Supplementary Table 1. Human orthologs and gene names for 220 nuclear loci (based on NCBI taxid:9606, *Homo sapiens*).

| Locus ID | | GENE SYMBOL | GENE NAME |
| --- | --- | --- | --- |
| 1 | *PRDM16* | | PR/SET domain 16 |
| 4 | *KIF1B* | | kinesin family member 1B |
| 5 | *SPEN* | | spen family transcriptional repressor |
| 10 | *MAST2* | | microtubule associated serine/threonine kinase 2 |
| 11 | *JUN* | | Jun proto-oncogene, AP-1 transcription factor subunit |
| 13 | *ADGRL2* | | adhesion G protein-coupled receptor L2 |
| 14 | *ZNF644* | | zinc finger protein 644 |
| 15 | *PLPPR4* | | phospholipid phosphatase related 4 |
| 16 | *S1PR1* | | sphingosine-1-phosphate receptor 1 |
| 17 | *CELSR1* | | cadherin EGF LAG seven-pass G-type receptor 1 |
| 20 | *RBM15* | | RNA binding motif protein 15 |
| 28 | *KCND3* | | voltage-gated potassium channel Kv4.3 |
| 30 | *OLFML3* | | olfactomedin like 3 |
| 31 | *BCL9* | | BCL9 transcription coactivator |
| 34 | *RASAL2* | | RAS protein activator like 2 |
| 35 | *ANGPTL1* | | angiopoietin like 1 |
| 36 | *B3GALT2* | | beta-1,3-galactosyltransferase 2 |
| 38 | *LGR5* | | leucine rich repeat containing G protein-coupled receptor 5 |
| 41 | *DISP1* | | dispatched RND transporter family member 1 |
| 45 | *SIPA1L1* | | signal induced proliferation associated 1 like 1 |
| 46 | *KIF26B* | | kinesin family member 26B |
| 47 | *PXDN* | | peroxidasin |
| 48 | *KCNF1* | | potassium voltage-gated channel modifier subfamily F member 1 |
| 49 | *KCNS3* | | potassium voltage-gated channel modifier subfamily S member 3 |
| 53 | *BIRC6* | | baculoviral IAP repeat containing 6 |
| 54 | *MSH6* | | mutS homolog 6 |
| 55 | *STON1* | | stonin 1 |
| 56 | *GPR75* | | G protein-coupled receptor 75 |
| 57 | *CCDC85A* | | coiled-coil domain containing 85A |
| 59 | *BCL11A* | | BAF chromatin remodeling complex subunit BCL11A |
| 61 | *LRRTM1* | | leucine rich repeat transmembrane neuronal 1 |
| 62 | *RNF103* | | ring finger protein 103 |
| 63 | *RANBP2* | | RAN binding protein 2 |
| 65 | *ZEB2* | | zinc finger E-box binding homeobox 2 |
| 69 | *TTN* | | titin |
| 78 | *BMPR2* | | bone morphogenetic protein receptor type 2 |
| 80 | *KLF7* | | Kruppel like factor 7 |
| 82 | *ZNF142* | | zinc finger protein 142 |
| 86 | *IQSEC1* | | IQ motif and Sec7 domain ArfGEF 1 |
| 88 | *WNT7A* | | Wnt family member 7A |
| 92 | *KLHL40* | | kelch like family member 40 |
| 93 | *SNRK* | | SNF related kinase |
| 95 | *BSN* | | bassoon presynaptic cytomatrix protein |
| 97 | *PDZRN3* | | PDZ domain containing ring finger 3 |
| 99 | *CCDC80* | | coiled-coil domain containing 80 |
| 100 | *USF3* | | upstream transcription factor family member 3 |
| 102 | *ZNF148* | | zinc finger protein 148 |
| 105 | *KBTBD12* | | kelch repeat and BTB domain containing 12 |
| 107 | *SIAH2* | | siah E3 ubiquitin protein ligase 2 |
| 109 | *GPR87* | | G protein-coupled receptor 87 |
| 110 | *IGSF10* | | immunoglobulin superfamily member 10 |
| 112 | *SKIL* | | SKI like proto-oncogene |
| 113 | *GHSR* | | growth hormone secretagogue receptor |
| 115 | *KIAA0232* | | KIAA0232 |
| 116 | *NWD2* | | NACHT and WD repeat domain containing 2 |
| 118 | *SHROOM3* | | shroom family member 3 |
| 121 | *NDNF* | | neuron derived neurotrophic factor |
| 122 | *ANKRD50* | | ankyrin repeat domain 50 |
| 123 | *FAT4* | | FAT atypical cadherin 4 |
| 124 | *FATJ* | | fat-like cadherin FATJ protein |
| 125 | *FAT4* | | FAT atypical cadherin 4 |
| 126 | *PCDH18* | | protocadherin 18 |
| 127 | *NR3C2* | | nuclear receptor subfamily 3 group C member 2 |
| 130 | *SORBS2* | | sorbin and SH3 domain containing 2 |
| 132 | *FAT1* | | FAT atypical cadherin 1 |
| 135 | *GCNT4* | | glucosaminyl (N-acetyl) transferase 4 |
| 136 | *APC* | | APC regulator of WNT signaling pathway |
| 137 | *SEMA6A* | | semaphorin 6A |
| 138 | *DMXL1* | | Dmx like 1 |
| 141 | *ADRB2* | | beta-2 adrenergic receptor |
| 144 | *SLC26A2* | | solute carrier family 26 member 2 |
| 146 | *ARSI* | | arylsulfatase family member I |
| 147 | *FAT2* | | FAT atypical cadherin 2 |
| 149 | *TENM2* | | teneurin transmembrane protein 2 |
| 151 | *RREB1* | | ras responsive element binding protein 1 |
| 152 | *DSP* | | desmoplakin |
| 153 | *HIVEP1* | | HIVEP zinc finger 1 |
| 154 | *ATXN1* | | ataxin 1 |
| 155 | *BICRAL* | | BRD4 interacting chromatin remodeling complex associated protein like |
| 156 | *KLHL31* | | kelch like family member 31 |
| 159 | *HTR1E* | | 5-hydroxytryptamine receptor 1E |
| 160 | *ZNF292* | | zinc finger protein 292 |
| 161 | *SIM1* | | SIM bHLH transcription factor 1 |
| 162 | *BEND3* | | BEN domain containing 3 |
| 163 | *CTGF* | | connective tissue growth factor |
| 164 | *NHSL1* | | NHS like 1 |
| 165 | *HIVEP2* | | HIVEP zinc finger 2 |
| 166 | *MIBP1* | | c-myc intron-binding protein 1 |
| 169 | *GRM1* | | glutamate metabotropic receptor 1 |
| 172 | *AKAP12* | | A-kinase anchoring protein 12 |
| 173 | *SYNE1* | | spectrin repeat containing nuclear envelope protein 1 |
| 174 | *ARID1B* | | AT-rich interaction domain 1B |
| 175 | *DLL1* | | delta like canonical Notch ligand 1 |
| 177 | *SP4* | | Sp4 transcription factor |
| 179 | *PCLO* | | piccolo presynaptic cytomatrix protein |
| 182 | *CTTNBP2* | | cortactin binding protein 2 |
| 183 | *PLXNA4* | | plexin A4 |
| 184 | *NF-M* | | neurofilament subunit M |
| 187 | *NPBWR1* | | neuropeptides B/W receptor |
| 191 | *FAM110B* | | family with sequence similarity 110 member B |
| 192 | *CHD7* | | chromodomain helicase DNA binding protein 7 |
| 193 | *YTHDF3* | | YTH N6-methyladenosine RNA binding protein 3 |
| 194 | *VCPIP1* | | valosin containing protein interacting protein 1 |
| 196 | *ZFHX4* | | zinc finger homeobox 4 |
| 197 | *PDP1* | | pyruvate dehyrogenase phosphatase catalytic subunit 1 |
| 198 | *ZFPM2* | | zinc finger protein, FOG family member 2 |
| 199 | *ZHX2* | | zinc fingers and homeoboxes 2 |
| 200 | *KLHL38* | | kelch like family member 38 |
| 201 | *RNF139* | | ring finger protein 139 |
| 202 | *KANK1* | | KN motif and ankyrin repeat domains 1 |
| 203 | *DMRT3* | | doublesex and mab-3 related transcription factor 3 |
| 204 | *KCNV2* | | potassium voltage-gated channel modifier subfamily V member 2 |
| 208 | *TRPM3* | | transient receptor potential cation channel subfamily M member 3 |
| 209 | *DAPK1* | | death associated protein kinase 1 |
| 210 | *NFIL3* | | nuclear factor, interleukin 3 regulated |
| 211 | *ROR2* | | receptor tyrosine kinase like orphan receptor 2 |
| 212 | *GRIN3A* | | glutamate ionotropic receptor NMDA type subunit 3A |
| 214 | *SVEP1* | | sushi, von Willebrand factor type A, EGF and pentraxin domain containing 1 |
| 216 | *ZBTB34* | | zinc finger and BTB domain containing 34 |
| 217 | *CAMSAP1* | | calmodulin regulated spectrin associated protein 1 |
| 218 | *ADARB2* | | adenosine deaminase RNA specific B2 |
| 219 | *FAM171A1* | | family with sequence similarity 171 member A1 |
| 220 | *KIAA1217* | | KIAA1217 |
| 222 | *ZEB1* | | zinc finger E-box binding homeobox 1 |
| 224 | *SLC18A3* | | solute carrier family 18 member A3 |
| 225 | *ANK3* | | ankyrin 3 |
| 226 | *ARID5B* | | AT-rich interaction domain 5B |
| 227 | *JMJD1C* | | jumonji domain containing 1C |
| 229 | *NDST1* | | N-deacetylase and N-sulfotransferase 1 |
| 230 | *KAT6B* | | lysine acetyltransferase 6B |
| 231 | *MOZ* | | Human monocytic leukaemia zinc finger protein |
| 234 | *SH3PXD2A* | | SH3 and PX domains 2A |
| 239 | *RAG1* | | recombination activating 1 |
| 240 | *PRDM11* | | PR/SET domain 11 |
| 241 | *CHST1* | | carbohydrate sulfotransferase 1 |
| 242 | *KBTBD4* | | kelch repeat and BTB domain containing 4 |
| 243 | *DAGLA* | | diacylglycerol lipase alpha |
| 244 | *CORTBP1* | | cortactin-binding protein 1 |
| 245 | *SHANK2* | | SH3 and multiple ankyrin repeat domains 2 |
| 246 | *TENM4* | | teneurin transmembrane protein 4 |
| 248 | *PRSS23* | | serine protease 23 |
| 249 | *FZD4* | | frizzled class receptor 4 |
| 251 | *GRM5* | | glutamate metabotropic receptor 5 |
| 252 | *FAT3* | | FAT atypical cadherin 3 |
| 253 | *AMOTL1* | | angiomotin like 1 |
| 254 | *MAML2* | | mastermind like transcriptional coactivator 2 |
| 255 | *ZC3H12C* | | zinc finger CCCH-type containing 12C |
| 258 | *KMT2A* | | lysine methyltransferase 2A |
| 262 | *IGSF9B* | | immunoglobulin superfamily member 9B |
| 264 | *BICD1* | | BICD cargo adaptor 1 |
| 265 | *ABCD2* | | ATP binding cassette subfamily D member 2 |
| 267 | *PDZRN4* | | PDZ domain containing ring finger 4 |
| 268 | *CAND1* | | cullin associated and neddylation dissociated 1 |
| 269 | *DYRK2* | | dual specificity tyrosine phosphorylation regulated kinase 2 |
| 271 | *UHRF1BP1L* | | UHRF1 binding protein 1 like |
| 272 | *NUAK1* | | NUAK family kinase 1 |
| 274 | *CCDC92* | | coiled-coil domain containing 92 |
| 275 | *TMEM132D* | | transmembrane protein 132D |
| 278 | *SACS* | | sacsin molecular chaperone |
| 279 | *SACS* | | sacsin molecular chaperone |
| 280 | *GPR12* | | G protein-coupled receptor 12 |
| 281 | *STARD13* | | StAR related lipid transfer domain containing 13 |
| 282 | *FREM3* | | FRAS1 related extracellular matrix 3 |
| 284 | *AKAP11* | | A-kinase anchoring protein 11 |
| 285 | *PCDH17* | | protocadherin 17 |
| 287 | *KLF5* | | Kruppel like factor 5 |
| 288 | *MYCBP2* | | MYC binding protein 2 |
| 290 | *NOVA1* | | NOVA alternative splicing regulator 1 |
| 291 | *NPAS3* | | neuronal PAS domain protein 3 |
| 293 | *SOCS5* | | suppressor of cytokine signaling 5 |
| 294 | *SLC8A3* | | solute carrier family 8 member A3 |
| 296 | *STON2* | | stonin 2 |
| 297 | *GPR68* | | G protein-coupled receptor 68 |
| 299 | *BEGAIN* | | brain enriched guanylate kinase associated |
| 304 | *DISP2* | | dispatched RND transporter family member 2 |
| 305 | *RHOV* | | ras homolog family member V |
| 306 | *VPS18* | | VPS18 core subunit of CORVET and HOPS complexes |
| 307 | *VPS18* | | VPS18 core subunit of CORVET and HOPS complexes |
| 309 | *TTBK2* | | tau tubulin kinase 2 |
| 310 | *MAP1A* | | microtubule associated protein 1A |
| 311 | *SEMA6D* | | semaphorin 6D |
| 312 | *DMXL2* | | Dmx like 2 |
| 317 | *BNC1* | | basonuclin 1 |
| 320 | *DNAH3* | | dynein axonemal heavy chain 3 |
| 321 | *ZNF423* | | zinc finger protein 423 |
| 324 | *NFATC3* | | nuclear factor of activated T cells 3 |
| 325 | *ZFHX3* | | zinc finger homeobox 3 |
| 327 | *RAI1* | | retinoic acid induced 1 |
| 328 | *SMCR8* | | Smith-Magenis syndrome chromosome region candidate 8 protein |
| 329 | *MED1* | | mediator complex subunit 1 |
| 331 | *KLHL11* | | kelch like family member 11 |
| 334 | *TEX2* | | testis expressed 2 |
| 335 | *KCNJ2* | | potassium inwardly rectifying channel subfamily J member 2 |
| 336 | *CDC42EP4* | | CDC42 effector protein 4 |
| 337 | *BTBD17* | | BTB domain containing 17 |
| 339 | *TNRC6C* | | trinucleotide repeat containing adaptor 6C |
| 340 | *PYCR1* | | pyrroline-5-carboxylate reductase 1 |
| 343 | *ZNF521* | | zinc finger protein 521 |
| 345 | *CHST8* | | carbohydrate sulfotransferase 8 |
| 346 | *ASXL3* | | ASXL transcriptional regulator 3 |
| 347 | *SETBP1* | | SET binding protein 1 |
| 348 | *DSEL* | | dermatan sulfate epimerase like |
| 349 | *TSHZ1* | | teashirt zinc finger homeobox 1 |
| 350 | *SALL3* | | spalt like transcription factor 3 |
| 353 | *ZNF536* | | zinc finger protein 536 |
| 354 | *ZNF536* | | zinc finger protein 536 |
| 355 | *TSHZ3* | | teashirt zinc finger homeobox 3 |
| 358 | *FLRT3* | | leucine-rich repeat transmembrane protein FLRT3 |
| 359 | *RIN2* | | Ras and Rab interactor 2 |
| 360 | *NCOA6* | | nuclear receptor coactivator 6 |
| 362 | *TSHZ2* | | teashirt zinc finger homeobox 2 |
| 367 | *TIAM1* | | T cell lymphoma invasion and metastasis 1 |
| 368 | *DOP1B* | | DOP1 leucine zipper like protein B |
| 369 | *KCNJ15* | | potassium inwardly rectifying channel subfamily J member 15 |
| 371 | *ZBTB21* | | zinc finger and BTB domain containing 21 |
| 372 | *MICAL3* | | microtubule associated monooxygenase, calponin and LIM domain containing 3 |
| 375 | *ELFN2* | | extracellular leucine rich repeat and fibronectin type III domain containing 2 |
| 376 | *NHS* | | NHS actin remodeling regulator |
| 378 | *BCOR* | | BCL6 corepressor |
| 379 | *NEXMIF* | | neurite extension and migration factor |

Supplementary Table 2. Taxon sampling.

| AHE\_ID | Institution | ID | Order | Family | Genus | Species |
| --- | --- | --- | --- | --- | --- | --- |
| I4372 | MVZ | 188060 | Anura | Alsodidae | *Alsodes* | *gargola* |
| I4373 | MVZ | 231914 | Anura | Alytidae | *Alytes* | *obstetricans* |
| I4397 | MVZ | 235689 | Anura | Alytidae | *Discoglossus* | *pictus* |
| I6485 | MCZ | A137988 | Anura | Arthroleptidae | *Arthroleptis* | *sylvaticus* |
| I7557 | ESP/CJR | R1020 | Anura | Arthroleptidae | *Arthroleptis* | *variabilis* |
| I7559 | ESP/CJR | R846 | Anura | Arthroleptidae | *Arthroleptis* | *wahlbergii* |
| I6477 | MCZ | A136805 | Anura | Arthroleptidae | *Astylosternus* | *diadematus* |
| I6478 | MCZ | A139626 | Anura | Arthroleptidae | *Cardioglossa* | *leucomystax* |
| I4375 | CAS | 168499 | Anura | Arthroleptidae | *Leptopelis* | *parkeri* |
| I7720 | ESP/CJR | R306 | Anura | Arthroleptidae | *Leptopelis* | *vermiculatus* |
| I4442 | AMCC | 122836 | Anura | Arthroleptidae | *Leptodactylodon* | *bicolor* |
| I4376 | AMCC | 122837 | Anura | Arthroleptidae | *Nyctibates* | *corrugatus* |
| I6483 | MCZ | A139709 | Anura | Arthroleptidae | *Scotobleps* | *gabonicus* |
| I6437 | MCZ | A136806 | Anura | Arthroleptidae | *Trichobatrachus* | *robustus* |
| I13520 | REF | AscMon | Anura | Ascaphidae | *Ascaphus* | *montanus* |
| I4377 | MVZ | 164828 | Anura | Batrachylidae | *Batrachyla* | *taeniata* |
| I8555 | CAS | 242112 | Anura | Bombinatoridae | *Bombina* | *microdeladigitora* |
| I8556 | KZ | CFBHT55 | Anura | Brachycephalidae | *Brachycephalus* | *ephippium* |
| I4432 | AMCC | 105557 | Anura | Brevicipitidae | *Breviceps* | *macrops* |
| I4382 | MCZ | 138534 | Anura | Brevicipitidae | *Callulina* | *kisiwamsitu* |
| I6474 | CAS | 168560 | Anura | Brevicipitidae | *Probreviceps* | *macrodactylus* |
| I4383 | ECM | 4908 | Anura | Bufonidae | *Anaxyrus* | *terrestris* |
| I4429 | YPM | 13738 | Anura | Bufonidae | *Ansonia* | *longidigita* |
| I4430 | YPM | 13728 | Anura | Bufonidae | *Atelopus* | *hoogmoedi* |
| I4433 | AMCC | 105533 | Anura | Bufonidae | *Capensibufo* | *rosei* |
| I6464 | MVZ | 239399 | Anura | Bufonidae | *Leptophryne* | *borbonica* |
| I12500 | PMH |  | Anura | Bufonidae | *Melanophryniscus* | *stelzneri* |
| I6481 | MCZ | A139634 | Anura | Bufonidae | *Nectophryne* | *batesii* |
| I7581 | ESP/CJR | R690 | Anura | Bufonidae | *Poyntonophrynus* | *dombensis* |
| I6467 | MVZ | 231697 | Anura | Bufonidae | *Rhinella* | *macrorhina* |
| I8576 | LSUMNS | 15190 | Anura | Bufonidae | *Rhinella* | *marinus* |
| I4384 | PMH | 1 | Anura | Calyptocephalellidae | *Calyptocephalella* | *gayi* |
| I8557 | LSUMNS | 16979 | Anura | Centrolenidae | *Centrolene* | *prosoblepon* |
| I8558 | LSUMNS | 17409 | Anura | Centrolenidae | *Cochranella* | *adenocheira* |
| I4386 | AMCC | 118359 | Anura | Centrolenidae | *Hyalinobatrachium* | *fleischmanni* |
| I6418 | AMCC | 125415 | Anura | Ceratobatrachidae | *Cornufer* | *bufoniformis* |
| I6472 | CPM | 2014 | Anura | Ceratobatrachidae | *Cornufer* | *guentheri* |
| I4431 | AMCC | 125449 | Anura | Ceratobatrachidae | *Cornufer* | *vertebralis* |
| I4387 | CAS | 237845 | Anura | Ceratobatrachidae | *Platymantis* | *pelewensis* |
| I4388 | MVZ | 247561 | Anura | Ceratophryidae | *Ceratophrys* | *cornuta* |
| I4434 | AMCC | 125581 | Anura | Ceratophryidae | *Chacophrys* | *pierottii* |
| I4441 | YPM | 13120 | Anura | Ceratophryidae | *Lepidobatrachus* | *laevis* |
| I4195 | SBH | 268267 | Anura | Ceuthomantidae | *Ceuthomantis* | *smaragdinus* |
| I4390 | MVZ | 253198 | Anura | Conrauidae | *Conraua* | *crassipes* |
| I4391 | USNM | 534194 | Anura | Craugastoridae | *Craugastor* | *noblei* |
| I4371 | KZ | Cab381 | Anura | Cycloramphidae | *Cycloramphus* | *boraceiensis* |
| I8559 | LSUMNS | 16955 | Anura | Dendrobatidae | *Allobates* | *caeruleodactylus* |
| I8563 | LSUMNS | 13667 | Anura | Dendrobatidae | *Allobates* | *femoralis* |
| I12044 | QCAZ | 44783 | Anura | Dendrobatidae | *Allobates* | *insperatus* |
| I6449 | ITF | 2014 | Anura | Dendrobatidae | *Dendrobates* | *leucomelas* |
| I4393 | CAS | 231821 | Anura | Dendrobatidae | *Mannophryne* | *trinitatis* |
| I4446 | YPM | 13066 | Anura | Dendrobatidae | *Phyllobates* | *vittatus* |
| I6450 | CAS | 243255 | Anura | Dicroglossidae | *Euphlyctis* | *cyanophlyctis* |
| I8573 | LSUMNS | 255 | Anura | Dicroglossidae | *Fejervarya* | *limnocharis* |
| I6452 | CAS | 241469 | Anura | Dicroglossidae | *Hoplobatrachus* | *rugulosus* |
| I4410 | CAS | 220433 | Anura | Dicroglossidae | *Ingerana* | *borealis* |
| I4394 | CAS | 221360 | Anura | Dicroglossidae | *Limnonectes* | *kuhlii* |
| I7668 | ESP/CJR | R057 | Anura | Dicroglossidae | *Limnonectes* | *limborgi* |
| I8219 | ESP/CJR | R180 | Anura | Dicroglossidae | *Nanorana* | *yunnanensis* |
| I6424 | AMCC | 106520 | Anura | Dicroglossidae | *Nanorana* | *delacouri* |
| I6465 | MVZ | 231208 | Anura | Dicroglossidae | *Nanorana* | *pleskei* |
| I4395 | CAS | 239527 | Anura | Dicroglossidae | *Occidozyga* | *lima* |
| I6417 | AMCC | 144942 | Anura | Dicroglossidae | *Quasipaa* | *verrucospinosa* |
| I4398 | EMO | 1 | Anura | Eleutherodactylidae | *Eleutherodactylus* | *coqui* |
| I8578 | LSUMNS | 21241 | Anura | Eleutherodactylidae | *Eleutherodactylus* | *cystignathoides* |
| I4399 | SANBI | 1954 | Anura | Heleophrynidae | *Heleophryne* | *purcelli* |
| I4400 | BPN | 1286 | Anura | Hemiphractidae | *Stefania* | *evansi* |
| I8225 | ESP/CJR | R012 | Anura | Hemisotidae | *Hemisus* | *guineensis* |
| I4401 | MVZ | 249304 | Anura | Hemisotidae | *Hemisus* | *marmoratus* |
| I8560 | CHUNB | 64717 | Anura | Hylidae | *Corythomantis* | *greeningi* |
| I4157 | QCAZ | 48552 | Anura | Hylidae | *Cruziohyla* | *calcarifer* |
| I6462 | MVZ | 264263 | Anura | Hylidae | *Dendropsophus* | *microcephalus* |
| I4160 | QCAZ | 51852 | Anura | Hylidae | *Hyloscirtus* | *palmeri* |
| I4439 | YPM | 10666 | Anura | Hylidae | *Boana* | *xerophylla* |
| I8568 | PMH | Litoria2014 | Anura | Hylidae | *Litoria* | *caerulea* |
| I8569 | LSUMNS | 9884 | Anura | Hylidae | *Litoria* | *thesaurensis* |
| I4169 | QCAZ | 53552 | Anura | Hylidae | *Nyctimantis* | *rugiceps* |
| I6482 | MCZ | A148702 | Anura | Hylidae | *Osteopilus* | *dominicensis* |
| I4158 | QCAZ | 48818 | Anura | Hylidae | *Phyllomedusa* | *vaillantii* |
| I6431 | AMCC | 117944 | Anura | Hylidae | *Plectrohyla* | *matudai* |
| I13521 | REF | PseFer | Anura | Hylidae | *Pseudacris* | *feriarum* |
| I13522 | REF | PseNig | Anura | Hylidae | *Pseudacris* | *nigrita* |
| I8572 | LSUMNS | 12511 | Anura | Hylidae | *Pseudis* | *paradoxa* |
| I6468 | MVZ | 257781 | Anura | Hylidae | *Scinax* | *staufferi* |
| I4447 | YPM | 14191 | Anura | Hylidae | *Smilisca* | *fodiens* |
| I6442 | CAS | 245062 | Anura | Hylidae | *Sphaenorhynchus* | *lacteus* |
| I6471 | MVZ | 247548 | Anura | Hylidae | *Trachycephalus* | *coriaceus* |
| I6427 | AMCC | 125603 | Anura | Hylidae | *Triprion* | *petasatus* |
| I4411 | KZ | 1713 | Anura | Hylodidae | *Hylodes* | *phyllodes* |
| I6475 | MCZ | A139760 | Anura | Hyperoliidae | *Afrixalus* | *fulvovittatus* |
| I4428 | AMCC | 125880 | Anura | Hyperoliidae | *Alexteroon* | *obstetricans* |
| I7701 | ESP/CJR | R1139 | Anura | Hyperoliidae | *Cryptothylax* | *greshoffi* |
| I7704 | ESP/CJR | R1129 | Anura | Hyperoliidae | *Heterixalus* | *luteostriatus* |
| I4403 | MCZ | 136920 | Anura | Hyperoliidae | *Hyperolius* | *guttulatus* |
| I7707 | ESP/CJR | R843 | Anura | Hyperoliidae | *Kassina* | *senegalensis* |
| I7708 | ESP/CJR | R1195 | Anura | Hyperoliidae | *Opisthothylax* | *immaculatus* |
| I6457 | AMCC | 124754 | Anura | Hyperoliidae | *Phlyctimantis* | *leonardi* |
| I7713 | ESP/CJR | R838 | Anura | Hyperoliidae | *Semnodactylus* | *wealii* |
| I4448 | DMG | 5134 | Anura | Leiopelmatidae | *Leiopelma* | *hochstetteri* |
| I4405 | CAS | 245125 | Anura | Leptodactylidae | *Leptodactylus* | *fuscus* |
| I8567 | LSUMNS | 15432 | Anura | Leptodactylidae | *Lithodytes* | *lineatus* |
| I6441 | MVZ | 264270 | Anura | Leptodactylidae | *Physalaemus* | *pustulosus* |
| I4406 | MVZ | 231766 | Anura | Leptodactylidae | *Pleurodema* | *bibroni* |
| I6422 | MVZ | 238723 | Anura | Mantellidae | *Aglyptodactylus* | *madagascariensis* |
| I8229 | ESP/CJR | R928 | Anura | Mantellidae | *Boophis* | *albipunctatus* |
| I4407 | MVZ | 238732 | Anura | Mantellidae | *Boophis* | *pyrrhus* |
| I8233 | ESP/CJR | R942 | Anura | Mantellidae | *Gephyromantis* | *ambohitra* |
| I8244 | ESP/CJR | R971 | Anura | Mantellidae | *Guibemantis* | *pulcher* |
| I7730 | ESP/CJR | R930 | Anura | Mantellidae | *Mantella* | *betsileo* |
| I7734 | ESP/CJR | R969 | Anura | Mantellidae | *Mantidactylus* | *lugubris* |
| I4408 | MVZ | 226277 | Anura | Megophryidae | *Brachytarsophrys* | *feae* |
| I6429 | AMCC | 106397 | Anura | Megophryidae | *Leptobrachium* | *chapaense* |
| I6425 | AMCC | 106489 | Anura | Megophryidae | *Leptobrachella* | *bourreti* |
| I6416 | AMCC | 144796 | Anura | Megophryidae | *Ophryophryne* | *hansi* |
| I6473 | CAS | 234295 | Anura | Megophryidae | *Scutiger* | *gongshanensis* |
| I4409 | CAS | 240922 | Anura | Megophryidae | *Xenophrys* | *glandulosa* |
| I10391 | ROM | 44169 | Anura | Microhylidae | *Adelastes* | *hylonomos* |
| I13336 | PLVP | PT359 | Anura | Microhylidae | *Anodonthyla* | *nigrigularis* |
| I13337 | PLVP | PT281 | Anura | Microhylidae | *Arcovomer* | *passarellii* |
| I13338 | PLVP | PT439 | Anura | Microhylidae | *Barygenys* | *nana* |
| I13340 | PLVP | PT440 | Anura | Microhylidae | *Callulops* | *personatus* |
| I10392 | FMNH | 231112 | Anura | Microhylidae | *Chaperina* | *fusca* |
| I13361 | PLVP | PT198 | Anura | Microhylidae | *Chiasmocleis* | *carvalhoi* |
| I13334 | PLVP | PT425 | Anura | Microhylidae | *Choerophryne* | *exclamitans* |
| I13341 | PLVP | PT441 | Anura | Microhylidae | *Choerophryne* | *proboscidea* |
| I13342 | PLVP | PT448 | Anura | Microhylidae | *Cophixalus* | *balbus* |
| I6436 | AMCC | 103335 | Anura | Microhylidae | *Cophyla* | *occultans* |
| I13343 | PLVP | PT428 | Anura | Microhylidae | *Copiula* | *oxyrhina* |
| I8562 | LSUMNS | 17434 | Anura | Microhylidae | *Ctenophryne* | *geayi* |
| I13344 | PLVP | PT332 | Anura | Microhylidae | *Dasypops* | *schirchi* |
| I4435 | AMCC | 125588 | Anura | Microhylidae | *Dermatonotus* | *muelleri* |
| I6463 | MVZ | 238744 | Anura | Microhylidae | *Dyscophus* | *guineti* |
| I13345 | PLVP | PT059 | Anura | Microhylidae | *Elachistocleis* | *helianneae* |
| I13523 | REF | GasCar | Anura | Microhylidae | *Gastrophryne* | *carolinensis* |
| I13346 | PLVP | PT452 | Anura | Microhylidae | *Genyophryne* | *thomsoni* |
| I4419 | CAS | 236077 | Anura | Microhylidae | *Glyphoglossus* | *guttulatus* |
| I6451 | CAS | 234799 | Anura | Microhylidae | *Glyphoglossus* | *molossus* |
| I13339 | PLVP | PT164 | Anura | Microhylidae | *Glyphoglossus* | *yunnanensis* |
| I13335 | PLVP | PT321 | Anura | Microhylidae | *Hamptophryne* | *alios* |
| I13347 | PLVP | PT043 | Anura | Microhylidae | *Hamptophryne* | *boliviana* |
| I13348 | PLVP | PT424 | Anura | Microhylidae | *Hylophorbus* | *rainerguentheri* |
| I13350 | PLVP | PT168 | Anura | Microhylidae | *Kalophrynus* | *interlineatus* |
| I8566 | CAS | 247917 | Anura | Microhylidae | *Kalophrynus* | *pleurostigma* |
| I4440 | YPM | 13065 | Anura | Microhylidae | *Kaloula* | *pulchra* |
| I13351 | PLVP | PT507 | Anura | Microhylidae | *Metamagnusia* | *slateri* |
| I13352 | PLVP | PT236 | Anura | Microhylidae | *Metaphrynella* | *sundana* |
| I6454 | CAS | 233947 | Anura | Microhylidae | *Microhyla* | *ornata* |
| I6455 | CAS | 247906 | Anura | Microhylidae | *Micryletta* | *inornata* |
| I13353 | PLVP | PT340 | Anura | Microhylidae | *Myersiella* | *microps* |
| I10393 | ABTC | 50092 | Anura | Microhylidae | *Oreophryne* | *brachypus* |
| I13354 | PLVP | PT459 | Anura | Microhylidae | *Otophryne* | *robusta* |
| I13355 | PLVP | PT455 | Anura | Microhylidae | *Oxydactyla* | *alpestris* |
| I7739 | ESP/CJR | R1330 | Anura | Microhylidae | *Phrynomantis* | *annectens* |
| I13356 | PLVP | PT287 | Anura | Microhylidae | *Phrynomantis* | *bifasciatus* |
| I6435 | AMCC | 128714 | Anura | Microhylidae | *Plethodontohyla* | *notosticta* |
| I13357 | PLVP | PT312 | Anura | Microhylidae | *Scaphiophryne* | *brevis* |
| I13349 | PLVP | PT284 | Anura | Microhylidae | *Stereocyclops* | *histrio* |
| I13358 | PLVP | PT273 | Anura | Microhylidae | *Stereocyclops* | *incrassatus* |
| I6430 | AMCC | 103414 | Anura | Microhylidae | *Stumpffia* | *grandis* |
| I13359 | PLVP | PT265 | Anura | Microhylidae | *Stumpffia* | *roseifemoralis* |
| I13360 | PLVP | PT271 | Anura | Microhylidae | *Synapturanus* | *salseri* |
| I7740 | ESP/CJR | R1208 | Anura | Microhylidae | *Uperodon* | *variegatus* |
| I13362 | PLVP | PT454 | Anura | Microhylidae | *Xenorhina* | *fuscigula* |
| I8561 | MV | 18153 | Anura | Myobatrachidae | *Crinia* | *signifera* |
| I8564 | MV | 21476 | Anura | Myobatrachidae | *Geocrinia* | *victoriana* |
| I6486 | SAMAR | 66870 | Anura | Myobatrachidae | *Limnodynastes* | *dumerilii* |
| I13524 | REF | MixSch | Anura | Myobatrachidae | *Mixophyes* | *schevilli* |
| I8570 | MV | 21528 | Anura | Myobatrachidae | *Neobatrachus* | *sudelli* |
| I9034 | 70661 | 70661 | Anura | Myobatrachidae | *Notaden* | *nichollsi* |
| I8571 | MV | 21479 | Anura | Myobatrachidae | *Paracrinia* | *haswelli* |
| I10935 | NCBS | AI442 | Anura | Nasikabatrachidae | *Nasikabatrachus* | *sahyadrensis* |
| I10934 | NCBS | AG004 | Anura | Nyctibatrachidae | *Nyctibatrachus* | *petraeus* |
| I4415 | CAS | 230053 | Anura | Odontobatrachidae | *Odontobatrachus* | *natator* |
| I4412 | MVZ | 145208 | Anura | Odontophrynidae | *Odontophrynus* | *occidentalis* |
| I4413 | MVZ | 234650 | Anura | Pelobatidae | *Pelobates* | *syriacus* |
| I4414 | MVZ | 186009 | Anura | Pelodytidae | *Pelodytes* | *ibericus* |
| I6428 | AMCC | 106956 | Anura | Petropedetidae | *Arthroleptides* | *martiensseni* |
| I6439 | MCZ | A139541 | Anura | Petropedetidae | *Petropedetes* | *parkeri* |
| I6461 | MVZ | 226261 | Anura | Phrynobatrachidae | *Phrynobatrachus* | *keniensis* |
| I4416 | CAS | 218893 | Anura | Phrynobatrachidae | *Phrynobatrachus* | *leveleve* |
| I6443 | MCZ | A136791 | Anura | Phrynobatrachidae | *Phrynobatrachus* | *sandersoni* |
| I6453 | PMH | 2014 | Anura | Pipidae | *Hymenochirus* | *boettgeri* |
| I6444 | MVZ | 247511 | Anura | Pipidae | *Pipa* | *pipa* |
| Xenopus | TAXID | 8364 | Anura | Pipidae | *Xenopus* | *tropicalis* |
| I7783 | ESP/CJR | R1068 | Anura | Ptychadenidae | *Ptychadena* | *mascareniensis* |
| I4418 | CAS | 219251 | Anura | Ptychadenidae | *Ptychadena* | *newtoni* |
| I6438 | AMCC | 105559 | Anura | Pyxicephalidae | *Arthroleptella* | *bicolor* |
| I7794 | ESP/CJR | R527 | Anura | Pyxicephalidae | *Aubria* | *subsigillata* |
| I8191 | ESP/CJR | R371 | Anura | Pyxicephalidae | *Cacosternum* | *boettgeri* |
| I8199 | ESP/CJR | R363 | Anura | Pyxicephalidae | *Cacosternum* | *platys* |
| I8205 | ESP/CJR | R569 | Anura | Pyxicephalidae | *Natalobatrachus* | *bonebergi* |
| I7801 | ESP/CJR | R725 | Anura | Pyxicephalidae | *Pyxicephalus* | *adspersus* |
| I6433 | AMCC | 105565 | Anura | Pyxicephalidae | *Strongylopus* | *bonaespei* |
| I7822 | ESP/CJR | R831 | Anura | Pyxicephalidae | *Strongylopus* | *fasciatus* |
| I7827 | ESP/CJR | R410 | Anura | Pyxicephalidae | *Tomopterna* | *cryptotis* |
| I6446 | CAS | 242607 | Anura | Ranidae | *Amolops* | *medogensis* |
| I7882 | ESP/CJR | R1162 | Anura | Ranidae | *Meristogenys* | *orphnocnemis* |
| I7849 | ESP/CJR | R185 | Anura | Ranidae | *Nidirana* | *chapaensis* |
| I6466 | MVZ | 258265 | Anura | Ranidae | *Odorrana* | *banaorum* |
| I6420 | AMCC | 138323 | Anura | Ranidae | *Odorrana* | *nasica* |
| I8575 | LSUMNS | 10459 | Anura | Ranidae | *Papurana* | *papua* |
| I7897 | ESP/CJR | R153 | Anura | Ranidae | *Pelophylax* | *ridibundus* |
| I6460 | CAS | 234711 | Anura | Ranidae | *Pterorana* | *khare* |
| I6480 | YPM | 13741 | Anura | Ranidae | *Pulchrana* | *picturata* |
| I8574 | LSUMNS | 17589 | Anura | Ranidae | *Rana* | *palmipes* |
| I7875 | ESP/CJR | R1141 | Anura | Ranidae | *Rana* | *pipiens* |
| I13526 | REF | LitSph | Anura | Ranidae | *Rana* | *sphenocephala* |
| I7908 | ESP/CJR | R1168 | Anura | Ranidae | *Sanguirana* | *sanguinea* |
| I7910 | ESP/CJR | R1164 | Anura | Ranidae | *Staurois* | *natator* |
| I7868 | ESP/CJR | R1144 | Anura | Ranidae | *Sylvirana* | *nigrovittata* |
| I6440 | MVZ | 241442 | Anura | Rhacophoridae | *Buergeria* | *oxycephala* |
| I7925 | ESP/CJR | R538 | Anura | Rhacophoridae | *Chiromantis* | *xerampelina* |
| I7927 | ESP/CJR | R233 | Anura | Rhacophoridae | *Feihyla* | *palpebralis* |
| I7935 | ESP/CJR | R1112 | Anura | Rhacophoridae | *Kurixalus* | *appendiculatus* |
| I7946 | ESP/CJR | R075 | Anura | Rhacophoridae | *Nyctixalus* | *pictum* |
| I7929 | ESP/CJR | R1149 | Anura | Rhacophoridae | *Philautus* | *hosii* |
| I6459 | CAS | 241141 | Anura | Rhacophoridae | *Polypedates* | *leucomystax* |
| I7961 | ESP/CJR | R1120 | Anura | Rhacophoridae | *Raorchestes* | *gryllus* |
| I6456 | CAS | 233160 | Anura | Rhacophoridae | *Raorchestes* | *parvulus* |
| I7967 | ESP/CJR | R241 | Anura | Rhacophoridae | *Rhacophorus* | *pardalis* |
| I4421 | CAS | 224676 | Anura | Rhacophoridae | *Rhacophorus* | *rhodopus* |
| I6470 | MVZ | 225131 | Anura | Rhacophoridae | *Theloderma* | *corticale* |
| I4422 | MVZ | 164829 | Anura | Rhinodermatidae | *Rhinoderma* | *darwinii* |
| I4423 | MVZ | 164756 | Anura | Rhinophrynidae | *Rhinophrynus* | *dorsalis* |
| I4424 | CAS | 229217 | Anura | Scaphiopodidae | *Scaphiopus* | *couchii* |
| I6469 | MVZ | 145187 | Anura | Scaphiopodidae | *Spea* | *hammondii* |
| I9326 | JL | CR04 | Anura | Sooglossidae | *Sooglossus* | *sechellensis* |
| I4445 | AMCC | 107352 | Anura | Strabomantidae | *Phrynopus* | *guillei* |
| I4426 | USNM | 268942 | Anura | Strabomantidae | *Pristimantis* | *ridens* |
| I4427 | KU | 290640 | Anura | Telamatobiidae | *Telmatobius* | *niger* |
| I4349 | DWW | 1781 | Caudata | Ambystomatidae | *Ambystoma* | *mexicanum* |
| I3541 | SON | RB01\_OP4 | Caudata | Ambystomatidae | *Ambystoma* | *opacum* |
| I3538 | SON | RB09\_T23 | Caudata | Ambystomatidae | *Ambystoma* | *talpoideum* |
| I3544 | JDK | JK02 | Caudata | Ambystomatidae | *Ambystoma* | *tigrinum* |
| I4351 | MVZ | 232868 | Caudata | Amphiumidae | *Amphiuma* | *tridactylum* |
| I3702 | PMH | AD03 | Caudata | Cryptobranchidae | *Andrias* | *davidianus* |
| I3703 | PMH | AJ12 | Caudata | Cryptobranchidae | *Andrias* | *japonicus* |
| I3704 | PMH | C37AF | Caudata | Cryptobranchidae | *Cryptobranchus* | *alleganiensis* |
| I3707 | PMH | ELK13 | Caudata | Cryptobranchidae | *Cryptobranchus* | *alleganiensis* |
| I4356 | DWW | 2567 | Caudata | Dicamptodontidae | *Dicamptodon* | *copei* |
| I3700 | DWW | 379 | Caudata | Hynobiidae | *Paradactylodon* | *persicus* |
| I3542 | YPM | 9865 | Caudata | Hynobiidae | *Hynobius* | *nigrescens* |
| I3539 | YPM | 10577 | Caudata | Hynobiidae | *Pachyhynobius* | *shangchengensis* |
| I3701 | DWW | 392 | Caudata | Hynobiidae | *Salamandrella* | *keyserlingii* |
| I3710 | RLM | 172 | Caudata | Plethodontidae | *Aneides* | *flavipunctatus* |
| I11148 | MVZ | 266911 | Caudata | Plethodontidae | *Batrachoseps* | *nigriventris* |
| I4358 | AMCC | 118113 | Caudata | Plethodontidae | *Bolitoglossa* | *riletti* |
| I3715 | JDK | JK03 | Caudata | Plethodontidae | *Desmognathus* | *fuscus* |
| I3716 | JDK | JK08 | Caudata | Plethodontidae | *Desmognathus* | *quadramaculatus* |
| I3711 | JDK | JK07 | Caudata | Plethodontidae | *Desmognathus* | *wrighti* |
| I9327 | JRJ | 2012 | Caudata | Plethodontidae | *Eurycea* | *lucifuga* |
| I9336 | PMH | GP02 | Caudata | Plethodontidae | *Gyrinophilus* | *porphyriticus* |
| I12499 | TWP | HS3 | Caudata | Plethodontidae | *Hemidactylium* | *scutatum* |
| I12498 | MVZ | 247157 | Caudata | Plethodontidae | *Karsenia* | *koreana* |
| I12496 | MVZ | 263972 | Caudata | Plethodontidae | *Nyctanolis* | *pernix* |
| I4359 | JJA | P82 | Caudata | Plethodontidae | *Phaeognathus* | *hubrichti* |
| I3717 | JDK | JK09 | Caudata | Plethodontidae | *Plethodon* | *jordani* |
| I12497 | PMH | PR02 | Caudata | Plethodontidae | *Pseudotriton* | *ruber* |
| I3535 | PMH | 7759 | Caudata | Proteidae | *Necturus* | *maculosus* |
| I4362 | MVZ | 244076 | Caudata | Proteidae | *Proteus* | *anguinus* |
| I3536 | LSUMNS | H11333 | Caudata | Rhyacotritonidae | *Rhyacotriton* | *olympicus* |
| I9330 | TP | TP24749 | Caudata | Salamandridae | *Cynops* | *ensicauda* |
| I9337 | TP | TP26195 | Caudata | Salamandridae | *Echinotriton* | *chinhaiensis* |
| I9338 | TP | TP27066 | Caudata | Salamandridae | *Neurergus* | *crocatus* |
| I3534 | LSUMNS | H11856 | Caudata | Salamandridae | *Notophthalmus* | *viridescens* |
| I9339 | TP | TP24839 | Caudata | Salamandridae | *Paramesotriton* | *hongkongensis* |
| I9331 | TP | TP25088 | Caudata | Salamandridae | *Salamandra* | *salamandra* |
| I9332 | DWW | s7539 | Caudata | Salamandridae | *Salamandrina* | *terdigitata* |
| I9340 | TP | TP26609 | Caudata | Salamandridae | *Lissotriton* | *vulgaris* |
| I9333 | TP | TP25555 | Caudata | Salamandridae | *Tylototriton* | *kweichowensis* |
| I13533 | REF | SirInt | Caudata | Sirenidae | *Siren* | *intermedia* |
| I4337 | BPN | 1499 | Gymnophiona | Caeciliidae | *Caecilia* | *tentaculata* |
| I6479 | SLZ | 971026 | Gymnophiona | Dermophiidae | *Dermophis* | *mexicanus* |
| I4436 | YPM | 13118 | Gymnophiona | Dermophiidae | *Geotrypetes* | *seraphini* |
| I4338 | MVZ | 228795 | Gymnophiona | Dermophiidae | *Gymnopis* | *multiplicata* |
| I4339 | CAS | 218738 | Gymnophiona | Dermophiidae | *Schistometopum* | *thomense* |
| I4340 | MVZ | 179505 | Gymnophiona | Herpelidae | *Boulengerula* | *taitana* |
| I4437 | YPM | 13116 | Gymnophiona | Herpelidae | *Herpele* | *squalostoma* |
| I13518 | CAS | 212262 | Gymnophiona | Ichthyophiidae | *Ichthyophis* | *multicolor* |
| I4342 | MVZ | 258024 | Gymnophiona | Indotyphlidae | *Grandisonia* | *alternans* |
| N/A | N/A | N/A | Gymnophiona | Rhinatrematidae | *Rhinatrema* | *bivittatum* |
| I4345 | AMCC | 117706 | Gymnophiona | Scolecomorphidae | *Crotaphatrema* | *tchabalmbaboensis* |
| I8577 | CAS | 168812 | Gymnophiona | Scolecomorphidae | *Scolecomorphus* | *vittatus* |
| I4346 | BPN | Ga169 | Gymnophiona | Siphonopidae | *Microcaecilia* | *sp.* |
| I4347 | MVZ | 162592 | Gymnophiona | Siphonopidae | *Siphonops* | *annulatus* |
| I4348 | MVZ | 179733 | Gymnophiona | Typhlonectidae | *Typhlonectes* | *natans* |
| N/A | Genbank | TAXID\_9606 | Primates | Hominidae | *Homo* | *sapiens* |
| N/A | Genbank | TAXID\_28377 | Squamata | Dactyloidae | *Anolis* | *carolinensis* |
| N/A | Genbank | TAXID\_8478 | Testudines | Emydidae | *Chrysemys* | *picta* |
| N/A | Genbank | TAXID\_7897 | Coelacanthiformes | Latimeriidae | *Latimeria* | *chalumnae* |
| N/A | Genbank | TAXID\_9031 | Galliformes | Phasianidae | *Gallus* | *gallus* |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

1 Museum and individual acronyms: ABTC, Australian Biological Tissue Collection; AMCC, Ambrose Monell Cryogenic Collection, The American Museum of Natural History; BPN, Brice P. Noonan; CAS, California Academy of Sciences; CHUNB, Coleção Herpetológica da Universidade de Brasília; CPM, Christopher P. McNamara; DMG, David M. Green; Dryad, https://doi.org/10.5061/dryad.r2n70; DWW, David W. Weisrock; ECM, Emily C. Moriarty-Lemmon; EMO, Eric M. O'Neill; ESP/CJR, Elizabetch Scott-Prendini; FLMNH, Florida Museum of Natural History; Genbank, https://www.ncbi.nlm.nih.gov/genbank; ITF, I. Tyler Frye; JDK, Justin D. Kratovil; JJA, J. J. Apodaca; JL, Jim Labisko; JRJ, Jarrett R. Johnson; JSK, J. Scott Keogh; KU, University of Kansas Museum of Natural History; KZ, Kelly Zamudio; LSUMNS, Louisiana State University Museum of Natural Science; MCZ, Museum of Comparative Zoology; MV, Museum Victoria; MVZ, Museum of Vertebrate Zoology; N/A, None; NCBS, National Centre for Biological Sciences, India; PLVP, Pedro L. V. Peloso; PMH, Paul M. Hime; QCAZ, Museo de Zoologia of Pontificia Universidad Catolica del Ecuador; REF, Genome/transcriptome generated for this study; RLM, Rachel L. Mueller; ROM, Royal Ontario Museum; SAMA, South Australian Museum, Adelaide; SANBI, South African National Biodiversity Institute; SBH, S. Blair Hedges; SLZ, St. Louis Zoo; SON, Schyler O. Nunziata; TJP, Ted Pappenfus; TWP, Todd Pierson; USNM, Smithsonian National Museum of Natural History; YPM, Yale Peabody Museum.

Supplementary Table 3. Details of 220 nuclear loci targeted by anchored hybrid enrichment.

| Locus ID | Length (bp) | Number Codons | Concatenated Start (bp) | Concatenated End (bp) | Number of Taxa | Missing Taxa | Number of Partitionsc |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 1494 | 498 | 1 | 1494 | 285 | 6 | 1 (1st+2nd+3rd) |
| 4 | 1503 | 501 | 1495 | 2997 | 273 | 18 | 1 (1st+2nd+3rd) |
| 5 | 1440 | 480 | 2998 | 4437 | 247 | 44a | 1 (1st+2nd+3rd) |
| 10 | 759 | 253 | 4438 | 5196 | 251 | 40 | 1 (1st+2nd+3rd) |
| 11 | 1023 | 341 | 5197 | 6219 | 248 | 43 | 1 (1st+2nd+3rd) |
| 13 | 846 | 282 | 6220 | 7065 | 284 | 7 | 1 (1st+2nd+3rd) |
| 14 | 1674 | 558 | 7066 | 8739 | 231 | 60a | 1 (1st+2nd+3rd) |
| 15 | 1356 | 452 | 8740 | 10095 | 275 | 16 | 1 (1st+2nd+3rd) |
| 16 | 1110 | 370 | 10096 | 11205 | 277 | 14 | 1 (1st+2nd+3rd) |
| 17 | 1332 | 444 | 11206 | 12537 | 213 | 78b | 1 (1st+2nd+3rd) |
| 20 | 1440 | 480 | 12538 | 13977 | 266 | 25 | 1 (1st+2nd+3rd) |
| 28 | 1182 | 394 | 13978 | 15159 | 278 | 13 | 1 (1st+2nd+3rd) |
| 30 | 804 | 268 | 15160 | 15963 | 273 | 18 | 1 (1st+2nd+3rd) |
| 31 | 1608 | 536 | 15964 | 17571 | 283 | 8 | 1 (1st+2nd+3rd) |
| 34 | 858 | 286 | 17572 | 18429 | 286 | 5 | 1 (1st+2nd+3rd) |
| 35 | 765 | 255 | 18430 | 19194 | 221 | 70b | 1 (1st+2nd+3rd) |
| 36 | 1314 | 438 | 19195 | 20508 | 270 | 21 | 1 (1st+2nd+3rd) |
| 38 | 1110 | 370 | 20509 | 21618 | 268 | 23 | 1 (1st+2nd+3rd) |
| 41 | 1656 | 552 | 21619 | 23274 | 285 | 6 | 1 (1st+2nd+3rd) |
| 45 | 1593 | 531 | 23275 | 24867 | 266 | 25 | 1 (1st+2nd+3rd) |
| 46 | 1290 | 430 | 24868 | 26157 | 280 | 11 | 1 (1st+2nd+3rd) |
| 47 | 1410 | 470 | 26158 | 27567 | 222 | 69b | 1 (1st+2nd+3rd) |
| 48 | 1416 | 472 | 27568 | 28983 | 221 | 70a | 1 (1st+2nd+3rd) |
| 49 | 1425 | 475 | 28984 | 30408 | 274 | 17 | 1 (1st+2nd+3rd) |
| 53 | 1392 | 464 | 30409 | 31800 | 217 | 74b | 1 (1st+2nd+3rd) |
| 54 | 1455 | 485 | 31801 | 33255 | 254 | 37 | 1 (1st+2nd+3rd) |
| 55 | 1371 | 457 | 33256 | 34626 | 230 | 61a | 1 (1st+2nd+3rd) |
| 56 | 1668 | 556 | 34627 | 36294 | 282 | 9 | 1 (1st+2nd+3rd) |
| 57 | 1104 | 368 | 36295 | 37398 | 266 | 25 | 1 (1st+2nd+3rd) |
| 59 | 1254 | 418 | 37399 | 38652 | 287 | 4 | 1 (1st+2nd+3rd) |
| 61 | 1587 | 529 | 38653 | 40239 | 282 | 9 | 1 (1st+2nd+3rd) |
| 62 | 1263 | 421 | 40240 | 41502 | 277 | 14 | 1 (1st+2nd+3rd) |
| 63 | 519 | 173 | 41503 | 42021 | 213 | 78b | 1 (1st+2nd+3rd) |
| 65 | 1557 | 519 | 42022 | 43578 | 286 | 5 | 1 (1st+2nd+3rd) |
| 69 | 588 | 196 | 43579 | 44166 | 219 | 72 | 1 (1st+2nd+3rd) |
| 78 | 1284 | 428 | 44167 | 45450 | 285 | 6 | 1 (1st+2nd+3rd) |
| 80 | 633 | 211 | 45451 | 46083 | 261 | 30 | 1 (1st+2nd+3rd) |
| 82 | 1170 | 390 | 46084 | 47253 | 275 | 16 | 1 (1st+2nd+3rd) |
| 86 | 1263 | 421 | 47254 | 48516 | 283 | 8 | 1 (1st+2nd+3rd) |
| 88 | 552 | 184 | 48517 | 49068 | 242 | 49 | 1 (1st+2nd+3rd) |
| 92 | 1341 | 447 | 49069 | 50409 | 282 | 9 | 1 (1st+2nd+3rd) |
| 93 | 1203 | 401 | 50410 | 51612 | 284 | 7 | 1 (1st+2nd+3rd) |
| 95 | 1707 | 569 | 51613 | 53319 | 280 | 11 | 1 (1st+2nd+3rd) |
| 97 | 1569 | 523 | 53320 | 54888 | 280 | 11 | 1 (1st+2nd+3rd) |
| 99 | 1362 | 454 | 54889 | 56250 | 268 | 23 | 1 (1st+2nd+3rd) |
| 100 | 1419 | 473 | 56251 | 57669 | 283 | 8 | 1 (1st+2nd+3rd) |
| 102 | 1047 | 349 | 57670 | 58716 | 254 | 37 | 1 (1st+2nd+3rd) |
| 105 | 1053 | 351 | 58717 | 59769 | 264 | 27 | 1 (1st+2nd+3rd) |
| 107 | 564 | 188 | 59770 | 60333 | 271 | 20 | 1 (1st+2nd+3rd) |
| 109 | 951 | 317 | 60334 | 61284 | 220 | 71a | 1 (1st+2nd+3rd) |
| 110 | 1506 | 502 | 61285 | 62790 | 271 | 20 | 1 (1st+2nd+3rd) |
| 112 | 1047 | 349 | 62791 | 63837 | 286 | 5 | 1 (1st+2nd+3rd) |
| 113 | 732 | 244 | 63838 | 64569 | 258 | 33 | 1 (1st+2nd+3rd) |
| 115 | 1737 | 579 | 64570 | 66306 | 285 | 6 | 1 (1st+2nd+3rd) |
| 116 | 1536 | 512 | 66307 | 67842 | 264 | 27 | 1 (1st+2nd+3rd) |
| 118 | 1182 | 394 | 67843 | 69024 | 269 | 22 | 1 (1st+2nd+3rd) |
| 121 | 1518 | 506 | 69025 | 70542 | 287 | 4 | 1 (1st+2nd+3rd) |
| 122 | 1548 | 516 | 70543 | 72090 | 281 | 10 | 1 (1st+2nd+3rd) |
| 123 | 2058 | 686 | 72091 | 74148 | 276 | 15 | 2 (1st+2nd and 3rd) |
| 124 | 903 | 301 | 74149 | 75051 | 269 | 22 | 1 (1st+2nd+3rd) |
| 125 | 1782 | 594 | 75052 | 76833 | 284 | 7 | 1 (1st+2nd+3rd) |
| 126 | 1437 | 479 | 76834 | 78270 | 277 | 14 | 1 (1st+2nd+3rd) |
| 127 | 1842 | 614 | 78271 | 80112 | 263 | 28 | 1 (1st+2nd+3rd) |
| 130 | 1683 | 561 | 80113 | 81795 | 277 | 14 | 1 (1st+2nd+3rd) |
| 132 | 804 | 268 | 81796 | 82599 | 250 | 41 | 1 (1st+2nd+3rd) |
| 135 | 1092 | 364 | 82600 | 83691 | 250 | 41 | 1 (1st+2nd+3rd) |
| 136 | 1485 | 495 | 83692 | 85176 | 286 | 5 | 1 (1st+2nd+3rd) |
| 137 | 1287 | 429 | 85177 | 86463 | 288 | 3 | 1 (1st+2nd+3rd) |
| 138 | 1710 | 570 | 86464 | 88173 | 279 | 12 | 1 (1st+2nd+3rd) |
| 141 | 912 | 304 | 88174 | 89085 | 262 | 29 | 1 (1st+2nd+3rd) |
| 144 | 1113 | 371 | 89086 | 90198 | 272 | 19 | 1 (1st+2nd+3rd) |
| 146 | 1401 | 467 | 90199 | 91599 | 284 | 7 | 1 (1st+2nd+3rd) |
| 147 | 993 | 331 | 91600 | 92592 | 219 | 72 | 1 (1st+2nd+3rd) |
| 149 | 885 | 295 | 92593 | 93477 | 264 | 27 | 1 (1st+2nd+3rd) |
| 151 | 1557 | 519 | 93478 | 95034 | 278 | 13 | 1 (1st+2nd+3rd) |
| 152 | 1377 | 459 | 95035 | 96411 | 239 | 52 | 1 (1st+2nd+3rd) |
| 153 | 1395 | 465 | 96412 | 97806 | 262 | 29 | 1 (1st+2nd+3rd) |
| 154 | 1464 | 488 | 97807 | 99270 | 285 | 6 | 1 (1st+2nd+3rd) |
| 155 | 1635 | 545 | 99271 | 100905 | 273 | 18 | 1 (1st+2nd+3rd) |
| 156 | 1194 | 398 | 100906 | 102099 | 256 | 35 | 1 (1st+2nd+3rd) |
| 159 | 1137 | 379 | 102100 | 103236 | 267 | 24 | 1 (1st+2nd+3rd) |
| 160 | 1392 | 464 | 103237 | 104628 | 262 | 29 | 1 (1st+2nd+3rd) |
| 161 | 741 | 247 | 104629 | 105369 | 257 | 34 | 1 (1st+2nd+3rd) |
| 162 | 1413 | 471 | 105370 | 106782 | 275 | 16 | 1 (1st+2nd+3rd) |
| 163 | 318 | 106 | 106783 | 107100 | 285 | 6 | 1 (1st+2nd+3rd) |
| 164 | 1644 | 548 | 107101 | 108744 | 284 | 7 | 1 (1st+2nd+3rd) |
| 165 | 1365 | 455 | 108745 | 110109 | 276 | 15 | 1 (1st+2nd+3rd) |
| 166 | 1575 | 525 | 110110 | 111684 | 272 | 19 | 1 (1st+2nd+3rd) |
| 169 | 930 | 310 | 111685 | 112614 | 281 | 10 | 1 (1st+2nd+3rd) |
| 172 | 1599 | 533 | 112615 | 114213 | 253 | 38 | 1 (1st+2nd+3rd) |
| 173 | 1533 | 511 | 114214 | 115746 | 243 | 48 | 1 (1st+2nd+3rd) |
| 174 | 1137 | 379 | 115747 | 116883 | 262 | 29 | 1 (1st+2nd+3rd) |
| 175 | 810 | 270 | 116884 | 117693 | 282 | 9 | 1 (1st+2nd+3rd) |
| 177 | 1521 | 507 | 117694 | 119214 | 244 | 47a | 1 (1st+2nd+3rd) |
| 179 | 1704 | 568 | 119215 | 120918 | 266 | 25 | 1 (1st+2nd+3rd) |
| 182 | 1722 | 574 | 120919 | 122640 | 287 | 4 | 1 (1st+2nd+3rd) |
| 183 | 1098 | 366 | 122641 | 123738 | 266 | 25 | 1 (1st+2nd+3rd) |
| 184 | 1311 | 437 | 123739 | 125049 | 280 | 11 | 1 (1st+2nd+3rd) |
| 187 | 960 | 320 | 125050 | 126009 | 255 | 36 | 1 (1st+2nd+3rd) |
| 191 | 1428 | 476 | 126010 | 127437 | 289 | 2 | 1 (1st+2nd+3rd) |
| 192 | 1662 | 554 | 127438 | 129099 | 288 | 3 | 1 (1st+2nd+3rd) |
| 193 | 1614 | 538 | 129100 | 130713 | 277 | 14 | 1 (1st+2nd+3rd) |
| 194 | 1710 | 570 | 130714 | 132423 | 276 | 15 | 1 (1st+2nd+3rd) |
| 196 | 1749 | 583 | 132424 | 134172 | 276 | 15 | 1 (1st+2nd+3rd) |
| 197 | 1596 | 532 | 134173 | 135768 | 252 | 39 | 1 (1st+2nd+3rd) |
| 198 | 1629 | 543 | 135769 | 137397 | 280 | 11 | 1 (1st+2nd+3rd) |
| 199 | 1158 | 386 | 137398 | 138555 | 243 | 48a | 1 (1st+2nd+3rd) |
| 200 | 1278 | 426 | 138556 | 139833 | 256 | 35 | 1 (1st+2nd+3rd) |
| 201 | 1581 | 527 | 139834 | 141414 | 288 | 3 | 1 (1st+2nd+3rd) |
| 202 | 1761 | 587 | 141415 | 143175 | 287 | 4 | 1 (1st+2nd+3rd) |
| 203 | 1020 | 340 | 143176 | 144195 | 275 | 16 | 1 (1st+2nd+3rd) |
| 204 | 1080 | 360 | 144196 | 145275 | 240 | 51 | 1 (1st+2nd+3rd) |
| 208 | 1467 | 489 | 145276 | 146742 | 269 | 22 | 1 (1st+2nd+3rd) |
| 209 | 1314 | 438 | 146743 | 148056 | 281 | 10 | 1 (1st+2nd+3rd) |
| 210 | 1371 | 457 | 148057 | 149427 | 279 | 12 | 1 (1st+2nd+3rd) |
| 211 | 1545 | 515 | 149428 | 150972 | 282 | 9 | 1 (1st+2nd+3rd) |
| 212 | 1089 | 363 | 150973 | 152061 | 274 | 17 | 1 (1st+2nd+3rd) |
| 214 | 1374 | 458 | 152062 | 153435 | 253 | 38 | 1 (1st+2nd+3rd) |
| 216 | 1485 | 495 | 153436 | 154920 | 210 | 81b | 1 (1st+2nd+3rd) |
| 217 | 768 | 256 | 154921 | 155688 | 227 | 64a | 1 (1st+2nd+3rd) |
| 218 | 921 | 307 | 155689 | 156609 | 280 | 11 | 1 (1st+2nd+3rd) |
| 219 | 1686 | 562 | 156610 | 158295 | 285 | 6 | 1 (1st+2nd+3rd) |
| 220 | 825 | 275 | 158296 | 159120 | 275 | 16 | 1 (1st+2nd+3rd) |
| 222 | 1581 | 527 | 159121 | 160701 | 216 | 75b | 1 (1st+2nd+3rd) |
| 224 | 1593 | 531 | 160702 | 162294 | 276 | 15 | 1 (1st+2nd+3rd) |
| 225 | 1884 | 628 | 162295 | 164178 | 269 | 22 | 1 (1st+2nd+3rd) |
| 226 | 1917 | 639 | 164179 | 166095 | 265 | 26 | 1 (1st+2nd+3rd) |
| 227 | 1467 | 489 | 166096 | 167562 | 244 | 47a | 1 (1st+2nd+3rd) |
| 229 | 1197 | 399 | 167563 | 168759 | 227 | 64b | 1 (1st+2nd+3rd) |
| 230 | 819 | 273 | 168760 | 169578 | 253 | 38 | 1 (1st+2nd+3rd) |
| 231 | 1194 | 398 | 169579 | 170772 | 224 | 67b | 1 (1st+2nd+3rd) |
| 234 | 1983 | 661 | 170773 | 172755 | 267 | 24 | 1 (1st+2nd+3rd) |
| 239 | 1626 | 542 | 172756 | 174381 | 284 | 7 | 1 (1st+2nd+3rd) |
| 240 | 1773 | 591 | 174382 | 176154 | 280 | 11 | 1 (1st+2nd+3rd) |
| 241 | 1260 | 420 | 176155 | 177414 | 265 | 26 | 1 (1st+2nd+3rd) |
| 242 | 855 | 285 | 177415 | 178269 | 279 | 12 | 1 (1st+2nd+3rd) |
| 243 | 1050 | 350 | 178270 | 179319 | 273 | 18 | 1 (1st+2nd+3rd) |
| 244 | 738 | 246 | 179320 | 180057 | 257 | 34 | 1 (1st+2nd+3rd) |
| 245 | 1806 | 602 | 180058 | 181863 | 278 | 13 | 1 (1st+2nd+3rd) |
| 246 | 1623 | 541 | 181864 | 183486 | 284 | 7 | 1 (1st+2nd+3rd) |
| 248 | 1107 | 369 | 183487 | 184593 | 284 | 7 | 1 (1st+2nd+3rd) |
| 249 | 399 | 133 | 184594 | 184992 | 201 | 90a | 1 (1st+2nd+3rd) |
| 251 | 1284 | 428 | 184993 | 186276 | 272 | 19 | 1 (1st+2nd+3rd) |
| 252 | 1653 | 551 | 186277 | 187929 | 256 | 35 | 1 (1st+2nd+3rd) |
| 253 | 957 | 319 | 187930 | 188886 | 272 | 19 | 1 (1st+2nd+3rd) |
| 254 | 1128 | 376 | 188887 | 190014 | 234 | 57 | 1 (1st+2nd+3rd) |
| 255 | 1434 | 478 | 190015 | 191448 | 280 | 11 | 1 (1st+2nd+3rd) |
| 258 | 1647 | 549 | 191449 | 193095 | 276 | 15 | 1 (1st+2nd+3rd) |
| 262 | 1563 | 521 | 193096 | 194658 | 207 | 84b | 2 (1st+2nd and 3rd) |
| 264 | 1098 | 366 | 194659 | 195756 | 275 | 16 | 1 (1st+2nd+3rd) |
| 265 | 780 | 260 | 195757 | 196536 | 257 | 34 | 1 (1st+2nd+3rd) |
| 267 | 1026 | 342 | 196537 | 197562 | 258 | 33 | 1 (1st+2nd+3rd) |
| 268 | 1500 | 500 | 197563 | 199062 | 286 | 5 | 1 (1st+2nd+3rd) |
| 269 | 1542 | 514 | 199063 | 200604 | 276 | 15 | 1 (1st+2nd+3rd) |
| 271 | 999 | 333 | 200605 | 201603 | 242 | 49 | 1 (1st+2nd+3rd) |
| 272 | 1185 | 395 | 201604 | 202788 | 275 | 16 | 1 (1st+2nd+3rd) |
| 274 | 780 | 260 | 202789 | 203568 | 259 | 32 | 1 (1st+2nd+3rd) |
| 275 | 1119 | 373 | 203569 | 204687 | 250 | 41 | 1 (1st+2nd+3rd) |
| 278 | 1560 | 520 | 204688 | 206247 | 275 | 16 | 1 (1st+2nd+3rd) |
| 279 | 1485 | 495 | 206248 | 207732 | 261 | 30 | 1 (1st+2nd+3rd) |
| 280 | 1119 | 373 | 207733 | 208851 | 288 | 3 | 1 (1st+2nd+3rd) |
| 281 | 1383 | 461 | 208852 | 210234 | 272 | 19 | 1 (1st+2nd+3rd) |
| 282 | 1629 | 543 | 210235 | 211863 | 269 | 22 | 1 (1st+2nd+3rd) |
| 284 | 1611 | 537 | 211864 | 213474 | 275 | 16 | 1 (1st+2nd+3rd) |
| 285 | 1761 | 587 | 213475 | 215235 | 248 | 43 | 2 (1st+2nd and 3rd) |
| 287 | 876 | 292 | 215236 | 216111 | 231 | 60a | 1 (1st+2nd+3rd) |
| 288 | 1647 | 549 | 216112 | 217758 | 278 | 13 | 1 (1st+2nd+3rd) |
| 290 | 1347 | 449 | 217759 | 219105 | 234 | 57a | 1 (1st+2nd+3rd) |
| 291 | 1560 | 520 | 219106 | 220665 | 275 | 16 | 1 (1st+2nd+3rd) |
| 293 | 705 | 235 | 220666 | 221370 | 252 | 39 | 1 (1st+2nd+3rd) |
| 294 | 1677 | 559 | 221371 | 223047 | 281 | 10 | 1 (1st+2nd+3rd) |
| 296 | 1785 | 595 | 223048 | 224832 | 281 | 10 | 1 (1st+2nd+3rd) |
| 297 | 948 | 316 | 224833 | 225780 | 268 | 23 | 1 (1st+2nd+3rd) |
| 299 | 1413 | 471 | 225781 | 227193 | 264 | 27 | 1 (1st+2nd+3rd) |
| 304 | 1839 | 613 | 227194 | 229032 | 276 | 15 | 1 (1st+2nd+3rd) |
| 305 | 426 | 142 | 229033 | 229458 | 210 | 81a | 1 (1st+2nd+3rd) |
| 306 | 1602 | 534 | 229459 | 231060 | 283 | 8 | 1 (1st+2nd+3rd) |
| 307 | 717 | 239 | 231061 | 231777 | 267 | 24 | 1 (1st+2nd+3rd) |
| 309 | 585 | 195 | 231778 | 232362 | 244 | 47 | 1 (1st+2nd+3rd) |
| 310 | 1503 | 501 | 232363 | 233865 | 274 | 17 | 1 (1st+2nd+3rd) |
| 311 | 1536 | 512 | 233866 | 235401 | 280 | 11 | 1 (1st+2nd+3rd) |
| 312 | 1689 | 563 | 235402 | 237090 | 285 | 6 | 1 (1st+2nd+3rd) |
| 317 | 1275 | 425 | 237091 | 238365 | 271 | 20 | 1 (1st+2nd+3rd) |
| 320 | 1560 | 520 | 238366 | 239925 | 251 | 40 | 1 (1st+2nd+3rd) |
| 321 | 1572 | 524 | 239926 | 241497 | 289 | 2 | 1 (1st+2nd+3rd) |
| 324 | 1110 | 370 | 241498 | 242607 | 256 | 35 | 1 (1st+2nd+3rd) |
| 325 | 1572 | 524 | 242608 | 244179 | 286 | 5 | 1 (1st+2nd+3rd) |
| 327 | 1848 | 616 | 244180 | 246027 | 266 | 25 | 1 (1st+2nd+3rd) |
| 328 | 1653 | 551 | 246028 | 247680 | 270 | 21 | 1 (1st+2nd+3rd) |
| 329 | 1761 | 587 | 247681 | 249441 | 278 | 13 | 1 (1st+2nd+3rd) |
| 331 | 1602 | 534 | 249442 | 251043 | 290 | 1 | 1 (1st+2nd+3rd) |
| 334 | 1224 | 408 | 251044 | 252267 | 274 | 17 | 1 (1st+2nd+3rd) |
| 335 | 1218 | 406 | 252268 | 253485 | 287 | 4 | 1 (1st+2nd+3rd) |
| 336 | 894 | 298 | 253486 | 254379 | 221 | 70b | 1 (1st+2nd+3rd) |
| 337 | 1062 | 354 | 254380 | 255441 | 268 | 23 | 1 (1st+2nd+3rd) |
| 339 | 1938 | 646 | 255442 | 257379 | 283 | 8 | 1 (1st+2nd+3rd) |
| 340 | 897 | 299 | 257380 | 258276 | 263 | 28 | 1 (1st+2nd+3rd) |
| 343 | 1197 | 399 | 258277 | 259473 | 283 | 8 | 1 (1st+2nd+3rd) |
| 345 | 969 | 323 | 259474 | 260442 | 264 | 27 | 1 (1st+2nd+3rd) |
| 346 | 1701 | 567 | 260443 | 262143 | 280 | 11 | 1 (1st+2nd+3rd) |
| 347 | 1653 | 551 | 262144 | 263796 | 284 | 7 | 1 (1st+2nd+3rd) |
| 348 | 1056 | 352 | 263797 | 264852 | 218 | 73 | 1 (1st+2nd+3rd) |
| 349 | 1773 | 591 | 264853 | 266625 | 273 | 18 | 1 (1st+2nd+3rd) |
| 350 | 1419 | 473 | 266626 | 268044 | 282 | 9 | 1 (1st+2nd+3rd) |
| 353 | 1323 | 441 | 268045 | 269367 | 282 | 9 | 1 (1st+2nd+3rd) |
| 354 | 1458 | 486 | 269368 | 270825 | 256 | 35 | 1 (1st+2nd+3rd) |
| 355 | 1902 | 634 | 270826 | 272727 | 282 | 9 | 1 (1st+2nd+3rd) |
| 358 | 1524 | 508 | 272728 | 274251 | 282 | 9 | 1 (1st+2nd+3rd) |
| 359 | 1110 | 370 | 274252 | 275361 | 267 | 24 | 1 (1st+2nd+3rd) |
| 360 | 1362 | 454 | 275362 | 276723 | 275 | 16 | 1 (1st+2nd+3rd) |
| 362 | 1092 | 364 | 276724 | 277815 | 226 | 65a | 1 (1st+2nd+3rd) |
| 367 | 960 | 320 | 277816 | 278775 | 272 | 19 | 1 (1st+2nd+3rd) |
| 368 | 1533 | 511 | 278776 | 280308 | 286 | 5 | 1 (1st+2nd+3rd) |
| 369 | 1101 | 367 | 280309 | 281409 | 264 | 27 | 1 (1st+2nd+3rd) |
| 371 | 1491 | 497 | 281410 | 282900 | 246 | 45 | 1 (1st+2nd+3rd) |
| 372 | 1674 | 558 | 282901 | 284574 | 271 | 20 | 1 (1st+2nd+3rd) |
| 375 | 1629 | 543 | 284575 | 286203 | 269 | 22 | 1 (1st+2nd+3rd) |
| 376 | 1767 | 589 | 286204 | 287970 | 286 | 5 | 1 (1st+2nd+3rd) |
| 378 | 1482 | 494 | 287971 | 289452 | 267 | 24 | 1 (1st+2nd+3rd) |
| 379 | 1830 | 610 | 289453 | 291282 | 267 | 24 | 1 (1st+2nd+3rd) |

a No salamanders present

b No salamanders or caecilians present

c Values in parentheses indicate the best-fit partitioning scheme across codon positions

Supplementary Table 4. Additional details of 220 loci, including numbers of taxa sampled for each amphibian order and details of locus variation.

| Locus ID | Number Caecilians | Number Salamanders | number Frogs | Total Sites | percent Missing sites | variable sites | Parsimony informative sites | GC content |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | 14 | 38 | 228 | 1494 | 3.145 | 937 | 827 | 0.462 |
| 4 | 6 | 35 | 227 | 1503 | 11.608 | 988 | 879 | 0.484 |
| 5 | 15 | 0 | 227 | 1440 | 10.416 | 1112 | 949 | 0.530 |
| 10 | 2 | 31 | 213 | 759 | 2.576 | 530 | 457 | 0.562 |
| 11 | 14 | 16 | 213 | 1023 | 7.122 | 605 | 559 | 0.590 |
| 13 | 15 | 37 | 227 | 846 | 1.663 | 439 | 373 | 0.435 |
| 14 | 4 | 0 | 222 | 1674 | 12.397 | 1223 | 1039 | 0.405 |
| 15 | 14 | 28 | 228 | 1356 | 2.095 | 784 | 692 | 0.436 |
| 16 | 6 | 37 | 229 | 1110 | 2.515 | 741 | 684 | 0.446 |
| 17 | 0 | 0 | 208 | 1332 | 0.771 | 805 | 680 | 0.475 |
| 20 | 13 | 27 | 221 | 1440 | 9.304 | 1052 | 910 | 0.491 |
| 28 | 13 | 34 | 226 | 1182 | 1.586 | 558 | 528 | 0.461 |
| 30 | 11 | 31 | 226 | 804 | 4.735 | 537 | 478 | 0.431 |
| 31 | 13 | 38 | 227 | 1608 | 6.807 | 1089 | 939 | 0.539 |
| 34 | 14 | 38 | 229 | 858 | 1.431 | 594 | 501 | 0.523 |
| 35 | 0 | 0 | 216 | 765 | 2.551 | 528 | 465 | 0.474 |
| 36 | 13 | 24 | 228 | 1314 | 7.215 | 823 | 732 | 0.439 |
| 38 | 12 | 25 | 226 | 1110 | 8.267 | 792 | 697 | 0.436 |
| 41 | 15 | 38 | 227 | 1656 | 6.946 | 968 | 835 | 0.448 |
| 45 | 1 | 39 | 221 | 1593 | 4.407 | 1040 | 887 | 0.431 |
| 46 | 11 | 38 | 226 | 1290 | 10.023 | 892 | 785 | 0.438 |
| 47 | 0 | 0 | 217 | 1410 | 2.151 | 807 | 701 | 0.440 |
| 48 | 1 | 0 | 215 | 1416 | 1.803 | 787 | 719 | 0.463 |
| 49 | 12 | 32 | 225 | 1425 | 4.249 | 903 | 811 | 0.399 |
| 53 | 0 | 0 | 212 | 1392 | 0.338 | 855 | 751 | 0.430 |
| 54 | 12 | 16 | 221 | 1455 | 4.734 | 1064 | 936 | 0.443 |
| 55 | 6 | 0 | 219 | 1371 | 7.436 | 1040 | 917 | 0.402 |
| 56 | 13 | 37 | 227 | 1668 | 3.369 | 1060 | 894 | 0.499 |
| 57 | 8 | 30 | 223 | 1104 | 5.277 | 781 | 671 | 0.425 |
| 59 | 14 | 39 | 229 | 1254 | 1.997 | 613 | 534 | 0.479 |
| 61 | 14 | 33 | 230 | 1587 | 4.040 | 1085 | 975 | 0.493 |
| 62 | 10 | 34 | 228 | 1263 | 3.401 | 833 | 739 | 0.449 |
| 63 | 0 | 0 | 208 | 519 | 1.331 | 360 | 324 | 0.405 |
| 65 | 15 | 40 | 226 | 1557 | 2.323 | 1020 | 845 | 0.421 |
| 69 | 6 | 1 | 207 | 588 | 1.552 | 365 | 327 | 0.418 |
| 78 | 15 | 40 | 225 | 1284 | 4.907 | 870 | 767 | 0.473 |
| 80 | 9 | 28 | 219 | 633 | 4.392 | 431 | 382 | 0.474 |
| 82 | 14 | 35 | 221 | 1170 | 7.715 | 890 | 770 | 0.549 |
| 86 | 14 | 39 | 225 | 1263 | 4.304 | 719 | 615 | 0.455 |
| 88 | 10 | 17 | 210 | 552 | 1.584 | 330 | 296 | 0.453 |
| 92 | 13 | 37 | 227 | 1341 | 6.364 | 998 | 881 | 0.478 |
| 93 | 14 | 36 | 229 | 1203 | 3.879 | 803 | 709 | 0.452 |
| 95 | 13 | 34 | 228 | 1707 | 9.913 | 1377 | 1231 | 0.464 |
| 97 | 9 | 39 | 227 | 1569 | 4.836 | 960 | 872 | 0.489 |
| 99 | 11 | 33 | 219 | 1362 | 12.459 | 1119 | 1010 | 0.424 |
| 100 | 14 | 38 | 226 | 1419 | 6.444 | 1068 | 955 | 0.495 |
| 102 | 14 | 26 | 209 | 1047 | 5.335 | 777 | 694 | 0.556 |
| 105 | 11 | 24 | 224 | 1053 | 1.908 | 808 | 755 | 0.462 |
| 107 | 15 | 27 | 224 | 564 | 0.603 | 298 | 244 | 0.483 |
| 109 | 3 | 0 | 212 | 951 | 1.392 | 698 | 616 | 0.409 |
| 110 | 11 | 28 | 227 | 1506 | 3.023 | 1109 | 997 | 0.402 |
| 112 | 14 | 37 | 230 | 1047 | 3.476 | 730 | 641 | 0.455 |
| 113 | 11 | 16 | 226 | 732 | 1.054 | 477 | 424 | 0.441 |
| 115 | 15 | 38 | 227 | 1737 | 11.081 | 1447 | 1298 | 0.426 |
| 116 | 9 | 21 | 229 | 1536 | 4.262 | 961 | 859 | 0.404 |
| 118 | 11 | 26 | 227 | 1182 | 9.505 | 993 | 875 | 0.442 |
| 121 | 15 | 38 | 229 | 1518 | 2.097 | 1026 | 897 | 0.414 |
| 122 | 15 | 37 | 224 | 1548 | 2.858 | 1016 | 901 | 0.421 |
| 123 | 9 | 33 | 229 | 2058 | 8.641 | 1400 | 1267 | 0.485 |
| 124 | 7 | 34 | 223 | 903 | 1.617 | 652 | 595 | 0.407 |
| 125 | 14 | 38 | 227 | 1782 | 2.655 | 1197 | 1057 | 0.412 |
| 126 | 13 | 34 | 225 | 1437 | 4.020 | 974 | 869 | 0.442 |
| 127 | 11 | 24 | 223 | 1842 | 11.199 | 1469 | 1336 | 0.431 |
| 130 | 14 | 29 | 229 | 1683 | 4.256 | 1199 | 1076 | 0.437 |
| 132 | 12 | 29 | 204 | 804 | 14.245 | 634 | 557 | 0.402 |
| 135 | 6 | 23 | 216 | 1092 | 4.017 | 864 | 789 | 0.401 |
| 136 | 13 | 39 | 229 | 1485 | 5.403 | 1027 | 917 | 0.440 |
| 137 | 15 | 40 | 228 | 1287 | 3.273 | 777 | 670 | 0.443 |
| 138 | 14 | 37 | 223 | 1710 | 6.825 | 1218 | 1092 | 0.430 |
| 141 | 9 | 23 | 225 | 912 | 7.843 | 646 | 564 | 0.487 |
| 144 | 13 | 32 | 222 | 1113 | 4.223 | 719 | 651 | 0.425 |
| 146 | 15 | 35 | 229 | 1401 | 2.968 | 827 | 736 | 0.465 |
| 147 | 2 | 23 | 189 | 993 | 19.747 | 687 | 591 | 0.406 |
| 149 | 13 | 19 | 227 | 885 | 1.420 | 575 | 499 | 0.415 |
| 151 | 13 | 33 | 227 | 1557 | 6.048 | 1201 | 1079 | 0.448 |
| 152 | 1 | 7 | 226 | 1377 | 4.639 | 1086 | 946 | 0.383 |
| 153 | 1 | 30 | 226 | 1395 | 5.551 | 1008 | 901 | 0.409 |
| 154 | 14 | 39 | 227 | 1464 | 4.663 | 1044 | 916 | 0.479 |
| 155 | 14 | 27 | 227 | 1635 | 11.503 | 1366 | 1223 | 0.453 |
| 156 | 13 | 10 | 228 | 1194 | 0.938 | 694 | 620 | 0.407 |
| 159 | 13 | 27 | 222 | 1137 | 2.966 | 727 | 645 | 0.398 |
| 160 | 14 | 32 | 211 | 1392 | 13.586 | 954 | 840 | 0.391 |
| 161 | 8 | 18 | 226 | 741 | 2.371 | 487 | 440 | 0.414 |
| 162 | 14 | 29 | 227 | 1413 | 5.718 | 993 | 877 | 0.418 |
| 163 | 13 | 37 | 230 | 318 | 0.362 | 177 | 150 | 0.475 |
| 164 | 14 | 35 | 230 | 1644 | 14.398 | 1349 | 1233 | 0.447 |
| 165 | 13 | 31 | 227 | 1365 | 9.197 | 1072 | 968 | 0.419 |
| 166 | 9 | 32 | 226 | 1575 | 11.714 | 1133 | 1018 | 0.415 |
| 169 | 14 | 36 | 226 | 930 | 0.491 | 495 | 435 | 0.431 |
| 172 | 12 | 28 | 208 | 1599 | 11.553 | 1343 | 1171 | 0.418 |
| 173 | 9 | 27 | 202 | 1533 | 9.865 | 1230 | 1101 | 0.398 |
| 174 | 15 | 40 | 202 | 1137 | 0.910 | 804 | 701 | 0.444 |
| 175 | 14 | 38 | 225 | 810 | 2.516 | 593 | 525 | 0.472 |
| 177 | 13 | 0 | 226 | 1521 | 6.002 | 952 | 828 | 0.508 |
| 179 | 12 | 24 | 225 | 1704 | 5.278 | 1250 | 1041 | 0.399 |
| 182 | 15 | 39 | 228 | 1722 | 9.800 | 1327 | 1170 | 0.435 |
| 183 | 13 | 28 | 220 | 1098 | 12.011 | 689 | 591 | 0.409 |
| 184 | 13 | 36 | 226 | 1311 | 7.524 | 997 | 863 | 0.548 |
| 187 | 10 | 27 | 213 | 960 | 2.333 | 580 | 520 | 0.413 |
| 191 | 15 | 41 | 228 | 1428 | 3.737 | 956 | 841 | 0.450 |
| 192 | 14 | 41 | 228 | 1662 | 5.181 | 1126 | 980 | 0.491 |
| 193 | 14 | 31 | 227 | 1614 | 8.043 | 844 | 719 | 0.463 |
| 194 | 8 | 33 | 230 | 1710 | 6.026 | 1063 | 946 | 0.495 |
| 196 | 14 | 28 | 229 | 1749 | 10.258 | 1112 | 994 | 0.408 |
| 197 | 15 | 2 | 230 | 1596 | 2.504 | 887 | 791 | 0.457 |
| 198 | 14 | 34 | 227 | 1629 | 4.930 | 1079 | 975 | 0.450 |
| 199 | 14 | 0 | 224 | 1158 | 8.203 | 853 | 774 | 0.451 |
| 200 | 15 | 24 | 212 | 1278 | 4.513 | 1037 | 949 | 0.441 |
| 201 | 15 | 41 | 227 | 1581 | 4.851 | 1108 | 957 | 0.467 |
| 202 | 14 | 40 | 228 | 1761 | 9.722 | 1361 | 1230 | 0.443 |
| 203 | 13 | 33 | 224 | 1020 | 3.405 | 677 | 598 | 0.484 |
| 204 | 12 | 20 | 203 | 1080 | 2.471 | 693 | 609 | 0.452 |
| 208 | 11 | 29 | 224 | 1467 | 5.102 | 1046 | 952 | 0.425 |
| 209 | 15 | 35 | 226 | 1314 | 4.667 | 848 | 762 | 0.444 |
| 210 | 12 | 35 | 227 | 1371 | 5.242 | 1032 | 934 | 0.425 |
| 211 | 15 | 34 | 228 | 1545 | 5.707 | 1000 | 872 | 0.440 |
| 212 | 13 | 31 | 225 | 1089 | 1.389 | 626 | 561 | 0.409 |
| 214 | 10 | 21 | 217 | 1374 | 6.749 | 1099 | 1002 | 0.410 |
| 216 | 0 | 0 | 205 | 1485 | 9.617 | 910 | 773 | 0.503 |
| 217 | 8 | 0 | 214 | 768 | 3.387 | 531 | 478 | 0.484 |
| 218 | 14 | 36 | 225 | 921 | 4.048 | 573 | 497 | 0.480 |
| 219 | 15 | 38 | 227 | 1686 | 10.645 | 1304 | 1093 | 0.482 |
| 220 | 13 | 33 | 224 | 825 | 3.044 | 622 | 551 | 0.488 |
| 222 | 0 | 0 | 211 | 1581 | 6.509 | 1081 | 950 | 0.426 |
| 224 | 7 | 37 | 227 | 1593 | 5.039 | 991 | 871 | 0.467 |
| 225 | 14 | 22 | 228 | 1884 | 7.498 | 1193 | 1070 | 0.400 |
| 226 | 7 | 29 | 224 | 1917 | 13.597 | 1486 | 1330 | 0.429 |
| 227 | 12 | 0 | 227 | 1467 | 6.056 | 1130 | 994 | 0.472 |
| 229 | 0 | 0 | 222 | 1197 | 2.393 | 686 | 586 | 0.470 |
| 230 | 8 | 24 | 216 | 819 | 6.573 | 652 | 594 | 0.451 |
| 231 | 0 | 0 | 219 | 1194 | 7.436 | 632 | 530 | 0.538 |
| 234 | 13 | 35 | 214 | 1983 | 13.304 | 1440 | 1280 | 0.417 |
| 239 | 14 | 36 | 229 | 1626 | 2.450 | 1032 | 913 | 0.442 |
| 240 | 11 | 36 | 228 | 1773 | 3.399 | 1053 | 927 | 0.474 |
| 241 | 11 | 26 | 223 | 1260 | 1.718 | 889 | 774 | 0.474 |
| 242 | 14 | 34 | 226 | 855 | 0.413 | 570 | 464 | 0.532 |
| 243 | 12 | 32 | 224 | 1050 | 6.990 | 705 | 621 | 0.512 |
| 244 | 7 | 18 | 227 | 738 | 10.082 | 460 | 413 | 0.464 |
| 245 | 13 | 32 | 228 | 1806 | 8.049 | 1209 | 1096 | 0.477 |
| 246 | 14 | 39 | 226 | 1623 | 0.770 | 904 | 795 | 0.457 |
| 248 | 15 | 36 | 228 | 1107 | 4.111 | 737 | 683 | 0.463 |
| 249 | 1 | 0 | 195 | 399 | 0.005 | 169 | 145 | 0.464 |
| 251 | 13 | 27 | 227 | 1284 | 10.263 | 914 | 791 | 0.456 |
| 252 | 10 | 15 | 226 | 1653 | 5.241 | 1085 | 973 | 0.419 |
| 253 | 14 | 26 | 227 | 957 | 9.707 | 718 | 636 | 0.498 |
| 254 | 8 | 21 | 200 | 1128 | 12.716 | 895 | 787 | 0.431 |
| 255 | 13 | 36 | 226 | 1434 | 6.336 | 1037 | 908 | 0.460 |
| 258 | 14 | 29 | 228 | 1647 | 8.917 | 1209 | 1072 | 0.458 |
| 262 | 0 | 0 | 202 | 1563 | 7.402 | 850 | 748 | 0.560 |
| 264 | 12 | 32 | 226 | 1098 | 2.454 | 731 | 644 | 0.462 |
| 265 | 13 | 16 | 223 | 780 | 2.129 | 494 | 450 | 0.569 |
| 267 | 11 | 20 | 222 | 1026 | 6.080 | 670 | 592 | 0.380 |
| 268 | 14 | 41 | 226 | 1500 | 1.092 | 779 | 694 | 0.429 |
| 269 | 15 | 29 | 227 | 1542 | 2.604 | 941 | 811 | 0.446 |
| 271 | 5 | 10 | 222 | 999 | 5.811 | 791 | 727 | 0.468 |
| 272 | 12 | 32 | 226 | 1185 | 8.323 | 891 | 785 | 0.427 |
| 274 | 5 | 22 | 227 | 780 | 4.513 | 533 | 445 | 0.459 |
| 275 | 13 | 25 | 207 | 1119 | 8.501 | 830 | 750 | 0.418 |
| 278 | 13 | 29 | 228 | 1560 | 4.909 | 1067 | 961 | 0.397 |
| 279 | 3 | 29 | 224 | 1485 | 3.016 | 1069 | 963 | 0.426 |
| 280 | 14 | 40 | 229 | 1119 | 3.957 | 660 | 589 | 0.488 |
| 281 | 12 | 31 | 224 | 1383 | 11.745 | 1005 | 932 | 0.443 |
| 282 | 13 | 28 | 223 | 1629 | 6.168 | 1267 | 1142 | 0.469 |
| 284 | 10 | 32 | 228 | 1611 | 11.745 | 1226 | 1125 | 0.405 |
| 285 | 12 | 3 | 228 | 1761 | 6.530 | 1115 | 963 | 0.439 |
| 287 | 3 | 0 | 223 | 876 | 5.208 | 634 | 541 | 0.471 |
| 288 | 15 | 30 | 228 | 1647 | 4.074 | 1024 | 918 | 0.436 |
| 290 | 1 | 0 | 228 | 1347 | 3.218 | 625 | 539 | 0.491 |
| 291 | 14 | 29 | 227 | 1560 | 8.047 | 1091 | 980 | 0.520 |
| 293 | 9 | 32 | 206 | 705 | 1.857 | 405 | 341 | 0.496 |
| 294 | 14 | 33 | 229 | 1677 | 5.003 | 928 | 849 | 0.420 |
| 296 | 13 | 38 | 225 | 1785 | 5.109 | 1359 | 1242 | 0.483 |
| 297 | 11 | 27 | 225 | 948 | 3.015 | 694 | 621 | 0.468 |
| 299 | 4 | 27 | 228 | 1413 | 4.605 | 998 | 836 | 0.469 |
| 304 | 14 | 30 | 227 | 1839 | 4.871 | 1411 | 1256 | 0.428 |
| 305 | 1 | 0 | 204 | 426 | 0.843 | 273 | 237 | 0.474 |
| 306 | 15 | 40 | 223 | 1602 | 4.291 | 1221 | 1045 | 0.447 |
| 307 | 13 | 34 | 215 | 717 | 1.420 | 499 | 424 | 0.470 |
| 309 | 6 | 20 | 213 | 585 | 5.845 | 477 | 423 | 0.487 |
| 310 | 11 | 30 | 228 | 1503 | 11.505 | 1139 | 1054 | 0.403 |
| 311 | 15 | 32 | 228 | 1536 | 7.162 | 1029 | 926 | 0.415 |
| 312 | 14 | 37 | 229 | 1689 | 2.498 | 1068 | 982 | 0.429 |
| 317 | 12 | 32 | 222 | 1275 | 3.525 | 934 | 852 | 0.429 |
| 320 | 12 | 18 | 216 | 1560 | 4.151 | 1026 | 871 | 0.400 |
| 321 | 15 | 40 | 229 | 1572 | 2.016 | 832 | 713 | 0.460 |
| 324 | 13 | 41 | 197 | 1110 | 6.566 | 939 | 838 | 0.457 |
| 325 | 14 | 40 | 227 | 1572 | 3.335 | 921 | 818 | 0.463 |
| 327 | 8 | 24 | 229 | 1848 | 15.330 | 1210 | 1042 | 0.496 |
| 328 | 11 | 30 | 224 | 1653 | 14.848 | 1145 | 990 | 0.526 |
| 329 | 15 | 31 | 227 | 1761 | 9.656 | 1182 | 1060 | 0.472 |
| 331 | 15 | 40 | 230 | 1602 | 2.803 | 1015 | 890 | 0.456 |
| 334 | 6 | 39 | 224 | 1224 | 12.396 | 915 | 836 | 0.502 |
| 335 | 14 | 40 | 228 | 1218 | 2.479 | 648 | 570 | 0.471 |
| 336 | 0 | 0 | 216 | 894 | 11.967 | 613 | 538 | 0.506 |
| 337 | 9 | 30 | 224 | 1062 | 0.459 | 796 | 703 | 0.499 |
| 339 | 15 | 40 | 223 | 1938 | 9.623 | 1494 | 1248 | 0.499 |
| 340 | 12 | 22 | 224 | 897 | 3.121 | 658 | 589 | 0.542 |
| 343 | 15 | 38 | 225 | 1197 | 1.917 | 662 | 603 | 0.431 |
| 345 | 10 | 23 | 226 | 969 | 3.146 | 659 | 590 | 0.454 |
| 346 | 13 | 33 | 229 | 1701 | 11.458 | 1247 | 1104 | 0.440 |
| 347 | 14 | 37 | 228 | 1653 | 5.921 | 1088 | 964 | 0.439 |
| 348 | 8 | 20 | 185 | 1056 | 13.086 | 827 | 716 | 0.371 |
| 349 | 5 | 37 | 226 | 1773 | 6.513 | 1031 | 913 | 0.421 |
| 350 | 14 | 33 | 230 | 1419 | 7.341 | 1064 | 938 | 0.418 |
| 353 | 14 | 36 | 227 | 1323 | 2.520 | 733 | 688 | 0.469 |
| 354 | 9 | 18 | 224 | 1458 | 10.068 | 1137 | 1005 | 0.438 |
| 355 | 14 | 36 | 227 | 1902 | 6.275 | 1106 | 956 | 0.451 |
| 358 | 12 | 37 | 228 | 1524 | 2.799 | 991 | 862 | 0.424 |
| 359 | 8 | 25 | 229 | 1110 | 10.093 | 821 | 711 | 0.498 |
| 360 | 13 | 32 | 225 | 1362 | 8.122 | 1059 | 964 | 0.482 |
| 362 | 1 | 0 | 220 | 1092 | 3.129 | 678 | 612 | 0.468 |
| 367 | 8 | 31 | 228 | 960 | 3.266 | 695 | 620 | 0.501 |
| 368 | 14 | 40 | 227 | 1533 | 5.538 | 1097 | 982 | 0.462 |
| 369 | 12 | 25 | 222 | 1101 | 3.691 | 731 | 670 | 0.429 |
| 371 | 13 | 5 | 223 | 1491 | 5.915 | 1061 | 953 | 0.466 |
| 372 | 12 | 32 | 222 | 1674 | 14.151 | 1258 | 1139 | 0.505 |
| 375 | 6 | 34 | 224 | 1629 | 7.724 | 1152 | 1046 | 0.435 |
| 376 | 14 | 40 | 227 | 1767 | 6.497 | 1385 | 1250 | 0.420 |
| 378 | 8 | 26 | 228 | 1482 | 10.420 | 1154 | 1039 | 0.468 |
| 379 | 13 | 23 | 226 | 1830 | 8.918 | 1375 | 1227 | 0.441 |

Supplementary Table 5. Fossil calibrations used for divergence time analyses.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Constraint | Node | Fossil | Minimum (MYA) | Maximum (MYA) | Source |
| 1 | Tetrapoda | *Lethiscus stocki* | 337.0 | 351.0 | Benton *et al*. (2015) |
| 2 | Amniota | *Hylonomus lyelli* | 318.0 | 332.9 | Benton *et al*. (2015) |
| 3 | Lissamphibia | *Gerobatrachus hottoni* | 270.6 | 337.0 | Anderson (2008) |
| 4 | Batrachia | *Triadobatrachus massinoti* | 252.0 | 272.8 | Cannatella (2015); Benton *et al*. (2015) |
| 5 | Cryptobranchoidea | *Chunerpeton tianyiensis* | 161.2 | 252.0 | Gao and Shubin (2003) |
| 6 | Anura | *Liaobatrachus zhaoi* | 129.7 | 252.0 | Chang *et al*. (2009) |
| 7 | Alytoidea | *Iberobatrachus angelae* | 125.0 | 252.0 | Gomez *et al*. (2016) |
| 8 | Pipanura | *Rhadinosteus parvus* | 148.1 | 252.0 | Cannatella (2015) |
| 9 | Pipoidea | *Neusibatrachus wilferti* | 127.2 | 252.0 | Gomez *et al*. (2016) |
| 10 | Pipidae | *Pachycentra taqueti* | 83.6 | 148.1 | Cannatella (2015) |
| 11 | Pelobatoidea | *Elkobatrachus brocki* | 46.1 | 148.1 | Henrici and Haynes (2006) |
| 12 | Pelodytes + (Pelobatidae + Megophryidae) | *Miopelodytes gilmorei* | 38.9 | 148.1 | Henrici and Haynes (2006) |
| 13 | Pelobatidae + Megophryidae | *Macropelobates osborni* | 28.1 | 148.1 | Cohen *et al*. (2013) |
| 14 | Acosmanura | *Eurycephalella alcinae* | 113.0 | 252.0 | Baez (2009) |
| 15 | Neobatrachia | *Beelzebufo ampinga* | 66.0 | 148.1 | Rogers *et al*. (2013) |
| 16 | Myobatrachoidea | *Calyptocephalella pichileufensis* | 47.5 | 148.1 | Gomez *et al*. (2011) |
| 17 | Ranoidea | *Thamastosaurus gezei* | 33.9 | 148.1 | Rage and Rocek (2007) |
| 18 | Node between *Ptychadena* + *Phrynobatrachus* | Ptychadenidae fossil | 25.0 | 148.1 | Blackburn *et al*. (2015) |
| 19 | Caudata | *Iridotriton hechti* | 146.8 | 252.0 | Evans *et al*. (2005) |

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Supplementary Table 6. Divergence times and 95% HPD confidence intervals (CI). Divergence times are given in millions of years before present (Ma). Node numbers correspond to the labeling scheme in Figure S2. ESS values represent effective sample sizes across 10 combined independent MCMCTree replicates.

| Node | Posterior Mean | 95% HPD Upper | 95% HPD Lower | | HPD CI width | ESS |
| --- | --- | --- | --- | --- | --- | --- |
| 292 | 430.6 | 420.1 | 443.9 | 23.8 | | 53,584 |
| 293 | 349.8 | 346.5 | 352.2 | 5.7 | | 74,786 |
| 294 | 295.0 | 287.2 | 303.3 | 16.1 | | 14,548 |
| 295 | 272.3 | 268.8 | 275.3 | 6.5 | | 22,529 |
| 296 | 213.9 | 204.9 | 223.2 | 18.3 | | 636 |
| 297 | 198.9 | 190.1 | 207.5 | 17.4 | | 582 |
| 298 | 187.9 | 179.5 | 196.1 | 16.6 | | 582 |
| 299 | 177.6 | 169.4 | 185.4 | 16.0 | | 601 |
| 300 | 146.3 | 139.7 | 152.2 | 12.5 | | 460 |
| 301 | 134.3 | 128.0 | 140.6 | 12.6 | | 471 |
| 302 | 128.3 | 121.9 | 134.5 | 12.6 | | 503 |
| 303 | 105.2 | 99.0 | 111.1 | 12.1 | | 362 |
| 304 | 101.2 | 95.2 | 107.1 | 11.9 | | 374 |
| 305 | 65.0 | 61.2 | 68.9 | 7.7 | | 194 |
| 306 | 63.3 | 59.5 | 67.2 | 7.7 | | 196 |
| 307 | 62.4 | 58.6 | 66.3 | 7.7 | | 197 |
| 308 | 60.0 | 56.2 | 63.8 | 7.6 | | 207 |
| 309 | 55.3 | 51.6 | 59.1 | 7.5 | | 245 |
| 310 | 45.8 | 42.0 | 49.6 | 7.6 | | 391 |
| 311 | 32.1 | 29.3 | 34.9 | 5.6 | | 420 |
| 312 | 30.3 | 27.6 | 33.1 | 5.5 | | 440 |
| 313 | 28.3 | 25.6 | 31.1 | 5.5 | | 474 |
| 314 | 26.5 | 23.8 | 29.3 | 5.5 | | 514 |
| 315 | 25.1 | 22.5 | 27.8 | 5.3 | | 734 |
| 316 | 15.8 | 13.0 | 18.8 | 5.8 | | 1,966 |
| 317 | 27.3 | 24.6 | 30.2 | 5.6 | | 529 |
| 318 | 23.1 | 20.4 | 26.0 | 5.6 | | 956 |
| 319 | 6.1 | 4.7 | 7.5 | 2.9 | | 4,210 |
| 320 | 22.8 | 18.8 | 26.8 | 8.0 | | 1,941 |
| 321 | 44.9 | 40.8 | 49.1 | 8.3 | | 488 |
| 322 | 40.6 | 36.5 | 44.7 | 8.2 | | 564 |
| 323 | 29.8 | 25.9 | 33.7 | 7.8 | | 929 |
| 324 | 22.4 | 18.4 | 26.4 | 8.0 | | 1,566 |
| 325 | 22.9 | 19.0 | 27.0 | 8.0 | | 1,564 |
| 326 | 14.8 | 11.3 | 18.4 | 7.1 | | 3,508 |
| 327 | 38.6 | 34.7 | 42.5 | 7.8 | | 741 |
| 328 | 30.4 | 27.6 | 33.2 | 5.6 | | 620 |
| 329 | 26.8 | 24.4 | 29.3 | 4.9 | | 605 |
| 330 | 24.5 | 22.3 | 26.9 | 4.6 | | 626 |
| 331 | 22.0 | 19.9 | 24.1 | 4.2 | | 634 |
| 332 | 20.1 | 18.0 | 22.1 | 4.1 | | 702 |
| 333 | 16.9 | 14.9 | 18.8 | 3.9 | | 892 |
| 334 | 13.7 | 11.8 | 15.6 | 3.8 | | 1,197 |
| 335 | 6.1 | 4.8 | 7.5 | 2.7 | | 3,209 |
| 336 | 17.7 | 15.6 | 19.8 | 4.2 | | 947 |
| 337 | 19.6 | 17.5 | 21.8 | 4.3 | | 814 |
| 338 | 8.6 | 7.1 | 10.2 | 3.1 | | 2,834 |
| 339 | 4.1 | 3.1 | 5.1 | 2.0 | | 5,612 |
| 340 | 5.7 | 4.3 | 7.3 | 3.1 | | 5,533 |
| 341 | 47.9 | 43.7 | 52.2 | 8.5 | | 459 |
| 342 | 42.1 | 38.0 | 46.1 | 8.1 | | 620 |
| 343 | 40.4 | 36.4 | 44.6 | 8.2 | | 664 |
| 344 | 18.2 | 15.2 | 21.6 | 6.4 | | 2,903 |
| 345 | 13.2 | 10.4 | 16.1 | 5.7 | | 4,120 |
| 346 | 2.5 | 1.9 | 3.2 | 1.3 | | 6,519 |
| 347 | 20.8 | 16.4 | 25.6 | 9.2 | | 3,391 |
| 348 | 27.3 | 23.3 | 31.4 | 8.1 | | 1,499 |
| 349 | 18.0 | 14.3 | 21.9 | 7.6 | | 2,429 |
| 350 | 34.9 | 29.6 | 40.0 | 10.4 | | 1,199 |
| 351 | 61.3 | 57.5 | 65.2 | 7.7 | | 209 |
| 352 | 15.6 | 13.1 | 18.3 | 5.2 | | 2,047 |
| 353 | 14.2 | 11.8 | 16.9 | 5.1 | | 2,266 |
| 354 | 14.0 | 11.5 | 16.6 | 5.1 | | 2,295 |
| 355 | 64.0 | 60.2 | 67.9 | 7.7 | | 196 |
| 356 | 62.3 | 58.5 | 66.2 | 7.7 | | 202 |
| 357 | 50.7 | 46.7 | 54.7 | 8.0 | | 376 |
| 358 | 41.5 | 37.7 | 45.4 | 7.7 | | 526 |
| 359 | 33.6 | 30.2 | 37.2 | 7.0 | | 726 |
| 360 | 29.1 | 25.7 | 32.6 | 6.9 | | 1,007 |
| 361 | 12.1 | 9.4 | 14.9 | 5.5 | | 2,899 |
| 362 | 14.6 | 11.5 | 17.8 | 6.3 | | 3,369 |
| 363 | 17.7 | 14.0 | 21.6 | 7.6 | | 3,894 |
| 364 | 21.2 | 16.6 | 25.8 | 9.2 | | 4,541 |
| 365 | 59.1 | 55.1 | 63.1 | 8.0 | | 229 |
| 366 | 23.9 | 18.5 | 29.4 | 10.9 | | 2,581 |
| 367 | 62.5 | 58.6 | 66.3 | 7.7 | | 201 |
| 368 | 59.5 | 55.7 | 63.3 | 7.6 | | 219 |
| 369 | 41.4 | 36.3 | 46.7 | 10.4 | | 643 |
| 370 | 11.2 | 8.6 | 13.9 | 5.3 | | 4,304 |
| 371 | 20.4 | 15.9 | 25.2 | 9.3 | | 3,054 |
| 372 | 86.6 | 80.7 | 92.4 | 11.7 | | 429 |
| 373 | 67.5 | 62.2 | 72.8 | 10.6 | | 455 |
| 374 | 50.6 | 45.9 | 55.3 | 9.4 | | 445 |
| 375 | 49.1 | 44.3 | 53.7 | 9.4 | | 496 |
| 376 | 47.3 | 42.7 | 52.0 | 9.3 | | 552 |
| 377 | 22.8 | 19.5 | 26.4 | 6.9 | | 1,303 |
| 378 | 14.2 | 11.7 | 16.7 | 5.0 | | 1,816 |
| 379 | 13.2 | 10.7 | 15.7 | 5.0 | | 1,976 |
| 380 | 39.1 | 34.0 | 44.1 | 10.1 | | 857 |
| 381 | 40.2 | 35.4 | 45.3 | 9.9 | | 785 |
| 382 | 37.7 | 32.8 | 42.8 | 10.0 | | 856 |
| 383 | 24.4 | 19.5 | 29.6 | 10.1 | | 2,601 |
| 384 | 47.9 | 43.2 | 52.7 | 9.5 | | 687 |
| 385 | 33.5 | 29.8 | 37.1 | 7.3 | | 789 |
| 386 | 27.6 | 24.4 | 30.9 | 6.5 | | 876 |
| 387 | 24.8 | 21.6 | 28.0 | 6.4 | | 1,081 |
| 388 | 15.3 | 12.4 | 18.3 | 5.9 | | 2,687 |
| 389 | 21.6 | 18.3 | 25.1 | 6.8 | | 1,670 |
| 390 | 21.1 | 16.6 | 25.7 | 9.1 | | 3,690 |
| 391 | 2.7 | 2.0 | 3.4 | 1.4 | | 7,718 |
| 392 | 61.1 | 54.7 | 67.3 | 12.6 | | 683 |
| 393 | 37.0 | 31.3 | 43.1 | 11.8 | | 1,728 |
| 394 | 21.5 | 16.9 | 26.4 | 9.5 | | 3,333 |
| 395 | 32.5 | 25.9 | 38.7 | 12.8 | | 2,375 |
| 396 | 70.1 | 65.4 | 74.5 | 9.1 | | 217 |
| 397 | 69.5 | 64.9 | 74.0 | 9.1 | | 218 |
| 398 | 68.0 | 63.5 | 72.5 | 9.0 | | 220 |
| 399 | 63.2 | 58.8 | 67.3 | 8.5 | | 214 |
| 400 | 26.8 | 24.3 | 29.3 | 5.0 | | 452 |
| 401 | 25.3 | 22.9 | 27.7 | 4.8 | | 459 |
| 402 | 24.4 | 21.9 | 26.7 | 4.8 | | 475 |
| 403 | 20.1 | 17.8 | 22.5 | 4.7 | | 646 |
| 404 | 15.0 | 12.8 | 17.4 | 4.6 | | 1,236 |
| 405 | 22.8 | 20.5 | 25.3 | 4.8 | | 524 |
| 406 | 24.3 | 21.9 | 26.7 | 4.8 | | 486 |
| 407 | 20.3 | 17.6 | 22.9 | 5.3 | | 792 |
| 408 | 21.8 | 19.3 | 24.3 | 5.0 | | 625 |
| 409 | 22.8 | 20.1 | 25.5 | 5.4 | | 787 |
| 410 | 17.6 | 14.7 | 20.4 | 5.7 | | 1,360 |
| 411 | 60.7 | 56.5 | 64.9 | 8.4 | | 222 |
| 412 | 56.4 | 52.3 | 60.5 | 8.2 | | 248 |
| 413 | 51.8 | 47.7 | 55.9 | 8.2 | | 312 |
| 414 | 38.0 | 33.6 | 42.3 | 8.7 | | 637 |
| 415 | 19.2 | 16.0 | 22.5 | 6.5 | | 1,889 |
| 416 | 16.7 | 13.5 | 19.9 | 6.4 | | 2,519 |
| 417 | 51.8 | 47.7 | 56.0 | 8.3 | | 319 |
| 418 | 33.8 | 29.1 | 38.7 | 9.6 | | 967 |
| 419 | 29.8 | 25.1 | 34.7 | 9.6 | | 1,143 |
| 420 | 2.6 | 1.9 | 3.3 | 1.4 | | 6,617 |
| 421 | 64.3 | 59.7 | 69.1 | 9.4 | | 265 |
| 422 | 29.2 | 25.0 | 33.6 | 8.6 | | 938 |
| 423 | 27.4 | 23.3 | 31.8 | 8.5 | | 981 |
| 424 | 24.3 | 20.1 | 28.7 | 8.6 | | 1,124 |
| 425 | 15.8 | 12.4 | 19.2 | 6.8 | | 1,924 |
| 426 | 69.3 | 64.7 | 73.8 | 9.1 | | 219 |
| 427 | 65.9 | 61.5 | 70.3 | 8.8 | | 229 |
| 428 | 57.4 | 53.1 | 61.8 | 8.7 | | 272 |
| 429 | 53.4 | 49.1 | 57.5 | 8.4 | | 295 |
| 430 | 46.3 | 42.4 | 50.1 | 7.7 | | 334 |
| 431 | 36.4 | 33.1 | 39.8 | 6.7 | | 411 |
| 432 | 30.0 | 26.9 | 32.9 | 6.0 | | 472 |
| 433 | 24.3 | 21.4 | 27.4 | 6.0 | | 789 |
| 434 | 19.7 | 16.8 | 22.6 | 5.8 | | 1,110 |
| 435 | 28.7 | 25.7 | 31.7 | 6.0 | | 499 |
| 436 | 18.9 | 15.6 | 22.2 | 6.6 | | 1,638 |
| 437 | 18.0 | 14.0 | 22.1 | 8.1 | | 2,877 |
| 438 | 24.8 | 19.6 | 30.3 | 10.7 | | 2,926 |
| 439 | 61.9 | 57.5 | 66.4 | 8.9 | | 245 |
| 440 | 51.3 | 45.7 | 56.8 | 11.1 | | 562 |
| 441 | 42.1 | 34.4 | 49.8 | 15.4 | | 1,427 |
| 442 | 78.0 | 61.9 | 92.6 | 30.7 | | 3,946 |
| 443 | 123.3 | 116.3 | 130.2 | 13.9 | | 640 |
| 444 | 72.2 | 67.4 | 77.0 | 9.6 | | 177 |
| 445 | 66.8 | 62.7 | 71.1 | 8.4 | | 154 |
| 446 | 65.0 | 60.9 | 69.1 | 8.2 | | 152 |
| 447 | 64.0 | 60.0 | 68.1 | 8.1 | | 152 |
| 448 | 62.8 | 58.9 | 66.8 | 7.9 | | 153 |
| 449 | 61.8 | 57.9 | 65.8 | 7.9 | | 154 |
| 450 | 60.0 | 56.2 | 64.1 | 7.9 | | 157 |
| 451 | 58.4 | 54.4 | 62.3 | 7.9 | | 163 |
| 452 | 48.2 | 44.1 | 52.4 | 8.3 | | 269 |
| 453 | 37.4 | 33.6 | 41.5 | 7.9 | | 449 |
| 454 | 24.1 | 21.4 | 26.7 | 5.3 | | 377 |
| 455 | 21.0 | 18.5 | 23.5 | 5.0 | | 416 |
| 456 | 20.5 | 18.0 | 23.1 | 5.1 | | 447 |
| 457 | 18.6 | 16.1 | 21.2 | 5.1 | | 560 |
| 458 | 17.8 | 15.3 | 20.4 | 5.1 | | 611 |
| 459 | 22.9 | 20.3 | 25.6 | 5.3 | | 399 |
| 460 | 19.3 | 16.5 | 22.0 | 5.5 | | 644 |
| 461 | 58.4 | 54.6 | 62.4 | 7.8 | | 162 |
| 462 | 53.0 | 49.0 | 57.0 | 8.0 | | 205 |
| 463 | 35.9 | 30.7 | 41.1 | 10.4 | | 791 |
| 464 | 36.4 | 30.9 | 41.9 | 11.0 | | 873 |
| 465 | 23.1 | 18.9 | 27.3 | 8.4 | | 2,154 |
| 466 | 12.5 | 9.5 | 15.5 | 6.0 | | 4,895 |
| 467 | 54.4 | 50.4 | 58.5 | 8.1 | | 212 |
| 468 | 47.1 | 43.0 | 51.2 | 8.2 | | 271 |
| 469 | 45.7 | 41.6 | 49.8 | 8.2 | | 279 |
| 470 | 43.7 | 39.6 | 47.8 | 8.2 | | 297 |
| 471 | 40.5 | 36.4 | 44.7 | 8.3 | | 349 |
| 472 | 28.6 | 23.6 | 33.7 | 10.1 | | 1,124 |
| 473 | 38.1 | 33.9 | 42.3 | 8.4 | | 510 |
| 474 | 30.3 | 26.4 | 34.4 | 8.0 | | 758 |
| 475 | 14.7 | 12.3 | 17.1 | 4.8 | | 1,617 |
| 476 | 10.4 | 8.3 | 12.6 | 4.3 | | 3,102 |
| 477 | 25.5 | 20.7 | 30.2 | 9.5 | | 1,209 |
| 478 | 62.6 | 58.5 | 66.5 | 8.0 | | 155 |
| 479 | 61.8 | 57.8 | 65.8 | 8.0 | | 156 |
| 480 | 58.8 | 55.0 | 62.8 | 7.8 | | 165 |
| 481 | 50.0 | 46.2 | 53.7 | 7.5 | | 214 |
| 482 | 46.9 | 43.3 | 50.6 | 7.3 | | 228 |
| 483 | 45.1 | 41.5 | 48.8 | 7.3 | | 237 |
| 484 | 42.3 | 38.8 | 46.0 | 7.2 | | 256 |
| 485 | 26.7 | 23.4 | 30.2 | 6.8 | | 802 |
| 486 | 24.8 | 21.6 | 28.3 | 6.7 | | 891 |
| 487 | 6.0 | 4.6 | 7.6 | 3.0 | | 4,675 |
| 488 | 13.0 | 10.2 | 15.9 | 5.7 | | 2,506 |
| 489 | 37.8 | 34.1 | 41.6 | 7.5 | | 348 |
| 490 | 22.1 | 18.6 | 25.7 | 7.1 | | 949 |
| 491 | 20.5 | 17.1 | 24.1 | 7.0 | | 992 |
| 492 | 18.9 | 15.5 | 22.5 | 7.0 | | 1,072 |
| 493 | 42.1 | 38.3 | 46.0 | 7.7 | | 296 |
| 494 | 33.3 | 28.0 | 38.8 | 10.8 | | 1,021 |
| 495 | 44.5 | 39.3 | 49.5 | 10.2 | | 591 |
| 496 | 21.1 | 16.0 | 26.3 | 10.3 | | 2,854 |
| 497 | 23.2 | 18.4 | 28.1 | 9.7 | | 2,456 |
| 498 | 16.0 | 12.9 | 19.3 | 6.4 | | 2,471 |
| 499 | 13.4 | 10.4 | 16.5 | 6.1 | | 2,890 |
| 500 | 62.4 | 58.1 | 66.9 | 8.8 | | 185 |
| 501 | 59.4 | 55.0 | 63.9 | 8.9 | | 202 |
| 502 | 20.9 | 15.6 | 26.4 | 10.8 | | 4,381 |
| 503 | 109.4 | 100.9 | 117.5 | 16.6 | | 1,217 |
| 504 | 85.2 | 74.1 | 94.6 | 20.5 | | 1,254 |
| 505 | 81.8 | 70.9 | 91.4 | 20.5 | | 1,286 |
| 506 | 41.7 | 32.8 | 50.7 | 17.9 | | 3,419 |
| 507 | 3.1 | 2.3 | 3.9 | 1.6 | | 6,651 |
| 508 | 41.5 | 34.5 | 48.6 | 14.1 | | 1,957 |
| 509 | 36.1 | 29.3 | 43.2 | 13.9 | | 2,255 |
| 510 | 138.9 | 129.4 | 148.7 | 19.3 | | 965 |
| 511 | 124.5 | 114.9 | 134.4 | 19.5 | | 1,137 |
| 512 | 95.1 | 85.6 | 104.8 | 19.2 | | 1,455 |
| 513 | 56.8 | 49.7 | 64.1 | 14.4 | | 1,740 |
| 514 | 22.6 | 18.6 | 26.6 | 8.0 | | 2,674 |
| 515 | 16.4 | 12.9 | 20.0 | 7.1 | | 3,646 |
| 516 | 35.0 | 29.5 | 40.8 | 11.3 | | 2,297 |
| 517 | 20.1 | 15.7 | 24.6 | 8.9 | | 3,772 |
| 518 | 45.3 | 35.1 | 56.1 | 21.0 | | 5,121 |
| 519 | 161.6 | 150.0 | 172.6 | 22.6 | | 1,504 |
| 520 | 116.0 | 100.8 | 129.1 | 28.3 | | 1,969 |
| 521 | 101.1 | 85.9 | 114.4 | 28.5 | | 2,156 |
| 522 | 142.5 | 124.5 | 159.4 | 34.9 | | 2,764 |
| 523 | 108.9 | 89.9 | 128.9 | 39.0 | | 2,988 |
| 524 | 198.5 | 187.1 | 209.3 | 22.2 | | 1,188 |
| 525 | 159.4 | 147.5 | 171.0 | 23.5 | | 676 |
| 526 | 145.8 | 134.3 | 157.2 | 22.9 | | 690 |
| 527 | 123.9 | 113.8 | 133.9 | 20.1 | | 783 |
| 528 | 115.6 | 105.4 | 125.6 | 20.2 | | 874 |
| 529 | 93.9 | 83.9 | 103.5 | 19.6 | | 1,174 |
| 530 | 80.2 | 70.6 | 89.1 | 18.5 | | 1,314 |
| 531 | 47.8 | 43.3 | 52.4 | 9.1 | | 890 |
| 532 | 41.1 | 37.0 | 45.3 | 8.3 | | 931 |
| 533 | 36.4 | 32.4 | 40.5 | 8.1 | | 1,105 |
| 534 | 33.9 | 30.0 | 38.0 | 8.0 | | 1,211 |
| 535 | 25.7 | 21.8 | 29.8 | 8.0 | | 1,800 |
| 536 | 25.0 | 20.8 | 29.4 | 8.6 | | 2,739 |
| 537 | 11.0 | 8.3 | 13.7 | 5.4 | | 5,386 |
| 538 | 30.0 | 26.5 | 33.6 | 7.1 | | 1,087 |
| 539 | 28.9 | 25.4 | 32.5 | 7.1 | | 1,119 |
| 540 | 22.9 | 19.7 | 26.3 | 6.6 | | 1,734 |
| 541 | 15.1 | 12.5 | 17.8 | 5.3 | | 2,428 |
| 542 | 6.6 | 5.1 | 8.3 | 3.2 | | 4,780 |
| 543 | 27.7 | 24.2 | 31.3 | 7.1 | | 1,355 |
| 544 | 68.4 | 50.4 | 78.9 | 28.5 | | 2,028 |
| 545 | 107.3 | 97.2 | 117.8 | 20.6 | | 1,090 |
| 546 | 49.2 | 43.5 | 55.2 | 11.7 | | 969 |
| 547 | 35.2 | 31.0 | 39.6 | 8.6 | | 941 |
| 548 | 29.7 | 25.8 | 33.8 | 8.0 | | 1,081 |
| 549 | 20.3 | 17.1 | 23.5 | 6.4 | | 1,493 |
| 550 | 5.2 | 3.6 | 6.9 | 3.3 | | 9,257 |
| 551 | 16.1 | 13.1 | 19.2 | 6.1 | | 2,227 |
| 552 | 5.8 | 4.3 | 7.4 | 3.1 | | 6,276 |
| 553 | 46.1 | 40.0 | 51.9 | 11.9 | | 1,119 |
| 554 | 62.7 | 50.3 | 73.0 | 22.7 | | 1,320 |
| 555 | 19.2 | 15.9 | 22.8 | 6.9 | | 4,167 |
| 556 | 11.5 | 9.0 | 14.1 | 5.1 | | 5,457 |
| 557 | 1.0 | 0.7 | 1.4 | 0.6 | | 7,985 |
| 558 | 131.1 | 117.4 | 144.3 | 26.9 | | 1,594 |
| 559 | 19.3 | 16.1 | 22.6 | 6.5 | | 2,414 |
| 560 | 17.5 | 14.4 | 20.8 | 6.4 | | 2,584 |
| 561 | 15.7 | 12.5 | 18.9 | 6.4 | | 2,884 |
| 562 | 5.9 | 4.7 | 7.1 | 2.4 | | 3,850 |
| 563 | 1.6 | 1.2 | 2.1 | 0.9 | | 6,828 |
| 564 | 1.6 | 1.2 | 2.1 | 0.9 | | 7,244 |
| 565 | 115.9 | 102.4 | 129.8 | 27.4 | | 1,116 |
| 566 | 84.4 | 76.8 | 92.5 | 15.7 | | 602 |
| 567 | 69.7 | 63.9 | 75.5 | 11.6 | | 397 |
| 568 | 62.5 | 57.3 | 67.8 | 10.5 | | 391 |
| 569 | 55.4 | 50.7 | 60.6 | 9.9 | | 446 |
| 570 | 47.9 | 43.5 | 52.6 | 9.1 | | 517 |
| 571 | 42.0 | 37.8 | 46.4 | 8.6 | | 583 |
| 572 | 34.9 | 30.9 | 39.1 | 8.2 | | 750 |
| 573 | 27.0 | 23.0 | 31.0 | 8.0 | | 1,191 |
| 574 | 12.3 | 9.5 | 15.1 | 5.6 | | 3,727 |
| 575 | 36.6 | 32.1 | 41.2 | 9.1 | | 801 |
| 576 | 31.1 | 25.0 | 37.2 | 12.2 | | 2,835 |
| 577 | 37.9 | 31.0 | 45.1 | 14.1 | | 2,397 |
| 578 | 49.3 | 41.9 | 56.6 | 14.7 | | 1,186 |
| 579 | 318.5 | 316.4 | 321.2 | 4.8 | | 84,920 |
| 580 | 264.2 | 253.7 | 278.4 | 24.7 | | 8,183 |
| 581 | 244.0 | 229.2 | 261.2 | 32.0 | | 7,766 |

Supplementary Table 7. Posterior mean divergence times across 19 leave-one-out sensitivity analyses. Posterior mean divergence times are reported in millions of years before present (Ma). Calibration numbers in the first row (corresponding to Table S5) and node numbers in the second row (corresponding to Figure S2) represent the fossil calibrations that were excluded in each replicate analysis.

| CalIBRATION | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| NODE | 293 | 579 | 294 | 295 | 558 | 296 | 522 | 298 | 519 | 520 | 510 | 511 | 512 | 299 | 300 | 503 | 303 | 368 | 525 |
| 292 | 430.6 | 430.2 | 430.6 | 431.1 | 430.2 | 430.7 | 430.5 | 430.5 | 430.5 | 430.4 | 430.6 | 430.7 | 430.5 | 430.5 | 430.6 | 430.6 | 430.6 | 430.4 | 430.7 |
| 293 | 368.0 | 344.5 | 349.8 | 350.6 | 349.7 | 349.9 | 349.8 | 349.8 | 349.8 | 349.8 | 349.9 | 349.8 | 349.8 | 349.9 | 349.9 | 349.8 | 349.9 | 349.8 | 349.9 |
| 294 | 297.3 | 294.2 | 294.9 | 317.2 | 294.4 | 295.0 | 295.0 | 294.6 | 294.9 | 294.7 | 295.1 | 295.1 | 294.8 | 295.0 | 295.1 | 294.9 | 294.8 | 294.7 | 295.2 |
| 295 | 272.6 | 272.3 | 272.3 | 299.5 | 272.1 | 272.4 | 272.3 | 272.2 | 272.3 | 272.3 | 272.4 | 272.3 | 272.2 | 272.3 | 272.4 | 272.3 | 272.3 | 272.2 | 272.4 |
| 296 | 214.2 | 213.7 | 213.6 | 225.8 | 210.8 | 214.9 | 213.6 | 212.0 | 213.3 | 212.4 | 214.5 | 214.1 | 212.9 | 213.3 | 215.0 | 213.1 | 212.9 | 211.3 | 214.3 |
| 297 | 199.2 | 198.7 | 198.6 | 209.1 | 195.9 | 199.7 | 198.6 | 197.1 | 198.4 | 197.4 | 199.5 | 199.1 | 197.9 | 198.2 | 200.0 | 198.1 | 198.0 | 196.4 | 199.3 |
| 298 | 188.2 | 187.6 | 187.6 | 197.0 | 184.9 | 188.6 | 187.7 | 186.1 | 187.3 | 186.4 | 188.5 | 188.1 | 186.9 | 187.1 | 189.0 | 187.1 | 187.0 | 185.4 | 188.2 |
| 299 | 177.8 | 177.3 | 177.3 | 185.8 | 174.7 | 178.1 | 177.4 | 176.1 | 177.0 | 176.2 | 178.1 | 177.7 | 176.6 | 176.8 | 178.7 | 176.9 | 176.7 | 175.2 | 177.9 |
| 300 | 146.6 | 145.8 | 145.9 | 150.2 | 143.8 | 146.7 | 146.2 | 144.7 | 145.8 | 145.0 | 146.1 | 146.4 | 145.2 | 145.8 | 147.7 | 145.7 | 145.4 | 144.2 | 146.7 |
| 301 | 134.7 | 133.8 | 133.9 | 138.0 | 131.9 | 134.7 | 134.3 | 132.7 | 133.8 | 132.9 | 134.2 | 134.3 | 133.1 | 133.9 | 135.5 | 133.7 | 133.4 | 132.1 | 134.8 |
| 302 | 128.7 | 127.8 | 127.9 | 131.8 | 126.0 | 128.6 | 128.2 | 126.7 | 127.8 | 126.9 | 128.2 | 128.3 | 127.1 | 127.9 | 129.4 | 127.7 | 127.5 | 126.2 | 128.7 |
| 303 | 105.6 | 104.6 | 104.8 | 108.2 | 102.9 | 105.6 | 105.0 | 103.7 | 104.7 | 103.7 | 105.3 | 105.3 | 103.8 | 104.9 | 105.9 | 104.9 | 104.7 | 103.2 | 105.7 |
| 304 | 101.6 | 100.6 | 100.8 | 104.1 | 99.0 | 101.6 | 101.0 | 99.7 | 100.7 | 99.7 | 101.3 | 101.3 | 99.8 | 100.9 | 101.8 | 100.9 | 100.7 | 99.3 | 101.7 |
| 305 | 65.2 | 64.2 | 64.4 | 67.3 | 63.2 | 65.4 | 64.6 | 64.0 | 64.5 | 63.9 | 65.2 | 65.3 | 64.1 | 64.7 | 65.2 | 64.6 | 64.3 | 63.2 | 65.6 |
| 306 | 63.6 | 62.6 | 62.8 | 65.6 | 61.6 | 63.7 | 62.9 | 62.4 | 62.9 | 62.3 | 63.6 | 63.6 | 62.5 | 63.1 | 63.6 | 63.0 | 62.6 | 61.6 | 63.9 |
| 307 | 62.7 | 61.7 | 61.9 | 64.7 | 60.7 | 62.8 | 62.0 | 61.5 | 62.0 | 61.4 | 62.7 | 62.7 | 61.6 | 62.2 | 62.7 | 62.1 | 61.8 | 60.7 | 63.0 |
| 308 | 60.2 | 59.3 | 59.4 | 62.2 | 58.3 | 60.3 | 59.6 | 59.0 | 59.5 | 59.0 | 60.2 | 60.2 | 59.2 | 59.7 | 60.2 | 59.6 | 59.3 | 58.3 | 60.5 |
| 309 | 55.5 | 54.7 | 54.8 | 57.3 | 53.8 | 55.6 | 55.0 | 54.4 | 54.9 | 54.4 | 55.5 | 55.6 | 54.6 | 55.1 | 55.5 | 55.0 | 54.7 | 53.8 | 55.8 |
| 310 | 46.0 | 45.2 | 45.3 | 47.5 | 44.5 | 46.0 | 45.6 | 45.1 | 45.4 | 45.2 | 45.8 | 46.1 | 45.2 | 45.6 | 45.9 | 45.6 | 45.3 | 44.6 | 46.2 |
| 311 | 32.2 | 31.7 | 31.7 | 33.3 | 31.1 | 32.3 | 31.9 | 31.6 | 31.9 | 31.7 | 32.1 | 32.4 | 31.8 | 31.9 | 32.2 | 32.0 | 31.8 | 31.4 | 32.3 |
| 312 | 30.5 | 29.9 | 30.0 | 31.5 | 29.4 | 30.5 | 30.2 | 29.9 | 30.2 | 30.0 | 30.3 | 30.6 | 30.0 | 30.2 | 30.4 | 30.3 | 30.1 | 29.7 | 30.6 |
| 313 | 28.5 | 27.9 | 28.0 | 29.4 | 27.4 | 28.5 | 28.2 | 27.9 | 28.2 | 28.0 | 28.3 | 28.6 | 28.0 | 28.2 | 28.4 | 28.3 | 28.1 | 27.7 | 28.6 |
| 314 | 26.6 | 26.1 | 26.2 | 27.6 | 25.7 | 26.7 | 26.4 | 26.1 | 26.4 | 26.3 | 26.5 | 26.8 | 26.3 | 26.4 | 26.6 | 26.5 | 26.3 | 25.9 | 26.7 |
| 315 | 25.2 | 24.7 | 24.8 | 26.1 | 24.3 | 25.2 | 25.0 | 24.7 | 25.0 | 24.9 | 25.1 | 25.3 | 24.8 | 25.0 | 25.1 | 25.1 | 24.9 | 24.6 | 25.3 |
| 316 | 15.8 | 15.6 | 15.6 | 16.5 | 15.3 | 15.9 | 15.7 | 15.6 | 15.8 | 15.7 | 15.8 | 16.1 | 15.7 | 15.7 | 15.9 | 15.8 | 15.7 | 15.5 | 15.9 |
| 317 | 27.4 | 26.9 | 27.0 | 28.4 | 26.4 | 27.4 | 27.2 | 26.9 | 27.2 | 27.0 | 27.3 | 27.5 | 27.0 | 27.2 | 27.4 | 27.3 | 27.1 | 26.7 | 27.5 |
| 318 | 23.2 | 22.8 | 22.9 | 24.0 | 22.4 | 23.3 | 23.1 | 22.8 | 23.0 | 22.9 | 23.1 | 23.3 | 22.9 | 23.0 | 23.2 | 23.1 | 23.0 | 22.6 | 23.3 |
| 319 | 6.1 | 6.0 | 6.0 | 6.3 | 5.9 | 6.1 | 6.1 | 6.0 | 6.1 | 6.0 | 6.1 | 6.1 | 6.0 | 6.1 | 6.1 | 6.1 | 6.0 | 6.0 | 6.1 |
| 320 | 22.9 | 22.4 | 22.5 | 23.7 | 22.1 | 22.9 | 22.7 | 22.5 | 22.6 | 22.6 | 22.8 | 22.9 | 22.6 | 22.7 | 22.9 | 22.8 | 22.6 | 22.3 | 23.0 |
| 321 | 45.0 | 44.4 | 44.5 | 46.5 | 43.7 | 45.1 | 44.7 | 44.2 | 44.6 | 44.2 | 45.0 | 45.2 | 44.4 | 44.8 | 45.1 | 44.6 | 44.5 | 43.7 | 45.2 |
| 322 | 40.7 | 40.2 | 40.2 | 42.1 | 39.5 | 40.8 | 40.5 | 39.9 | 40.4 | 40.0 | 40.8 | 40.9 | 40.1 | 40.6 | 40.8 | 40.4 | 40.2 | 39.6 | 40.9 |
| 323 | 29.8 | 29.6 | 29.5 | 30.8 | 29.0 | 29.9 | 29.8 | 29.2 | 29.6 | 29.5 | 29.9 | 30.1 | 29.5 | 29.8 | 30.0 | 29.7 | 29.5 | 29.0 | 30.0 |
| 324 | 22.3 | 22.2 | 22.1 | 23.1 | 21.8 | 22.4 | 22.3 | 21.9 | 22.2 | 22.1 | 22.4 | 22.6 | 22.1 | 22.4 | 22.4 | 22.3 | 22.2 | 21.8 | 22.5 |
| 325 | 23.0 | 22.8 | 22.6 | 23.7 | 22.3 | 23.0 | 22.9 | 22.5 | 22.8 | 22.7 | 23.0 | 23.1 | 22.7 | 23.0 | 23.1 | 22.9 | 22.7 | 22.3 | 23.1 |
| 326 | 14.8 | 14.7 | 14.7 | 15.3 | 14.4 | 14.9 | 14.8 | 14.5 | 14.7 | 14.6 | 14.9 | 14.9 | 14.6 | 14.8 | 14.8 | 14.8 | 14.6 | 14.5 | 15.0 |
| 327 | 38.8 | 38.4 | 38.4 | 39.9 | 37.6 | 38.9 | 38.5 | 38.0 | 38.3 | 38.0 | 38.6 | 38.6 | 38.1 | 38.4 | 38.8 | 38.4 | 38.2 | 37.7 | 38.9 |
| 328 | 30.5 | 30.3 | 30.2 | 31.4 | 29.6 | 30.6 | 30.3 | 29.9 | 30.2 | 29.9 | 30.4 | 30.4 | 29.9 | 30.3 | 30.6 | 30.3 | 30.1 | 29.7 | 30.6 |
| 329 | 26.9 | 26.8 | 26.7 | 27.7 | 26.2 | 27.0 | 26.8 | 26.5 | 26.7 | 26.5 | 26.9 | 26.9 | 26.5 | 26.8 | 27.0 | 26.7 | 26.6 | 26.3 | 27.0 |
| 330 | 24.6 | 24.5 | 24.5 | 25.4 | 23.9 | 24.7 | 24.5 | 24.2 | 24.4 | 24.2 | 24.6 | 24.6 | 24.2 | 24.5 | 24.7 | 24.5 | 24.3 | 24.0 | 24.7 |
| 331 | 22.1 | 21.9 | 21.9 | 22.7 | 21.5 | 22.2 | 22.0 | 21.7 | 21.9 | 21.7 | 22.1 | 22.0 | 21.7 | 22.0 | 22.1 | 21.9 | 21.8 | 21.5 | 22.2 |
| 332 | 20.1 | 20.0 | 20.0 | 20.7 | 19.6 | 20.2 | 20.0 | 19.8 | 19.9 | 19.8 | 20.1 | 20.1 | 19.8 | 20.0 | 20.2 | 20.0 | 19.9 | 19.7 | 20.2 |
| 333 | 16.9 | 16.8 | 16.8 | 17.4 | 16.5 | 17.0 | 16.8 | 16.6 | 16.8 | 16.6 | 16.9 | 16.9 | 16.6 | 16.8 | 17.0 | 16.8 | 16.7 | 16.5 | 17.0 |
| 334 | 13.7 | 13.6 | 13.7 | 14.1 | 13.4 | 13.8 | 13.7 | 13.5 | 13.6 | 13.5 | 13.7 | 13.7 | 13.5 | 13.7 | 13.8 | 13.6 | 13.5 | 13.4 | 13.8 |
| 335 | 6.1 | 6.1 | 6.1 | 6.3 | 5.9 | 6.1 | 6.1 | 6.0 | 6.0 | 6.0 | 6.1 | 6.1 | 6.0 | 6.1 | 6.1 | 6.1 | 6.0 | 6.0 | 6.1 |
| 336 | 17.8 | 17.7 | 17.7 | 18.3 | 17.3 | 17.9 | 17.7 | 17.5 | 17.6 | 17.5 | 17.8 | 17.7 | 17.4 | 17.7 | 17.8 | 17.7 | 17.5 | 17.4 | 17.9 |
| 337 | 19.7 | 19.6 | 19.6 | 20.3 | 19.2 | 19.8 | 19.6 | 19.3 | 19.5 | 19.3 | 19.7 | 19.7 | 19.3 | 19.6 | 19.8 | 19.6 | 19.4 | 19.2 | 19.8 |
| 338 | 8.6 | 8.5 | 8.5 | 8.9 | 8.4 | 8.6 | 8.5 | 8.5 | 8.5 | 8.5 | 8.6 | 8.6 | 8.5 | 8.5 | 8.6 | 8.6 | 8.5 | 8.4 | 8.6 |
| 339 | 4.1 | 4.1 | 4.1 | 4.3 | 4.0 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.0 | 4.1 |
| 340 | 5.7 | 5.7 | 5.7 | 5.9 | 5.6 | 5.7 | 5.7 | 5.6 | 5.7 | 5.7 | 5.7 | 5.8 | 5.7 | 5.7 | 5.7 | 5.7 | 5.7 | 5.6 | 5.8 |
| 341 | 48.1 | 47.6 | 47.5 | 49.8 | 46.7 | 48.1 | 47.7 | 47.3 | 47.6 | 47.3 | 48.1 | 48.0 | 47.4 | 47.7 | 48.2 | 47.9 | 47.4 | 46.8 | 48.4 |
| 342 | 42.3 | 41.8 | 41.8 | 43.8 | 41.0 | 42.3 | 42.0 | 41.6 | 41.8 | 41.6 | 42.4 | 42.2 | 41.7 | 41.9 | 42.4 | 42.1 | 41.6 | 41.2 | 42.6 |
| 343 | 40.6 | 40.1 | 40.1 | 42.0 | 39.3 | 40.6 | 40.3 | 39.9 | 40.1 | 40.0 | 40.6 | 40.5 | 40.0 | 40.2 | 40.7 | 40.4 | 40.0 | 39.5 | 40.9 |
| 344 | 18.3 | 18.1 | 18.1 | 18.8 | 17.8 | 18.4 | 18.2 | 18.0 | 18.0 | 17.9 | 18.4 | 18.2 | 18.0 | 18.1 | 18.3 | 18.2 | 18.0 | 17.7 | 18.3 |
| 345 | 13.2 | 13.1 | 13.1 | 13.6 | 12.9 | 13.3 | 13.2 | 13.0 | 13.0 | 13.0 | 13.3 | 13.2 | 13.0 | 13.1 | 13.2 | 13.2 | 13.1 | 12.8 | 13.3 |
| 346 | 2.5 | 2.5 | 2.5 | 2.6 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 | 2.5 |
| 347 | 21.0 | 20.7 | 20.6 | 21.6 | 20.3 | 20.9 | 20.7 | 20.5 | 20.6 | 20.5 | 20.9 | 20.9 | 20.5 | 20.7 | 20.8 | 20.8 | 20.6 | 20.3 | 21.0 |
| 348 | 27.3 | 27.1 | 27.1 | 28.3 | 26.5 | 27.5 | 27.2 | 26.9 | 27.1 | 27.0 | 27.4 | 27.3 | 27.0 | 27.2 | 27.5 | 27.3 | 27.0 | 26.6 | 27.6 |
| 349 | 18.0 | 17.9 | 17.8 | 18.6 | 17.4 | 18.1 | 17.9 | 17.7 | 17.9 | 17.7 | 18.0 | 18.0 | 17.8 | 17.9 | 18.1 | 18.0 | 17.8 | 17.5 | 18.2 |
| 350 | 34.9 | 34.6 | 34.6 | 36.4 | 34.0 | 35.1 | 34.8 | 34.5 | 34.7 | 34.5 | 35.0 | 35.0 | 34.6 | 34.7 | 35.0 | 34.9 | 34.5 | 34.1 | 35.2 |
| 351 | 61.5 | 60.6 | 60.7 | 63.5 | 59.6 | 61.7 | 60.9 | 60.3 | 60.8 | 60.2 | 61.5 | 61.6 | 60.5 | 61.0 | 61.5 | 60.9 | 60.6 | 59.6 | 61.8 |
| 352 | 15.7 | 15.5 | 15.5 | 16.1 | 15.2 | 15.7 | 15.6 | 15.4 | 15.5 | 15.5 | 15.7 | 15.6 | 15.5 | 15.6 | 15.7 | 15.5 | 15.5 | 15.4 | 15.7 |
| 353 | 14.3 | 14.1 | 14.1 | 14.7 | 13.9 | 14.3 | 14.2 | 14.0 | 14.1 | 14.1 | 14.3 | 14.2 | 14.1 | 14.2 | 14.3 | 14.1 | 14.1 | 14.0 | 14.2 |
| 354 | 14.1 | 13.9 | 13.9 | 14.5 | 13.7 | 14.1 | 14.0 | 13.8 | 13.9 | 13.9 | 14.1 | 14.0 | 13.9 | 13.9 | 14.1 | 13.9 | 13.9 | 13.8 | 14.0 |
| 355 | 64.2 | 63.2 | 63.4 | 66.3 | 62.2 | 64.4 | 63.6 | 63.0 | 63.5 | 62.9 | 64.2 | 64.3 | 63.2 | 63.7 | 64.2 | 63.6 | 63.3 | 62.2 | 64.6 |
| 356 | 62.6 | 61.6 | 61.8 | 64.6 | 60.6 | 62.7 | 61.9 | 61.4 | 61.9 | 61.3 | 62.6 | 62.6 | 61.5 | 62.1 | 62.5 | 62.0 | 61.6 | 60.6 | 62.9 |
| 357 | 50.8 | 50.1 | 50.2 | 52.3 | 49.4 | 50.9 | 50.5 | 49.9 | 50.3 | 49.8 | 50.9 | 50.8 | 50.1 | 50.6 | 50.9 | 50.4 | 50.2 | 49.4 | 51.0 |
| 358 | 41.6 | 41.1 | 41.2 | 42.9 | 40.5 | 41.7 | 41.4 | 40.9 | 41.2 | 40.8 | 41.8 | 41.7 | 41.1 | 41.5 | 41.8 | 41.4 | 41.1 | 40.6 | 41.7 |
| 359 | 33.6 | 33.2 | 33.3 | 34.7 | 32.8 | 33.7 | 33.5 | 33.1 | 33.3 | 33.0 | 33.8 | 33.7 | 33.2 | 33.5 | 33.8 | 33.5 | 33.3 | 32.8 | 33.7 |
| 360 | 29.1 | 28.8 | 28.9 | 30.0 | 28.4 | 29.2 | 29.0 | 28.7 | 28.9 | 28.6 | 29.3 | 29.2 | 28.8 | 29.0 | 29.3 | 29.0 | 28.8 | 28.4 | 29.2 |
| 361 | 12.1 | 12.0 | 12.0 | 12.4 | 11.7 | 12.1 | 12.0 | 11.9 | 12.0 | 11.9 | 12.1 | 12.1 | 12.0 | 12.1 | 12.2 | 12.1 | 12.0 | 11.8 | 12.1 |
| 362 | 14.6 | 14.5 | 14.5 | 15.0 | 14.2 | 14.6 | 14.6 | 14.4 | 14.5 | 14.4 | 14.7 | 14.6 | 14.5 | 14.6 | 14.7 | 14.6 | 14.5 | 14.3 | 14.6 |
| 363 | 17.8 | 17.5 | 17.6 | 18.4 | 17.3 | 17.8 | 17.7 | 17.5 | 17.7 | 17.4 | 17.9 | 17.8 | 17.5 | 17.7 | 17.8 | 17.7 | 17.6 | 17.4 | 17.8 |
| 364 | 21.3 | 21.0 | 21.0 | 21.9 | 20.6 | 21.4 | 21.1 | 20.9 | 21.2 | 20.9 | 21.3 | 21.4 | 21.0 | 21.2 | 21.4 | 21.1 | 21.0 | 20.8 | 21.3 |
| 365 | 59.3 | 58.3 | 58.5 | 61.2 | 57.5 | 59.5 | 58.7 | 58.1 | 58.6 | 58.0 | 59.3 | 59.4 | 58.3 | 58.8 | 59.3 | 58.7 | 58.4 | 57.4 | 59.6 |
| 366 | 23.9 | 23.6 | 23.6 | 24.7 | 23.5 | 24.0 | 23.8 | 23.5 | 23.7 | 23.6 | 24.0 | 23.9 | 23.6 | 23.7 | 23.9 | 23.6 | 23.7 | 23.3 | 24.1 |
| 367 | 62.7 | 61.8 | 61.9 | 64.7 | 60.8 | 62.9 | 62.1 | 61.5 | 62.0 | 61.4 | 62.7 | 62.8 | 61.7 | 62.2 | 62.7 | 62.1 | 61.8 | 60.8 | 63.0 |
| 368 | 59.8 | 58.8 | 59.0 | 61.6 | 57.9 | 59.9 | 59.1 | 58.6 | 59.1 | 58.5 | 59.7 | 59.8 | 58.8 | 59.3 | 59.7 | 59.2 | 58.8 | 57.9 | 60.0 |
| 369 | 41.7 | 41.0 | 41.1 | 43.0 | 40.3 | 41.7 | 41.1 | 40.8 | 41.1 | 40.8 | 41.6 | 41.8 | 40.9 | 41.3 | 41.6 | 41.2 | 41.2 | 40.4 | 41.8 |
| 370 | 11.2 | 11.1 | 11.1 | 11.6 | 10.9 | 11.3 | 11.2 | 11.0 | 11.1 | 11.0 | 11.2 | 11.3 | 11.1 | 11.2 | 11.2 | 11.2 | 11.1 | 10.9 | 11.3 |
| 371 | 20.5 | 20.2 | 20.2 | 21.1 | 20.0 | 20.5 | 20.4 | 20.1 | 20.2 | 20.2 | 20.5 | 20.4 | 20.2 | 20.4 | 20.4 | 20.3 | 20.2 | 19.9 | 20.6 |
| 372 | 87.0 | 86.1 | 86.2 | 89.1 | 84.7 | 87.0 | 86.4 | 85.3 | 86.2 | 85.3 | 86.8 | 86.7 | 85.5 | 86.4 | 87.2 | 86.3 | 86.1 | 85.0 | 87.0 |
| 373 | 67.9 | 67.1 | 67.2 | 69.5 | 66.0 | 67.9 | 67.5 | 66.5 | 67.2 | 66.6 | 67.8 | 67.9 | 66.6 | 67.6 | 68.0 | 67.3 | 67.1 | 66.3 | 67.8 |
| 374 | 50.8 | 50.2 | 50.2 | 52.1 | 49.5 | 51.0 | 50.8 | 49.8 | 50.6 | 50.0 | 50.9 | 51.2 | 50.0 | 51.0 | 50.8 | 50.6 | 50.2 | 49.8 | 50.9 |
| 375 | 49.3 | 48.6 | 48.7 | 50.5 | 48.0 | 49.4 | 49.3 | 48.3 | 49.0 | 48.4 | 49.3 | 49.6 | 48.5 | 49.4 | 49.2 | 49.0 | 48.7 | 48.2 | 49.3 |
| 376 | 47.5 | 46.9 | 46.9 | 48.7 | 46.2 | 47.6 | 47.5 | 46.5 | 47.3 | 46.7 | 47.5 | 47.9 | 46.7 | 47.6 | 47.5 | 47.2 | 46.9 | 46.5 | 47.5 |
| 377 | 22.9 | 22.7 | 22.5 | 23.6 | 22.3 | 23.0 | 22.7 | 22.5 | 22.8 | 22.5 | 22.9 | 23.0 | 22.5 | 22.9 | 23.0 | 22.6 | 22.6 | 22.4 | 23.0 |
| 378 | 14.3 | 14.1 | 13.9 | 14.6 | 13.8 | 14.3 | 14.1 | 14.0 | 14.2 | 14.0 | 14.2 | 14.4 | 14.0 | 14.3 | 14.3 | 14.0 | 14.0 | 13.9 | 14.3 |
| 379 | 13.3 | 13.1 | 12.9 | 13.6 | 12.8 | 13.3 | 13.1 | 13.0 | 13.1 | 13.0 | 13.2 | 13.3 | 13.0 | 13.2 | 13.3 | 13.0 | 13.0 | 12.9 | 13.3 |
| 380 | 39.2 | 38.7 | 38.7 | 40.2 | 38.2 | 39.4 | 39.3 | 38.4 | 39.1 | 38.6 | 39.3 | 39.6 | 38.6 | 39.5 | 39.2 | 39.1 | 38.8 | 38.5 | 39.3 |
| 381 | 40.4 | 39.9 | 39.9 | 41.4 | 39.3 | 40.5 | 40.4 | 39.7 | 40.2 | 39.7 | 40.3 | 40.6 | 39.6 | 40.6 | 40.3 | 40.2 | 39.9 | 39.6 | 40.3 |
| 382 | 37.9 | 37.4 | 37.4 | 38.8 | 36.8 | 37.9 | 37.9 | 37.1 | 37.6 | 37.2 | 37.7 | 38.0 | 37.1 | 38.0 | 37.7 | 37.7 | 37.4 | 37.1 | 37.7 |
| 383 | 24.5 | 24.2 | 24.1 | 25.0 | 23.8 | 24.5 | 24.5 | 24.0 | 24.3 | 24.0 | 24.3 | 24.6 | 24.0 | 24.7 | 24.5 | 24.4 | 24.2 | 24.0 | 24.4 |
| 384 | 48.2 | 47.5 | 47.5 | 49.3 | 46.7 | 48.1 | 47.7 | 47.1 | 47.6 | 47.3 | 48.0 | 48.2 | 47.2 | 47.8 | 48.2 | 47.5 | 47.5 | 47.0 | 48.1 |
| 385 | 33.7 | 33.3 | 33.2 | 34.5 | 32.6 | 33.7 | 33.3 | 32.9 | 33.3 | 33.0 | 33.5 | 33.7 | 33.0 | 33.4 | 33.7 | 33.3 | 33.2 | 32.8 | 33.7 |
| 386 | 27.8 | 27.5 | 27.5 | 28.5 | 27.0 | 27.9 | 27.5 | 27.2 | 27.5 | 27.3 | 27.7 | 27.8 | 27.3 | 27.6 | 27.8 | 27.5 | 27.4 | 27.1 | 27.8 |
| 387 | 24.9 | 24.7 | 24.6 | 25.6 | 24.2 | 25.0 | 24.7 | 24.4 | 24.6 | 24.5 | 24.8 | 24.9 | 24.4 | 24.7 | 24.9 | 24.6 | 24.5 | 24.3 | 24.9 |
| 388 | 15.4 | 15.2 | 15.3 | 15.8 | 15.0 | 15.4 | 15.2 | 15.0 | 15.1 | 15.1 | 15.3 | 15.4 | 15.1 | 15.3 | 15.3 | 15.2 | 15.2 | 15.0 | 15.4 |
| 389 | 21.7 | 21.6 | 21.5 | 22.3 | 21.1 | 21.8 | 21.5 | 21.2 | 21.5 | 21.3 | 21.6 | 21.8 | 21.3 | 21.6 | 21.7 | 21.4 | 21.4 | 21.1 | 21.7 |
| 390 | 21.3 | 20.8 | 20.9 | 21.7 | 20.4 | 21.3 | 21.1 | 20.8 | 20.9 | 20.8 | 21.2 | 21.1 | 20.8 | 21.2 | 21.2 | 21.0 | 20.9 | 20.8 | 21.2 |
| 391 | 2.7 | 2.7 | 2.7 | 2.8 | 2.6 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.6 | 2.7 |
| 392 | 61.4 | 60.6 | 60.6 | 63.0 | 59.7 | 61.4 | 60.8 | 60.0 | 60.8 | 60.2 | 61.2 | 61.4 | 60.2 | 61.0 | 61.5 | 60.8 | 60.6 | 59.5 | 61.4 |
| 393 | 37.3 | 36.5 | 36.7 | 38.3 | 36.0 | 37.2 | 36.8 | 36.4 | 36.9 | 36.5 | 37.2 | 37.0 | 36.5 | 37.0 | 37.2 | 36.8 | 36.7 | 36.1 | 37.2 |
| 394 | 21.7 | 21.2 | 21.3 | 22.3 | 21.0 | 21.7 | 21.4 | 21.2 | 21.5 | 21.3 | 21.8 | 21.5 | 21.3 | 21.6 | 21.7 | 21.4 | 21.4 | 21.1 | 21.6 |
| 395 | 32.5 | 32.2 | 32.2 | 33.6 | 31.9 | 32.6 | 32.2 | 31.8 | 32.3 | 32.1 | 32.5 | 32.6 | 32.0 | 32.4 | 32.6 | 32.4 | 32.2 | 31.6 | 32.7 |
| 396 | 70.7 | 69.7 | 69.7 | 72.3 | 68.6 | 70.3 | 70.1 | 68.8 | 69.7 | 69.0 | 70.4 | 70.4 | 68.9 | 70.1 | 70.3 | 69.6 | 69.5 | 68.4 | 70.6 |
| 397 | 70.1 | 69.2 | 69.1 | 71.7 | 68.0 | 69.7 | 69.5 | 68.3 | 69.1 | 68.4 | 69.8 | 69.8 | 68.3 | 69.5 | 69.7 | 69.1 | 68.9 | 67.8 | 70.0 |
| 398 | 68.7 | 67.7 | 67.7 | 70.2 | 66.6 | 68.3 | 68.1 | 66.8 | 67.7 | 67.0 | 68.4 | 68.3 | 66.9 | 68.1 | 68.3 | 67.6 | 67.5 | 66.4 | 68.5 |
| 399 | 63.7 | 62.9 | 62.8 | 65.2 | 61.8 | 63.4 | 63.2 | 62.1 | 62.8 | 62.2 | 63.5 | 63.4 | 62.1 | 63.2 | 63.4 | 62.8 | 62.6 | 61.6 | 63.6 |
| 400 | 27.0 | 26.5 | 26.6 | 27.7 | 26.1 | 27.0 | 26.7 | 26.4 | 26.7 | 26.4 | 27.1 | 27.0 | 26.6 | 26.8 | 27.0 | 26.7 | 26.6 | 26.3 | 26.9 |
| 401 | 25.4 | 25.0 | 25.1 | 26.1 | 24.6 | 25.4 | 25.2 | 24.9 | 25.2 | 24.9 | 25.5 | 25.5 | 25.1 | 25.2 | 25.5 | 25.2 | 25.1 | 24.8 | 25.4 |
| 402 | 24.5 | 24.1 | 24.2 | 25.1 | 23.7 | 24.5 | 24.2 | 23.9 | 24.3 | 24.0 | 24.6 | 24.5 | 24.1 | 24.3 | 24.5 | 24.2 | 24.2 | 23.9 | 24.5 |
| 403 | 20.2 | 19.9 | 19.9 | 20.7 | 19.5 | 20.2 | 20.0 | 19.7 | 20.0 | 19.8 | 20.3 | 20.2 | 19.9 | 20.0 | 20.3 | 20.0 | 20.0 | 19.7 | 20.2 |
| 404 | 15.1 | 14.8 | 14.9 | 15.5 | 14.6 | 15.1 | 14.9 | 14.8 | 15.0 | 14.8 | 15.2 | 15.1 | 14.9 | 14.9 | 15.2 | 14.9 | 14.9 | 14.8 | 15.1 |
| 405 | 23.0 | 22.6 | 22.7 | 23.5 | 22.2 | 23.0 | 22.7 | 22.4 | 22.8 | 22.5 | 23.1 | 23.0 | 22.6 | 22.8 | 23.0 | 22.7 | 22.6 | 22.4 | 22.9 |
| 406 | 24.4 | 24.0 | 24.1 | 25.0 | 23.6 | 24.4 | 24.1 | 23.8 | 24.2 | 23.9 | 24.5 | 24.4 | 24.0 | 24.2 | 24.5 | 24.1 | 24.1 | 23.8 | 24.4 |
| 407 | 20.4 | 20.0 | 20.1 | 20.9 | 19.7 | 20.4 | 20.1 | 19.9 | 20.2 | 19.9 | 20.4 | 20.4 | 20.1 | 20.2 | 20.4 | 20.1 | 20.1 | 19.9 | 20.3 |
| 408 | 21.9 | 21.5 | 21.6 | 22.4 | 21.2 | 21.9 | 21.6 | 21.4 | 21.7 | 21.4 | 22.0 | 21.9 | 21.6 | 21.7 | 21.9 | 21.6 | 21.6 | 21.3 | 21.8 |
| 409 | 22.9 | 22.5 | 22.6 | 23.5 | 22.2 | 22.9 | 22.7 | 22.4 | 22.7 | 22.4 | 23.0 | 22.9 | 22.6 | 22.7 | 22.9 | 22.7 | 22.6 | 22.3 | 22.9 |
| 410 | 17.7 | 17.3 | 17.4 | 18.1 | 17.1 | 17.7 | 17.5 | 17.3 | 17.5 | 17.3 | 17.7 | 17.7 | 17.4 | 17.5 | 17.7 | 17.4 | 17.4 | 17.2 | 17.6 |
| 411 | 61.2 | 60.4 | 60.4 | 62.6 | 59.3 | 60.9 | 60.7 | 59.6 | 60.3 | 59.7 | 61.0 | 60.9 | 59.7 | 60.7 | 60.9 | 60.4 | 60.2 | 59.2 | 61.1 |
| 412 | 56.8 | 56.2 | 56.1 | 58.2 | 55.1 | 56.6 | 56.4 | 55.4 | 56.0 | 55.5 | 56.7 | 56.6 | 55.4 | 56.4 | 56.6 | 56.1 | 55.9 | 55.0 | 56.7 |
| 413 | 52.3 | 51.6 | 51.6 | 53.5 | 50.7 | 52.0 | 51.9 | 50.9 | 51.5 | 51.0 | 52.1 | 52.0 | 50.9 | 51.8 | 52.0 | 51.5 | 51.4 | 50.5 | 52.1 |
| 414 | 38.3 | 37.8 | 37.8 | 39.3 | 37.1 | 38.1 | 38.0 | 37.4 | 37.7 | 37.4 | 38.3 | 38.2 | 37.4 | 37.9 | 38.1 | 37.8 | 37.6 | 37.0 | 38.2 |
| 415 | 19.4 | 19.2 | 19.1 | 19.9 | 18.8 | 19.3 | 19.2 | 19.0 | 19.1 | 18.9 | 19.3 | 19.2 | 19.0 | 19.2 | 19.3 | 19.1 | 19.0 | 18.8 | 19.3 |
| 416 | 16.9 | 16.6 | 16.6 | 17.3 | 16.3 | 16.8 | 16.6 | 16.5 | 16.6 | 16.4 | 16.8 | 16.7 | 16.5 | 16.6 | 16.7 | 16.6 | 16.5 | 16.3 | 16.7 |
| 417 | 52.2 | 51.6 | 51.5 | 53.4 | 50.6 | 52.0 | 51.9 | 50.9 | 51.5 | 51.0 | 52.1 | 52.0 | 50.9 | 51.8 | 52.0 | 51.5 | 51.4 | 50.5 | 52.1 |
| 418 | 34.0 | 33.8 | 33.6 | 34.8 | 33.1 | 34.1 | 33.8 | 33.4 | 33.7 | 33.3 | 34.0 | 33.9 | 33.3 | 33.9 | 33.8 | 33.7 | 33.6 | 33.0 | 34.0 |
| 419 | 30.0 | 29.8 | 29.6 | 30.7 | 29.2 | 30.1 | 29.9 | 29.5 | 29.7 | 29.4 | 30.0 | 29.9 | 29.3 | 29.9 | 29.8 | 29.7 | 29.7 | 29.1 | 30.0 |
| 420 | 2.6 | 2.6 | 2.6 | 2.7 | 2.5 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 |
| 421 | 64.9 | 64.0 | 64.0 | 66.4 | 62.9 | 64.5 | 64.3 | 63.1 | 64.0 | 63.3 | 64.6 | 64.6 | 63.2 | 64.3 | 64.5 | 63.9 | 63.8 | 62.7 | 64.8 |
| 422 | 29.5 | 29.0 | 28.8 | 30.3 | 28.6 | 29.1 | 29.2 | 28.7 | 29.3 | 28.7 | 29.3 | 29.5 | 28.7 | 29.1 | 29.2 | 28.9 | 28.9 | 28.6 | 29.4 |
| 423 | 27.7 | 27.2 | 27.1 | 28.4 | 26.9 | 27.3 | 27.5 | 27.0 | 27.6 | 27.0 | 27.5 | 27.7 | 26.9 | 27.3 | 27.4 | 27.2 | 27.1 | 26.9 | 27.6 |
| 424 | 24.5 | 24.1 | 24.0 | 25.2 | 23.8 | 24.2 | 24.3 | 23.9 | 24.5 | 23.9 | 24.4 | 24.6 | 23.8 | 24.2 | 24.3 | 24.0 | 24.0 | 23.8 | 24.5 |
| 425 | 16.0 | 15.6 | 15.6 | 16.4 | 15.4 | 15.7 | 15.8 | 15.6 | 15.9 | 15.5 | 15.9 | 15.9 | 15.6 | 15.7 | 15.8 | 15.6 | 15.6 | 15.4 | 15.9 |
| 426 | 70.0 | 69.0 | 68.9 | 71.5 | 67.9 | 69.6 | 69.4 | 68.1 | 69.0 | 68.3 | 69.7 | 69.6 | 68.1 | 69.3 | 69.6 | 68.9 | 68.8 | 67.7 | 69.8 |
| 427 | 66.5 | 65.6 | 65.5 | 68.0 | 64.5 | 66.1 | 65.9 | 64.7 | 65.6 | 64.9 | 66.2 | 66.2 | 64.8 | 65.9 | 66.1 | 65.5 | 65.4 | 64.3 | 66.4 |
| 428 | 57.9 | 57.1 | 57.0 | 59.2 | 56.1 | 57.6 | 57.5 | 56.4 | 57.1 | 56.5 | 57.7 | 57.7 | 56.4 | 57.4 | 57.7 | 57.1 | 56.9 | 56.1 | 57.8 |
| 429 | 53.9 | 53.1 | 53.0 | 55.1 | 52.2 | 53.6 | 53.4 | 52.4 | 53.1 | 52.6 | 53.7 | 53.6 | 52.5 | 53.4 | 53.7 | 53.1 | 52.9 | 52.1 | 53.7 |
| 430 | 46.6 | 46.0 | 45.9 | 47.7 | 45.2 | 46.5 | 46.3 | 45.4 | 46.0 | 45.6 | 46.5 | 46.5 | 45.5 | 46.3 | 46.5 | 46.0 | 45.9 | 45.2 | 46.6 |
| 431 | 36.7 | 36.2 | 36.2 | 37.6 | 35.5 | 36.6 | 36.4 | 35.8 | 36.3 | 35.9 | 36.6 | 36.7 | 35.9 | 36.5 | 36.7 | 36.3 | 36.1 | 35.6 | 36.6 |
| 432 | 30.2 | 29.8 | 29.8 | 30.9 | 29.2 | 30.1 | 30.0 | 29.4 | 29.8 | 29.5 | 30.1 | 30.2 | 29.6 | 30.1 | 30.2 | 29.8 | 29.7 | 29.3 | 30.2 |
| 433 | 24.4 | 24.2 | 24.1 | 25.1 | 23.7 | 24.5 | 24.3 | 23.8 | 24.2 | 23.9 | 24.4 | 24.6 | 24.0 | 24.4 | 24.5 | 24.2 | 24.1 | 23.7 | 24.4 |
| 434 | 19.8 | 19.6 | 19.6 | 20.3 | 19.2 | 19.8 | 19.7 | 19.3 | 19.6 | 19.4 | 19.8 | 19.9 | 19.5 | 19.8 | 19.8 | 19.6 | 19.6 | 19.2 | 19.8 |
| 435 | 28.9 | 28.5 | 28.5 | 29.6 | 27.9 | 28.8 | 28.7 | 28.1 | 28.5 | 28.2 | 28.8 | 28.9 | 28.3 | 28.8 | 28.9 | 28.5 | 28.5 | 28.0 | 28.9 |
| 436 | 19.1 | 18.8 | 18.8 | 19.6 | 18.4 | 19.0 | 18.9 | 18.5 | 18.9 | 18.6 | 19.0 | 19.1 | 18.7 | 19.0 | 19.1 | 18.9 | 18.8 | 18.5 | 19.1 |
| 437 | 18.0 | 17.8 | 17.8 | 18.5 | 17.5 | 18.0 | 17.9 | 17.7 | 17.8 | 17.7 | 18.1 | 18.1 | 17.8 | 18.0 | 18.0 | 18.0 | 17.8 | 17.6 | 18.0 |
| 438 | 25.0 | 24.7 | 24.8 | 25.7 | 24.1 | 25.2 | 24.8 | 24.4 | 24.7 | 24.6 | 25.0 | 25.0 | 24.6 | 24.9 | 25.0 | 24.7 | 24.7 | 24.3 | 25.0 |
| 439 | 62.5 | 61.6 | 61.6 | 63.9 | 60.6 | 62.1 | 62.0 | 60.8 | 61.6 | 61.0 | 62.2 | 62.2 | 60.8 | 61.9 | 62.1 | 61.5 | 61.4 | 60.4 | 62.4 |
| 440 | 51.9 | 51.1 | 51.0 | 52.9 | 50.2 | 51.4 | 51.3 | 50.4 | 51.1 | 50.5 | 51.5 | 51.4 | 50.3 | 51.3 | 51.4 | 51.0 | 50.9 | 50.1 | 51.7 |
| 441 | 42.5 | 41.9 | 41.9 | 43.5 | 41.3 | 42.6 | 42.0 | 41.3 | 41.9 | 41.3 | 42.2 | 42.3 | 41.5 | 42.2 | 42.3 | 41.9 | 41.8 | 41.2 | 42.3 |
| 442 | 78.1 | 77.4 | 78.1 | 80.0 | 77.2 | 78.1 | 77.7 | 77.6 | 77.6 | 76.7 | 78.4 | 77.6 | 77.7 | 77.6 | 78.9 | 77.4 | 77.5 | 77.0 | 78.0 |
| 443 | 123.7 | 122.7 | 122.9 | 126.7 | 120.9 | 123.6 | 123.3 | 121.7 | 122.7 | 121.9 | 123.2 | 123.3 | 122.2 | 122.8 | 124.2 | 122.7 | 122.3 | 121.2 | 123.7 |
| 444 | 72.2 | 71.8 | 71.7 | 75.0 | 70.1 | 72.8 | 71.7 | 71.2 | 71.5 | 70.9 | 72.6 | 72.7 | 71.3 | 71.9 | 72.9 | 72.0 | 71.5 | 70.0 | 73.3 |
| 445 | 66.9 | 66.5 | 66.4 | 69.5 | 65.0 | 67.4 | 66.4 | 65.9 | 66.2 | 65.6 | 67.3 | 67.4 | 66.0 | 66.6 | 67.5 | 66.7 | 66.2 | 64.8 | 67.9 |
| 446 | 65.0 | 64.6 | 64.6 | 67.5 | 63.1 | 65.6 | 64.5 | 64.0 | 64.3 | 63.8 | 65.4 | 65.5 | 64.2 | 64.7 | 65.6 | 64.8 | 64.3 | 63.0 | 66.0 |
| 447 | 64.1 | 63.7 | 63.6 | 66.6 | 62.2 | 64.6 | 63.6 | 63.1 | 63.4 | 62.9 | 64.4 | 64.6 | 63.3 | 63.8 | 64.7 | 63.9 | 63.4 | 62.1 | 65.1 |
| 448 | 62.8 | 62.5 | 62.4 | 65.3 | 61.1 | 63.4 | 62.4 | 61.9 | 62.2 | 61.7 | 63.2 | 63.3 | 62.1 | 62.6 | 63.4 | 62.7 | 62.2 | 60.9 | 63.9 |
| 449 | 61.8 | 61.5 | 61.4 | 64.2 | 60.0 | 62.3 | 61.4 | 60.9 | 61.2 | 60.7 | 62.2 | 62.3 | 61.0 | 61.6 | 62.4 | 61.7 | 61.2 | 59.9 | 62.8 |
| 450 | 60.0 | 59.7 | 59.7 | 62.4 | 58.3 | 60.6 | 59.6 | 59.2 | 59.4 | 58.9 | 60.4 | 60.5 | 59.3 | 59.8 | 60.6 | 59.9 | 59.4 | 58.2 | 61.1 |
| 451 | 58.4 | 58.1 | 58.0 | 60.7 | 56.7 | 58.9 | 58.0 | 57.5 | 57.8 | 57.3 | 58.7 | 58.9 | 57.7 | 58.2 | 59.0 | 58.3 | 57.8 | 56.5 | 59.4 |
| 452 | 48.3 | 48.0 | 47.9 | 50.1 | 46.9 | 48.6 | 47.9 | 47.5 | 47.8 | 47.4 | 48.5 | 48.6 | 47.6 | 48.0 | 48.6 | 48.1 | 47.7 | 46.8 | 49.0 |
| 453 | 37.7 | 37.3 | 37.2 | 38.9 | 36.5 | 37.7 | 37.2 | 36.9 | 37.2 | 36.8 | 37.6 | 37.8 | 36.9 | 37.3 | 37.7 | 37.3 | 37.0 | 36.4 | 38.0 |
| 454 | 24.4 | 24.0 | 24.0 | 25.1 | 23.5 | 24.2 | 24.1 | 23.8 | 24.1 | 23.8 | 24.2 | 24.4 | 23.8 | 24.0 | 24.2 | 23.9 | 23.9 | 23.6 | 24.3 |
| 455 | 21.3 | 20.9 | 20.9 | 21.8 | 20.5 | 21.0 | 21.0 | 20.7 | 21.0 | 20.7 | 21.0 | 21.3 | 20.7 | 20.9 | 21.0 | 20.8 | 20.8 | 20.6 | 21.2 |
| 456 | 20.9 | 20.5 | 20.4 | 21.4 | 20.0 | 20.6 | 20.6 | 20.3 | 20.5 | 20.3 | 20.6 | 20.9 | 20.3 | 20.4 | 20.6 | 20.4 | 20.3 | 20.1 | 20.7 |
| 457 | 18.9 | 18.6 | 18.5 | 19.4 | 18.2 | 18.7 | 18.7 | 18.4 | 18.6 | 18.4 | 18.7 | 19.0 | 18.4 | 18.5 | 18.7 | 18.5 | 18.5 | 18.3 | 18.8 |
| 458 | 18.1 | 17.8 | 17.7 | 18.6 | 17.4 | 17.9 | 17.9 | 17.6 | 17.8 | 17.6 | 17.9 | 18.1 | 17.6 | 17.7 | 17.8 | 17.7 | 17.7 | 17.5 | 18.0 |
| 459 | 23.3 | 22.8 | 22.8 | 23.8 | 22.4 | 23.0 | 23.0 | 22.6 | 22.9 | 22.7 | 23.0 | 23.3 | 22.6 | 22.8 | 23.0 | 22.7 | 22.7 | 22.5 | 23.1 |
| 460 | 19.6 | 19.2 | 19.2 | 20.1 | 18.8 | 19.4 | 19.4 | 19.0 | 19.3 | 19.1 | 19.4 | 19.6 | 19.0 | 19.2 | 19.3 | 19.1 | 19.1 | 18.9 | 19.5 |
| 461 | 58.4 | 58.1 | 58.1 | 60.8 | 56.8 | 59.0 | 58.0 | 57.6 | 57.8 | 57.4 | 58.8 | 58.9 | 57.7 | 58.2 | 59.0 | 58.4 | 57.8 | 56.6 | 59.5 |
| 462 | 52.9 | 52.7 | 52.6 | 55.1 | 51.5 | 53.5 | 52.6 | 52.2 | 52.4 | 52.0 | 53.3 | 53.4 | 52.3 | 52.8 | 53.5 | 52.9 | 52.4 | 51.3 | 53.9 |
| 463 | 35.8 | 35.7 | 35.6 | 37.2 | 34.8 | 36.2 | 35.7 | 35.4 | 35.4 | 35.2 | 36.1 | 36.1 | 35.4 | 35.7 | 36.2 | 35.7 | 35.4 | 34.7 | 36.4 |
| 464 | 36.5 | 36.2 | 36.1 | 37.9 | 35.5 | 36.9 | 36.2 | 35.9 | 36.1 | 35.7 | 36.8 | 36.8 | 36.1 | 36.3 | 36.8 | 36.5 | 36.2 | 35.4 | 37.2 |
| 465 | 23.2 | 22.9 | 23.0 | 24.0 | 22.6 | 23.3 | 23.0 | 22.7 | 23.0 | 22.8 | 23.1 | 23.2 | 22.9 | 23.1 | 23.4 | 23.2 | 22.8 | 22.5 | 23.4 |
| 466 | 12.6 | 12.4 | 12.4 | 13.0 | 12.3 | 12.6 | 12.5 | 12.3 | 12.4 | 12.4 | 12.5 | 12.6 | 12.4 | 12.5 | 12.6 | 12.5 | 12.4 | 12.2 | 12.6 |
| 467 | 54.4 | 54.1 | 54.1 | 56.5 | 52.8 | 54.8 | 54.1 | 53.6 | 53.8 | 53.4 | 54.6 | 54.8 | 53.8 | 54.2 | 54.9 | 54.3 | 53.8 | 52.8 | 55.2 |
| 468 | 47.2 | 47.0 | 46.9 | 49.0 | 45.8 | 47.5 | 46.9 | 46.4 | 46.6 | 46.3 | 47.3 | 47.4 | 46.6 | 47.0 | 47.6 | 47.0 | 46.7 | 45.8 | 47.8 |
| 469 | 45.8 | 45.6 | 45.5 | 47.6 | 44.5 | 46.1 | 45.6 | 45.1 | 45.2 | 44.9 | 45.9 | 46.0 | 45.2 | 45.6 | 46.2 | 45.6 | 45.3 | 44.4 | 46.4 |
| 470 | 43.7 | 43.6 | 43.4 | 45.4 | 42.5 | 44.0 | 43.5 | 43.0 | 43.2 | 42.9 | 43.9 | 44.0 | 43.2 | 43.6 | 44.1 | 43.6 | 43.3 | 42.4 | 44.3 |
| 471 | 40.6 | 40.5 | 40.3 | 42.2 | 39.4 | 40.9 | 40.4 | 40.0 | 40.1 | 39.8 | 40.7 | 40.8 | 40.1 | 40.5 | 41.0 | 40.5 | 40.2 | 39.3 | 41.2 |
| 472 | 28.7 | 28.5 | 28.4 | 29.7 | 27.8 | 28.7 | 28.6 | 28.2 | 28.3 | 28.1 | 28.7 | 28.7 | 28.4 | 28.5 | 28.8 | 28.5 | 28.3 | 27.8 | 29.0 |
| 473 | 38.2 | 37.8 | 37.8 | 39.4 | 37.1 | 38.3 | 37.8 | 37.5 | 37.7 | 37.4 | 38.2 | 38.3 | 37.6 | 38.0 | 38.3 | 37.9 | 37.6 | 37.0 | 38.5 |
| 474 | 30.4 | 30.1 | 30.1 | 31.4 | 29.6 | 30.4 | 30.1 | 29.9 | 30.0 | 29.8 | 30.4 | 30.4 | 29.9 | 30.2 | 30.5 | 30.2 | 30.0 | 29.4 | 30.7 |
| 475 | 14.7 | 14.6 | 14.6 | 15.2 | 14.4 | 14.8 | 14.6 | 14.5 | 14.6 | 14.5 | 14.7 | 14.8 | 14.5 | 14.6 | 14.8 | 14.7 | 14.5 | 14.3 | 14.8 |
| 476 | 10.4 | 10.4 | 10.3 | 10.8 | 10.2 | 10.5 | 10.4 | 10.3 | 10.3 | 10.3 | 10.5 | 10.5 | 10.3 | 10.4 | 10.6 | 10.4 | 10.3 | 10.2 | 10.6 |
| 477 | 25.7 | 25.4 | 25.4 | 26.4 | 24.9 | 25.7 | 25.4 | 25.2 | 25.3 | 25.0 | 25.6 | 25.7 | 25.2 | 25.5 | 25.7 | 25.4 | 25.1 | 24.7 | 25.9 |
| 478 | 62.6 | 62.3 | 62.2 | 65.1 | 60.8 | 63.2 | 62.2 | 61.7 | 62.0 | 61.4 | 63.0 | 63.1 | 61.8 | 62.4 | 63.2 | 62.5 | 62.0 | 60.7 | 63.6 |
| 479 | 61.8 | 61.4 | 61.4 | 64.2 | 60.0 | 62.3 | 61.3 | 60.9 | 61.1 | 60.6 | 62.2 | 62.3 | 61.0 | 61.5 | 62.4 | 61.7 | 61.2 | 59.9 | 62.8 |
| 480 | 58.8 | 58.5 | 58.4 | 61.1 | 57.1 | 59.4 | 58.4 | 57.9 | 58.2 | 57.7 | 59.2 | 59.3 | 58.1 | 58.6 | 59.4 | 58.7 | 58.2 | 57.0 | 59.8 |
| 481 | 50.0 | 49.7 | 49.7 | 51.9 | 48.5 | 50.5 | 49.7 | 49.3 | 49.5 | 49.1 | 50.4 | 50.3 | 49.4 | 49.8 | 50.5 | 49.9 | 49.5 | 48.6 | 50.9 |
| 482 | 47.0 | 46.6 | 46.7 | 48.7 | 45.6 | 47.4 | 46.6 | 46.2 | 46.5 | 46.1 | 47.3 | 47.3 | 46.4 | 46.8 | 47.4 | 46.8 | 46.5 | 45.7 | 47.8 |
| 483 | 45.2 | 44.8 | 44.9 | 46.8 | 43.8 | 45.6 | 44.9 | 44.5 | 44.7 | 44.3 | 45.5 | 45.5 | 44.6 | 45.0 | 45.6 | 45.1 | 44.7 | 43.9 | 46.0 |
| 484 | 42.4 | 42.0 | 42.1 | 43.9 | 41.1 | 42.8 | 42.1 | 41.7 | 41.9 | 41.6 | 42.7 | 42.6 | 41.9 | 42.2 | 42.8 | 42.3 | 41.9 | 41.2 | 43.2 |
| 485 | 26.7 | 26.5 | 26.5 | 27.6 | 25.9 | 27.0 | 26.6 | 26.3 | 26.5 | 26.3 | 26.9 | 26.8 | 26.4 | 26.6 | 27.0 | 26.6 | 26.4 | 26.0 | 27.2 |
| 486 | 24.8 | 24.6 | 24.6 | 25.6 | 24.1 | 25.1 | 24.7 | 24.5 | 24.6 | 24.4 | 25.0 | 24.9 | 24.5 | 24.7 | 25.1 | 24.7 | 24.5 | 24.1 | 25.3 |
| 487 | 6.1 | 6.0 | 6.0 | 6.3 | 5.9 | 6.1 | 6.0 | 6.0 | 6.0 | 6.0 | 6.1 | 6.1 | 6.0 | 6.0 | 6.1 | 6.0 | 6.0 | 5.9 | 6.1 |
| 488 | 13.0 | 12.9 | 12.9 | 13.5 | 12.6 | 13.1 | 13.0 | 12.9 | 12.9 | 12.8 | 13.1 | 13.1 | 12.8 | 13.0 | 13.2 | 13.0 | 12.8 | 12.7 | 13.2 |
| 489 | 37.9 | 37.6 | 37.6 | 39.3 | 36.7 | 38.2 | 37.6 | 37.3 | 37.4 | 37.1 | 38.2 | 38.1 | 37.4 | 37.7 | 38.2 | 37.8 | 37.5 | 36.8 | 38.6 |
| 490 | 22.2 | 22.0 | 22.0 | 23.0 | 21.5 | 22.5 | 22.0 | 21.8 | 21.9 | 21.8 | 22.3 | 22.4 | 21.8 | 22.0 | 22.4 | 22.2 | 22.0 | 21.6 | 22.6 |
| 491 | 20.6 | 20.4 | 20.4 | 21.4 | 20.0 | 20.9 | 20.4 | 20.2 | 20.3 | 20.2 | 20.7 | 20.8 | 20.2 | 20.4 | 20.8 | 20.6 | 20.4 | 20.0 | 21.0 |
| 492 | 19.0 | 18.9 | 18.9 | 19.7 | 18.4 | 19.3 | 18.8 | 18.6 | 18.7 | 18.6 | 19.1 | 19.2 | 18.7 | 18.9 | 19.2 | 19.0 | 18.8 | 18.5 | 19.4 |
| 493 | 42.2 | 41.8 | 41.9 | 43.7 | 40.9 | 42.6 | 41.9 | 41.5 | 41.7 | 41.4 | 42.5 | 42.4 | 41.7 | 42.0 | 42.6 | 42.1 | 41.7 | 41.0 | 43.0 |
| 494 | 33.5 | 33.1 | 33.1 | 34.7 | 32.4 | 33.5 | 33.2 | 32.9 | 33.1 | 32.8 | 33.6 | 33.6 | 32.9 | 33.2 | 33.8 | 33.2 | 33.0 | 32.3 | 33.9 |
| 495 | 44.5 | 44.2 | 44.3 | 46.2 | 43.2 | 45.0 | 44.3 | 43.8 | 44.1 | 43.8 | 44.7 | 44.8 | 43.9 | 44.4 | 44.9 | 44.5 | 44.1 | 43.3 | 45.2 |
| 496 | 21.1 | 21.0 | 21.1 | 22.0 | 20.4 | 21.3 | 21.0 | 20.9 | 20.9 | 21.0 | 21.2 | 21.1 | 20.8 | 21.1 | 21.4 | 21.1 | 20.8 | 20.6 | 21.3 |
| 497 | 23.3 | 23.1 | 23.1 | 23.9 | 22.5 | 23.4 | 23.2 | 22.7 | 23.1 | 22.8 | 23.3 | 23.2 | 22.9 | 23.1 | 23.4 | 23.2 | 23.1 | 22.7 | 23.6 |
| 498 | 16.1 | 15.8 | 15.9 | 16.5 | 15.6 | 16.1 | 16.0 | 15.7 | 15.9 | 15.7 | 15.9 | 16.1 | 15.7 | 15.9 | 16.0 | 16.0 | 15.8 | 15.6 | 16.1 |
| 499 | 13.5 | 13.2 | 13.3 | 13.9 | 13.1 | 13.5 | 13.4 | 13.2 | 13.4 | 13.2 | 13.3 | 13.5 | 13.2 | 13.3 | 13.4 | 13.4 | 13.3 | 13.1 | 13.5 |
| 500 | 62.4 | 62.1 | 62.0 | 64.9 | 60.6 | 63.0 | 61.9 | 61.4 | 61.7 | 61.2 | 62.8 | 62.9 | 61.6 | 62.2 | 63.0 | 62.3 | 61.8 | 60.4 | 63.4 |
| 501 | 59.4 | 59.1 | 59.0 | 61.8 | 57.7 | 60.0 | 58.9 | 58.5 | 58.7 | 58.3 | 59.8 | 59.9 | 58.6 | 59.2 | 60.0 | 59.3 | 58.8 | 57.5 | 60.4 |
| 502 | 21.0 | 20.6 | 20.8 | 21.6 | 20.4 | 21.1 | 20.8 | 20.6 | 20.9 | 20.5 | 21.0 | 20.8 | 20.7 | 20.8 | 21.1 | 20.8 | 20.7 | 20.5 | 21.1 |
| 503 | 109.7 | 108.9 | 108.9 | 112.4 | 107.0 | 109.6 | 109.5 | 108.1 | 108.8 | 108.0 | 109.1 | 109.3 | 108.4 | 108.9 | 110.2 | 108.7 | 108.0 | 107.7 | 109.7 |
| 504 | 85.2 | 84.6 | 84.4 | 87.2 | 82.8 | 85.1 | 85.2 | 84.0 | 84.5 | 83.1 | 84.7 | 84.8 | 84.4 | 84.6 | 85.5 | 84.4 | 83.9 | 84.0 | 85.4 |
| 505 | 81.8 | 81.2 | 81.0 | 83.7 | 79.5 | 81.7 | 81.8 | 80.6 | 81.1 | 79.7 | 81.2 | 81.4 | 81.0 | 81.2 | 82.1 | 81.0 | 80.5 | 80.7 | 82.0 |
| 506 | 42.0 | 41.6 | 41.3 | 42.9 | 40.6 | 42.1 | 41.6 | 41.3 | 41.6 | 40.8 | 41.9 | 41.7 | 41.2 | 41.6 | 41.7 | 41.6 | 41.6 | 41.2 | 41.9 |
| 507 | 3.1 | 3.1 | 3.1 | 3.2 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.0 | 3.1 |
| 508 | 41.5 | 41.3 | 41.0 | 42.6 | 40.1 | 41.7 | 41.2 | 41.1 | 41.1 | 40.4 | 41.6 | 41.5 | 40.9 | 41.3 | 41.4 | 41.2 | 40.7 | 40.9 | 41.3 |
| 509 | 36.1 | 36.0 | 35.7 | 37.1 | 34.9 | 36.4 | 35.9 | 35.8 | 35.8 | 35.2 | 36.2 | 36.1 | 35.6 | 36.0 | 36.1 | 35.8 | 35.4 | 35.6 | 35.9 |
| 510 | 139.0 | 138.4 | 138.7 | 143.7 | 135.8 | 139.0 | 139.0 | 137.4 | 138.3 | 137.4 | 139.9 | 138.7 | 138.6 | 138.2 | 140.2 | 138.3 | 138.5 | 136.7 | 139.4 |
| 511 | 124.6 | 124.1 | 124.4 | 129.0 | 121.8 | 124.6 | 124.7 | 123.2 | 124.0 | 123.1 | 125.4 | 124.3 | 124.4 | 124.0 | 125.8 | 124.0 | 124.3 | 122.6 | 125.0 |
| 512 | 95.2 | 94.7 | 95.0 | 98.4 | 92.7 | 95.0 | 95.3 | 93.9 | 94.8 | 94.0 | 95.9 | 95.1 | 95.6 | 94.7 | 96.0 | 94.8 | 95.3 | 93.4 | 95.8 |
| 513 | 57.0 | 56.7 | 56.7 | 58.8 | 55.4 | 56.8 | 56.8 | 56.0 | 56.7 | 56.2 | 57.3 | 57.0 | 56.6 | 56.8 | 57.2 | 56.6 | 56.8 | 55.7 | 57.3 |
| 514 | 22.7 | 22.6 | 22.4 | 23.3 | 22.0 | 22.6 | 22.6 | 22.3 | 22.4 | 22.3 | 22.7 | 22.6 | 22.4 | 22.5 | 22.7 | 22.5 | 22.5 | 22.1 | 22.9 |
| 515 | 16.4 | 16.4 | 16.3 | 16.9 | 16.0 | 16.4 | 16.4 | 16.2 | 16.2 | 16.2 | 16.5 | 16.4 | 16.3 | 16.3 | 16.4 | 16.3 | 16.3 | 16.1 | 16.6 |
| 516 | 35.2 | 35.0 | 34.9 | 36.2 | 34.1 | 35.1 | 35.0 | 34.5 | 34.9 | 34.6 | 35.4 | 35.1 | 34.8 | 35.0 | 35.2 | 34.9 | 34.8 | 34.3 | 35.4 |
| 517 | 20.1 | 20.0 | 20.0 | 20.7 | 19.6 | 20.1 | 20.0 | 19.8 | 20.0 | 19.8 | 20.3 | 20.1 | 19.9 | 20.0 | 20.2 | 19.9 | 19.9 | 19.7 | 20.3 |
| 518 | 45.3 | 45.3 | 45.7 | 46.8 | 44.4 | 45.8 | 45.2 | 45.2 | 45.2 | 44.9 | 45.7 | 45.5 | 45.5 | 45.1 | 45.8 | 45.3 | 45.0 | 44.5 | 45.9 |
| 519 | 161.8 | 161.5 | 161.6 | 169.7 | 159.4 | 162.1 | 161.1 | 159.8 | 160.6 | 160.3 | 162.2 | 161.8 | 160.7 | 161.1 | 162.3 | 160.6 | 160.7 | 159.4 | 162.0 |
| 520 | 115.9 | 116.2 | 116.0 | 122.0 | 114.3 | 116.5 | 115.5 | 114.4 | 115.4 | 114.9 | 116.9 | 116.6 | 115.2 | 115.7 | 116.4 | 114.9 | 114.8 | 114.2 | 116.9 |
| 521 | 100.9 | 101.4 | 101.2 | 106.4 | 99.7 | 101.4 | 100.5 | 99.7 | 100.6 | 100.1 | 101.9 | 101.5 | 100.4 | 100.8 | 101.3 | 100.0 | 100.0 | 99.6 | 101.9 |
| 522 | 142.3 | 142.2 | 142.3 | 148.1 | 138.4 | 143.1 | 139.9 | 141.8 | 143.3 | 141.3 | 142.7 | 141.8 | 141.7 | 141.5 | 144.4 | 141.5 | 141.5 | 140.9 | 144.5 |
| 523 | 108.7 | 108.6 | 108.8 | 113.3 | 105.4 | 109.5 | 106.7 | 108.9 | 109.8 | 108.2 | 109.2 | 108.3 | 108.4 | 107.7 | 110.4 | 108.0 | 108.2 | 107.8 | 110.7 |
| 524 | 198.7 | 198.4 | 198.3 | 209.9 | 195.7 | 199.4 | 198.2 | 196.8 | 197.9 | 197.1 | 198.9 | 198.6 | 197.6 | 197.9 | 199.4 | 197.7 | 197.6 | 196.2 | 198.8 |
| 525 | 160.7 | 159.0 | 159.2 | 165.5 | 147.3 | 159.4 | 159.2 | 158.0 | 159.3 | 157.8 | 160.3 | 159.8 | 158.1 | 160.2 | 159.5 | 159.0 | 158.2 | 157.4 | 159.6 |
| 526 | 147.0 | 145.5 | 145.6 | 151.3 | 135.3 | 145.8 | 145.7 | 144.6 | 145.8 | 144.4 | 146.6 | 146.2 | 144.7 | 146.5 | 146.0 | 145.4 | 144.7 | 144.0 | 146.1 |
| 527 | 124.8 | 123.7 | 123.7 | 128.4 | 116.1 | 123.8 | 123.8 | 123.0 | 123.9 | 122.7 | 124.6 | 124.3 | 122.8 | 124.4 | 124.1 | 123.6 | 122.9 | 122.4 | 124.4 |
| 528 | 116.4 | 115.4 | 115.3 | 119.7 | 108.2 | 115.4 | 115.5 | 114.8 | 115.5 | 114.5 | 116.2 | 116.0 | 114.6 | 116.0 | 115.7 | 115.4 | 114.6 | 114.2 | 116.1 |
| 529 | 94.5 | 93.7 | 93.7 | 97.2 | 88.1 | 93.7 | 93.9 | 93.3 | 93.8 | 93.0 | 94.4 | 94.2 | 93.2 | 94.3 | 94.0 | 93.9 | 93.0 | 92.8 | 94.4 |
| 530 | 80.7 | 80.1 | 80.1 | 83.0 | 75.3 | 80.0 | 80.2 | 79.8 | 80.1 | 79.5 | 80.6 | 80.5 | 79.7 | 80.6 | 80.4 | 80.3 | 79.4 | 79.4 | 80.6 |
| 531 | 48.1 | 47.7 | 47.6 | 49.4 | 46.1 | 47.9 | 47.7 | 47.3 | 47.6 | 47.1 | 48.0 | 47.9 | 47.3 | 47.9 | 48.2 | 47.8 | 47.3 | 46.9 | 48.0 |
| 532 | 41.3 | 41.0 | 40.8 | 42.4 | 39.6 | 41.1 | 41.0 | 40.6 | 40.8 | 40.4 | 41.2 | 41.2 | 40.6 | 41.2 | 41.4 | 41.1 | 40.6 | 40.2 | 41.2 |
| 533 | 36.6 | 36.3 | 36.1 | 37.5 | 35.1 | 36.4 | 36.3 | 35.9 | 36.1 | 35.8 | 36.5 | 36.5 | 35.9 | 36.5 | 36.7 | 36.4 | 36.0 | 35.6 | 36.5 |
| 534 | 34.1 | 33.8 | 33.6 | 35.0 | 32.7 | 33.9 | 33.8 | 33.4 | 33.7 | 33.3 | 33.9 | 33.9 | 33.5 | 34.0 | 34.2 | 33.9 | 33.5 | 33.2 | 34.0 |
| 535 | 25.9 | 25.7 | 25.6 | 26.6 | 24.8 | 25.7 | 25.7 | 25.4 | 25.6 | 25.3 | 25.8 | 25.8 | 25.5 | 25.8 | 26.0 | 25.8 | 25.4 | 25.3 | 25.8 |
| 536 | 25.1 | 24.9 | 24.8 | 25.8 | 24.2 | 25.1 | 24.9 | 24.7 | 24.9 | 24.6 | 25.0 | 25.0 | 24.7 | 25.1 | 25.2 | 25.0 | 24.8 | 24.5 | 25.1 |
| 537 | 11.0 | 10.9 | 10.9 | 11.3 | 10.6 | 11.0 | 11.0 | 10.9 | 10.9 | 10.8 | 11.0 | 11.0 | 10.8 | 11.0 | 11.1 | 10.9 | 10.9 | 10.8 | 11.0 |
| 538 | 30.1 | 29.7 | 29.8 | 31.0 | 29.1 | 30.1 | 29.9 | 29.7 | 29.8 | 29.5 | 30.2 | 30.1 | 29.7 | 30.1 | 30.1 | 30.0 | 29.7 | 29.5 | 30.1 |
| 539 | 28.9 | 28.6 | 28.6 | 29.8 | 28.0 | 28.9 | 28.8 | 28.5 | 28.7 | 28.4 | 29.0 | 29.0 | 28.6 | 29.0 | 29.0 | 28.9 | 28.6 | 28.4 | 29.0 |
| 540 | 22.9 | 22.7 | 22.7 | 23.6 | 22.2 | 22.9 | 22.8 | 22.7 | 22.7 | 22.5 | 23.0 | 23.0 | 22.7 | 23.0 | 23.0 | 22.9 | 22.7 | 22.5 | 23.0 |
| 541 | 15.1 | 14.9 | 14.9 | 15.5 | 14.6 | 15.1 | 15.0 | 14.9 | 15.0 | 14.8 | 15.1 | 15.1 | 14.9 | 15.1 | 15.1 | 15.1 | 14.9 | 14.8 | 15.1 |
| 542 | 6.6 | 6.6 | 6.6 | 6.8 | 6.4 | 6.6 | 6.6 | 6.5 | 6.6 | 6.5 | 6.6 | 6.7 | 6.6 | 6.6 | 6.6 | 6.6 | 6.6 | 6.5 | 6.6 |
| 543 | 27.8 | 27.4 | 27.5 | 28.6 | 26.9 | 27.8 | 27.6 | 27.4 | 27.5 | 27.2 | 27.8 | 27.8 | 27.4 | 27.8 | 27.8 | 27.7 | 27.4 | 27.2 | 27.8 |
| 544 | 68.6 | 68.5 | 68.7 | 69.2 | 65.7 | 68.3 | 68.3 | 68.0 | 68.8 | 67.8 | 68.1 | 68.3 | 67.6 | 68.8 | 67.6 | 68.4 | 67.8 | 67.6 | 67.9 |
| 545 | 108.2 | 107.3 | 107.1 | 111.1 | 100.9 | 107.3 | 107.3 | 106.7 | 107.4 | 106.5 | 108.0 | 107.7 | 106.4 | 107.8 | 107.6 | 107.2 | 106.5 | 106.3 | 107.7 |
| 546 | 49.3 | 48.9 | 49.2 | 50.7 | 47.6 | 49.3 | 49.0 | 48.6 | 49.2 | 48.5 | 49.4 | 49.4 | 48.6 | 49.2 | 49.4 | 49.0 | 48.9 | 48.5 | 49.4 |
| 547 | 35.4 | 35.1 | 35.2 | 36.3 | 34.1 | 35.3 | 35.1 | 34.7 | 35.2 | 34.7 | 35.4 | 35.4 | 34.8 | 35.3 | 35.4 | 35.1 | 34.9 | 34.7 | 35.5 |
| 548 | 29.8 | 29.6 | 29.6 | 30.6 | 28.8 | 29.7 | 29.5 | 29.2 | 29.6 | 29.2 | 29.8 | 29.8 | 29.3 | 29.7 | 29.8 | 29.5 | 29.4 | 29.2 | 29.9 |
| 549 | 20.3 | 20.2 | 20.3 | 20.9 | 19.7 | 20.3 | 20.2 | 19.9 | 20.2 | 20.0 | 20.3 | 20.4 | 20.0 | 20.3 | 20.4 | 20.2 | 20.1 | 20.0 | 20.4 |
| 550 | 5.2 | 5.2 | 5.2 | 5.4 | 5.1 | 5.2 | 5.2 | 5.1 | 5.2 | 5.1 | 5.2 | 5.2 | 5.1 | 5.2 | 5.2 | 5.2 | 5.2 | 5.1 | 5.2 |
| 551 | 16.2 | 16.1 | 16.1 | 16.6 | 15.7 | 16.2 | 16.0 | 15.9 | 16.1 | 15.9 | 16.2 | 16.2 | 16.0 | 16.2 | 16.2 | 16.1 | 16.0 | 15.9 | 16.2 |
| 552 | 5.9 | 5.8 | 5.8 | 6.0 | 5.7 | 5.9 | 5.8 | 5.8 | 5.8 | 5.8 | 5.9 | 5.9 | 5.8 | 5.8 | 5.9 | 5.8 | 5.8 | 5.7 | 5.9 |
| 553 | 46.2 | 45.8 | 46.1 | 47.5 | 44.5 | 46.1 | 45.9 | 45.5 | 46.1 | 45.4 | 46.3 | 46.2 | 45.5 | 46.1 | 46.3 | 45.9 | 45.8 | 45.4 | 46.3 |
| 554 | 62.9 | 62.7 | 62.3 | 63.8 | 59.8 | 61.8 | 63.4 | 62.8 | 63.0 | 62.4 | 63.3 | 62.0 | 62.8 | 62.8 | 62.9 | 62.5 | 62.1 | 63.8 | 62.0 |
| 555 | 19.3 | 19.2 | 19.1 | 19.8 | 18.7 | 19.3 | 19.2 | 19.1 | 19.1 | 19.0 | 19.4 | 19.3 | 19.0 | 19.2 | 19.4 | 19.2 | 19.1 | 19.0 | 19.3 |
| 556 | 11.5 | 11.4 | 11.4 | 11.8 | 11.1 | 11.5 | 11.4 | 11.4 | 11.4 | 11.3 | 11.5 | 11.5 | 11.3 | 11.4 | 11.6 | 11.4 | 11.3 | 11.3 | 11.5 |
| 557 | 1.1 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| 558 | 132.2 | 130.7 | 131.0 | 136.0 | 87.5 | 130.9 | 131.2 | 129.9 | 130.8 | 129.6 | 132.4 | 131.3 | 130.1 | 131.9 | 131.4 | 130.9 | 130.0 | 129.6 | 131.4 |
| 559 | 19.2 | 19.1 | 19.1 | 19.9 | 18.6 | 19.4 | 19.2 | 18.9 | 19.2 | 19.0 | 19.3 | 19.3 | 19.0 | 19.2 | 19.4 | 19.1 | 19.2 | 18.7 | 19.4 |
| 560 | 17.4 | 17.3 | 17.3 | 18.0 | 16.8 | 17.6 | 17.4 | 17.1 | 17.4 | 17.2 | 17.5 | 17.5 | 17.2 | 17.4 | 17.6 | 17.3 | 17.4 | 17.0 | 17.6 |
| 561 | 15.6 | 15.5 | 15.5 | 16.2 | 15.1 | 15.7 | 15.6 | 15.3 | 15.6 | 15.4 | 15.7 | 15.7 | 15.4 | 15.6 | 15.8 | 15.5 | 15.6 | 15.2 | 15.8 |
| 562 | 5.9 | 5.9 | 5.8 | 6.1 | 5.7 | 5.9 | 5.9 | 5.8 | 5.9 | 5.8 | 5.9 | 5.9 | 5.8 | 5.9 | 5.9 | 5.9 | 5.9 | 5.8 | 5.9 |
| 563 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 564 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 1.7 |
| 565 | 116.7 | 115.1 | 114.9 | 119.5 | 113.0 | 116.6 | 115.6 | 114.4 | 115.8 | 114.3 | 116.2 | 116.8 | 114.7 | 115.7 | 116.4 | 114.3 | 113.9 | 113.6 | 116.7 |
| 566 | 85.2 | 84.1 | 83.8 | 87.0 | 82.5 | 84.8 | 84.3 | 83.1 | 84.4 | 83.2 | 84.7 | 84.8 | 83.5 | 84.2 | 84.9 | 83.8 | 83.3 | 82.7 | 85.0 |
| 567 | 70.3 | 69.4 | 69.1 | 71.8 | 68.2 | 70.0 | 69.6 | 68.6 | 69.6 | 68.6 | 69.9 | 70.0 | 68.8 | 69.5 | 70.0 | 69.3 | 68.9 | 68.2 | 70.1 |
| 568 | 63.1 | 62.3 | 62.0 | 64.4 | 61.1 | 62.8 | 62.4 | 61.5 | 62.4 | 61.5 | 62.7 | 62.8 | 61.7 | 62.3 | 62.7 | 62.1 | 61.8 | 61.1 | 62.9 |
| 569 | 56.0 | 55.3 | 55.0 | 57.1 | 54.2 | 55.7 | 55.4 | 54.5 | 55.4 | 54.6 | 55.7 | 55.7 | 54.8 | 55.3 | 55.6 | 55.1 | 54.9 | 54.3 | 55.8 |
| 570 | 48.4 | 47.9 | 47.6 | 49.3 | 46.9 | 48.1 | 48.0 | 47.2 | 48.0 | 47.2 | 48.2 | 48.2 | 47.4 | 47.9 | 48.1 | 47.7 | 47.5 | 46.9 | 48.2 |
| 571 | 42.4 | 42.0 | 41.7 | 43.2 | 41.1 | 42.1 | 42.0 | 41.3 | 42.1 | 41.4 | 42.2 | 42.3 | 41.6 | 42.0 | 42.1 | 41.8 | 41.6 | 41.1 | 42.3 |
| 572 | 35.3 | 34.9 | 34.7 | 35.9 | 34.1 | 35.0 | 35.0 | 34.4 | 35.0 | 34.4 | 35.1 | 35.2 | 34.6 | 34.9 | 35.0 | 34.8 | 34.6 | 34.2 | 35.2 |
| 573 | 27.3 | 27.0 | 26.7 | 27.7 | 26.3 | 27.0 | 27.0 | 26.5 | 27.0 | 26.5 | 27.1 | 27.1 | 26.7 | 26.9 | 27.0 | 26.8 | 26.7 | 26.5 | 27.2 |
| 574 | 12.4 | 12.3 | 12.2 | 12.6 | 12.0 | 12.3 | 12.3 | 12.1 | 12.3 | 12.1 | 12.3 | 12.4 | 12.1 | 12.3 | 12.3 | 12.3 | 12.2 | 12.1 | 12.4 |
| 575 | 36.9 | 36.6 | 36.3 | 37.6 | 35.8 | 36.7 | 36.6 | 36.0 | 36.7 | 36.0 | 36.7 | 36.8 | 36.2 | 36.6 | 36.7 | 36.4 | 36.2 | 35.8 | 36.8 |
| 576 | 31.5 | 31.0 | 30.9 | 32.0 | 30.5 | 31.3 | 31.1 | 30.6 | 31.1 | 30.7 | 31.4 | 31.3 | 30.9 | 31.1 | 31.3 | 31.0 | 30.9 | 30.4 | 31.3 |
| 577 | 38.3 | 37.9 | 37.6 | 38.9 | 37.2 | 38.1 | 38.0 | 37.3 | 38.0 | 37.4 | 38.2 | 38.2 | 37.5 | 37.9 | 38.0 | 37.7 | 37.5 | 37.2 | 38.2 |
| 578 | 49.7 | 49.2 | 48.9 | 50.8 | 48.3 | 49.5 | 49.2 | 48.6 | 49.2 | 48.5 | 49.5 | 49.4 | 48.6 | 49.4 | 49.5 | 49.0 | 48.8 | 48.4 | 49.4 |
| 579 | 320.1 | 289.7 | 318.5 | 318.6 | 318.5 | 318.5 | 318.5 | 318.5 | 318.5 | 318.5 | 318.6 | 318.5 | 318.6 | 318.6 | 318.5 | 318.6 | 318.6 | 318.6 | 318.5 |
| 580 | 265.0 | 256.6 | 264.5 | 264.3 | 264.8 | 263.2 | 264.7 | 264.2 | 264.2 | 264.5 | 265.1 | 264.2 | 264.4 | 264.2 | 264.2 | 264.5 | 264.3 | 264.8 | 264.5 |
| 581 | 244.7 | 236.4 | 244.4 | 243.2 | 245.1 | 243.0 | 244.6 | 244.2 | 244.1 | 244.5 | 244.8 | 243.9 | 244.5 | 243.9 | 243.9 | 244.4 | 244.3 | 245.1 | 244.2 |

**Note:** The arbitrary calibration constraint numbers above in Table S7 correspond to particular nodes in the ASTRAL tree topology and differ from the naming scheme of MCMCTree files in the Dryad accession. The corresponding numbering scheme is below:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Table S7 Constraint Numbering | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| MCMCTree File Constraint Numbering | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 24 |

Supplementary Table 8. Log likelihood values for 195 gene trees under an unconstrained model and under 15 topological constraints (constraints are denoted by numbers and correspond to the interordinal models depicted in Fig. S1).

| Locus | uncosntrained | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1 | -61010.804398 | -61017.408622 | -61014.194267 | -61011.516396 | -61022.013532 | -61017.481399 | -61011.314166 | -61022.365046 | -61015.218327 | -61014.642387 | -61022.466508 | -61020.317906 | -61012.180256 | -61022.002979 | -61021.967148 | -61013.120434 |
| 4 | -72814.723251 | -72820.591541 | -72824.689834 | -72826.370593 | -72815.862818 | -72825.985682 | -72827.315798 | -72821.637739 | -72824.476959 | -72828.041007 | -72824.716533 | -72814.723302 | -72826.092718 | -72826.418788 | -72815.862321 | -72825.877471 |
| 10 | -45879.255065 | -45885.314589 | -45885.435202 | -45884.389388 | -45884.221901 | -45888.747905 | -45886.369826 | -45887.879315 | -45885.763086 | -45887.568520 | -45888.145775 | -45882.794636 | -45884.865520 | -45889.052353 | -45883.371517 | -45886.238609 |
| 11 | -51510.588081 | -51524.126361 | -51544.118780 | -51546.006206 | -51531.314821 | -51556.300251 | -51559.362310 | -51529.870578 | -51556.107578 | -51561.335368 | -51559.253996 | -51560.705537 | -51561.487797 | -51559.733666 | -51560.349725 | -51557.847950 |
| 13 | -31604.294290 | -31581.389032 | -31580.837067 | -31591.607239 | -31579.837748 | -31584.422037 | -31591.791620 | -31588.659430 | -31581.654118 | -31588.549184 | -31586.802023 | -31598.643269 | -31609.073290 | -31581.700242 | -31578.237317 | -31588.982830 |
| 15 | -59373.972662 | -59375.094738 | -59378.718022 | -59387.883401 | -59393.046600 | -59398.862041 | -59411.605658 | -59392.147926 | -59399.599271 | -59407.820195 | -59405.741381 | -59412.101270 | -59411.939776 | -59403.482410 | -59407.250457 | -59419.192198 |
| 16 | -59644.734661 | -59646.540745 | -59648.197506 | -59651.552030 | -59650.061390 | -59654.099030 | -59659.239045 | -59649.092463 | -59656.500693 | -59661.088157 | -59654.882548 | -59656.534487 | -59659.416139 | -59655.478106 | -59658.505345 | -59670.466029 |
| 20 | -75737.680177 | -75745.506179 | -75745.049381 | -75746.791252 | -75743.486473 | -75741.805551 | -75741.357212 | -75742.661901 | -75745.363152 | -75742.547392 | -75742.454174 | -75748.496549 | -75739.969388 | -75744.236203 | -75747.938734 | -75738.307300 |
| 28 | -41469.313709 | -41468.741882 | -41475.661425 | -41477.557831 | -41483.071156 | -41491.652594 | -41492.923339 | -41475.314230 | -41494.095645 | -41487.493043 | -41493.398387 | -41500.894911 | -41498.510328 | -41494.977516 | -41496.924148 | -41489.305688 |
| 30 | -38911.593618 | -38910.264893 | -38907.497145 | -38912.371226 | -38920.705201 | -38917.361009 | -38919.133975 | -38917.305082 | -38917.203625 | -38915.680664 | -38916.361808 | -38922.634832 | -38918.241555 | -38916.398405 | -38923.004335 | -38915.854123 |
| 31 | -66034.384701 | -66036.603184 | -66049.740394 | -66051.184943 | -66044.342418 | -66060.744068 | -66060.742638 | -66044.164337 | -66059.064268 | -66060.730218 | -66060.736657 | -66055.298351 | -66057.661943 | -66060.078724 | -66057.886814 | -66057.990363 |
| 34 | -42461.449611 | -42458.463204 | -42465.337753 | -42469.536088 | -42462.322808 | -42470.226851 | -42472.181100 | -42463.139241 | -42467.671450 | -42471.410691 | -42473.570514 | -42467.974946 | -42471.501181 | -42469.523204 | -42466.666482 | -42471.185084 |
| 36 | -56593.965993 | -56604.150012 | -56603.923742 | -56602.758526 | -56606.244942 | -56608.656606 | -56604.221192 | -56607.709424 | -56594.472401 | -56602.957285 | -56608.304397 | -56594.398634 | -56594.298039 | -56605.983765 | -56604.313708 | -56606.678618 |
| 38 | -50717.192048 | -50925.720919 | -50727.338843 | -50929.263359 | -50928.672402 | -50718.517566 | -50927.265082 | -50930.057857 | -50733.042854 | -50912.462636 | -50826.647817 | -50929.280936 | -50927.758088 | -50822.324676 | -50915.632558 | -50926.661089 |
| 41 | -78417.798551 | -78421.134589 | -78425.529091 | -78427.538260 | -78429.818030 | -78433.205094 | -78437.449276 | -78430.653356 | -78427.439070 | -78435.367778 | -78437.055288 | -78429.153612 | -78432.026107 | -78435.932182 | -78434.084114 | -78438.781886 |
| 45 | -70160.449340 | -70160.447511 | -70171.740609 | -70167.563144 | -70182.102418 | -70196.284112 | -70190.038478 | -70181.117601 | -70194.994663 | -70190.235070 | -70195.058832 | -70187.183048 | -70189.960439 | -70195.001507 | -70187.368180 | -70190.318318 |
| 46 | -66378.889028 | -66381.538905 | -66381.077983 | -66384.584446 | -66393.221684 | -66389.669936 | -66393.094876 | -66394.736222 | -66389.083220 | -66392.198689 | -66396.041015 | -66389.560917 | -66387.366218 | -66391.728194 | -66395.182732 | -66390.740539 |
| 49 | -70757.957213 | -70757.904315 | -70763.841682 | -70765.586779 | -70770.898235 | -70782.122401 | -70774.153855 | -70769.487157 | -70777.179608 | -70782.450944 | -70778.325979 | -70779.748624 | -70772.400883 | -70781.236629 | -70782.797955 | -70773.158481 |
| 54 | -85069.849948 | -85076.285406 | -85077.609005 | -85078.292469 | -85075.309626 | -85077.341731 | -85079.154720 | -85076.137839 | -85070.436305 | -85079.793588 | -85078.144361 | -85069.849618 | -85070.453641 | -85078.175728 | -85078.002106 | -85079.472749 |
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