT	TAAAT	AGAGAC
NC_008653-Zacco_sieboldii_(cyprinid_fish)	GTCTTT	TAAAT	AGAGAC
NC_009852-Zanclus_cornutus_(moorish_idol)	GCCTTT	TAAAT	GAAGGC
NC_009874-Zebrasoma_flavescens_(yellow_tang)	GTCTTT	TAAAT	GGAGAC
NC_004397-Zenion_japonicum_(Japanese_zenion)	GTCTTT	TAAAT	GGAGAC
NC_003173-Zenopsis_nebulosus_(mirror_dory)	GTCTTT	TAAAT	GAAGAC
NC_003190-Zeus_faber_(John_dory)	GTCTTT	TAAAT	GAAGAC
NC_003167-Zu_cristatus_(scalloped_ribbonfish)	GTCTTT	TAAAT	GGAGAC
NC_006688-Alytes_obstetricans_pertinax_(midwife_toad)	GTCTTT	TAAAT	AAAGTC
NC_006888-Ambystoma_andersoni_(Andersons_salamander)	GTCTTT	TAATT	AAAGAC
NC_014568-Ambystoma_barbouri_(streamside_salamander)	GTCTTT	TAATT	TAAGAC
NC_006890-Ambystoma_californiense_(California_tiger_salamander)	GTCTTT	TAATT	TAAGAC
NC_006889-Ambystoma_dumerilii_(Lake_Patzcuaro_salamander)	GTCTTT	TAATT	AAAGAC
NC_006330-Ambystoma_laterale_(blue-spotted_salamander)	GTCTTT	TAATT	AAAGAC
NC_005797-Ambystoma_mexicanum_(axolotl)	GTCTTT	TAATT	AAAGAC
NC_014571-Ambystoma_texanum_(smallmouth_salamander)	GTCTTT	TAATT	TAAGAC
NC_006887-Ambystoma_tigrinum_tigrinum_(Eastern_tiger_salamander)	GTCTTT	TAATT	AAAGAC
NC_014572-Ambystoma_unisexual_lineage_LJJ_(unisexual_mole_salamander)	GTCTTT	TAATT	TAAGAC
NC_009423-Odorran_a_tormota_(concave-eared_torrent_frog)	GTTCTT	TAAAT	AAGGAC
NC_004926-Andrias_davidianus_(Chinese_giant_salamander)	GTCTTC	TAAAT	AAAGAC
NC_007446-Andrias_japonicus_(Japanese_giant_salamander)	GTCTTC	TAAAT	AAAGAC
NC_006327-Aneides_flavipunctatus_(black_salamander)	GTCCCT	TAAAT	AGCGAC
NC_006338-Aneides_hardii_(Sacramento_mountain_salamander)	GTCCCT	TAAAT	AGTGAC
NC_006340-Batrachoseps_attenuatus_(California_slender_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006333-Batrachoseps_wrightii_(Oregon_slender_salamander)	GTCTTT	TAAAT	AAGGAC
NC_008091-Paradactylodon_gorganensis_(Gorgan_mountain_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008077-Batrachuperus_londongensis_(Longdong_stream_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008090-Paradactylodon_mustersi_(Paghman_mountain_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008083-Batrachuperus_pinchonii_(Western_Chinese_mountain_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008085-Batrachuperus_tibetanensis_(Tibetan_mountain_salamander)	GTCTTT	TAAAT	AAAGAC
NC_012430-Batrachuperus_yenyuanensis_(Yenyuan_stream_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006346-Bolitoglossa_n.sp._RLM-2004_(mushroomtongue_salamander)	GTCTTC	TAAAT	AAAGAC
NC_006402-Bombina_bombina_(fire-bellied_toad)	GTCTTT	TAAAT	AAAGAC
NC_011049-Bombina_maxima_(large-webbed_bell_toad)	GTCTTT	TAAAT	AAAGAC
NC_006689-Bombina_orientalis_(Oriental_fire-bellied_toad)	GTCTTT	TAAAT	AAAGAC
NC_009258-Bombina_variegata_(yellow-bellied_toad)	GTCTTT	TAAAT	AAAGAC
NC_008975-Buergeria_buergeri_(Buerger's_frog)	GTTCTT	TAAAT	AGGGAC
NC_008410-Bufo_gargarizans_(Chusan_Island_toad)	GTTCTC	TAAAT	GTGGAC
NC_009886-Bufo_japonicus_(Japanese_toad)	GTTCTC	TAAAT	GTGGAC

NC_005794-Duttaphrynus_melanostictus_(Asian_common_toad)	GTTCTT	TAAAT	GTGGAC
NC_006339-Desmognathus_fuscus_(dusky_salamander)	GTCTAT	TAAAT	ATAGAC
NC_006337-Desmognathus_wrighti_(pygmy_salamander)	GTCTAT	TAAAT	ATAGAC
NC_006690-Discoglossus_galganoi	GTCTTT	TAAAT	AAAGAC
NC_006328-Ensatina_eschscholtzii_(redwood_salamander)	GTCCCT	TAAAT	AGAGAC
NC_014584-Euphyctis_hexadactylus_(Indian_five-fingered_frog)	GTTCTC	TAAAT	AGGGAC
NC_006329-Eurycea_bilineata_(two-lined_salamander)	GTCTTT	TAAAT	AAAGAC
NC_012647-Fejervarya_cancrivora_(crab-eating_frog)	GTTCTC	TAAAT	AAGGAC
NC_005055-Fejervarya_limnocharis_(Boies_wart_frog)	GTCTTT	TAAAT	GGGGAC
NC_006341-Gyrinophilus_porphyrificus_(spring_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006342-Hemidactylium_scutatum_(four-toed_salamander)	GTCTAT	TAAAT	CTAGAC
NC_014581-Hoplobatrachus_tigerinus_(Indus_valley_bullfrog)	GTTCTT	TAAAT	AGGGAC
NC_006345-Hydromantes_brunus_(limestone_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006403-Hyla_chinensis_(Chinese_tree_toad)	GTTCTT	TAAAT	GAGGAC
NC_010232-Hyla_japonica_(Japanese_treefrog)	GTCTTT	TAAAT	GAGGAC
NC_015615-Hymenochirus_boettgeri_(Congo_dwarf_clawed_frog)	GTCTTT	TAAAT	AAAGAC
NC_008076-Hynobius_amjiensis_(Amji_salamander)	GTCTTT	TAAAT	AAAGAC
NC_009335-Hynobius_arisanensis_(Arisan_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008088-Hynobius_chinensis_(Chinese_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008084-Hynobius_formosanus_(Formosan_salamander)	GTCTTT	TAAAT	AAAGAC
NC_013762-Hynobius_guabangshanensis_(Guabangshan_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008079-Hynobius_leechei_(Gensan_salamander)	GTCTTT	TAAAT	AAAGAC
NC_010224-Hynobius_quelpaertensis_(Cheju_salamander)	GTCTTT	TAAAT	AAAGAC
NC_013825-Hynobius_yangi_(Kori_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006405-Kaloula_pulchra_(Malaysian_narrowmouth_toad)	GTTCTT	TAAAT	GAGGAC
NC_014691-Leiopelma_archeyi_(Coromandel_frog)	GTCTTT	TAAAT	AAAGAC
NC_012837-Limnonectes_bannaensis_(large-headed_frog)	GTTCTC	TAAAT	AGGGAC
NC_007440-Limnonectes_fujianensis_(Fujian_large-headed_frog)	GTTCTC	TAAAT	AAGGAC
NC_008078-Liua_shihi_(Wushan_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008081-Liua_tsinpaensis_(Ranodon_tsinpaensis)	GTCTTT	TAAAT	AAAGAC
NC_002756-Lyciasalamandra_atifi_(Lycian_salamander)	GTCTTT	TAAAT	GAGGAC
NC_007888-Mantella_madagascariensis_(Madagascar_golden_frog)	GTTCTT	TAAAT	GAGGAC
NC_006406-Microhyla_heymsi_(Taiwan_rice_frog)	GTTCTT	TAAAT	GAGGAC
NC_010233-Microhyla_okinawensis_(Okinawa_rice_frog)	GTTCTT	TAAAT	GAGGAC
NC_009422-Microhyla_ornata_(ornate_rice_frog)	GTTCTT	TAAAT	GAGGAC
NC_016119-Nanorana_pleskei_(Tibetan_frog)	GTTCTT	TAAAT	AAGGAC
NC_014685-Occidozyga_martensii_(round-tongued_floating_frog)	GTTCTT	TAAAT	GAGGAC
NC_006326-Oedipina_poelzi_(quarry_worm_salamander)	GTTTTT	TAAAT	AAAGAC
NC_008089-Onychodactylus_fischeri_(Fischers_clawed_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008080-Pachyhynobius_shangchengensis_(Shangcheng_stout_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006407-Paramesotriton_hongkongensis_(Hong_Kong_warty_newt)	GTCTTT	TAAAT	AAAGAC
NC_008144-Pelobates_cultripes_(western_spadefoot_toad)	GTCTTT	TAAAT	AAAGAC
NC_006344-Phaeognathus_hubrichti_(Red_Hills_salamander)	GTCTAT	TAAAT	TTAGAC
NC_015617-Pipa_carvalhoi_(Carvalhos_Surinam_toad)	GTCTTT	TAAAT	AAAGAC
NC_006343-Plethodon_cinereus_(red-backed_salamander)	GTCTCT	TAAAT	GGGGAC
NC_006335-Plethodon_elongatus_(Del_Norte_salamander)	GCCCCC	TAAAT	GAGGGC
NC_006334-Plethodon_petraeus_(Pigeon_Mountain_salamander)	GTCTCT	TAAAT	AGAGGC
NC_006408-Polydectes_megacephalus_(Hong_Kong_whipping_frog)	GTTCTT	TAAAT	GGGGAC
NC_015618-Pseudhymenochirus_merlini_(Merlins_clawed_frog)	GTCTTT	TAAAT	AAAGAC
NC_006332-Pseudotriton_ruber_(red_salamander)	GTCTTT	TAAAT	AAAGAC
NC_013270-Quasipaa_spinosa_(Chinese_spiny_frog)	GTTCTT	TAAAT	AAGGAC
NC_015305-Odorrana_ishikawae_(Ishikawas_frog)	GTTCTT	TAAAT	AGGGAC
NC_002805-Pelophylax_nigromaculatus_(dark-spotted_frog)	GTCTTT	TAAAT	AGGGAC
NC_009264-Pelophylax_plancyi_(Peking_frog)	GTTCTT	TAAAT	AGGGAC
NC_004021-Ranodon_sibiricus_(Siberian_salamander)	GTCTTT	TAAAT	AAAGAC
NC_007178-Rhacophorus_schlegelii_(Japanese_gliding_frog)	GTTCTT	TAAAT	AGGGAC
NC_015620-Rhinophrynus_dorsalis_(Mexican_burrowing_toad)	GTCTTT	TAAAT	AGAGAC
NC_006331-Rhyacotriton_variegatus_(southern_torrent_salamander)	GTCTTT	TAAAT	AAAGAC
NC_008082-Salamandrella_keyserlingii_(Siberian_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006325-Stereochilus_marginatus_(many-lined_salamander)	GTCTTT	TAAAT	AAAGAC
NC_006336-Thorius_n_sp_RLM-2004_(Mexican_pygmy_salamander)	GTCCCT	TAAAT	AAAGAC
NC_015788-Triturus_carnifex_(Italian_crested_newt)	GTCTTT	TAAAT	AAAGAC
NC_015790-Triturus_cristatus_(warty_newt)	GTCTTT	TAAAT	AAAGAC
NC_015791-Triturus_dobrogicus_(Danube_newt)	GTCTTT	TAAAT	AAAGAC
NC_015792-Triturus_karelinii_(Balkan_newt)	GTCTTT	TAAAT	AAAGAC
NC_015794-Triturus_macedonicus_(Macedonian_crested_newt)	GTCTTT	TAAAT	AAAGAC

NC_015795-Triturus_marmoratus_(marbled_newt)	GTCTTT	TAAAT	AAAGAC
NC_015796-Triturus_pygmaeus_(southern_marbled_newt)	GTCTTT	TAAAT	AAAGAC
NC_006839-Xenopus_(Silurana)_tropicalis_(western_clawed_frog)	GTCTTT	TAAAT	AAAGAC
HM_991335-Xenopus_laevis_(African_clawed_frog)	GTCTTT	TAAAT	AAAGAC
NC_006301-Gegeneophis_ramaswamii_(Tenmalai_caecilian)	GTCTTT	TAAAT	TAAGAC
NC_006404-Ichthyophis_bannanicus_(Banna_caecilian)	GTCTTC	TAAAT	AAAGAC
NC_006302-Ichthyophis_glutinosus_(Ceylon_caecilian)	GTCTTC	TAAAT	AAAGAC
NC_006303-Rhinatrema_bivittatum_(two-lined_caecilian)	GTCTTT	TAAAT	AAAGAC
NC_006304-Scolecormorphus_vittatus_(banded_caecilian)	GTCTTT	TAAAT	AAAGAC
NC_007911-Siphonops_annulatus_(ringed_caecilian)	GTCTTT	TAAAT	AAAGAC
NC_002471-Typhlonectes_natans_(caecilian)	GTTTTT	TAAAT	AAAGAC
NC_006305-Uraeotyphlus_cf._oxyurus_MW-212_(Indian_caecilian)	GTCTTC	TAAAT	AAAGAC
NC_014054-Apalone_ferox_(Florida_softshell_turtle)	GTCTTT	TAAAT	AAAGAC
NC_016923-Caretta_caretta_(Loggerhead_turtle)	GTCTTT	TAAAT	AAAGAC
NC_014048-Carettochelys_insculpta_(pitted-shelled_turtle)	GTCTCT	TAAAT	AGGGAC
NC_000886-Chelonia_mydas_(green_seaturtle)	GTCTCT	TAAAT	AAAGAC
NC_011198-Chelydra_serpentina	GTCTTT	TAAAT	AAAGAC
NC_006082-Chinemys_reevesi_(Reeves_turtle)	GTCTTT	TAAAT	AAAGAC
NC_002073-Chrysemys_picta_(painted_turtle)	GTCTTC	CAAAAT	AAAGAC
NC_014769-Cuora_amboinensis_(Malayan_box_turtle)	GTCTTT	TAAAT	AAAGAC
NC_009509-Cuora_aurocapitata_(golden-headed_box_turtle)	GTCTTT	TAAAT	AAAGAC
NC_017885-Cuora_bourreti_(Bourrets_box_turtle)	GTCTTT	TAAAT	AAGGAC
NC_012054-Cuora_flavomarginata_(Chinese_box_turtle)	GTCTTT	TAAAT	AAAGAC
NC_014102-Cuora_galbiniifrons_(flowerback_box_turtle)	GTCTTT	TAAAT	AAAGAC
NC_014401-Cuora_pani_(Pans_box_turtle)	GTCTTT	TAAAT	AAAGAC
NC_017878-Cuora_picturata_(Vietnamese_box_turtle)	GTCTTT	TAAAT	AAGGAC
NC_010970-Cyclemys_atripsons_(black-bridged_leaf_turtle)	GTCTTT	TAAAT	AAAGAC
NC_002780-Dogania_subplana_(Malayan_softshell_turtle)	GTCTTT	TAAAT	AGGGAC
NC_012398-Eretmochelys_imbricata_(hawksbill_turtle)	GTCTTT	TAAAT	AAAGAC
NC_007695-Indotestudo_elongata_(elongated_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_007696-Indotestudo_forstenii_(Travancore_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_014577-Kinosternon_leucostomum_(white-lipped_mud_turtle)	GTCTTT	TAAAT	AAAGAC
NC_012414-Lissemys_punctata_(Indian_flap-shelled_turtle)	GTCTTT	TAAAT	AAAGAC
NC_009260-Macrochelys_temminckii_(alligato_snapping_turtle)	GTCTTT	TAAAT	TAAGAC
NC_007700-Malacochersus_tornieri_(pancake_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_007693-Manouria_emyss_(brown_tortoise)	GTCTCT	TAAAT	AGAGAC
NC_011815-Manouria_impessa_(impressed_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_015101-Mauremys_megalocephala_(Chinese_broad-headed_pond_turtle)	GTCTTT	TAAAT	AAAGAC
NC_009330-Mauremys_mutica_(Asian_Yellow_Pond_Turtle)	GTCTTT	TAAAT	AGAGAC
NC_016681-Mauremys_reevesii_(Reeves_turtle)	GTCTTT	TAAAT	AAAGAC
NC_016685-Mauremys_sinensis_(Chinese_striped-necked_turtle)	GTCTTT	TAAAT	AAAGAC
NC_013841-Palea_steindachneri_(wattle-necked_softshell_turtle)	GTCTTT	TAAAT	AAAGAC
NC_015825-Pelochelys_cantorii_(Cantors_giant_softshell_turtle)	GTCTTT	TAAAT	AAAGAC
NC_006132-Pelodiscus_sinensis_(Chinese_soft-shelled_turtle)	GTCTTT	TAAAT	AAGGAC
NC_007970-Platysternon_megacephalum_(big-headed_turtle)	GTCTTT	TAAAT	AAGGAC
NC_007694-Psammodromus_pardalis_(leopard_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_010973-Pyxisia_mouhotii_(keeled_box_turtle)	GTCTTT	TAAAT	AAAGAC
NC_017901-Rafetus_swinhoei_(Swinhoes_soft-shelled_turtle)	GTCTTT	TAAAT	AAAGAC
NC_016691-Sacalia_bealei_(Beals-eyed_turtle)	GTCTTT	TAAAT	AAAGAC
NC_011819-Sacalia_quadricellata_(four_eyed_turtle)	GTCTTT	TAAAT	AAAGAC
NC_017607-Sternotherus_carinatus_(Razor-backed_Mausk_Turtle)	GTCTTT	TAAAT	AAAGAC
NC_007692-Testudo_gaeca_(Mediterranean_spur-thighed_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_007697-Testudo_horsfieldii_(Horsfields_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_007699-Testudo_kleinmanni_(Egyptian_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_007698-Testudo_marginata_(marginated_tortoise)	GTCTTT	TAAAT	AAAGAC
NC_011573-Trachemys_scripta_(red-eared_slider_turtle)	GTCTTC	TAAAT	AAAGAC
NC_012833-Trionyx_triunguis_(African_softshell_turtle)	GTCTTT	TAAAT	AAAGAC
NC_015986-Chelodina_rugosa_(Northern_long-necked_turtle)	GTCTTT	TAAAT	AAAGAC
NC_015989-Chelus_fimbriata_(mata_mata)	GTCTTT	TAAAT	AAAGAC
NC_001947-Pelomedusa_subrufa_(helmeted_turtle)	GTCTTT	TAAAT	AGAGAC
NC_004815-Sphenodon_punctatus_(tuatara)	GTCTCC	TAAAT	GAAGAC
NC_005958-Abronia_graminea_(green_arboreal_alligator_lizard)	GTCCCC	TAAAT	AGGGAC
NC_014175-Acanthosaura_armata_(armored_pricklenape)	GTCCCA	TAAAT	GGGGAC
NC_011576-Achalinus_meiguensis_(Sichuan_odd-scaled_snake)	GTCTAC	TAATT	ATAGAC
NC_007400-Acrochordus_granulatus_(little_file_snake)	GTCTAT	TAATT	GTAGAC
NC_009768-Agkistrodon_piscivorus_(cottonmouth)	GTCTAT	TAATT	GTAGAC

NC_006284-Amphisbaena_schmidti_(Schmidts_worm_lizard)	GTTCTT	TAAAT	AAGGAC
NC_012431-Anguis_fragilis_(Slow_worm)	GTCCCC	TAAAT	AGGGAC
NC_014343-Anilius_scytale_(false_coral_snake)	GTCTAT	TAATT	GTAGAC
NC_010972-Anolis_carolinensis_(green_anole)	GTCTCC	TAAAT	AGGGAC
NC_012829-Basiliscus_vittatus_(brown_basilisk)	GTCTTC	TAAAT	AGAGAC
NC_006287-Bipes_biporus_(five-toed_worm_lizard)	GTTCTT	TAAAT	AAGGAC
NC_006288-Bipes_canaliculatus_(four-toed_worm_lizard)	GTTCTT	TAAAT	GAGGAC
NC_006286-Bipes_tridactylus_(three-toed_worm_lizard)	GTTCTT	TAAAT	AAGGAC
NC_012433-Blanus_cinereus_(Mediterranean_worm_lizard)	GTTCTT	TAAAT	AAGGAC
NC_007398-Boa_constrictor_(boa)	GTCTAT	TAATT	GTAGAC
NC_014174-Brookesia_decaryi_(spiny_leaf_chameleon)	GTCCCT	TAAAT	GAGGAC
NC_011393-Bungarus_fasciatus_(banded_krait)	GTCTAT	TAATT	GTAGAC
NC_011392-Bungarus_multicinctus_(many-banded_krait)	GTCTAT	TAATT	GTAGAC
NC_009683-Calotes_versicolor_(garden_lizard)	GTCCCT	CAAAAT	AGGGAC
NC_013479-Causus_defilippi_(snouted_night_adder)	GTCTAT	TAATT	GTAGAC
NC_012836-Chalarodon_madagascariensis_(Madagascar_iguana)	GTCCCC	TAAAT	AGGGAC
NC_012422-Chamaeleo_africanus_(African_chameleon)	GTCCCC	TAAAT	GAGGAC
NC_012445-Chamaeleo_arabicus_(Arabian_chameleon)	GTCCCT	TAAAT	GAGGAC
NC_012452-Chamaeleo_calcaricarenis_(Awash_chameleon)	GTCCCC	TAAAT	GAGGAC
NC_012420-Chamaeleo_calypttratus_(veiled_chameleon)	GTCCCT	TAAAT	GAGGAC
NC_012427-Chamaeleo_chamaeleon_(common_chameleon)	GTCCCC	TAAAT	GAGGAC
NC_012436-Chamaeleo_dilepis_(flapneck_chameleon)	GTCCCT	TAAAT	GAGGAC
NC_012443-Chamaeleo_monachus_(monarch_chameleon)	GTCCCT	TAAAT	GAGGAC
NC_012444-Chamaeleo_zeylanicus_(Indian_chameleon)	GTCCCT	TAAAT	GAGGAC
NC_009421-Chlamydosaurus_kingii_(frilled_dragon)	GTCCCT	TAAAT	AAGGAC
NC_008774-Coleonyx_variegatus_(Western_banded_gecko)	GTCTTC	TAAAT	AAGAGAC
NC_014400-Crotalus_horridus_(timber_rattlesnake)	GTCTAT	TAATT	GTAGAC
NC_007401-Cylindrophis_ruffus_(red-tailed_pipe_snake)	GTCTAT	TAATT	GTAGAC
NC_011391-Daboia_russellii_(Russells_viper)	GTCTAT	TAATC	GTAGAC
NC_010223-Deinagkistrodon_acutus_(Chinese_moccasin)	GTCTAT	TAATT	GTAGAC
NC_001945-Dinodon_semicarinatus_(colubrid_snake)	GTCTAC	TAATT	ATAGAC
NC_006283-Diplometopon_zarudnyi_(Zarudnyis_worm_lizard)	GTTCTA	TAAAT	AAGGAC
NC_012770-Oreophis_porphyraceus_(Black-banded_rat_snake)	GTCTAC	TAATT	ATAGAC
NC_010200-Enhydryis_plumbea_(rice_paddy_snake)	GTCTAT	TAATT	GTAGAC
NC_016755-Eremias_argus	GTCCCC	TAAAT	AGGGAC
NC_011764-Eremias_brenchleyi_(Ordos_racerunner)	GTCCCC	TAAAT	AGGGAC
NC_008777-Furcifer_oustaleti_(Malagasy_giant_chamelion)	GTCCCT	TAAAT	GAGGAC
NC_012831-Gambelia_wisizenii_(longnose_leopard_lizard)	GTCCCT	TAAAT	AAGGAC
NC_007627-Gekko_gecko_(tokay)	GCCCC	TAAAT	AGGGGC
NC_018050-Gekko_swinhoni_(Peking_gecko)	GTCCCT	TAAAT	AGGGAC
NC_008772-Gekko_vittatus_(white-line_gecko)	GTCCCT	TAATT	ATGGAC
NC_006285-Geocalamus_acutus_(wedge-snouted_worm_lizard)	GTTCTT	TAAAT	GAGGAC
NC_011390-Gloydus_brevicaudus_(short-tailed_mamushi)	GTCTAT	TAATT	GTAGAC
NC_008776-Heloderma_suspectum_(Gila_monster)	GTCTCT	TAAAT	AGTGAC
NC_012902-Hemidactylus_frenatus_(common_house_gecko)	GCCCC	TAATT	AGAGGC
NC_010292-Heteronotia_binoei_(prickly_gecko)	GTCTCT	TAATT	AGAGAC
NC_014178-Hydrosaurusamboinensis_(sailfin_lizard)	GTTCTC	TAAAT	AGGGAC
NC_013977-Hypsiglena_chlorophaea_chlorophaea_(Sonoran_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013989-Hypsiglena_chlorophaea_deserticola_(Great_Basin_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013975-Hypsiglena_jani_texana_(Texas_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013984-Hypsiglena_ochrorhyncha_klauberi_(San_Diego_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013983-Hypsiglena_ochrorhyncha_nuchalata_(California_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013980-Hypsiglena_ochrorhyncha_ochrorhyncha_(Cape_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013987-Hypsiglena_slevini_(Baja_California_nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013982-Hypsiglena_sp._DGM2008_(nightsnake)	GTCTAT	TAATT	GTAGAC
NC_013992-Hypsiglena_torquata_(night_snake)	GTCTAT	TAATT	GTAGAC
NC_002793-Iguana_iguana_(common_iguana)	GTCTCT	TAAAT	AGAGAC
NC_013988-Imantodes_cenchoa_(blunthead_tree_snake)	GTCTAT	TAATT	GTAGAC
NC_012465-Kinyongia_fischeri_(Fischers_chameleon)	GCCCC	TAAAT	AGGGGC
NC_008328-Lacerta_viridis_viridis_(European_green_lizard)	GTCCCC	TAAAT	AGGGAC
NC_012834-Leiocephalus_personatus_(Haitian_curlytail_lizard)	GTCCCT	TAAAT	AAGGAC
NC_014179-Leiolepis_guttata_(spotted_butterfly_lizard)	GCCCC	TAAAT	AGGGGC
NC_008775-Lepidophyma_flavimaculatum_(yellow-spotted_night_lizard)	GTCCCC	TAAAT	AGGGAC
NC_013990-Leptodeira_septentrionalis_polysticta_(northern_cat-eyed_snake)	GTCTAT	TAATT	GTAGAC
NC_013481-Micrurus_fulvius_(eastern_coral_snake)	GTCTAT	TAATT	GTAGAC
NC_011389-Naja_atra_(Chinese_cobra)	GTCTAT	TAATT	GTAGAC

NC_010225-Naja_naja_(Indian_cobra)	GTCTAT	TAAT	GTAGAC
NC_015793-Nerodia_sipedon_(Brown_Water_Snake)	GTCTAT	TAACT	GTAGAC
NC_011394-Ophiophagus_hannah_(king_cobra)	GTCTAT	TAAT	GTAGAC
NC_012827-Oplurus_grandidieri_(Grandidiars_Madagascar_swift)	GTCTCC	TAAAT	AGAGAC
NC_007397-Ovophis_okinavensis_(himehabu)	GTCTAT	TAAT	GTAGAC
NC_009769-Pantherophis_slowinskii_(Slowinskis_corn_snake)	GTCTAC	TAAT	ATAGAC
NC_011606-Phoenicolacerta_kulzeri_(common_Eurasian_lizard)	GTCCCT	TAAAT	AAGGAC
NC_000888-Plestiodon_egregius_(mole_skink)	GTCTTC	TAAAT	AAAGAC
NC_011607-Podarcis_muralis_(common_wall_lizard)	GTCCCC	TAAAT	AGGGAC
NC_011609-Podarcis_siculus_(Italian_wall_lizard)	GTCCCC	TAAAT	AGGGAC
NC_006922-Pogona_vitticeps_(central_bearded_dragon)	GTCCCT	TAAAT	AAGGAC
NC_012839-Polychrus_marmoratus_(common_monkey_lizard)	GTCCCC	TAAAT	AGAGAC
NC_013981-Pseudoleptodeira_latifasciata_(false_cat-eyed_snake)	GTCTAT	TAAT	GTAGAC
NC_013603-Pseudotrapelus_sinaitus_(Sinai_agama)	GTTCCA	TAAAT	CGGGAC
NC_015812-Python_molurus_molurus_(Indian_python)	GTCTAT	TAAT	GTAGAC
NC_007399-Python_regius_(ball_python)	GTCTAT	TAAT	GTAGAC
NC_010196-Ramphotyphlops_braminus_(Brahminy_blind_snake)	GTCCAC	TAAT	ATGGAC
NC_005961-Rena_humilis_(Southwestern_Threads_nake)	GTCCAC	TAAT	ATGGAC
NC_006282-Rhineura_floridana_(Florida_worm_lizard)	GTCCCC	TAAAT	AGGGAC
NC_005960-Sceloporus_occidentalis_(western_fence_lizard)	GTCCCC	TAAAT	AGGGAC
NC_005959-Shinisaurus_crocodilurus_(crocodile_lizard)	GTTTTT	TAAAT	AAAGAC
NC_013985-Sibon_nebulatus_(cloudy_snail-eating_snake)	GTCTAT	TAAT	GTAGAC
NC_016424-Sibynophis_collaris_(collared_black-headed_snake)	GTCTAC	TAAT	ATAGAC
NC_005962-Smaug_warreni_(Warrens_spiny-tail_lizard)	GTCCCC	TAAAT	AGGGAC
NC_008773-Takydromus_tachydromoides_(Japanese_grass_lizard)	GTCTCT	TAAAT	AGAGAC
NC_012366-Tarentola_mauritanica_(Moorish_gecko)	GTCCCC	TAAT	AGGGAC
NC_007008-Teratoscincus_keyserlingii_(giant_frog-eyed_gecko)	GCCCCC	TAAT	AGAGGC
NC_012816-Thermophis_zhaoermii_(Sichuan_hot_spring_keelback)	GTCTAT	TAAT	GTAGAC
NC_014176-Trioceros_melleri_(Chameleo_melleri)	GTCCCT	TAAAT	GAGGAC
NC_012573-Tropidophis_haetianus_(Haitian_dwarf_boa)	GTCTAT	TAAT	GTAGAC
NC_010971-Typhlops_reticulatus_(reticulate_worm_snake)	GTCCAC	TAAT	ATGGAC
NC_014182-Uromastix_benti_(Yemeni_spiny-tailed_lizard)	GTCCCC	TAAAT	AGGGAC
NC_008778-Varanus_niloticus_(Nile_monitor)	GTCCCC	TAAAT	AGTGAC
NC_010974-Varanus_salvator_(water_monitor)	GTCCCC	TAAAT	AGTGAC
NC_012146-Viridovipera_stejnegeri_stejnegeri_(Taiwan_green_tree_viper)	GTCTAT	TAAT	GTAGAC
NC_008065-Xenagama_taylori_(dwarf_shield_tailed_agama)	GTTCCA	TAAAT	AGGGAC
NC_007402-Xenopeltis_unicolor_(sunbeam_snake)	GTCTAT	TAAT	GTAGAC
NC_001922-Alligator_mississippiensis_(American_alligator)	GTTCTC	CAAT	AAGGAC
NC_004448-Alligator_sinensis_(Chinese_alligator)	GTTCTT	TAAAT	AAGGAC
NC_002744-Caiman_crocodilus_(spectacled_caiman)	GTTCTC	CAAT	AAGGAC
NC_015647-Crocodylus_acutus_(American_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_015648-Crocodylus_intermedius_(Orinoco_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_015238-Crocodylus_johnsoni_(Johnstone_river_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_014670-Crocodylus_mindorensis_(Philippine_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_015235-Crocodylus_moreletii_(Morelets_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_008142-Crocodylus_niloticus_(Nile_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_015651-Crocodylus_novaeguineae_(New_Guinea_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_014706-Crocodylus_palustris_(marsh_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_008143-Crocodylus_porosus_(Australian_saltwater_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_008795-Crocodylus_siamensis_(Siamese_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_008241-Gavialis_gangeticus_(Gharial)	GTTCTT	TAAAT	AAGGAC
NC_010639-Mecistops_cataphractus_(African_slender-snouted_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_009728-Osteolaemus_tetraspis_(dwarf_crocodile)	GTTCTT	TAAAT	AAGGAC
NC_009729-Paleosuchus_palpebrosus_(Cuviers_dwarf_caiman)	GTTCTT	TAAAT	AAGGAC
NC_009732-Paleosuchus_trigonatus_(Schneiders_dwarf_caiman)	GTTCTT	TAAAT	AAGGAC
NC_011074-Tomistoma_schlegelii_(false_gharial)	GTTCTT	TAAAT	GGGGAC
NC_011818-Accipiter_gentilis_(goshawk)	GTCCCA	TAAAT	CGGGAC
NC_015085-Aceros_waldeni_(rufous-headed_hornbill)	GTCTCA	TAAAT	CGAGAC
NC_015613-Acridotheres_cristatellus_(crested_myna)	GTCCCA	TAAAT	CGAGAC
NC_010227-Acrocephalus_scorpaeus_(Eurasian_reed_warbler)	GTCCCA	TAAAT	CGGGAC
NC_014180-Acyllium_vulturinum_(vulturine_guineafowl)	GTCTCA	TAAAT	CGAGAC
NC_011718-Aegotheles_cristatus_(owlet_nightjar)	GTCCCA	TAAAT	CGAGAC
NC_011708-Agapornis_roseicollis_(peach-faced_lovebird)	GTCTCA	TAAAT	CGAGAC
NC_007227-Alectura_lathamii_(australian_brush-turkey)	GTCCCA	TAAAT	CGAGAC
NC_015482-Anas_formosa_(Baikal_teal)	GTCCCA	TAAAT	CGAGAC
NC_009684-Anas_platyrhynchos_(mallard_duck)	GTCCCA	TAAAT	CGAGAC

NC_014681-Anhinga_rufa_(African_darter)	GTCTCA	TAAAT	CGAGAC
NC_002779-Anomalopteryx_didiformis_(little_bush_moa)	GTCCCA	TAAAT	CGAGAC
NC_004539-Anser_albifrons_(white-fronted_goose)	GTCCCA	TAAAT	CGAGAC
NC_011196-Anser_anser_(domestic_goose)	GTCCCA	TAAAT	CGAGAC
NC_016922-Anser_fabalis_(bean_goose)	GTCCCA	TAAAT	CGAGAC
NC_005933-Anseranas_semipalmata_(magpie_goose)	GTCCCA	TAAAT	CGAGAC
NC_002782-Apteryx_haastii_(Great_spotted_kiwi)	GTCCCA	TAAAT	CGAGAC
NC_013806-Apteryx_owenii_(little_spotted_kiwi)	GTCCCA	TAAAT	CGAGAC
NC_008540-Apus_apus_(common_swift)	GTCTCA	TAAAT	CGAGAC
NC_015197-Aratinga_pertinax_chrysogenys_(Brazilian_brown-throated_parakeet)	GTCCCA	TAAAT	CGAGAC
NC_012453-Arborophila_rufipectus_(Sichuan_partridge)	GTCTCG	TAAAT	TGAGAC
NC_008551-Ardea_novaehollandiae_(white-faced_heron)	GTCCCA	TAAAT	CGAGAC
NC_003712-Arenaria_interpres_(ruddy_turnstone)	GTCCCA	TAAAT	CGAGAC
NC_000877-Aythya_americana_(redhead)	GTCCCA	TAAAT	CGAGAC
NC_011816-Bambusicola_thoracica_(Chinese_bamboo-partridge)	GTCCCA	TAAAT	TGAGAC
NC_007011-Branta_canadensis_(Canada_goose)	GTCCCA	TAAAT	CGAGAC
NC_015530-Brotogeris_cyanoptera_(cobalt-winged_parakeet)	GTCCCA	TAAAT	AGAGAC
NC_015199-Bucorvus_leadbeateri_(southern_ground_hornbill)	GTCCCA	TAAAT	TGAGAC
NC_003128-Buteo_buteo_(common_buzzard)	GTCCCA	TAAAT	CGAGAC
NC_015201-Bycanistes_brevis_(silvery-cheeked_hornbill)	GTCTCA	TAAAT	CGAGAC
NC_010965-Cairina_moschata_(Muscovy_duck)	GTCCCA	TAAAT	CGAGAC
NC_015196-Carduelis_sinica_(oriental_greenfinch)	GTCCCA	TAAAT	CGAGAC
NC_015198-Carduelis_spinus_(Eurasian_siskin)	GTCCCA	TAAAT	CGAGAC
NC_002778-Casuarius_casuarius_(southern_cassowary)	GTCCCA	TAAAT	CGAGAC
NC_007628-Cathartes_aura_(turkey_vulture)	GTCCCA	TAAAT	CGAGAC
NC_014576-Chrysolophus_pictus_(golden_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_002196-Ciconia_boycciana_(oriental_stork)	GTCTCA	TAAAT	CGAGAC
NC_002197-Ciconia_ciconia_(white_stork)	GTCTCA	TAAAT	CGAGAC
NC_007975-Cnemotriccus_fuscatus_(fuscous_flycatcher)	GTCCCA	TAAAT	CGAGAC
NC_013978-Columba_livia_(Rock_pigeon)	GTCTCA	TAAAT	TGAGAC
NC_002069-Corvus_frugilegus_(rook)	GTCTCA	TAAAT	CGGGAC
NC_012143-Coturnicops_exquisitus_(Swinhoes_rail)	GTCCCA	TAAAT	CGAGAC
NC_004575-Coturnix_chinensis_(Excalfactoria_chinensis)	GTCCCA	TAAAT	TGAGAC
NC_003408-Coturnix_japonica_(Japanese_quail)	GTCCCA	TAAAT	CGAGAC
NC_015897-Crossoptilon_auritum_(blue_eared_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_016679-Crossoptilon_crossoptilon_(white-eared_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_015824-Cyanopica_cyanus_(azure-winged_magpie)	GTCTCA	TAAAT	CGAGAC
NC_015232-Cyanoptila_cyanomelana_(blue-and-white_flycatcher)	GTCCCA	TAAAT	CGAGAC
NC_012843-Cygnus_atratus_(black_swan)	GTCCCA	TAAAT	CGAGAC
NC_007691-Cygnus_columbianus_(tundra_swan)	GTCCCA	TAAAT	CGAGAC
NC_017604-Cygnus_columbianus_bewickii_(Bewicks_swan)	GTCCCA	TAAAT	CGAGAC
NC_012844-Dendrocygna_javanica_(lesser_whistling_duck)	GTCCCA	TAAAT	CGAGAC
NC_002672-Dinornis_giganteus_(giant_moa)	GTCCCA	TAAAT	CGAGAC
NC_002784-Dromaius_novaehollandiae_(emu)	GTCCCA	TAAAT	CGAGAC
NC_008546-Dryocopus_pileatus_(pileated_woodpecker)	GTCCCA	TAAAT	CGAGAC
NC_018055-Ectopistes_migratorius_(passenger_pigeon)	GTCCCA	TAAAT	CGAGAC
NC_009736-Egretta_eulophotes_(Chinese_egret)	GTCCCA	TAAAT	CGAGAC
NC_015233-Emberiza_chrysophrys_(yellow-browed_bunting)	GTCCCA	TAAAT	CGAGAC
NC_015234-Emberiza_tristrami_(Tristrams_bunting)	GTCCCA	TAAAT	CGAGAC
NC_002673-Emeus_crassus_(eastern_moa)	GTCCCA	TAAAT	CGAGAC
NC_002772-Eudromia_elegans_(elegant_crested_tinamou)	GTCTCA	TAAAT	CGAGAC
NC_011709-Eudynamis_taitensis_(longtailed_cuckoo)	GTCTCA	TAAAT	CGGGAC
NC_008138-Eudyptes_chrysocome_(Rockhopper_penguin)	GTCCCA	TAAAT	CGAGAC
NC_004538-Eudyptula_minor_(little_blue_penguin)	GTCCCA	TAAAT	CGAGAC
NC_011716-Eurystomus_orientalis_(dollar_bird)	GTCCCA	TAAAT	CGGGAC
NC_000878-Falco_peregrinus_(peregrine_falcon)	GTCTCA	TAAAT	CGGGAC
NC_008547-Falco_sparverius_(American_kestrel)	GTCCCA	TAAAT	CGAGAC
NC_011307-Falco_tinnunculus_(common_kestrel)	GTCCCA	TAAAT	CGAGAC
NC_015802-Ficedula_zanthopygia_(yellow-rumped_flycatcher)	GTCCCA	TAAAT	CGAGAC
NC_011817-Francolinus_pintadeanus_(Chinese_Francolin)	GTCTCA	TAAAT	CGAGAC
NC_015236-Gallinula_chloropus_(common_moorhen)	GTCCCA	TAAAT	CGAGAC
NC_012140-Gallirallus_okinawae_(Okinawa_rail)	GTCTCA	TAAAT	CGAGAC
NC_001323-Gallus_gallus_(chicken)	GTCCCG	TAAAT	TGAGAC
NC_007237-Gallus_gallus_bankiva_(Javan_Red_Jungle_Fowl)	GTCCCG	TAAAT	TGAGAC
NC_007236-Gallus_gallus_gallus_(Cochin-Chinese_Red_Jungle_Fowl)	GTCCCG	TAAAT	TGAGAC
NC_007235-Gallus_gallus_spadiceus_(Burmese_Red_Jungle_Fowl)	GTCCCG	TAAAT	TGAGAC

NC_007239-Gallus_lafayetii_(Ceylon_junglefowl)	GTCCCA	TAAAT	TGAGAC
NC_007240-Gallus_sonneratii_(gray_junglefowl)	GTCCCA	TAAAT	TGAGAC
NC_007238-Gallus_varius_(green_junglefowl)	GTCCCA	TAAAT	TGAGAC
NC_015810-Garrulus_glandarius_(Eurasian_jay)	GTCTCA	TAAAT	CGAGAC
NC_008139-Gavia_pacifica_(Pacific_loon)	GTCCCA	TAAAT	CGAGAC
NC_007007-Gavia_stellata_(red-throated_loon)	GTCCCA	TAAAT	CGAGAC
NC_011711-Geococcyx_californianus_(great_roadrunner)	GTCTCA	TAAAT	CGGGAC
NC_015207-Geotrygon_violacea_(violetaceous_quail-dove)	GTCCCA	TAAAT	CGAGAC
NC_015898-Gracula_religiosa_(hill_myna)	GTCCCA	TAAAT	CGAGAC
NC_003713-Haematopus_ater_(blackish_oystercatcher)	GTCCCA	TAAAT	CGAGAC
NC_013244-Hemiphaga_novaeseelandiae_(New_Zealand_pigeon)	GTCCCA	TAAAT	CGAGAC
NC_018033-Ithaginis_cruentus_(blood_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_015077-Ixobrychus_cinnamomeus_(cinnamon_bittern)	GTCCCA	TAAAT	CGAGAC
NC_007006-Larus_dominicanus_(southern_black-backed_gull)	GTCCCA	TAAAT	CGAGAC
NC_015114-Leiothrix_argentauris_(silver-eared_mesia)	GTCCCA	TAAAT	CGAGAC
NC_015190-Leptotila_verreauxi_(white-tipped_dove)	GTCCCA	TAAAT	CGAGAC
NC_013979-Lophophorus_lhuysii_(Chinese_monal)	GTCCCA	TAAAT	TGAGAC
NC_010781-Lophura_ignita_(crested_fireback_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_012895-Lophura_nycthemera_(silver_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_015074-Luscinia_calliope_(Siberian_rubythroat)	GTCCCA	TAAAT	CGAGAC
NC_010195-Meagris_gallapavo_(turkey)	GTCTCA	TAAAT	TGAGAC
NC_009134-Melopsittacus_undulatus_(budgerigar)	GTCCCA	TAAAT	CGAGAC
NC_007883-Menura_novaehollandiae_(superb_lyrebird)	GTCCCA	TAAAT	CGGGAC
NC_016723-Mergus_squamatus_(scaly-sided_merganser)	GTCCCA	TAAAT	CGAGAC
NC_008548-Micrastur_gilvicollis_(lined_forest-falcon)	GTCCCA	TAAAT	CGAGAC
NC_005932-Ninox_novaeseelandiae_(morepork)	GTCCCA	TAAAT	CGGGAC
NC_008132-Nipponia_nippon_(crested_ibis)	GTCTCA	TAAAT	CGAGAC
NC_007599-Nisaetus_alboniger_(Blyths_hawk-eagle)	GTCCCA	TAAAT	TGGGAC
NC_007598-Nisaetus_nipalensis_(mountain_hawk-eagle)	GTCCCA	TAAAT	TGGGAC
NC_006382-Numida_meleagris_(helmeted_guineafowl)	GTCTCA	TAAAT	CGAGAC
NC_015807-Nycticorax_nycticorax_(black-crowned_night-heron)	GTCCCA	TAAAT	CGAGAC
NC_015192-Nymphicus_hollandicus_(cockatiel)	GTCCCA	TAAAT	CGAGAC
NC_014046-Otis_tarda_(great_bustard)	GTCCCA	TAAAT	CGAGAC
NC_008550-Pandion_haliaetus_(osprey)	GTCCCA	TAAAT	CGAGAC
NC_012897-Pavo_muticus_(green_peafowl)	GTCTCA	TAAAT	CGAGAC
NC_015087-Penelopides_panini_(Visayan_tarictic_hornbill)	GTCCCA	TAAAT	CGAGAC
NC_007979-Phaethon_rubricauda_(red-tailed_tropicbird)	GTCCCA	TAAAT	CGAGAC
NC_014679-Phalacrocorax_chalconotus	GTCCCA	TAAAT	GGGGAC
NC_015526-Phasianus_colchicus_(Ring-necked_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_010778-Phasianus_versicolor_(green_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_010089-Phoenicopterus_roseus_(flamingo)	GTCCCA	TAAAT	CGAGAC
NC_015200-Pica_pica_(Common_magpie)	GTCTCA	TAAAT	CGAGAC
NC_012772-Platalea_leucorodia_(Eurasian_spoonbill)	GTCTCA	TAAAT	CGAGAC
NC_010962-Platalea_minor_(black-faced_spoonbill)	GTCTCA	TAAAT	CGAGAC
NC_008140-Podiceps_cristatus_(great_crested_grebe)	GTCCCA	TAAAT	CGAGAC
NC_014879-Podoces_hendersoni_(Mongolian_ground-jay)	GTCTCA	TAAAT	CGAGAC
NC_012900-Polyplectron_bicalcaratum_(gray_peacock-pheasant)	GTCCCA	TAAAT	CGAGAC
NC_010092-Porphyrion_hochstetteri_(South_Island_takahe)	GTCTCA	TAAAT	CGAGAC
NC_014341-Pseudopodoces_humilis_(Humes_Groundpecker)	GTCCCA	TAAAT	CGAGAC
NC_002783-Pterocnemia_pennata	GTCTCA	TAAAT	CGAGAC
NC_007174-Pterodroma_brevirostris_(Kerguelen_petrel)	GTCCCA	TAAAT	CGAGAC
NC_008549-Pteroglossus_azara_flavirostris_(ivory_billed_aracari)	GTCCCA	TAAAT	TGAGAC
NC_013838-Pycnonotus_sinensis_(light-vented_bulbul)	GTCCCG	TAAAT	CGGGAC
NC_013483-Pycnonotus_taiwanus_(Taiwan_bulbul)	GTCCCG	TAAAT	CGGGAC
NC_012142-Rallina_eurizonoides_sepiaria_(slake)	GTCCCA	TAAAT	CGAGAC
NC_000846-Rhea_americana_(greater_rhea)	GTCCCA	TAAAT	CGAGAC
NC_010091-Rhynchoceros_jubatus_(kagu)	GTCCCA	TAAAT	CGGGAC
NC_017601-Saundersilarus_saundersi_(Saunders_gull)	GTCCCA	TAAAT	CGAGAC
NC_000879-Smithornis_sharpei_(grey-headed_broadbill)	GTCTCA	TAAAT	TGAGAC
NC_015887-Spilornis_cheela_(crested_serpent_eagle)	GTCCCA	TAAAT	CGAGAC
NC_005931-Strigops_habroptilus_(kakapo)	GTCCCA	TAAAT	CGAGAC
NC_002785-Struthio_camelus_(ostrich)	GTCCCA	TAAAT	CGGGAC
NC_015237-Sturnus_cinereus_(grey_starling)	GTCCCA	TAAAT	CGAGAC
NC_014455-Sturnus_sericeus_(red-billed_starling)	GTCCCA	TAAAT	CGAGAC
NC_015195-Sturnus_tristis_(common_myna)	GTCCCA	TAAAT	CGAGAC
NC_010228-Sylvia_atricapilla_(blackcap)	GTCCCG	TAAAT	CGGGAC

NC_010229-Sylvia_crassirostris_(eastern_orphean_warbler)	GTCCCG	TAAAT	CGGGAC
NC_007978-Synthliboramphus_antiquus_(ancient_murrelet)	GTCCCA	TAAAT	CGAGAC
NC_010771-Syrnaticus_elliotti_(Elliot's_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_010774-Syrnaticus_humiae_(Humes_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_010770-Syrnaticus_reevesii_(Reeves_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_010767-Syrnaticus_soemmerringi_ijimae_(Ijima_copper_pheasant)	GTCCCA	TAAAT	TGAGAC
NC_007897-Taeniopygia_guttata_(zebra_finch)	GTCCCA	TAAAT	CGAGAC
NC_018034-Tetraophaps_obscurus_(chestnut-throated_partridge)	GTCCCA	TAAAT	TGAGAC
NC_007172-Thalassarche_melanophrys_(Black-browed_albatross)	GTCCCA	TAAAT	CGAGAC
NC_013146-Threskiornis_aethiopicus_(Sacred_Ibis)	GTCTCA	TAAAT	CGAGAC
NC_002781-Tinamus_major_(great_tinamou)	GTCTCA	TAAAT	CGAGAC
NC_011712-Todiramphus_sanctus_vagans_(New_Zealand_sacred_kingfisher)	GTCCCA	TAAAT	CGAGAC
NC_013619-Tragopan_caboti_(Cabots_tragopan)	GTCCCA	TAAAT	TGAGAC
NC_011714-Trogon_viridis_(white-tailed_trogon)	GTCCCA	TAAAT	CGAGAC
NC_000880-Vidua_chalybeata_(steelblue_widowfinch)	GTCCCG	TAAAT	CGGGAC
NC_015203-Zenaida_auriculata_(eared_dove)	GTCCCA	TAAAT	CGAGAC
NC_000891-Ornithorhynchus_anatinus_(platypus)	GTCTCC	TAAAT	AGAGAC
NC_003321-Tachyglossus_aculeatus_(Australian_echidna)	GTCTCC	TAAAT	AGAGAC
NC_006364-Zaglossus_bruijnii_(long-beaked_echidna)	GTCTCC	TAAAT	AGAGAC
NC_005212-Acinonyx_jubatus_(cheetah)	GTCTCC	TAAAT	AGGGAC
NC_009492-Ailuropoda_melanoleuca_(giant_panda)	GTTCTC	TAAAT	AAGGAC
NC_011124-Ailurus_fulgens_(lesser_panda)	GTTCTT	TAAAT	AAGGAC
NC_009691-Ailurus_fulgens_styani_(red_panda)	GTTCTT	TAAAT	AAGGAC
NC_009510-Ammotragus_lervia_(aoudad)	GTTCTC	TAAAT	AAGGAC
NC_009056-Anomalurus_sp._GP-2005_(scaly-tailed_squirrel)	GTTCTC	TAAAT	GGGGAC
NC_012098-Antelope_cervicapra_(blackbuck)	GTTCTT	TAAAT	AAGGAC
NC_018115-Aotus_azarai_azarai_(Azaras_night_monkey)	GTTCTC	TAAAT	AGGGAC
NC_018116-Aotus_nancymae_(Mas_night_monkey)	GTTCTC	TAAAT	AGGGAC
NC_016428-Apodemus_agrarius_(Eurasian_field_mouse)	GTTCTT	TAAAT	AGGGAC
NC_016662-Apodemus_chejuensis_(Jeju_striped_field_mouse)	GTTCTT	TAAAT	AGGGAC
NC_017599-Apodemus_chevrieri_(Chevriers_field_mouse)	GTTCTT	TAAAT	AGGGAC
NC_016060-Apodemus_peninsulae_(Korean_field_mouse)	GTTCTT	TAAAT	AGGGAC
NC_004023-Arctocephalus_forsteri_(New_Zealand_fur_seal)	GTTCTA	TAAAT	AAGGAC
NC_008417-Arctocephalus_pusillus_(cape_fur_seal)	GTTCTA	TAAAT	AAGGAC
NC_008420-Arctocephalus_townsendi_(Guadalupe_fur_seal)	GTTCTA	TAAAT	AAGGAC
NC_011116-Arctodus_simus_(giant_short-faced_bear)	GTTCTC	TAAAT	AAGGAC
NC_002009-Artibeus_jamaicensis_(Jamaican_fruit-eating_bat)	GTTCTC	TAAAT	AAGGAC
NC_016871-Artibeus_lituratus_(great_fruit-eating_bat)	GTTCTC	TAAAT	AAGGAC
NC_005268-Balaena_mysticetus_(bowhead_whale)	GTTCTC	TAAAT	AAGGAC
NC_005271-Balaenoptera_acutorostrata_(minke_whale)	GTTCTC	TAAAT	AAGGAC
NC_006926-Balaenoptera_bonaerensis_(Antarctic_minke_whale)	GTTCTC	TAAAT	AGGGAC
NC_006929-Balaenoptera_borealis_(sei_whale)	GTTCTC	TAAAT	AGGGAC
NC_006928-Balaenoptera_brydei_(Brydes_whale)	GTTCTC	TAAAT	AGGGAC
NC_007938-Balaenoptera_edeni_(pygmy_Brydes_whale)	GTTCTC	TAAAT	AGGGAC
NC_001601-Balaenoptera_musculus_(Blue_whale)	GTTCTC	TAAAT	AAGGAC
NC_007937-Balaenoptera_omurai_(Omura's_baleen_whale)	GTTCTC	TAAAT	AAGGAC
NC_001321-Balaenoptera_physalus_(Fin_whale)	GTTCTC	TAAAT	AGGGAC
NC_005274-Berardius_bairdii_(Baird's_beaked_whale)	GTTCTC	TAAAT	AAGGAC
NC_012346-Bison_bison_(American_bison)	GTTCTC	TAAAT	AAGGAC
NC_014044-Bison_bonassus_(European_bison)	GTTCTC	TAAAT	AAGGAC
NC_006380-Bos_grunniens_(domestic_yak)	GTTCTC	TAAAT	AAGGAC
NC_005971-Bos_indicus_(zebu_cattle)	GTTCTC	TAAAT	AAGGAC
NC_012706-Bos_javanicus_(banteng)	GTTCTC	TAAAT	AAGGAC
NC_013996-Bos_primigenius_(aurochs)	GTTCTC	TAAAT	AAGGAC
NC_006853-Bos_taurus_(cattle)	GTTCTC	TAAAT	AAGGAC
NC_006923-Bradypus_tridactylus_(Pale-throated_sloth)	GTTCTT	TAAAT	AAGGAC
NC_006295-Bubalus_bubalis_(Swamp_buffalo)	GTTCTC	TAAAT	AGGGAC
NC_013069-Budorcas_taxicolor_(takin)	GTTCTC	TAAAT	AGGGAC
NC_005828-Caenolestes_fuliginosus_(silky_shrew_opossum)	GTCTTT	TAAAT	AGAGAC
NC_008415-Callorhinus_ursinus_(northern_fur_seal)	GTTCTA	TAAAT	AAGGAC
NC_009628-Camelus_bactrianus_(Bactrian_camel)	GTTCTT	TAAAT	AGGGAC
NC_009849-Camelus_dromedarius_(Arabian_camel)	GTTCTC	TAAAT	AGGGAC
NC_009629-Camelus_ferus_(Wild_Bactrian_camel)	GTTCTT	TAAAT	AGGGAC
NC_008093-Canis_latrans_(coyote)	GTTCTC	TAAAT	AGGGAC
NC_008092-Canis_lupus_(gray_wolf)	GTTCTC	TAAAT	AGGGAC
NC_010340-Canis_lupus_chanco_(Mongolian_wolf)	GTTCTC	TAAAT	AGGGAC

NC_002008-Canis_lupus_familiaris_(dog)	GTTCTC	TAAAT	AGGGAC
NC_011218-Canis_lupus_laniger_(Tibetan_wolf)	GTTCTC	TAAAT	AGGGAC
NC_009686-Canis_lupus_lupus_(Eurasian_wolf)	GTTCTC	TAAAT	AGGGAC
NC_005269-Caperea_marginata_(pygmy_right_whale)	GTTCTC	TAATT	AAGGAC
NC_005044-Capra_hircus_(goat)	GTTCTC	TAAAT	AAGGAC
NC_012096-Capricornis_crispus_(Japanese_serow)	GTTCTC	TAAAT	AAGGAC
NC_015108-Castor_canadensis_(American_beaver)	GTTCTC	TAAAT	AGGGAC
NC_015072-Castor_fiber_(Eurasian_beaver)	GTTCTC	TAAAT	AGGGAC
NC_000884-Cavia_porcellus_(Domestic_guinea_pig)	GTTCTT	TAAAT	AAGGAC
NC_002763-Cebus_albifrons_(white-fronted_capuchin)	GTTCTC	TAAAT	AGGGAC
NC_016666-Cebus_apella_(Tufted_capuchin)	GTTCTC	TAAAT	AGGGAC
NC_001808-Ceratotherium_simum_(white_rhinoceros)	GTTCCC	TAAAT	AGGGAC
NC_007704-Cervus_elaphus_(red_deer)	GTTCTC	TAAAT	AGGGAC
NC_014703-Cervus_elaphus_songaricus_(Tian_Shan_wapiti)	GTTCTC	TAAAT	AGGGAC
NC_013836-Cervus_elaphus_xanthopygus_(Manchurian_Wapiti)	GTTCTC	TAAAT	AGGGAC
NC_013840-Cervus_elaphus_yarkandensis_(Yarkland_deer)	GTTCTC	TAAAT	AGGGAC
NC_014701-Rucervus_eldi	GTTCTC	TAAAT	AGGGAC
NC_006993-Cervus_nippon_centralis_(Hondo_sika_deer)	GTTCTC	TAAAT	AGGGAC
NC_013834-Cervus_hortulorum_(Ussuri_sika_deer)	GTTCTC	TAAAT	AGGGAC
NC_016178-Cervus_nippon_kopschi_(South_China_sika_deer)	GTTCTC	TAAAT	AGGGAC
NC_008462-Cervus_taiouanus_(Formosan_sika_deer)	GTTCTC	TAAAT	AGGGAC
NC_007179-Cervus_nippon_yakushimae_(Yakushima_sika_deer)	GTTCTC	TAAAT	AGGGAC
NC_006973-Cervus_yesoensis_(Hokkaido_sika_deer)	GTTCTC	TAAAT	AGGGAC
NC_002626-Chalinolobus_tuberculatus_(New_Zealand_long-tailed_bat)	GTTCTC	TAAAT	AGGGAC
NC_007009-Chlorocebus_aethiops_(Cercopithecus_aethiops)	GTTCTC	TAAAT	AGGGAC
NC_009747-Chlorocebus_pygerythrus_(Cercopithecus_pygerythrus)	GTTCTC	TAAAT	AGGGAC
NC_008066-Chlorocebus_sabaeus_(green_monkey)	GTTCTC	TAATT	AGGGAC
NC_009748-Chlorocebus_tantalus_(Cercopithecus_tantalus)	GTTCTC	TAAAT	AGGGAC
NC_006924-Choloepus_didactylus_(southern_two-toed_sloth)	GTTCTC	TAATT	AAGGAC
NC_004920-Chrysochloris_asiatica_(Cape_Golden_Mole)	GTTCTT	TAATT	AAGGAC
NC_012681-Coelodonta_antiquitatis_(woolly_rhinoceros)	GTTCTC	TAAAT	AGGGAC
NC_006901-Colobus_guereza_(mantled_guereza)	GTTCTT	TAAAT	AGGGAC
NC_007936-Cricetulus_griseus_(Chinese_hamster)	GTTCTT	TAATT	AGGGAC
NC_006893-Crocidura_russula_(white-toothed_shrew)	GTTCTT	TAATT	AGGGAC
NC_013445-Cuon_alpinus_(dhole)	GTTCCC	TAAAT	AGGGAC
NC_008427-Cystophora_cristata_(hooded_seal)	GTTCTA	TAAAT	AAGGAC
NC_008134-Dactylopsila_trivirgata_(striped_possum)	GTCTCT	TAAAT	AGGAC
NC_001821-Dasyopus_novemcinctus_(nine-banded_armadillo)	GTTCTC	TAATT	AAGGAC
NC_007630-Dasyurus_hallucatus_(northern_quoll)	GTCTTT	TAATT	GGAGAC
NC_010299-Daubentonia_madagascariensis_(aye-aye)	GTTCTC	TAATT	AAGGAC
NC_012061-Delphinus_capensis_(Longbeaked_common_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_010301-Dendrohyrax_dorsalis_(Western_tree_hyrax)	GTTCTT	TAATT	AGGGAC
NC_012684-Dicerorhinus_sumatrensis_(Sumatran_rhinoceros)	GTTCTC	TAAAT	AAGGAC
NC_012682-Diceros_bicornis_(black_rhinoceros)	GTTCCC	TAAAT	AGGGAC
NC_001610-Didelphis_virginiana_(North_American_opossum)	GTCTCC	TAAAT	AGGGAC
NC_008145-Distoechurus_pennatus_(New_Guinean_feather-tailed_possum)	GTCTCC	TAAAT	AGAGAC
NC_005826-Dromiciops_gliroides_(monito_del_monte)	GTCTCC	TAATT	AGGGAC
NC_003314-Dugong_dugon_(dugong)	GTTCTT	TAATT	AGGGAC
NC_002631-Echinops_telfairi_(small_Madagascar_hedgehog)	GTTCTC	TAAAT	AAGGAC
NC_002808-Echinosorex_gymnura_(moonrat)	GTTCTT	TAATT	AAGGAC
NC_007632-Echymipera_rufescens_australis_(Rufous_Spiny_Bandicoot)	GTCTCT	TAAAT	AGAGAC
NC_008749-Elaphodus_cephalophus_(tufted_deer)	GTTCTC	TAAAT	AAGGAC
NC_004921-Elephantulus_sp._VB001_(elephant_shrew)	GTTCTT	TAATT	AAGGAC
NC_005129-Elephas_maximus_(Asiatic_elephant)	GTTCTT	TAATT	AGGGAC
NC_009692-Enhydra_lutris_(sea_otter)	GTTCTC	TAATT	AAGGAC
NC_018098-Eospalax_baileyi_(Plateau_zokor)	GTTCTT	TAATT	AGGGAC
NC_013571-Eothenomys_chinensis_(Sichuan_red-backed_vole)	GTTCTT	TAATT	GGGGAC
NC_016427-Myodes_regulus_(Korean_red-backed_vole)	GTTCTT	TAATT	GGGGAC
NC_003040-Episoriculus_fumidus_(Taiwan_brown-toothed_shrew)	GTTCTT	TAAT	AGGGAC
NC_001788-Equus_asinus_(donkey)	GTTCTC	TAAAT	AGGGAC
NC_001640-Equus_caballus_(horse)	GTTCCC	TAAAT	AGGGAC
NC_016061-Equus_hemionus_(onager)	GTTCTC	TAAAT	AGGGAC
NC_010304-Eremitalpa_granti_(Grants_golden_mole)	GTTCTC	TAATT	AAGGAC
NC_008426-Erignathus_barbatus_(bearded_seal)	GTTCTA	TAAAT	AAGGAC
NC_002080-Erinaceus_europaeus_(western_European_hedgehog)	GTTCTT	TAATT	AAGGAC
NC_005270-Eschrichtius_robustus_(grey_whale)	GTTCTC	TAATT	AGGGAC

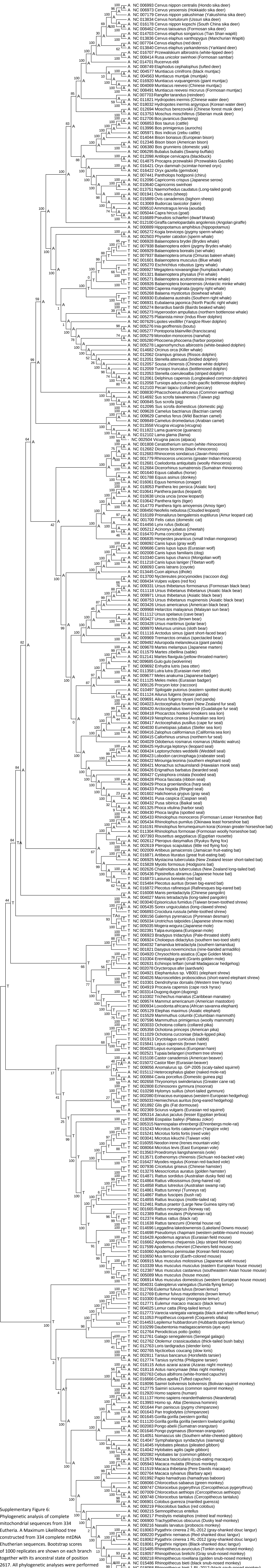
NC_006930-Eubalaena_australis_(Southern_right_whale)	GTTCTC	TAAT	AAGGAC
NC_006931-Eubalaena_japonica_(North_Pacific_right_whale)	GTTCTC	TAAT	AAGGAC
NC_012766-Eulemur_fulvus_fulvus_(brown_lemur)	GTTCTT	TAAT	TAGGAC
NC_012769-Eulemur_fulvus_mayottensis_(brown_lemur)	GTTCTT	TAAT	TAGGAC
NC_012771-Eulemur_macaco_macaco_(black_lemur)	GTTCTT	TAAT	TAGGAC
NC_010300-Eulemur_mongoz_(mongoose_lemur)	GTTCTT	TAAT	TAGGAC
NC_004030-Eumetopias_jubatus_(Steller_sea_lion)	GTTCTA	TAAAT	AAGGAC
NC_001700-Felis_catus_(domestic_cat)	GTTCCC	TAAAT	AGGGAC
NC_012761-Galago_senegalensis_(Senegal_galago)	GTTCTC	TAAT	GAGGAC
NC_008156-Galemys_pyrenaicus_(Pyrenean_desman)	GTTCTC	TAAT	AAGGAC
NC_004031-Galeopterus_variegatus_(Sunda_flying_lemur)	GTTCTC	TAAT	AGGGAC
NC_012100-Giraffa_camelopardalis_angolensis_(Angolan_giraffe)	GTTCTC	TAAAT	AAGGAC
NC_001892-Glis_glis_(Fat_dormouse)	GTTCTT	TAAT	AGGGAC
NC_001645-Gorilla_gorilla_(western_gorilla)	GTTCTT	TAAAT	AGGGAC
NC_011120-Gorilla_gorilla_gorilla_(western_lowland_gorilla)	GTTCTT	TAAAT	AGGGAC
NC_012062-Grampus_griseus_(Rissos_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_009685-Gulo_gulo_(wolverine)	GTTCTC	TAAAT	AAGGAC
NC_001602-Halichoerus_grypus_(gray_seal)	GTTCTA	TAAAT	AAGGAC
NC_009968-Helarctos_malayanus_(Malayan_sun_bear)	GTTCTC	TAAAT	AAGGAC
NC_005033-Hemiechinus_auritus_(long-eared_hedgehog)	GTTCTC	TAAT	AAGGAC
NC_006835-Herpestes_javanicus_(small_Indian_mongoose)	GTTCTT	TAAAT	AGGGAC
NC_015112-Heterocephalus_glaber_(naked_mole-rat)	GTTCTT	TAAAT	AAGGAC
NC_000889-Hippopotamus_amphibius_(hippopotamus)	GTTCTT	TAAAT	AGGGAC
NC_012920-Homo_sapiens_(human)	GTTCTT	TAAAT	AGGGAC
NC_011137-Homo_sapiens_neanderthalensis_(Neandertal)	GTTCTT	TAAAT	AGGGAC
NC_013993-Homo_sp._Altai_(Denisova_hominin)	GTTCTT	TAAAT	AGGGAC
NC_011821-Hydopotes_inermis_(Chinese_water_deer)	GTTCTC	TAAAT	AAGGAC
NC_018032-Hydopotes_inermis_argyropus_(Korean_water_deer)	GTTCTC	TAAAT	AAGGAC
NC_008425-Hydrurga_leptonyx_(leopard_seal)	GTTCTG	TAAAT	TAGGAC
NC_014042-Hylobates_agilis_(agile_gibbon)	GTTCTT	TAAAT	GGGGAC
NC_002082-Hylobates_lar_(common_gibbon)	GTTCTT	TAAAT	GGGGAC
NC_014045-Hylobates_pileatus_(pileated_gibbon)	GTTCTT	TAAAT	GGGGAC
NC_010298-Hylomys_suillus_(short-tailed_gymnure)	GTTCTT	TAAT	AAGGAC
NC_005273-Hyperoodon_ampullatus_(northern_bottlenose_whale)	GTTCTT	TAAAT	AAGGGC
NC_005276-Inia_geoffrensis_(boutu)	GTTCTT	TAAAT	AAGGAC
NC_002746-Isodon_macrourus_(northern_brown_bandicoot)	GTCTCT	TAAAT	AGAGAC
NC_005314-Jaculus_jaculus_(lesser_Egyptian_jerboa)	GTTCTT	TAAT	AGGGAC
NC_005272-Kogia_breviceps_(pygmy_sperm_whale)	GTTCTC	TAAAT	AAGGAC
NC_005278-Lagenorhynchus_albirostris_(white-beaked_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_008136-Lagorchestes_hirsutus_(rufous_hare-wallaby)	GTCTCT	TAAT	AGAGAC
NC_008447-Lagostrophus_fasciatus_(banded_hare-wallaby)	GTCTCT	TAAT	AGGGAC
NC_012102-Lama_glama_(llama)	GTTCTC	TAAAT	AAGGAC
NC_011822-Lama_guanicoe_(guanaco)	GTTCTC	TAAAT	AAGGAC
NC_002504-Vicugna_pacos_(alpaca)	GTTCTC	TAAAT	AAGGAC
NC_016873-Lasiurus_borealis_(red_bat)	GTTCTC	TAAT	AAGGAC
NC_014696-Leggadina_lakedownensis_(Lakeland_Downs_mouse)	GTTCTT	TAAT	AGGGAC
NC_004025-Lemur_catta_(Ring-tailed_lemur)	GTTCTT	TAAT	AGGGAC
NC_014453-Lepilemur_hubbardorum_(Hubbards_sportive_lemur)	GTCTCT	TAAT	AAGGAC
NC_008424-Leptonychotes_weddellii_(Weddell_seal)	GTTCTG	TAAAT	TAGGAC
NC_015841-Lepus_capensis_(brown_hare)	GTTCTT	TAAT	AGGGAC
NC_004028-Lepus_europaeus_(European_hare)	GTTCTT	TAAT	AGGGAC
NC_007629-Lipotes_vexillifer_(Yangtze_River_dolphin)	GTTCTC	CAAAAT	AAGGAC
NC_008423-Lobodon_carcinophaga_(crabeater_seal)	GTTCTG	TAAAT	TAGGAC
NC_012763-Loris_tardigradus_(slender_loris)	GTTCTT	TAAT	GAGGAC
NC_000934-Loxodonta_africana_(African_savanna_elephant)	GTTCTT	TAAT	AGGGAC
NC_011358-Lutra_lutra_(Eurasian_river_otter)	GTTCTC	TAAAT	AGGGAC
NC_014456-Lynx_rufus_(bobcat)	GTTCTT	TAAAT	AGGGAC
NC_012670-Macaca_fascicularis_(crab-eating_macaque)	GTTCTT	TAAAT	AGGGAC
NC_005943-Macaca_mulatta_(Rhesus_monkey)	GTTCTT	TAAAT	GGGGAC
NC_002764-Macaca_sylvanus_(Barbary_ape)	GTTCTT	TAAAT	AGGGAC
NC_011519-Macaca_thibetana_(Pere_Davids_macaque)	GTTCTT	TAAAT	AGGGAC
NC_001794-Macropus_robusus_(wallaroo)	GTCTCT	TAAT	AGAGAC
NC_004026-Macroscelides_proboscideus_(short-eared_elephant_shrew)	GTTCTC	TAAT	AAGGAC
NC_006520-Macrotis_lagotis_(bilby)	GTCTCT	TAAAT	AGAGAC
NC_009574-Mammuthus_americanum_(American_mastodon)	GTTCTT	TAAT	AGGGAC
NC_015529-Mammuthus_columbi_(Columbian_mammoth)	GTTCTT	TAAT	AGGGAC

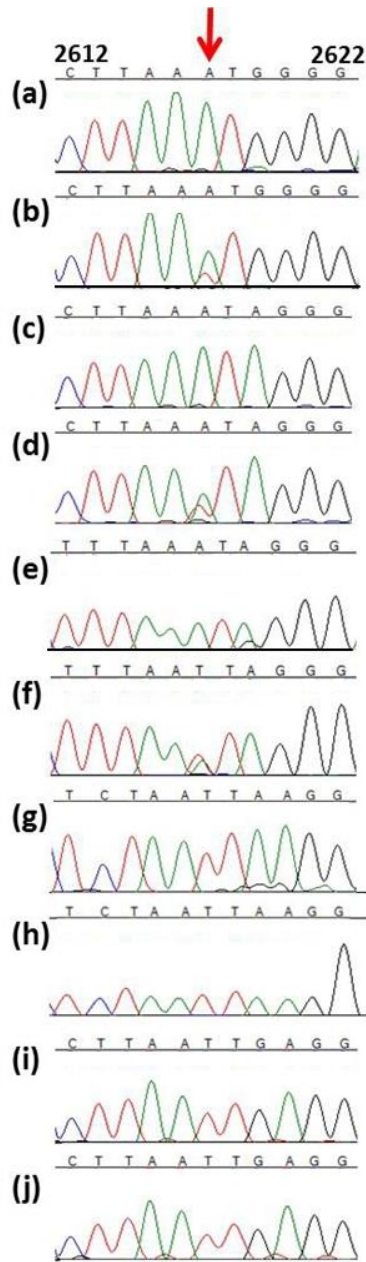
NC_007596-Mammuthus_primigenius_(woolly_mammoth)	GTTCTC	TAAAT	AGGGAC
NC_016008-Manis_pentadactyla_(Chinese_pangolin)	GTTCTC	TAAAT	AAGGAC
NC_004027-Manis_tetradactyla_(long-tailed_pangolin)	GTTCTC	TAAAT	AAGGAC
NC_012141-Martes_flavigula_(yellow-throated_marten)	GTTCTC	TAAAT	AAGGAC
NC_009678-Martes_melampus_(Japanese_marten)	GTTCTC	TAAAT	AAGGAC
NC_011579-Martes_zibellina_(sable)	GTTCTC	TAAAT	AAGGAC
NC_006927-Megaptera_novaeangliae_(humpback_whale)	GTTCTC	TAAAT	AAGGAC
NC_009677-Meles_anakuma_(Japanese_badger)	GTTCTT	TAAAT	AAGGAC
NC_011125-Meles_meles_(Eurasian_badger)	GTCCTT	TAAAT	AAGGAC
NC_009970-Melursus_ursinus_(sloth_bear)	GTTCTC	TAAAT	AAGGAC
NC_013276-Mesocricetus_auratus_(golden_hamster)	GTTCTC	TAAAT	AGGGAC
NC_006516-Metachirus_nudicaudatus_(brown_four-eyed_opossum)	GTCTCC	TAAAT	AGGGAC
NC_015243-Microtus_fortis_calamorum_(Yangtze_vole)	GTTCTC	TAAAT	GGGGAC
NC_015241-Microtus_fortis_fortis_(reed_vole)	GTTCTC	TAAAT	GGGGAC
NC_003041-Microtus_kikuchii_(Taiwan_vole)	GTTCTC	TAAAT	GGGGAC
NC_008064-Microtus_levis_(East_European_vole)	GTTCTC	TAAAT	GGGGAC
NC_008422-Mirounga_leonina_(southern_elephant_seal)	GTTCTG	TAAAT	TAGGAC
NC_005035-Mogera_wogura_(Japanese_mole)	GTTCTT	TAAAT	AAGGAC
NC_008421-Monachus_schauinslandi_(Hawaiian_monk_seal)	GTCCTG	TAAAT	TAGGAC
NC_006299-Monodelphis_domestica_(gray_short-tailed_opossum)	GTCTCC	TAAAT	AGAGAC
NC_005279-Monodon_monoceros_(narwhal)	GTTCTC	TAAAT	AAGGAC
NC_012694-Moschus_berezovskii_(Chinese_forest_musk_deer)	GTTCTC	TAAAT	AAGGAC
NC_013753-Moschus_moschiferus_(Siberian_musk_deer)	GTTCTC	TAAAT	AAGGAC
NC_004577-Muntiacus_crinifrons_(black_muntjac)	GTTCTC	TAAAT	AAGGAC
NC_004563-Muntiacus_muntjak_(muntjak)	GTTCTC	TAAAT	AAGGAC
NC_004069-Muntiacus_reevesi_(Chinese_muntjac)	GTTCTC	TAAAT	AAGGAC
NC_008491-Muntiacus_reevesi_micrurus_(Formosan_muntjac)	GTTCTC	TAAAT	AAGGAC
NC_016920-Muntiacus_vuquangensis_(giant_muntjac)	GTTCTC	TAAAT	AAGGAC
NC_005089-Mus_musculus_(house_mouse)	GTTCTC	TAAAT	AGGGAC
NC_012387-Mus_musculus_castaneus_(southeastern_Asian_house_mouse)	GTTCTC	TAAAT	AGGGAC
NC_006914-Mus_musculus_domesticus_(western_European_house_mouse)	GTTCTC	TAAAT	AGGGAC
NC_006915-Mus_musculus_molossinus_(Japanese_wild_mouse)	GTTCTC	TAAAT	AGGGAC
NC_010339-Mus_musculus_musculus_(eastern_European_house_mouse)	GTTCTC	TAAAT	AGGGAC
NC_010650-Mus_terricolor_(Earth-colored_mouse)	GTTCTC	TAAAT	AAGGAC
NC_015828-Myotis_formosus_(Hodgsons_bat)	GTTCTC	TAAAT	AAGGAC
NC_011949-Myrmecobius_fasciatus_(numbat)	GTCTTT	TAAAT	AGAGAC
NC_006925-Mystacina_tuberculata_(New_Zealand_lesser_short-tailed_bat)	GTTCTC	TAAAT	AGGGAC
NC_013751-Naemorhedus_caudatus_(Long-tailed_goral)	GTTCTC	TAAAT	AAGGAC
NC_010640-Capricornis_swinhoei	GTTCTC	TAAAT	AAGGAC
NC_005315-Nannospalax_ehrenbergi_(Ehrenbergs_mole-rat)	GTTCTT	TAAAT	AGGGAC
NC_008216-Nasalis_larvatus_(proboscis_monkey)	GTTCTT	TAAAT	AGGGAC
NC_016055-Neodon_irene_(Irenes_mountain_vole)	GTTCTT	TAAAT	GGGGAC
NC_008450-Neofelis_nebulosa_(Clouded_leopard)	GTTCCC	TAAAT	AGGGAC
NC_008419-Neophoca_cinerea_(Australian_sea_lion)	GTTCTA	TAAAT	AAGGAC
NC_014051-Nomascus_siki_(Southern_white-cheeked_gibbon)	GTTCTT	TAAAT	GGGGAC
NC_006522-Notoryctes_typhlops_(marsupial_mole)	GTCTCT	TAAAT	GGGGAC
NC_013700-Nyctereutes_procyonoides_(raccoon_dog)	GTTCTC	TAAAT	AGGGAC
NC_002765-Nycticebus_coucang_(slow_loris)	GTTCTT	TAAAT	GAGGAC
NC_003033-Ochotona_collaris_(collared_pika)	GTTCTT	TAAAT	AGGGAC
NC_011029-Ochotona_curzoniae_(black-lipped_pika)	GTTCTT	TAAAT	AGGGAC
NC_005358-Ochotona_princeps_(American_pika)	GTTCTT	TAAAT	AGGGAC
NC_004029-Odobenus_rosmarus_rosmarus_(Atlantic_walrus)	GTTCTA	TAAAT	AAGGAC
NC_015247-Odocoileus_virginianus_(white-tailed_deer)	GTTCTC	TAAAT	AAGGAC
NC_014682-Orcinus_orca_(Killer_whale)	GTTCTC	TAAAT	AAGGAC
NC_002078-Orycteropus_afer_(aardvark)	GTTCTC	TAAAT	AAGGAC
NC_001913-Oryctolagus_cuniculus_(rabbit)	GTTCTT	TAAAT	GGGGAC
NC_016421-Oryx_dammah_(scimitar-horned_oryx)	GTTCTC	TAAAT	AAGGAC
NC_016422-Oryx_gazella_(gemsbok)	GTTCTC	TAAAT	AAGGAC
NC_012762-Otolemur_crassicaudatus_(thick-tailed_bush_baby)	GTTCTT	TAAAT	GAGGAC
NC_001941-Ovis_aries_(sheep)	GTTCTC	TAAAT	AAGGAC
NC_015889-Ovis_canadensis_(bighorn_sheep)	GTTCTC	TAAAT	AAGGAC
NC_001644-Pan_paniscus_(pygmy_chimpanzee)	GTTCTT	TAAAT	AGGGAC
NC_001643-Pan_troglodytes_(chimpanzee)	GTTCTT	TAAAT	AGGGAC
NC_018053-Panthera_leo_persica_(Asiatic_lion)	GTTCTT	TAAAT	AGGGAC
NC_010641-Panthera_pardus_(leopard)	GTTCC-	TAAAT	AGGGAC
NC_010642-Panthera_tigris_(tiger)	GTTCTT	TAAAT	AGGGAC

NC_014770-Panthera_tigris_amoyensis_(Amoy_tiger)	GTTCTC	TAAAT	AGGGAC
NC_007441-Pantholops_hodgsonii_(chiru)	GTTCTC	TAAAT	AAGGAC
NC_001992-Papio_hamadryas_(hamadryas_baboon)	GTTCTT	TAAAT	AGGGAC
NC_012103-Pecari_tajacu_(collared_peccary)	GTTCTC	TAAAT	AAGGAC
NC_006521-Perameles_gunnii_(eastern_barred_bandicoot)	GTCTCT	TAAAT	AGAGAC
NC_012764-Perodicticus_potto_(potto)	GTTCTT	TAATT	AAGGAC
NC_008135-Petaurus_breviceps_(sugar_glider)	GTCCCT	TAAAT	AGAGAC
NC_008830-Phacochoerus_africanus_(Common_warthog)	GTTCTC	CAAAAT	AAGGAC
NC_008137-Phalanger_vestitus_(Steins_cuscus)	GTCTCT	TAAAT	GGGGAC
NC_006523-Phascogale_tapoatafa_(brush-tailed_phascogale)	GTCTCT	TAATT	GGGGAC
NC_008133-Phascolarctos_cinereus_(koala)	GTCTCT	TAAAT	AGGGAC
NC_008428-Phoca_fasciata_(ribbon_seal)	GTTCTA	TAAAT	AAGGAC
NC_008429-Phoca_groenlandica_(harp_seal)	GTTCTA	TAAAT	AAGGAC
NC_008430-Phoca_largha_(spotted_seal)	GTTCTA	TAAAT	AAGGAC
NC_001325-Phoca_vitulina_(harbor_seal)	GTTCTA	TAAAT	AAGGAC
NC_008418-Phocarcos_hookeri_(Hookers_sea_lion)	GTTCTA	TAAAT	AAGGAC
NC_005280-Phocoena_phocoena_(harbor_porpoise)	GTTCTC	TAAAT	AAGGAC
NC_002503-Physeter_catodon_(sperm_whale)	GTTCTC	TAAAT	AAGGAC
NC_008219-Piliocolobus_badius_(red_colobus)	GTTCTT	TAAAT	AGGGAC
NC_005436-Pipistrellus_abramus_(Japanese_house_bat)	GTTCCC	TAAAT	AGGGAC
NC_005275-Platanista_minor_(Indus_River_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_015484-Plecotus_auritus_(brown_big-eared_bat)	GTTCTC	TAAAT	AGGGAC
NC_016872-Plecotus_rafinesquii_(Rafinesques_big-eared_bat)	GTTCTC	TAAAT	AGGGAC
NC_002083-Pongo_abelii_(Sumatran_orangutan)	GTTCTT	TAAAT	GGGGAC
NC_001646-Pongo_pygmaeus_(Bornean_orangutan)	GTTCTT	TAAAT	GAGGAC
NC_005277-Pontoporia_blainvillei_(franciscana)	GTCTCT	TAAAT	AAGGAC
NC_006524-Potorous_tridactylus_(long-nosed_potoroo)	GTCTTT	TAATT	AGAGAC
NC_008217-Presbytis_melalophos_(mitred_leaf_monkey)	GTTCTT	TAAAT	AGGGAC
NC_016189-Prionailurus_bengalensis_euphilurus_(Amur_leopard_cat)	GTTCCC	TAAAT	AGGGAC
NC_014875-Procavia_przewalskii_(Przewalskis_Gazelle)	GTTCTT	TAAAT	AAGGAC
NC_004919-Procavia_capensis_(cape_rock_hyrax)	GTTCCT	TAATT	AGGGAC
NC_009126-Procyon_lotor_(raccoon)	GTTCTC	TAAAT	AGGGAC
NC_013563-Proedromys_liangshanensis_(vole)	GTTCTT	TAATT	AGGGAC
NC_011053-Propithecus_coquereli_(Coquerels_sifaka)	GTTCTT	TAATT	AAGGAC
NC_016707-Przewalskium_albirostris_(white-lipped_deer)	GTTCTC	TAAAT	AAGGAC
NC_006519-Pseudocheirus_peregrinus_(common_ring-tailed_possum)	GTCCCT	TAAAT	AGAGAC
NC_016689-Pseudois_schaeferi_(dwarf_bharal)	GTTCTC	TAAAT	AAGGAC
NC_014698-Pseudomys_chapmani_(western_pebble-mound_mouse)	GTTCTT	TAATT	AGGGAC
NC_002612-Pteropus_dasypterus_(Ryukyu_flying_fox)	GTTCTC	TAAAT	AGGGAC
NC_002619-Pteropus_scapulatus_(little_red_flying_fox)	GTTCTC	TAAAT	AAGGAC
NC_016470-Puma_concolor_(puma)	GTTCCT	TAAAT	AGGGAC
NC_008431-Pusa_caspica_(Caspian_seal)	GTTCTA	TAAAT	AAGGAC
NC_008433-Pusa_hispida_(Ringed_seal)	GTTCTA	TAAAT	AAGGAC
NC_008432-Pusa_sibirica_(Baikal_seal)	GTTCTA	TAAAT	AAGGAC
NC_018062-Pygathrix_cinerea_1_RL-2012_(gray-shanked_douc_langur)	GTTCTT	TAAAT	AGGGAC
NC_018063-Pygathrix_cinerea_2_RL-2012_(gray-shanked_douc_langur)	GTTCTT	TAAAT	AGGGAC
NC_008220-Pygathrix_nemaeus_(Red_shanked_douc_langur)	GTTCTT	TAAAT	AGGGAC
NC_018061-Pygathrix_nigripes_(Black-shanked_douc_langur)	GTTCTT	TAAAT	AGGGAC
NC_007703-Rangifer_tarandus_(reindeer)	GTTCTC	TAAAT	AAGGAC
NC_012389-Rattus_exulans_(Polynesian_rat)	GTTCTT	TAATT	AGGGAC
NC_014867-Rattus_fuscipes_(bush_rat)	GTTCTT	TAATT	AGGGAC
NC_014855-Rattus_leucopus_(mottle-tailed_rat)	GTTCTT	TAATT	AGGGAC
NC_014858-Rattus_lutreolus_(Australian_swamp_rat)	GTTCTT	TAATT	AGGGAC
NC_001665-Rattus_norvegicus_(Norway_rat)	GTTCTT	TAATT	AGGGAC
NC_012461-Rattus_praetor_(Large_New_Guinea_spiny_rat)	GTTCTT	TAATT	AGGGAC
NC_012374-Rattus_rattus_(black_rat)	GTTCTT	TAATT	AGGGAC
NC_014871-Rattus_sordidus_(Australian_dusky_field_rat)	GTTCTT	TAATT	AGGGAC
NC_011638-Rattus_tanezumii_(Oriental_house_rat)	GTTCTT	TAATT	AGGGAC
NC_014861-Rattus_tunneyi_(Tunneys_rat)	GTTCTT	TAATT	AGGGAC
NC_014864-Rattus_villosissimus_(long-haired_rat)	GTTCTT	TAATT	AGGGAC
NC_012683-Rhinoceros_sondaicus_(Javan_rhinoceros)	GTTCTC	TAAAT	AAGGAC
NC_001779-Rhinoceros_unicornis_(greater_Indian_rhinoceros)	GTTCCT	TAAAT	AAGGAC
NC_016191-Rhinolophus_ferrumequinum_korai_(Korean_greater_horseshoe_bat)	GTTCCC	TAAAT	AGGGAC
NC_011304-Rhinolophus_formosae_(Formosan_woolly_horseshoe_bat)	GTTCCC	TAAAT	AGGGAC
NC_005433-Rhinolophus_monoceros_(Formosan_Lesser_Horseshoe_Bat)	GTTCCC	TAAAT	AGGGAC
NC_005434-Rhinolophus_pumilus_(Okinawa_least_horseshoe_bat)	GTTCCC	TAAAT	AGGGAC

NC_015485-Rhinopithecus_avunculus_(Tonkin_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_015486-Rhinopithecus_bieti_(black_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_018058-Rhinopithecus_bieti_1_RL-2012_(black_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_018060-Rhinopithecus_bieti_2_RL-2012_(black_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_018057-Rhinopithecus_brelichi_(Gray_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_008218-Rhinopithecus_roxellana_(golden_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_018059-Rhinopithecus_strykeri_(Burmese_snub-nosed_monkey)	GTTCTT	TAAAT	AGGGAC
NC_005829-Rhyncholestes_raphanurus_(Chilean_shrew_opossum)	GTCTCC	TAAAT	AGAGAC
NC_007393-Rousettus_aegyptiacus_(Egyptian_rousette)	GTTCTC	TAAAT	AAGGAC
NC_008414-Rusa_unicolor_swinhoei_(Formosan_sambar)	GTTCTC	TAAAT	AGGGAC
NC_018096-Saimiri_boliviensis_boliviensis_(Bolivian_squirrel_monkey)	GTTCTC	TAAAT	AAGGAC
NC_012775-Saimiri_sciureus_(common_squirrel_monkey)	GTTCTC	TAAAT	AAGGAC
NC_002369-Sciurus_vulgaris_(Eurasian_red_squirrel)	GTTCTT	TAAAT	AGGGAC
NC_008215-Semnopithecus_entellus	GTTCTT	TAAAT	AAGGAC
NC_007631-Sminthopsis_crassicaudata_(fat-tailed_dunnart)	GTCTTT	TAAAT	AGGGAC
NC_006517-Sminthopsis_douglasi_(Julia_Creek_dunnart)	GTCTTT	TAAAT	AGGGAC
NC_005435-Sorex_unguiculatus_(long-clawed_shrew)	GTTCTT	TAAAT	AGGGAC
NC_012057-Sousa_chinensis_(Chinese_white_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_010497-Spilogale_putorius_(eastern_spotted_skunk)	GTTCTC	TAAAT	AAGGAC
NC_012051-Stenella_attenuata_(bridled_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_012053-Stenella_coeruleoalba_(striped_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_000845-Sus_scrofa_(pig)	GTTCTC	CAAAAT	AAGGAC
NC_012095-Sus_scrofa_domesticus_(domestic_pig)	GTTCTC	CAAAAT	AAGGAC
NC_014692-Sus_scrofa_taiwanensis_(Taiwan_pig)	GTTCTC	CAAAAT	AAGGAC
NC_014047-Symphalangus_syndactylus_(siamang)	GTTCTT	TAAAT	GGGGAC
NC_002391-Talpa_europaea_(European_mole)	GTTCTT	TAATT	AAGGAC
NC_004032-Tamandua_tetradactyla_(southern_tamandua)	GTTCTT	TAATT	AGGGAC
NC_006518-Tarsipes_rostratus_(honey_possum)	GTCCCT	TAAAT	GGAGAC
NC_002811-Tarsius_bancanus_(Horsfields_tarsier)	GTTCTC	TAAAT	AAGGAC
NC_012774-Tarsius_syrichta_(Philippine_tarsier)	GTTCTC	TAAAT	AAGGAC
NC_002658-Thryonomys_swinderianus_(Greater_cane_rat)	GTTCTT	TAAAT	AAGGAC
NC_011944-Thylacinus_cynocephalus_(Tasmanian_wolf)	GTCTTT	TAAAT	AGAGAC
NC_005825-Thylamys_elegans_(elegant_fat-tailed_opossum)	GTCTCT	TAAAT	AGAGAC
NC_006900-Trachypithecus_obscurus_(Dusky_leaf-monkey)	GTTCTT	TAAAT	AGGGAC
NC_009969-Tremarctos_ornatus_(spectacled_bear)	GTTCTC	TAAAT	AAGGAC
NC_010302-Trichechus_manatus_(Caribbean_manatee)	GTTCTT	TAATT	AGGGAC
NC_003039-Trichosurus_vulpecula_(common Brushtail)	GTCCCT	TAAAT	AGAGAC
NC_013068-Tscherskia_triton_(greater_long-tailed_hamster)	GTTCTT	TAATT	AGGGAC
NC_002521-Tupaia_belangeri_(northern_tree_shrew)	GTTCTT	TAAAT	AGGGAC
NC_012058-Tursiops_aduncus_(Indo-pacific_bottlenose_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_012059-Tursiops_truncatus_(bottlenosed_dolphin)	GTTCTC	TAAAT	AAGGAC
NC_010638-Uncia_uncia_(snow_leopard)	GTTCCC	TAAAT	AGGGAC
NC_005034-Urotrichus_talpoides_(Japanese_shrew_mole)	GTTCTC	TAATT	AAGGAC
NC_003426-Ursus_americanus_(American_black_bear)	GTTCTC	TAAAT	AAGGAC
NC_003427-Ursus_arctos_(brown_bear)	GTTCTC	TAAAT	AAGGAC
NC_003428-Ursus_maritimus_(polar_bear)	GTTCTC	TAAAT	AAGGAC
NC_011112-Ursus_spelaeus_(cave_bear)	GTTCTC	TAAAT	AAGGAC
NC_009971-Ursus_thibetanus_(Asiatic_black_bear)	GTTCTC	TAAAT	AAGGAC
NC_009331-Ursus_thibetanus_formosanus_(Formosan_black_bear)	GTCCCT	TAAAT	AAGGAA
NC_008753-Ursus_thibetanus_mupinensis_(Asiatic_black_bear)	GTTCTC	TAAAT	AAGGAC
NC_011118-Ursus_thibetanus_thibetanus_(Asiatic_black_bear)	GTTCTC	TAAAT	AAGGAC
NC_011117-Ursus_thibetanus_ussuricus_(Manchurian_black_bear)	GTTCTC	TAAAT	AAGGAC
NC_012773-Varecia_variegata_variegata_(black_and_white_ruffed_lemur)	GTTCTT	TAATT	AAGGAC
NC_013558-Vicugna_vicugna_(vicugna)	GTTCTC	TAAAT	AGGGAC
NC_003322-Vombatus_ursinus_(common_wombat)	GTCTCT	TAATT	AGGGAC
NC_008434-Vulpes_vulpes_(red_fox)	GTTCTC	TAAAT	AGGGAC
NC_008416-Zalophus_californianus_(California_sea_lion)	GTTCTA	TAAAT	GAGGAC

Supplementary Figure 5: Sequence alignment of mitochondrial 16S RNA from 1755 vertebrates. MtDNA positions 2608 to 2634 (human coordinates) are aligned and compared to available vertebrate orthologous sequence. This sequence harbors the stems and loop (Ruiz-Pesini and Wallace 2006) including position 2617 (framed in red). The 1755 vertebrate species include 941 *Actinopterygii* (ray-finned fishes), 109 *Amphibia* (amphibians), 48 *Testudines* (turtles), 109 *Lepidosauria* (sphenodon, lizards and snakes), 177 *Archosauria* (Crocodilains and birds) and 371 *Mammalia* (mammals). Stem, Loop, Stem columns – mtDNA sequence corresponding to the stem-and-loop structure of 16S rRNA around position 2617.





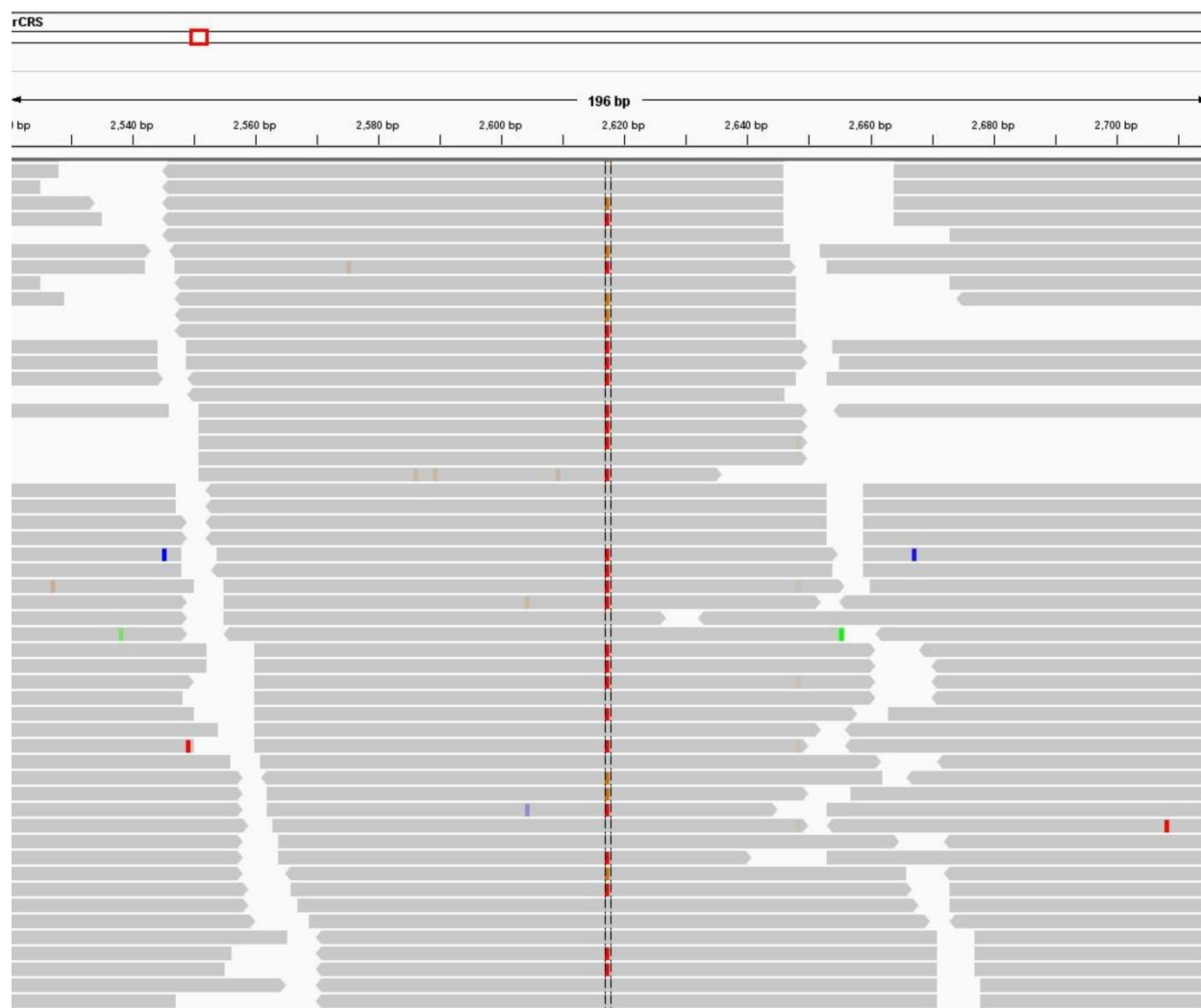
Supplementary Figure 7: Sanger sequence analysis of position 2617 from DNA and RNA

samples of mitochondria from various primates: *Pongo pigmaeus*: (a) DNA and (b) RNA;

Gorilla gorilla (c) DNA and (d) RNA; *Macaca mulatta* (e) DNA and (f) RNA; *Lemur katta* (g) DNA

and (h) RNA; *Nycticebus coucang* (i) DNA and (j) RNA. Red arrow indicates nucleotide position

corresponding to position 2617 in human mtDNA. Numbers on top of each base indicates positions according to the rCRS.



Supplementary Figure 8: The identified RDDs are not found at the edges of the sequence reads. A representative IGV viewer chart (Robinson et al. 2011) at position 2617 in a representative analyzed sample (GM14447). Upper panel – schematic linear representation of the human mtDNA (rCRS), position 2617 is framed. Numbers at the top part of the figure – nucleotide positions of the rCRS. Lower large panel – schematic representation of the sequence reads encompassing mtDNA position 2617 (thick arrow-like grey bars). Direction of arrow heads are consistent with directions of the reads. Framed red bars – the thymine at position 2617; brown - Guanine, grey - the DNA reference (Adenine).