

#NEXUS

[R-package APE, Wed Jul 14 13:20:46 2021]

BEGIN TAXA;

DIMENSIONS NTAX = 1136;

TAXLABELS

Zaglossus_bruijnii
Tachyglossus_aculeatus
Ornithorhynchus_anatinus
Solenodon_paradoxus
Solenodon_cubanus
Galemys_pyrenaicus
Scapanus_latimanus
Scalopus_aquaticus
Talpa_europaea
Euroscaptor_mizura
Euroscaptor_micrura
Mogera_tokudae
Mogera_imaizumii
Mogera_wogura
Euroscaptor_subanura
Condylura_cristata
Hylomys_suillus
Echinosorex_gymnura
Erinaceus_europaeus
Peraechinus_micropus
Hemiechinus_auritus
Atelerix_algirus
Scutisorex_somereni
Suncus_madagascariensis
Crocidura_crenata
Crocidura_canariensis
Sorex_araneus
Sorex_minutus
Cryptotis_parva
Blarina_hylophaga
Notiosorex_crawfordi
Smutsia_gigantea
Phataginus_tricuspis
Manis_pentadactyla
Urocyon_cinereoargenteus
Vulpes_lagopus
Vulpes_zerda
Vulpes_vulpes
Otocyon_megalotis
Nyctereutes_procyonoides
Lycaon_pictus
Chrysocyon_brachyurus
Canis_mesomelas
Canis_simensis
Canis_latrans
Canis_aureus
Canis_lupus
Cuon_alpinus
Canis_adustus
Pseudalopex_gymnocercus
Speothos_venaticus
Cerdocyon_thous

Neomonachus_tropicalis
Monachus_monachus
Mirounga_leonina
Mirounga_angustirostris
Lobodon_carcinophaga
Leptonychotes_weddellii
Ommatophoca_rossii
Hydrurga_leptonyx
Erignathus_barbatus
Pagophilus_groenlandicus
Phoca_vitulina
Pusa_hispida
Halichoerus_grypus
Cystophora_cristata
Odobenus_rosmarus
Callorhinus_ursinus
Zalophus_californianus
Zalophus_japonicus
Eumetopias_jubatus
Arctocephalus_pusillus
Neophoca_cinerea
Otaria_bryonia
Arctocephalus_tropicalis
Arctocephalus_forsteri
Arctocephalus_australis
Mydaus_javanensis
Spilogale_gracilis
Mephitis_mephitis
Conepatus_humboldtii
Conepatus_chinga
Potos_flavus
Procyon_lotor
Procyon_cancrivorus
Bassariscus_astutus
Nasua_nasua
Nasua_narica
Bassaricyon_alleni
Taxidea_taxus
Meles_meles
Meles_anakuma
Arctonyx_collaris
Mellivora_capensis
Gulo_gulo
Martes_flavigula
Martes_foina
Martes_zibellina
Martes_martes
Martes_americana
Martes_pennanti
Eira_barbara
Melogale_orientalis
Neovison_vison
Mustela_frenata
Mustela_felipei
Mustela_erminea
Mustela_nivalis
Mustela_sibirica
Mustela_nigripes

Mustela_lutreolina
Mustela_putorius
Ictonyx_libyca
Galictis_vittata
Lyncodon_patagonicus
Galictis_cuja
Pteronura_brasiliensis
Lontra_longicaudis
Lontra_provocax
Lontra_canadensis
Enhydra_lutris
Lutra_maculicollis
Lutra_lutra
Aonyx_cinerea
Lutrogale_perspiciolata
Aonyx_capensis
Ailurus_fulgens
Ursus_maritimus
Ursus_arctos
Melursus_ursinus
Ursus_thibetanus
Ursus_americanus
Helarctos_malayanus
Ailuropoda_melanoleuca
Nandinia_binotata
Hyaena_hyaena
Hyaena_brunnea
Proteles_cristata
Crocuta_crocuta
Eupleres_goudotii
Salanoia_concolor
Galidictis_fasciata
Galidia_elegans
Cryptoprocta_ferox
Herpestes_vitticollis
Herpestes_javanicus
Herpestes_edwardsii
Herpestes_ichneumon
Ichneumia_albicauda
Cynictis_penicillata
Bdeogale_crassicauda
Crossarchus_obscurus
Helogale_parvula
Liberiictis_kuhni
Mungos_mungo
Suricata_suricatta
Genetta_maculata
Genetta_tigrina
Genetta_genetta
Genetta_servalina
Viverricula_indica
Viverra_tangalunga
Viverra_zibetha
Civettictis_civetta
Macrogalidia_musschenbroekii
Cynogale_bennettii
Hemigalus_derbyanus
Paradoxurus_hermaphroditus

Arctictis_binturong
Prionodon_pardicolor
Prionodon_linsang
Neofelis_nebulosa
Panthera_tigris
Panthera_onca
Panthera_uncia
Panthera_pardus
Panthera_leo
Lynx_rufus
Lynx_lynx
Lynx_canadensis
Acinonyx_jubatus
Puma_concolor
Felis_catus
Felis_silvestris
Leopardus_pardalis
Leopardus_wiedii
Leopardus_tigrinus
Prionailurus_bengalensis
Leptailurus_serval
Caracal_caracal
Equus_africanus
Equus_grevyi
Equus_quagga
Equus_zebra
Equus_hemionus
Equus_caballus
Equus_ferus
Tapirus_indicus
Tapirus_terrestris
Tapirus_bairdii
Rhinoceros_unicornis
Rhinoceros_sondaicus
Dicerorhinus_sumatrensis
Diceros_bicornis
Ceratotherium_simum
Vicugna_pacos
Vicugna_vicugna
Lama_glama
Camelus_dromedarius
Camelus_ferus
Tayassu_pecari
Pecari_tajacu
Sus_scrofa
Sus_barbatus
Potamochoerus_porcus
Phacochoerus_africanus
Phacochoerus_aethiopicus
Hylochoerus_meinertzhageni
Babyrousa_babyrousa
Hippopotamus_amphibius
Choeropsis_liberiensis
Indopacetus_pacificus
Kogia_sima
Kogia_breviceps
Physeter_macrocephalus
Platanista_gangetica

Pontoporia_blainvillei
Inia_geoffrensis
Inia_araguaiaensis
Lipotes_vexillifer
Delphinapterus_leucas
Mesoplodon_bowdoini
Monodon_monoceros
Neophocaena_phocaenoides
Phocoenoides_dalli
Phocoena_phocoena
Phocoena_spinipinnis
Phocoena_dioptrica
Lagenorhynchus_acutus
Lagenorhynchus_albirostris
Orcinus_orca
Orcaella_brevirostris
Grampus_griseus
Pseudorca_crassidens
Peponocephala_electra
Globicephala_melas
Globicephala_macrorhynchus
Feresa_attenuata
Steno_bredanensis
Sotalia_guianensis
Sotalia_fluviatilis
Tursiops_truncatus
Stenella_attenuata
Lagenodelphis_hosei
Stenella_longirostris
Sousa_chinensis
Tursiops_aduncus
Stenella_frontalis
Stenella_coeruleoalba
Stenella_clymene
Delphinus_delphis
Delphinus_capensis
Lagenorhynchus_obscurus
Lagenorhynchus_obliquidens
Lagenorhynchus_cruciger
Lagenorhynchus_australis
Cephalorhynchus_hectori
Cephalorhynchus_heavisidii
Cephalorhynchus_eutropia
Cephalorhynchus_commerstonii
Berardius_bairdii
Berardius_arnuxii
Mesoplodon_bidens
Ziphius_cavirostris
Mesoplodon_stejnegeri
Hyperoodon_planifrons
Hyperoodon_ampullatus
Mesoplodon_hectori
Mesoplodon_carlhubbsi
Mesoplodon_layardii
Mesoplodon_mirus
Mesoplodon_europaeus
Mesoplodon_densirostris
Mesoplodon_grayi

Tasmacetus_shepherdi
Eubalaena_glacialis
Eubalaena_japonica
Balaenoptera_physalus
Balaenoptera_musculus
Balaenoptera_omurai
Balaenoptera_borealis
Balaenoptera_edeni
Mesoplodon_perrini
Balaenoptera_bonaerensis
Mesoplodon_peruvianus
Lissodelphis_peronii
Lissodelphis_borealis
Balaena_mysticetus
Caperea_marginata
Balaenoptera_acutorostrata
Mesoplodon_ginkgodens
Megaptera_novaeangliae
Eschrichtius_robustus
Moschiola_meminna
Moschiola_indica
Tragulus_javanicus
Tragulus_kanchil
Tragulus_napu
Okapia_johnstoni
Giraffa_camelopardalis
Antilocapra_americana
Muntiacus_muntjak
Dama_dama
Elaphurus_davidianus
Rusa_unicolor
Cervus_elaphus
Axis_calamianensis
Axis_axis
Rangifer_tarandus
Odocoileus_virginianus
Odocoileus_hemionus
Mazama_gouazoubira
Blastocerus_dichotomus
Pudu_puda
Hydropotes_inermis
Capreolus_capreolus
Alces_alces
Moschus_moschiferus
Moschus_berezovskii
Boselaphus_tragocamelus
Tetracerus_quadricornis
Tragelaphus_imberbis
Tragelaphus_angasii
Tragelaphus_scriptus
Tragelaphus_eurycerus
Tragelaphus_spekii
Tragelaphus_buxtoni
Tragelaphus_strepsiceros
Syncerus_caffer
Bubalus_mindorensis
Bubalus_depressicornis
Bubalus_arnee

Bos_gaurus
Bos_taurus
Bos_indicus
Bison_bonatus
Bos_mutus
Bos_grunniens
Bison_bison
Nesotragus_moschatus
Aepyceros_melampus
Pelea_capreolus
Redunca_fulvorufula
Redunca_redunda
Redunca_arundinum
Kobus_megaceros
Kobus_leche
Kobus_vardonii
Kobus_kob
Kobus_ellipsiprymnus
Ourebia_ourebi
Raphicerus_melanotis
Raphicerus_sharpei
Raphicerus_campestris
Madoqua_kirkii
Madoqua_guentheri
Saiga_tatarica
Nanger_granti
Eudorcas_rufifrons
Gazella_dorcas
Gazella_gazella
Gazella_spekei
Antilope_cervicapra
Litocranius_walleri
Antidorcas_marsupialis
Neotragus_pygmaeus
Oreotragus_oreotragus
Philantomba_monticola
Sylvicapra_grimmia
Cephalophus_silvicultor
Cephalophus_dorsalis
Cephalophus_leucogaster
Cephalophus_nigrifrons
Cephalophus_natalensis
Cephalophus_weynsi
Ovibos_moschatus
Capricornis_crispus
Ovis_canadensis
Ovis_orientalis
Ovis_aries
Ovis_ammon
Capra_ibex
Capra_hircus
Pseudois_nayaur
Myotragus_balearicus
Oreamnos_americanus
Rupicapra_rupicapra
Ammotragus_lervia
Connochaetes_taurinus
Connochaetes_gnou

Damaliscus_pygargus
Damaliscus_lunatus
Beatragus_hunteri
Alcelaphus_buselaphus
Hippotragus_niger
Hippotragus_equinus
Oryx_dammah
Oryx_leucoryx
Oryx_gazella
Oryx_beisa
Rhinopoma_hardwickii
Rhinopoma_microphyllum
Lavia_frons
Megaderma_spasma
Rhinolophus_hipposideros
Asellia_tridens
Hipposideros_caffer
Hipposideros_diadema
Cynopterus_titthaecheilus
Cynopterus_brachyotis
Epomops_franqueti
Hypsignathus_monstrosus
Rousettus_aegyptiacus
Eidolon_helvum
Pteropus_giganteus
Pteropus_rufus
Pteropus_vampyrus
Macroglossus_minimus
Myzopoda_aurita
Mystacina_tuberculata
Thyroptera_discifera
Noctilio_leporinus
Pteronotus_parnellii
Mormoops_megalophylla
Micronycteris_microtis
Anoura_caudifer
Glossophaga_soricina
Glossophaga_morenoi
Phylloderma_stenops
Phyllostomus_discolor
Lonchorhina_inusitata
Chrotopterus_auritus
Vampyrum_spectrum
Lonchophylla_inexpectata
Carollia_perspicillata
Artibeus_jamaicensis
Artibeus_planirostris
Pygoderma_bilabiatum
Vampyressa_pusilla
Sturnira_erythromos
Sturnira_aratathomasi
Rhinophylla_pumilio
Lonchorhina_orinocensis
Lonchorhina_fernandezi
Lonchorhina_marinkellei
Lonchorhina_aurita
Diphylla_ecaudata
Desmodus_rotundus

Diaemus_youngi
Macrotus_waterhousii
Macrotus_californicus
Nyctinomops_macrotis
Molossus_molossus
Promops_nasutus
Molossops_temminckii
Cynomops_planirostris
Eumops_perotis
Tadarida_brasiliensis
Molossus_currentium
Myotis_daubentonii
Myotis_keaysi
Myotis_velifer
Myotis_chiloensis
Myotis_lucifugus
Myotis_evotis
Eptesicus_nilssonii
Eptesicus_serotinus
Histiotus_montanus
Histiotus_magellanicus
Eptesicus_diminutus
Lasionycteris_noctivagans
Pipistrellus_pipistrellus
Nyctalus_noctula
Vespertilio_murinus
Chalinolobus_tuberculatus
Neoromicia_nana
Lasiurus_cinereus
Lasiurus_ega
Antrozous_pallidus
Otonycteris_hemprichii
Plecotus_auritus
Euderma_maculatum
Barbastella_barbastellus
Miniopterus_schreibersii
Nycteris_javanica
Nycteris_thebaica
Saccopteryx_bilineata
Peropteryx_leucoptera
Balantiopteryx_plicata
Galeopterus_variegatus
Cynocephalus_volans
Nycticebus_coucang
Loris_tardigradus
Otolemur_garnettii
Otolemur_crassicaudatus
Galago_senegalensis
Euoticus_elegantulus
Perodicticus_potto
Arctocebus_calabarensis
Daubentonia_madagascariensis
Indri_indri
Propithecus_diadema
Propithecus_verreauxi
Propithecus_coquereli
Avahi_laniger
Varecia_variegata

Lemur_catta
Hapalemur_griseus
Eulemur_macaco
Eulemur_rubriventer
Eulemur_mongoz
Eulemur_collaris
Eulemur_fulvus
Eulemur_sanfordi
Eulemur_albifrons
Lepilemur_mustelinus
Cheirogaleus_medius
Microcebus_murinus
Microcebus_rufus
Tarsius_syrichtha
Pithecia_irrorata
Pithecia_monachus
Pithecia_pithecia
Cacajao_melanocephalus
Callicebus_moloch
Leontocebus_nigricollis
Saguinus_oedipus
Leontopithecus_rosalia
Mico_humeralifer
Callithrix_jacchus
Cebuella_pygmaea
Saimiri_sciureus
Cebus_olivaceus
Cebus_albifrons
Cebus_capucinus
Aotus_azarae
Aotus_nancymae
Alouatta_seniculus
Alouatta_caraya
Alouatta_palliata
Alouatta_pigra
Lagothrix_lagotricha
Brachyteles_hypoxanthus
Brachyteles_arachnoides
Ateles_geoffroyi
Ateles_fusciceps
Ateles_paniscus
Ateles_chamek
Ateles_belzebuth
Symphalangus_syndactylus
Hylobates_pileatus
Hylobates_lar
Hylobates_muelleri
Hylobates_moloch
Hylobates_klossii
Hylobates_agilis
Nomascus_concolor
Nomascus_gabriellae
Nomascus_leucogenys
Hoolock_hoolock
Pongo_pygmaeus
Pongo_abelii
Pan_troglodytes
Pan_paniscus

Homo_sapiens
Gorilla_gorilla
Gorilla_beringei
Semnopithecus_schistaceus
Trachypithecus_cristatus
Trachypithecus_phayrei
Semnopithecus_entellus
Presbytis_rubicunda
Presbytis_melalophos
Rhinopithecus_bieti
Rhinopithecus_roxellana
Nasalis_larvatus
Colobus_guereza
Colobus_vellerosus
Macaca_leonina
Macaca_sinica
Macaca_silenus
Macaca_nemestrina
Macaca_maura
Macaca_radiata
Macaca_fascicularis
Macaca_arctoides
Macaca_nigra
Macaca_fuscata
Macaca_mulatta
Macaca_sylvanus
Theropithecus_gelada
Papio_cynocephalus
Papio_papio
Papio_hamadryas
Papio_anubis
Lophocebus_aterrimus
Lophocebus_albigena
Cercocebus_atys
Mandrillus_sphinx
Mandrillus_leucophaeus
Cercopithecus_mitis
Cercopithecus_ascanius
Erythrocebus_patas
Chlorocebus_pygerythrus
Chlorocebus_aethiops
Chlorocebus_cynosuros
Chlorocebus_sabaeus
Miopithecus_talapoin
Ptilocercus_lowii
Tupaia_glis
Tupaia_nicobarica
Urogale_everetti
Tupaia_tana
Dendrogale_melanura
Anathana_elliotti
Sylvilagus_audubonii
Oryctolagus_cuniculus
Pentalagus_furnessi
Lepus_californicus
Lepus_alleni
Lepus_townsendii
Lepus_timidus

Lepus_europaeus
Lepus_americanus
Nesolagus_timminsi
Nesolagus_netscheri
Ochotona_hyperborea
Ochotona_princeps
Muscardinus_avellanarius
Aplodontia_rufa
Ratufa_indica
Callosciurus_erythraeus
Tamias_striatus
Tamias_minimus
Spermophilus_dauricus
Ictidomys_tridecemlineatus
Cynomys_ludovicianus
Marmota_monax
Marmota_caligata
Marmota_marmota
Marmota_sibirica
Sciurus_anomalus
Sciurus_niger
Sciurus_carolinensis
Sciurus_griseus
Microsciurus_mimulus
Microsciurus_alfari
Microsciurus_flaviventer
Sciurus_vulgaris
Tamiasciurus_hudsonicus
Glaucmys_volans
Petaurista_leucogenys
Petaurista_philippensis
Petaurista_alborufus
Petaurista_grandis
Laonastes_aenigmamus
Atherurus_macrourus
Hystrix_javanica
Hystrix_cristata
Thryonomys_swinderianus
Heterocephalus_glaber
Heliophobius_argenteocinereus
Cryptomys_hottentotus
Georchus_capensis
Bathyergus_suillus
Cuniculus_paca
Myoprocta_acouchy
Dasyprocta_leporina
Dasyprocta_azarae
Hydrochoerus_hydrochaeris
Dolichotis_patagonum
Cavia_porcellus
Cavia_aperea
Erethizon_dorsatum
Coendou_prehensilis
Lagostomus_maximus
Chinchilla_lanigera
Chinchilla_chinchilla
Phyllomys_sulinus
Myocastor_coypus

Capromys_pilorides
Ctenomys_boliviensis
Ctenomys_talarum
Octodon_degus
Spalacopus_cyanus
Dipus_sagitta
Jaculus_orientalis
Jaculus_jaculus
Stylodipus_telum
Allactaga_euphratica
Allactaga_major
Zapus_princeps
Sicista_concolor
Spalax_leucodon
Rhizomys_pruinosus
Dicrostonyx_groenlandicus
Ondatra_zibethicus
Lemmus_sibiricus
Synaptomys_cooperi
Ellobius_talpinus
Microtus_arvalis
Microtus_pennsylvanicus
Microtus_ochrogaster
Microtus_chrotorrhinus
Microtus_oeconomus
Myodes_gapperi
Mesocricetus_auratus
Tscherskia_triton
Cricetus_cricetus
Cricetulus_migratorius
Cricetulus_longicaudatus
Cricetulus_barabensis
Phodopus_sungorus
Neotoma_fuscipes
Neotoma_lepida
Neotoma_floridana
Neotoma_albigula
Neotoma_mexicana
Neotoma_cinerea
Hodomys_alleni
Nelsonia_neotomodon
Xenomys_nelsoni
Ochrotomys_nuttalli
Reithrodontomys_creper
Reithrodontomys_mexicanus
Reithrodontomys_fulvescens
Reithrodontomys_sumichrasti
Reithrodontomys_megalotis
Reithrodontomys_humulis
Reithrodontomys_montanus
Isthmomys_pirrensis
Isthmomys_flavidus
Onychomys_torridus
Onychomys_leucogaster
Peromyscus_maniculatus
Peromyscus_leucopus
Megadontomys_thomasi
Peromyscus_yucatanicus

Peromyscus_guatemalensis
Peromyscus_mexicanus
Peromyscus_megalops
Peromyscus_melanophrys
Habromys_lepturus
Habromys_lophurus
Peromyscus_crinitus
Peromyscus_ochraventer
Peromyscus_truei
Peromyscus_difficilis
Peromyscus_attwateri
Peromyscus_furvus
Peromyscus_spicilegus
Peromyscus_boyllii
Podomys_floridanus
Neotomodon_alstoni
Peromyscus_californicus
Peromyscus_eremicus
Osgoodomys_banderanus
Scotinomys_xerampelinus
Scotinomys_teguina
Baiomys_taylori
Baiomys_musculus
Tylomys_panamensis
Tylomys_mirae
Tylomys_watsoni
Tylomys_fulviventer
Tylomys_nudicaudus
Ototylomys_phyllotis
Nyctomys_sumichrasti
Chibchanomys_trichotis
Reithrodon_auritus
Rheomys_underwoodi
Rheomys_thomasi
Rheomys_mexicanus
Rheomys_raptor
Ichthyomys_pittieri
Ichthyomys_hydrobates
Ichthyomys_tweedii
Neusticomys_venezuelae
Neusticomys_ferreirai
Neusticomys_monticolus
Anotomys_leander
Chinchillula_sahamae
Sigmodon_leucotis
Sigmodon_fulviventer
Sigmodon_alleni
Sigmodon_ochrognathus
Sigmodon_hispidus
Rhipidomys_macconnelli
Rhipidomys_nitela
Rhipidomys_mastacalis
Rhipidomys_fulviventer
Rhipidomys_venustus
Rhipidomys_couesi
Rhipidomys_venezuelae
Rhipidomys_latimanus
Rhipidomys_austrinus

Aepeomys_lugens
Thomasomys_gracilis
Thomasomys_cinereus
Thomasomys_rhoadsi
Thomasomys_baeops
Thomasomys_aureus
Thomasomys_pyrrhonotus
Thomasomys_daphne
Thomasomys_oreas
Thomasomys_hylophilus
Thomasomys_paramorum
Chilomys_instans
Akodon_bogotensis
Blarinomys_breviceps
Scapteromys_tumidus
Scapteromys_meridionalis
Scapteromys_aquaticus
Kunsia_tomentosus
Thalpomys_lasiotis
Necromys_amoenus
Necromys_urichi
Necromys_lasiurus
Necromys_temchuki
Necromys_obscurus
Necromys_lactens
Akodon_mimus
Akodon_azarae
Akodon_boliviensis
Akodon_subfuscus
Akodon_lutescens
Akodon_cursor
Akodon_simulator
Akodon_albiventer
Akodon_mollis
Akodon_torques
Akodon_aerosus
Deltamys_kempi
Thaptomys_nigrita
Oxymycterus_delator
Oxymycterus_paramensis
Oxymycterus_rufus
Oxymycterus_inca
Zygodontomys_brevicauda
Oecomys_concolor
Oecomys_roberti
Oecomys_bicolor
Oecomys_superans
Oecomys_trinitatis
Oecomys_mamorae
Oecomys_paricola
Transandinomys_talamancae
Transandinomys_bolivaris
Euryoryzomys_nitidus
Euryoryzomys_russatus
Euryoryzomys_legatus
Nephelomys_albigularis
Nephelomys_keaysi
Hylaeamys_megacephalus

Handleyomys_alfaroi
Handleyomys_melanotis
Handleyomys_chapmani
Neacomys_guianae
Neacomys_spinosus
Neacomys_tenuipes
Microryzomys_minutus
Microryzomys_altissimus
Oligoryzomys_microtis
Oligoryzomys_nigripes
Oligoryzomys_destructor
Oligoryzomys_fulvescens
Oligoryzomys_eliurus
Oligoryzomys_delticola
Oligoryzomys_chacoensis
Oligoryzomys_andinus
Oligoryzomys_magellanicus
Oligoryzomys_longicaudatus
Oligoryzomys_flavescens
Eremoryzomys_polius
Cerradomys_subflavus
Sooretamys_angouya
Holochilus_brasiliensis
Holochilus_chacarius
Pseudoryzomys_simplex
Lundomys_molitor
Nectomys_squamipes
Oryzomys_couesi
Oryzomys_palustris
Sigmodontomys_alfari
Melanomys_caliginosus
Nesoryzomys_indefessus
Irenomys_tarsalis
Euneomys_petersoni
Euneomys_chinchilloides
Andinomys_edax
Punomys_kofordi
Delomys_sublineatus
Delomys_dorsalis
Calomys_lepidus
Calomys_sorellus
Calomys_musculus
Calomys_laucha
Calomys_tener
Calomys_boliviae
Calomys_callosus
Calomys_venustus
Calomys_hummelincki
Eligmodontia_morgani
Eligmodontia_puerulus
Eligmodontia_moreni
Eligmodontia_hirtipes
Eligmodontia_bolsonensis
Graomys_griseoflavus
Graomys_domorum
Andalgalomys_pearsoni
Andalgalomys_olrogi
Salinomys_delicatus

Phyllotis_wolffsohni
Tapecomys_primus
Auliscomys_sublimis
Auliscomys_pictus
Auliscomys_boliviensis
Galenomys_garleppi
Loxodontomys_micropus
Phyllotis_osilae
Phyllotis_alisosiensis
Phyllotis_anitae
Phyllotis_caprinus
Phyllotis_xanthopygus
Phyllotis_darwini
Phyllotis_amicus
Paralomys_gerbillus
Phyllotis_haggardi
Phyllotis_andium
Calassomys_apicalis
Akodon_neocenus
Wiedomys_pyrrhorhinos
Juliomys_pictipes
Abrothrix_olivaceus
Abrothrix_andinus
Abrothrix_jelskii
Abrothrix_illuteus
Abrothrix_longipilis
Abrothrix_sanborni
Notiomys_edwardsii
Geoxus_valdivianus
Chelemys_macronyx
Mystromys_albicaudatus
Saccostomus_campestris
Beamys_hindei
Cricetomys_gambianus
Brachytarsomys_albicauda
Gymnuromys_roberti
Eliurus_myoxinus
Brachyuromys_ramirohitra
Nesomys_rufus
Nesomys_audeberti
Macrotarsomys_bastardi
Calomyscus_baluchi
Lophiomys_imhausi
Pachyuromys_duprasi
Psammomys_obesus
Meriones_shawi
Meriones_unguiculatus
Sekeetamys_calurus
Ammodillus_imbellis
Microdillus_peeli
Gerbillus_cheesmani
Taterillus_arenarius
Gerbilliscus_nigricaudus
Gerbillurus_setzeri
Desmodillus_auricularis
Tatera_indica
Notomys_amplus
Conilurus_albipes

Hydromys_chrysogaster
Mastomys_coucha
Mus_musculus
Rhabdomys_pumilio
Micromys_minutus
Maxomys_inflatus
Rattus_rattus
Rattus_fuscipes
Rattus_norvegicus
Pedetes_surdaster
Pedetes_capensis
Anomalurus_pelii
Anomalurus_derbianus
Anomalurus_beecrofti
Anomalurus_pusillus
Microdipodops_pallidus
Dipodomys_spectabilis
Dipodomys_ordii
Dipodomys_heermanni
Dipodomys_merriami
Thomomys_bulbivorus
Thomomys_umbrinus
Thomomys_bottae
Geomys_pinetis
Geomys_bursarius
Geomys_arenarius
Cratogeomys_castanops
Liomys_salvini
Heteromys_anomalus
Perognathus_fasciatus
Castor_fiber
Castor_canadensis
Hydrodamalis_gigas
Trichechus_manatus
Trichechus_senegalensis
Trichechus_inunguis
Dugong_dugon
Loxodonta_africana
Elephas_maximus
Procavia_capensis
Heterohyrax_brucei
Dendrohyrax_validus
Dendrohyrax_dorsalis
Dendrohyrax_arboreus
Orycteropus_afer
Rhynchocyon_cirnei
Rhynchocyon_chrysopygus
Rhynchocyon_petersi
Elephantulus_myurus
Elephantulus_edwardii
Macroscelides_proboscideus
Petrodromus_tetradactylus
Elephantulus_rufescens
Elephantulus_brachyrhynchus
Elephantulus_intufi
Elephantulus_rupestris
Potamogale_velox
Limnogale_mergulus

Microgale_talazaci
Microgale_longicaudata
Microgale_cowani
Oryzorictes_tetradactylus
Tenrec_ecaudatus
Hemicentetes_semispinosus
Setifer_setosus
Echinops_telfairi
Eremitalpa_granti
Amblysomus_hottentotus
Calcochloris_obtusirostris
Chrysospalax_trevelyani
Chrysochloris_asiatica
Dasypus_hybridus
Dasypus_novemcinctus
Dasypus_kappleri
Dasypus_septemcinctus
Zaedyus_pichiy
Euphractus_sexcinctus
Chaetophractus_vellerosus
Chaetophractus_villosus
Chlamyphorus_truncatus
Tolypeutes_matacus
Priodontes_maximus
Cabassous_unicinctus
Tamandua_tetradactyla
Tamandua_mexicana
Myrmecophaga_tridactyla
Cyclopes_didactylus
Choloepus_hoffmanni
Choloepus_didactylus
Bradypus_tridactylus
Bradypus_variegatus
Rhincholestes_raphanurus
Caenolestes_fuliginosus
Glironia_venusta
Monodelphis_domestica
Gracilinanus_microtarsus
Metachirus_nudicaudatus
Didelphis_virginiana
Didelphis_marsupialis
Didelphis_albiventris
Chironectes_minimus
Caluromys_philander
Dromiciops_gliroides
Notoryctes_typhlops
Notoryctes_caurinus
Macrotis_lagotis
Isodon_macrourus
Isodon_obesulus
Perameles_gunnii
Perameles_nasuta
Sarcophilus_harrisii
Dasyurus_maculatus
Dasyurus_viverrinus
Dasyuroides_byrnei
Dasycercus_cristicauda
Antechinus_flavipes

Thylacinus_cynocephalus
Myrmecobius_fasciatus
Phascolarctos_cinereus
Vombatus_ursinus
Lasiorhinus_latifrons
Cercartetus_concinnus
Trichosurus_vulpecula
Spilocuscus_maculatus
Phalanger_sericeus
Phalanger_orientalis
Hypsiprymnodon_moschatus
Thylogale_billardierii
Petrogale_lateralis
Petrogale_penicillata
Dendrolagus_goodfellowi
Dendrolagus_matschiei
Dendrolagus_bennettianus
Dendrolagus_lumholtzi
Macropus_fuliginosus
Macropus_giganteus
Macropus_antilopinus
Macropus_robustus
Macropus_rufus
Macropus_rufogriseus
Macropus_eugenii
Macropus_agilis
Macropus_parryi
Macropus_parma
Macropus_irma
Dendrolagus_ursinus
Potorous_longipes
Potorous_tridactylus
Bettongia_penicillata
Bettongia_gaimardi
Aepyprymnus_rufescens
Pseudocheirus_peregrinus
Petauroides_volans
Petaurus_australis
Petaurus_norfolcensis
Petaurus_breviceps

;
END;
BEGIN TREES;
 TRANSLATE
 1 Zaglossus_bruijnii,
 2 Tachyglossus_aculeatus,
 3 Ornithorhynchus_anatinus,
 4 Solenodon_paradoxus,
 5 Solenodon_cubanus,
 6 Galemys_pyrenaicus,
 7 Scapanus_latimanus,
 8 Scalopus_aquaticus,
 9 Talpa_europaea,
 10 Euroscaptor_mizura,
 11 Euroscaptor_micrura,
 12 Mogera_tokudae,
 13 Mogera_imaizumii,
 14 Mogera_wogura,

15 Euroscaptor_subanura,
16 Condylura_cristata,
17 Hylomys_suillus,
18 Echinorex_gymnura,
19 Erinaceus_europaeus,
20 Paraechinus_micropus,
21 Hemiechinus_auritus,
22 Atelerix_algirus,
23 Scutisorex_somereni,
24 Suncus_madagascariensis,
25 Crocidura_crenata,
26 Crocidura_canariensis,
27 Sorex_araneus,
28 Sorex_minutus,
29 Cryptotis_parva,
30 Blarina_hylophaga,
31 Notiosorex_crawfordi,
32 Smutsia_gigantea,
33 Phataginus_tricuspis,
34 Manis_pentadactyla,
35 Urocyon_cinereoargenteus,
36 Vulpes_lagopus,
37 Vulpes_zerda,
38 Vulpes_vulpes,
39 Otocyon_megalotis,
40 Nyctereutes_procyonoides,
41 Lycaon_pictus,
42 Chrysocyon_brachyurus,
43 Canis_mesomelas,
44 Canis_simensis,
45 Canis_latrans,
46 Canis_aureus,
47 Canis_lupus,
48 Cuon_alpinus,
49 Canis_adustus,
50 Pseudalopex_gymnocercus,
51 Speothos_venaticus,
52 Cerdocyon_thous,
53 Neomonachus_tropicalis,
54 Monachus_monachus,
55 Mirounga_leonina,
56 Mirounga_angustirostris,
57 Lobodon_carcinophaga,
58 Leptonychotes_weddellii,
59 Ommatophoca_rossii,
60 Hydrurga_leptonyx,
61 Erignathus_barbatus,
62 Pagophilus_groenlandicus,
63 Phoca_vitulina,
64 Pusa_hispida,
65 Halichoerus_grypus,
66 Cystophora_cristata,
67 Odobenus_rosmarus,
68 Callorhinus_ursinus,
69 Zalophus_californianus,
70 Zalophus_japonicus,
71 Eumetopias_jubatus,
72 Arctocephalus_pusillus,

73 Neophoca_cinerea,
74 Otaria_bryonia,
75 Arctocephalus_tropicalis,
76 Arctocephalus_forsteri,
77 Arctocephalus_australis,
78 Mydaus_javanensis,
79 Spilogale_gracilis,
80 Mephitis_mephitis,
81 Conepatus_humboldtii,
82 Conepatus_chinga,
83 Potos_flavus,
84 Procyon_lotor,
85 Procyon_cancrivorus,
86 Bassariscus_astutus,
87 Nasua_nasua,
88 Nasua_narica,
89 Bassaricyon_alleni,
90 Taxidea_taxus,
91 Meles_meles,
92 Meles_anakuma,
93 Arctonyx_collaris,
94 Mellivora_capensis,
95 Gulo_gulo,
96 Martes_flavigula,
97 Martes_foina,
98 Martes_zibellina,
99 Martes_martes,
100 Martes_americana,
101 Martes_pennanti,
102 Eira_barbara,
103 Melogale_orientalis,
104 Neovison_vison,
105 Mustela_frenata,
106 Mustela_felipei,
107 Mustela_erminea,
108 Mustela_nivalis,
109 Mustela_sibirica,
110 Mustela_nigripes,
111 Mustela_lutreolina,
112 Mustela_putorius,
113 Ictonyx_libyca,
114 Galictis_vittata,
115 Lyncodon_patagonicus,
116 Galictis_cuja,
117 Pteronura_brasiliensis,
118 Lontra_longicaudis,
119 Lontra_provocax,
120 Lontra_canadensis,
121 Enhydra_lutris,
122 Lutra_maculicollis,
123 Lutra_lutra,
124 Aonyx_cinerea,
125 Lutrogale_perspicillata,
126 Aonyx_capensis,
127 Ailurus_fulgens,
128 Ursus_maritimus,
129 Ursus_arctos,
130 Melursus_ursinus,

131 *Ursus_thibetanus,*
132 *Ursus_americanus,*
133 *Helarctos_malayanus,*
134 *Ailuropoda_melanoleuca,*
135 *Nandinia_binotata,*
136 *Hyaena_hyaena,*
137 *Hyaena_brunnea,*
138 *Proteles_cristata,*
139 *Crocuta_crocuta,*
140 *Eupleres_goudotii,*
141 *Salanoia_concolor,*
142 *Galidictis_fasciata,*
143 *Galidia_elegans,*
144 *Cryptoprocta_ferox,*
145 *Herpestes_vitticollis,*
146 *Herpestes_javanicus,*
147 *Herpestes_edwardsii,*
148 *Herpestes_ichneumon,*
149 *Ichneumia_albicauda,*
150 *Cynictis_penicillata,*
151 *Bdeogale_crassicauda,*
152 *Crossarchus_obscurus,*
153 *Helogale_parvula,*
154 *Liberiictis_kuhni,*
155 *Mungos_mungo,*
156 *Suricata_suricatta,*
157 *Genetta_maculata,*
158 *Genetta_tigrina,*
159 *Genetta_genetta,*
160 *Genetta_servalina,*
161 *Viverricula_indica,*
162 *Viverra_tangalunga,*
163 *Viverra_zibetha,*
164 *Civettictis_civetta,*
165 *Macrogalidia_musschenbroekii,*
166 *Cynogale_bennettii,*
167 *Hemigalus_derbyanus,*
168 *Paradoxurus_hermaphroditus,*
169 *Arctictis_binturong,*
170 *Prionodon_pardicolor,*
171 *Prionodon_linsang,*
172 *Neofelis_nebulosa,*
173 *Panthera_tigris,*
174 *Panthera_onca,*
175 *Panthera_uncia,*
176 *Panthera_pardus,*
177 *Panthera_leo,*
178 *Lynx_rufus,*
179 *Lynx_lynx,*
180 *Lynx_canadensis,*
181 *Acinonyx_jubatus,*
182 *Puma_concolor,*
183 *Felis_catus,*
184 *Felis_silvestris,*
185 *Leopardus_pardalis,*
186 *Leopardus_wiedii,*
187 *Leopardus_tigrinus,*
188 *Prionailurus_bengalensis,*

189 Leptailurus_serval,
190 Caracal_caracal,
191 Equus_africanus,
192 Equus_grevyi,
193 Equus_quagga,
194 Equus_zebra,
195 Equus_hemionus,
196 Equus_caballus,
197 Equus_ferus,
198 Tapirus_indicus,
199 Tapirus_terrestris,
200 Tapirus_bairdii,
201 Rhinoceros_unicornis,
202 Rhinoceros_sondaicus,
203 Dicerorhinus_sumatrensis,
204 Diceros_bicornis,
205 Ceratotherium_simum,
206 Vicugna_pacos,
207 Vicugna_vicugna,
208 Lama_glama,
209 Camelus_dromedarius,
210 Camelus_ferus,
211 Tayassu_pecari,
212 Pecari_tajacu,
213 Sus_scrofa,
214 Sus_barbatus,
215 Potamochoerus_porcus,
216 Phacochoerus_africanus,
217 Phacochoerus_aethiopicus,
218 Hylochoerus_meinertzhageni,
219 Babyrousa_babyrussa,
220 Hippopotamus_amphibius,
221 Choeropsis_liberiensis,
222 Indopacetus_pacificus,
223 Kogia_sima,
224 Kogia_breviceps,
225 Physeter_macrocephalus,
226 Platanista_gangetica,
227 Pontoporia_blainvillei,
228 Inia_geoffrensis,
229 Inia_araguaiaensis,
230 Lipotes_vexillifer,
231 Delphinapterus_leucas,
232 Mesoplodon_bowdoini,
233 Monodon_monoceros,
234 Neophocaena_phocaenoides,
235 Phocoenoides_dalli,
236 Phocoena_phocoena,
237 Phocoena_spinipinnis,
238 Phocoena_dioptrica,
239 Lagenorhynchus_acutus,
240 Lagenorhynchus_albirostris,
241 Orcinus_orca,
242 Orcaella_brevirostris,
243 Grampus_griseus,
244 Pseudorca_crassidens,
245 Peponocephala_electra,
246 Globicephala_melas,

247 Globicephala_macrorhynchus,
248 Feresa_attenuata,
249 Steno_bredanensis,
250 Sotalia_guianensis,
251 Sotalia_fluviatilis,
252 Tursiops_truncatus,
253 Stenella_attenuata,
254 Lagenodelphis_hosei,
255 Stenella_longirostris,
256 Sousa_chinensis,
257 Tursiops_aduncus,
258 Stenella_frontalis,
259 Stenella_coeruleoalba,
260 Stenella_clymene,
261 Delphinus_delphis,
262 Delphinus_capensis,
263 Lagenorhynchus_obscurus,
264 Lagenorhynchus_obliquidens,
265 Lagenorhynchus_cruciger,
266 Lagenorhynchus_australis,
267 Cephalorhynchus_hectori,
268 Cephalorhynchus_heavisidii,
269 Cephalorhynchus_eutropia,
270 Cephalorhynchus_commersonii,
271 Berardius_bairdii,
272 Berardius_arnuxii,
273 Mesoplodon_bidens,
274 Ziphius_cavirostris,
275 Mesoplodon_stejnegeri,
276 Hyperoodon_planifrons,
277 Hyperoodon_ampullatus,
278 Mesoplodon_hectori,
279 Mesoplodon_carlhubbsi,
280 Mesoplodon_layardii,
281 Mesoplodon_mirus,
282 Mesoplodon_europaeus,
283 Mesoplodon_densirostris,
284 Mesoplodon_grayi,
285 Tasmacetus_shepherdi,
286 Eubalaena_glacialis,
287 Eubalaena_japonica,
288 Balaenoptera_physalus,
289 Balaenoptera_musculus,
290 Balaenoptera_omurai,
291 Balaenoptera_borealis,
292 Balaenoptera_edeni,
293 Mesoplodon_perrini,
294 Balaenoptera_bonaerensis,
295 Mesoplodon_peruvianus,
296 Lissodelphis_peronii,
297 Lissodelphis_borealis,
298 Balaena_mysticetus,
299 Caperea_marginata,
300 Balaenoptera_acutorostrata,
301 Mesoplodon_ginkgodens,
302 Megaptera_novaeangliae,
303 Eschrichtius_robustus,
304 Moschiola_meminna,

305 *Moschiola indica*,
306 *Tragulus javanicus*,
307 *Tragulus kanchil*,
308 *Tragulus napu*,
309 *Okapia johnstoni*,
310 *Giraffa camelopardalis*,
311 *Antilocapra americana*,
312 *Muntiacus muntjak*,
313 *Dama dama*,
314 *Elaphurus davidianus*,
315 *Rusa unicolor*,
316 *Cervus elaphus*,
317 *Axis calamianensis*,
318 *Axis axis*,
319 *Rangifer tarandus*,
320 *Odocoileus virginianus*,
321 *Odocoileus hemionus*,
322 *Mazama gouazoubira*,
323 *Blastocerus dichotomus*,
324 *Pudu puda*,
325 *Hydropotes inermis*,
326 *Capreolus capreolus*,
327 *Alces alces*,
328 *Moschus moschiferus*,
329 *Moschus berezovskii*,
330 *Boselaphus tragocamelus*,
331 *Tetracerus quadricornis*,
332 *Tragelaphus imberbis*,
333 *Tragelaphus angasii*,
334 *Tragelaphus scriptus*,
335 *Tragelaphus eurycerus*,
336 *Tragelaphus spekii*,
337 *Tragelaphus buxtoni*,
338 *Tragelaphus strepsiceros*,
339 *Syncerus caffer*,
340 *Bubalus mindorensis*,
341 *Bubalus depressicornis*,
342 *Bubalus arnee*,
343 *Bos gaurus*,
344 *Bos taurus*,
345 *Bos indicus*,
346 *Bison bonasus*,
347 *Bos mutus*,
348 *Bos grunniens*,
349 *Bison bison*,
350 *Nesotragus moschatus*,
351 *Aepyceros melampus*,
352 *Pelea capreolus*,
353 *Redunca fulvorufula*,
354 *Redunca redunca*,
355 *Redunca arundinum*,
356 *Kobus megaceros*,
357 *Kobus leche*,
358 *Kobus vardonii*,
359 *Kobus kob*,
360 *Kobus ellipsiprymnus*,
361 *Ourebia ourebi*,
362 *Raphicerus melanotis*,

363 *Raphicerus sharpei*,
364 *Raphicerus campestris*,
365 *Madoqua kirkii*,
366 *Madoqua guentheri*,
367 *Saiga tatarica*,
368 *Nanger granti*,
369 *Eudorcas rufifrons*,
370 *Gazella dorcas*,
371 *Gazella gazella*,
372 *Gazella spekei*,
373 *Antilope cervicapra*,
374 *Litocranius walleri*,
375 *Antidorcas marsupialis*,
376 *Neotragus pygmaeus*,
377 *Oreotragus oreotragus*,
378 *Philantomba monticola*,
379 *Sylvicapra grimmia*,
380 *Cephalophus silvicultor*,
381 *Cephalophus dorsalis*,
382 *Cephalophus leucogaster*,
383 *Cephalophus nigrifrons*,
384 *Cephalophus natalensis*,
385 *Cephalophus weynsi*,
386 *Ovibos moschatus*,
387 *Capricornis crispus*,
388 *Ovis canadensis*,
389 *Ovis orientalis*,
390 *Ovis aries*,
391 *Ovis ammon*,
392 *Capra ibex*,
393 *Capra hircus*,
394 *Pseudois nayaur*,
395 *Myotragus balearicus*,
396 *Oreamnos americanus*,
397 *Rupicapra rupicapra*,
398 *Ammotragus lervia*,
399 *Connochaetes taurinus*,
400 *Connochaetes gnou*,
401 *Damaliscus pygargus*,
402 *Damaliscus lunatus*,
403 *Beatragus hunteri*,
404 *Alcelaphus buselaphus*,
405 *Hippotragus niger*,
406 *Hippotragus equinus*,
407 *Oryx dammah*,
408 *Oryx leucoryx*,
409 *Oryx gazella*,
410 *Oryx beisa*,
411 *Rhinopoma hardwickii*,
412 *Rhinopoma microphyllum*,
413 *Lavia frons*,
414 *Megaderma spasma*,
415 *Rhinolophus hipposideros*,
416 *Asellia tridens*,
417 *Hipposideros caffer*,
418 *Hipposideros diadema*,
419 *Cynopterus titthaechilus*,
420 *Cynopterus brachyotis*,

421 *Epomops_franqueti*,
422 *Hypsignathus_monstrosus*,
423 *Rousettus_aegyptiacus*,
424 *Eidolon_helvum*,
425 *Pteropus_giganteus*,
426 *Pteropus_rufus*,
427 *Pteropus_vampyrus*,
428 *Macroglossus_minimus*,
429 *Myzopoda_aurita*,
430 *Mystacina_tuberculata*,
431 *Thyroptera_discifera*,
432 *Noctilio_leporinus*,
433 *Pteronotus_parnellii*,
434 *Mormoops_megalophylla*,
435 *Micronycteris_microtis*,
436 *Anoura_caudifer*,
437 *Glossophaga_soricina*,
438 *Glossophaga_morenoi*,
439 *Phylloderma_stenops*,
440 *Phyllostomus_discolor*,
441 *Lonchorhina_inusitata*,
442 *Chrotopterus_auritus*,
443 *Vampyrum_spectrum*,
444 *Lonchophylla_inexpectata*,
445 *Carollia_perspicillata*,
446 *Artibeus_jamaicensis*,
447 *Artibeus_planirostris*,
448 *Pygoderma_bilabiatum*,
449 *Vampyressa_pusilla*,
450 *Sturnira_erythromos*,
451 *Sturnira_aratathomasi*,
452 *Rhinophylla_pumilio*,
453 *Lonchorhina_orinocensis*,
454 *Lonchorhina_fernandezi*,
455 *Lonchorhina_marinkellei*,
456 *Lonchorhina_aurita*,
457 *Diphylla_ecaudata*,
458 *Desmodus_rotundus*,
459 *Diaemus_youngi*,
460 *Macrotus_waterhousii*,
461 *Macrotus_californicus*,
462 *Nyctinomops_macrootis*,
463 *Molossus_molossus*,
464 *Promops_nasutus*,
465 *Molossops_temminckii*,
466 *Cynomops_planirostris*,
467 *Eumops_perotis*,
468 *Tadarida_brasiliensis*,
469 *Molossus_currentium*,
470 *Myotis_daubentonii*,
471 *Myotis_keaysi*,
472 *Myotis_velifer*,
473 *Myotis_chiloensis*,
474 *Myotis_lucifugus*,
475 *Myotis_evotis*,
476 *Eptesicus_nilssonii*,
477 *Eptesicus_serotinus*,
478 *Histiotus_montanus*,

479 *Histiotus_magellanicus*,
480 *Eptesicus_diminutus*,
481 *Lasionycteris_noctivagans*,
482 *Pipistrellus_pipistrellus*,
483 *Nyctalus_noctula*,
484 *Vespertilio_murinus*,
485 *Chalinolobus_tuberculatus*,
486 *Neoromicia_nana*,
487 *Lasiurus_cinereus*,
488 *Lasiurus_ega*,
489 *Antrozous_pallidus*,
490 *Otonycteris_hemprichii*,
491 *Plecotus_auritus*,
492 *Euderma_maculatum*,
493 *Barbastella_barbastellus*,
494 *Miniopterus_schreibersii*,
495 *Nycteris_javanica*,
496 *Nycteris_thebaica*,
497 *Saccopteryx_bilineata*,
498 *Peropteryx_leucoptera*,
499 *Balantiopteryx_plicata*,
500 *Galeopterus_variegatus*,
501 *Cynocephalus_volans*,
502 *Nycticebus_coucang*,
503 *Loris_tardigradus*,
504 *Otolemur_garnettii*,
505 *Otolemur_crassicaudatus*,
506 *Galago_senegalensis*,
507 *Euoticus_elegantulus*,
508 *Perodicticus_potto*,
509 *Arctocebus_calabarensis*,
510 *Daubentonia_madagascariensis*,
511 *Indri_indri*,
512 *Propithecus_diadema*,
513 *Propithecus_verreauxi*,
514 *Propithecus_coquereli*,
515 *Avahi_laniger*,
516 *Varecia_variegata*,
517 *Lemur_catta*,
518 *Hapalemur_griseus*,
519 *Eulemur_macaco*,
520 *Eulemur_rubriventer*,
521 *Eulemur_mongoz*,
522 *Eulemur_collaris*,
523 *Eulemur_fulvus*,
524 *Eulemur_sanfordi*,
525 *Eulemur_albifrons*,
526 *Lepilemur_mustelinus*,
527 *Cheirogaleus_medius*,
528 *Microcebus_murinus*,
529 *Microcebus_rufus*,
530 *Tarsius_syrichta*,
531 *Pithecia_irrorata*,
532 *Pithecia_monachus*,
533 *Pithecia_pithecia*,
534 *Cacajao_melanocephalus*,
535 *Callicebus_moloch*,
536 *Leontocebus_nigricollis*,

537 *Saguinus oedipus*,
538 *Leontopithecus rosalia*,
539 *Mico humeralifer*,
540 *Callithrix jacchus*,
541 *Cebuella pygmaea*,
542 *Saimiri sciureus*,
543 *Cebus olivaceus*,
544 *Cebus albifrons*,
545 *Cebus capucinus*,
546 *Aotus azarae*,
547 *Aotus nancymae*,
548 *Alouatta seniculus*,
549 *Alouatta caraya*,
550 *Alouatta palliata*,
551 *Alouatta pigra*,
552 *Lagothrix lagotricha*,
553 *Brachyteles hypoxanthus*,
554 *Brachyteles arachnoides*,
555 *Ateles geoffroyi*,
556 *Ateles fusciceps*,
557 *Ateles paniscus*,
558 *Ateles chamek*,
559 *Ateles belzebuth*,
560 *Symphalangus syndactylus*,
561 *Hylobates pileatus*,
562 *Hylobates lar*,
563 *Hylobates muelleri*,
564 *Hylobates moloch*,
565 *Hylobates klossii*,
566 *Hylobates agilis*,
567 *Nomascus concolor*,
568 *Nomascus gabriellae*,
569 *Nomascus leucogenys*,
570 *Hoolock hoolock*,
571 *Pongo pygmaeus*,
572 *Pongo abelii*,
573 *Pan troglodytes*,
574 *Pan paniscus*,
575 *Homo sapiens*,
576 *Gorilla gorilla*,
577 *Gorilla beringei*,
578 *Semnopithecus schistaceus*,
579 *Trachypithecus cristatus*,
580 *Trachypithecus phayrei*,
581 *Semnopithecus entellus*,
582 *Presbytis rubicunda*,
583 *Presbytis melalophos*,
584 *Rhinopithecus bieti*,
585 *Rhinopithecus roxellana*,
586 *Nasalis larvatus*,
587 *Colobus guereza*,
588 *Colobus vellerosus*,
589 *Macaca leonina*,
590 *Macaca sinica*,
591 *Macaca silenus*,
592 *Macaca nemestrina*,
593 *Macaca maura*,
594 *Macaca radiata*,

595 *Macaca_fascicularis,*
596 *Macaca_arctoides,*
597 *Macaca_nigra,*
598 *Macaca_fuscata,*
599 *Macaca_mulatta,*
600 *Macaca_sylvanus,*
601 *Theropithecus_gelada,*
602 *Papio_cynocephalus,*
603 *Papio_papio,*
604 *Papio_hamadryas,*
605 *Papio_anubis,*
606 *Lophocebus_aterimus,*
607 *Lophocebus_albigena,*
608 *Cercocebus_atys,*
609 *Mandrillus_sphinx,*
610 *Mandrillus_leucophaeus,*
611 *Cercopithecus_mitis,*
612 *Cercopithecus_ascanius,*
613 *Erythrocebus_patas,*
614 *Chlorocebus_pygerythrus,*
615 *Chlorocebus_aethiops,*
616 *Chlorocebus_cynosuros,*
617 *Chlorocebus_sabaeus,*
618 *Miopithecus_talapoin,*
619 *Ptilocercus_lowii,*
620 *Tupaia_glis,*
621 *Tupaia_nicobarica,*
622 *Urogale_everetti,*
623 *Tupaia_tana,*
624 *Dendrogale_melanura,*
625 *Anathana_elliotti,*
626 *Sylvilagus_audubonii,*
627 *Oryctolagus_cuniculus,*
628 *Pentalagus_furnessi,*
629 *Lepus_californicus,*
630 *Lepus_alleni,*
631 *Lepus_townsendii,*
632 *Lepus_timidus,*
633 *Lepus_europaeus,*
634 *Lepus_americanus,*
635 *Nesolagus_timminsi,*
636 *Nesolagus_netscheri,*
637 *Ochotona_hyperborea,*
638 *Ochotona_princeps,*
639 *Muscardinus_avellanarius,*
640 *Aplodontia_rufa,*
641 *Ratufa_indica,*
642 *Callosciurus_erythraeus,*
643 *Tamias_striatus,*
644 *Tamias_minimus,*
645 *Spermophilus_dauricus,*
646 *Ictidomys_tridecemlineatus,*
647 *Cynomys_ludovicianus,*
648 *Marmota_monax,*
649 *Marmota_caligata,*
650 *Marmota_marmota,*
651 *Marmota_sibirica,*
652 *Sciurus_anomalus,*

653 *Sciurus_niger*,
654 *Sciurus_carolinensis*,
655 *Sciurus_griseus*,
656 *Microsciurus_mimulus*,
657 *Microsciurus_alfari*,
658 *Microsciurus_flaviventer*,
659 *Sciurus_vulgaris*,
660 *Tamiasciurus_hudsonicus*,
661 *Glaucomys_volans*,
662 *Petaurista_leucogenys*,
663 *Petaurista_philippensis*,
664 *Petaurista_alborufus*,
665 *Petaurista_grandis*,
666 *Laonastes_aenigmamus*,
667 *Atherurus_macrourus*,
668 *Hystrix_javanica*,
669 *Hystrix_cristata*,
670 *Thryonomys_swinderianus*,
671 *Heterocephalus_glaber*,
672 *Heliophobius_argenteocinereus*,
673 *Cryptomys_hottentotus*,
674 *Georychus_capensis*,
675 *Bathyergus_suillus*,
676 *Cuniculus_paca*,
677 *Myoprocta_acouchy*,
678 *Dasyprocta_leporina*,
679 *Dasyprocta_azarae*,
680 *Hydrochoerus_hydrochaeris*,
681 *Dolichotis_patagonum*,
682 *Cavia_porcellus*,
683 *Cavia_aperea*,
684 *Erethizon_dorsatum*,
685 *Coendou_prehensilis*,
686 *Lagostomus_maximus*,
687 *Chinchilla_lanigera*,
688 *Chinchilla_chinchilla*,
689 *Phyllomys_sulinus*,
690 *Myocastor_coypus*,
691 *Capromys_pilorides*,
692 *Ctenomys_boliviensis*,
693 *Ctenomys_talarum*,
694 *Octodon_degus*,
695 *Spalacopus_cyanus*,
696 *Dipus_sagitta*,
697 *Jaculus_orientalis*,
698 *Jaculus_jaculus*,
699 *Stylodipus_telum*,
700 *Allactaga_euphratica*,
701 *Allactaga_major*,
702 *Zapus_princeps*,
703 *Sicista_concolor*,
704 *Spalax_leucodon*,
705 *Rhizomys_pruinosus*,
706 *Dicrostonyx_groenlandicus*,
707 *Ondatra_zibethicus*,
708 *Lemmus_sibiricus*,
709 *Synaptomys_cooperi*,
710 *Ellobius_talpinus*,

711 *Microtus_arvalis*,
712 *Microtus_pennsylvanicus*,
713 *Microtus_ochrogaster*,
714 *Microtus_chrotorrhinus*,
715 *Microtus_oeconomus*,
716 *Myodes_gapperi*,
717 *Mesocricetus_auratus*,
718 *Tscherskia_triton*,
719 *Cricetus_cricetus*,
720 *Cricetulus_migratorius*,
721 *Cricetulus_longicaudatus*,
722 *Cricetulus_barabensis*,
723 *Phodopus_sungorus*,
724 *Neotoma_fuscipes*,
725 *Neotoma_lepida*,
726 *Neotoma_floridana*,
727 *Neotoma_albigula*,
728 *Neotoma_mexicana*,
729 *Neotoma_cinerea*,
730 *Hodomys_alleni*,
731 *Nelsonia_neotomodon*,
732 *Xenomys_nelsoni*,
733 *Ochrotomys_nuttalli*,
734 *Reithrodontomys_creper*,
735 *Reithrodontomys_mexicanus*,
736 *Reithrodontomys_fulvescens*,
737 *Reithrodontomys_sumichrasti*,
738 *Reithrodontomys_megalotis*,
739 *Reithrodontomys_humulis*,
740 *Reithrodontomys_montanus*,
741 *Isthmomyss_pirrensis*,
742 *Isthmomyss_flavidus*,
743 *Onychomys_torridus*,
744 *Onychomys_leucogaster*,
745 *Peromyscus_maniculatus*,
746 *Peromyscus_leucopus*,
747 *Megadontomys_thomasi*,
748 *Peromyscus_yucatanicus*,
749 *Peromyscus_guatemalensis*,
750 *Peromyscus_mexicanus*,
751 *Peromyscus_megalops*,
752 *Peromyscus_melanophrys*,
753 *Habromys_lepturus*,
754 *Habromys_lophurus*,
755 *Peromyscus_crinitus*,
756 *Peromyscus_ochraventer*,
757 *Peromyscus_truei*,
758 *Peromyscus_difficilis*,
759 *Peromyscus_attwateri*,
760 *Peromyscus_furvus*,
761 *Peromyscus_spicilegus*,
762 *Peromyscus_boyllii*,
763 *Podomys_floridanus*,
764 *Neotomodon_alstoni*,
765 *Peromyscus_californicus*,
766 *Peromyscus_eremicus*,
767 *Osgoodomys_banderanus*,
768 *Scotinomys_xerampelinus*,

769 Scotinomys_teguina,
770 Baiomys_taylori,
771 Baiomys_musculus,
772 Tylomys_panamensis,
773 Tylomys_mirae,
774 Tylomys_watsoni,
775 Tylomys_fulviventer,
776 Tylomys_nudicaudus,
777 Ototylomys_phyllotis,
778 Nyctomys_sumichrasti,
779 Chibchanomys_trichotis,
780 Reithrodon_auritus,
781 Rheomys_underwoodi,
782 Rheomys_thomasi,
783 Rheomys_mexicanus,
784 Rheomys_raptor,
785 Ichthyomys_pittieri,
786 Ichthyomys_hydrobates,
787 Ichthyomys_tweedii,
788 Neusticomys_venezuelae,
789 Neusticomys_ferreirai,
790 Neusticomys_monticolus,
791 Anotomys_leander,
792 Chinchillula_sahamae,
793 Sigmodon_leucotis,
794 Sigmodon_fulviventer,
795 Sigmodon_alleni,
796 Sigmodon_ochrognathus,
797 Sigmodon_hispidus,
798 Rhipidomys_macconnelli,
799 Rhipidomys_nitela,
800 Rhipidomys_mastacalis,
801 Rhipidomys_fulviventer,
802 Rhipidomys_venustus,
803 Rhipidomys_couesi,
804 Rhipidomys_venezuelae,
805 Rhipidomys_latimanus,
806 Rhipidomys_austrinus,
807 Aepeomys_lugens,
808 Thomasomys_gracilis,
809 Thomasomys_cinereus,
810 Thomasomys_rhoadsi,
811 Thomasomys_baeops,
812 Thomasomys_aureus,
813 Thomasomys_pyrrhonotus,
814 Thomasomys_daphne,
815 Thomasomys_oreas,
816 Thomasomys_hylophilus,
817 Thomasomys_paramorum,
818 Chilomys_instans,
819 Akodon_bogotensis,
820 Blarinomys_breviceps,
821 Scapteromys_tumidus,
822 Scapteromys_meridionalis,
823 Scapteromys_aquaticus,
824 Kunsia_tomentosus,
825 Thalpomys_lasiotis,
826 Necromys_amoenus,

827 *Necromys_urichi*,
828 *Necromys_lasiurus*,
829 *Necromys_temchuki*,
830 *Necromys_obscurus*,
831 *Necromys_lactens*,
832 *Akodon_mimus*,
833 *Akodon_azarae*,
834 *Akodon_boliviensis*,
835 *Akodon_subfuscus*,
836 *Akodon_lutescens*,
837 *Akodon_cursor*,
838 *Akodon_simulator*,
839 *Akodon_albiventer*,
840 *Akodon_mollis*,
841 *Akodon_torques*,
842 *Akodon_aerosus*,
843 *Deltamys_kempi*,
844 *Thaptomys_nigrita*,
845 *Oxymycterus_delator*,
846 *Oxymycterus_paramensis*,
847 *Oxymycterus_rufus*,
848 *Oxymycterus_inca*,
849 *Zygodontomys_brevicauda*,
850 *Oecomys_concolor*,
851 *Oecomys_roberti*,
852 *Oecomys_bicolor*,
853 *Oecomys_superans*,
854 *Oecomys_trinitatis*,
855 *Oecomys_mamora*,
856 *Oecomys_paricola*,
857 *Transandinomys_talamancae*,
858 *Transandinomys_bolivaris*,
859 *Euryoryzomys_nitidus*,
860 *Euryoryzomys_russatus*,
861 *Euryoryzomys_legatus*,
862 *Nephelomys_albigularis*,
863 *Nephelomys_keaysi*,
864 *Hylaeamys_megacephalus*,
865 *Handleyomys_alfaroi*,
866 *Handleyomys_melanotis*,
867 *Handleyomys_chapmani*,
868 *Neacomys_guianae*,
869 *Neacomys_spinosus*,
870 *Neacomys_tenuipes*,
871 *Microryzomys_minutus*,
872 *Microryzomys_altissimus*,
873 *Oligoryzomys_microtis*,
874 *Oligoryzomys_nigripes*,
875 *Oligoryzomys_destructor*,
876 *Oligoryzomys_fulvescens*,
877 *Oligoryzomys_eliurus*,
878 *Oligoryzomys_delticola*,
879 *Oligoryzomys_chacoensis*,
880 *Oligoryzomys_andinus*,
881 *Oligoryzomys_magellanicus*,
882 *Oligoryzomys_longicaudatus*,
883 *Oligoryzomys_flavescens*,
884 *Eremoryzomys_poli*

885 *Cerradomys_subflavus*,
886 *Sooretamys_angouya*,
887 *Holochilus_brasiliensis*,
888 *Holochilus_chacarius*,
889 *Pseudoryzomys_simplex*,
890 *Lundomys_molitor*,
891 *Nectomys_squamipes*,
892 *Oryzomys_couesi*,
893 *Oryzomys_palustris*,
894 *Sigmodontomys_alfari*,
895 *Melanomys_caliginosus*,
896 *Nesoryzomys_indefessus*,
897 *Irenomys_tarsalis*,
898 *Euneomys_petersoni*,
899 *Euneomys_chinchilloides*,
900 *Andinomys_edax*,
901 *Punomys_kofordi*,
902 *Delomys_sublineatus*,
903 *Delomys_dorsalis*,
904 *Calomys_lepidus*,
905 *Calomys_sorellus*,
906 *Calomys_musculus*,
907 *Calomys_laucha*,
908 *Calomys_tener*,
909 *Calomys_boliviae*,
910 *Calomys_callosus*,
911 *Calomys_venustus*,
912 *Calomys_hummelincki*,
913 *Eligmodontia_morgani*,
914 *Eligmodontia_puerulus*,
915 *Eligmodontia_moreni*,
916 *Eligmodontia_hirtipes*,
917 *Eligmodontia_bolsonensis*,
918 *Graomys_griseoflavus*,
919 *Graomys_domorum*,
920 *Andalgalomys_pearsoni*,
921 *Andalgalomys_olrogi*,
922 *Salinomys_delicatus*,
923 *Phyllotis_wolffsohni*,
924 *Tapecomys_primus*,
925 *Auliscomys_sublimis*,
926 *Auliscomys_pictus*,
927 *Auliscomys_boliviensis*,
928 *Galenomys_garleppi*,
929 *Loxodontomys_micropus*,
930 *Phyllotis_osilae*,
931 *Phyllotis_alisosiensis*,
932 *Phyllotis_anitae*,
933 *Phyllotis_caprinus*,
934 *Phyllotis_xanthopygus*,
935 *Phyllotis_darwini*,
936 *Phyllotis_amicus*,
937 *Paralomys_gerbillus*,
938 *Phyllotis_haggardi*,
939 *Phyllotis_andium*,
940 *Calassomys_apicalis*,
941 *Akodon_neocenus*,
942 *Wiedomys_pyrrhorhinos*,

943 *Juliomys pictipes*,
944 *Abrothrix olivaceus*,
945 *Abrothrix andinus*,
946 *Abrothrix jelskii*,
947 *Abrothrix illuteus*,
948 *Abrothrix longipilis*,
949 *Abrothrix sanborni*,
950 *Notiomys edwardsii*,
951 *Geoxus valdivianus*,
952 *Chelemys macronyx*,
953 *Mystromys albicaudatus*,
954 *Saccostomus campestris*,
955 *Beamys hindei*,
956 *Cricetomys gambianus*,
957 *Brachytarsomys albicauda*,
958 *Gymnuromys roberti*,
959 *Eliurus myoxinus*,
960 *Brachyuromys ramirohitra*,
961 *Nesomys rufus*,
962 *Nesomys audeberti*,
963 *Macrotarsomys bastardi*,
964 *Calomyscus baluchi*,
965 *Lophiomys imhausi*,
966 *Pachyuromys duprasi*,
967 *Psammomys obesus*,
968 *Meriones shawi*,
969 *Meriones unguiculatus*,
970 *Sekeetamys calurus*,
971 *Ammodillus imbellis*,
972 *Microdillus peeli*,
973 *Gerbillus cheesmani*,
974 *Taterillus arenarius*,
975 *Gerbilliscus nigricaudus*,
976 *Gerbillurus setzeri*,
977 *Desmodillus auricularis*,
978 *Tatera indica*,
979 *Notomys amplus*,
980 *Conilurus albipes*,
981 *Hydromys chrysogaster*,
982 *Mastomys coucha*,
983 *Mus musculus*,
984 *Rhabdomys pumilio*,
985 *Micromys minutus*,
986 *Maxomys inflatus*,
987 *Rattus rattus*,
988 *Rattus fuscipes*,
989 *Rattus norvegicus*,
990 *Pedetes surdaster*,
991 *Pedetes capensis*,
992 *Anomalurus pelii*,
993 *Anomalurus derbianus*,
994 *Anomalurus beecrofti*,
995 *Anomalurus pusillus*,
996 *Microdipodops pallidus*,
997 *Dipodomys spectabilis*,
998 *Dipodomys ordii*,
999 *Dipodomys heermanni*,
1000 *Dipodomys merriami*,

1001 Thomomys_bulbivorus,
1002 Thomomys_umbrinus,
1003 Thomomys_bottae,
1004 Geomys_pinetis,
1005 Geomys_bursarius,
1006 Geomys_arenarius,
1007 Cratogeomys_castanops,
1008 Liomys_salvini,
1009 Heteromys_anomalus,
1010 Perognathus_fasciatus,
1011 Castor_fiber,
1012 Castor_canadensis,
1013 Hydrodamalis_gigas,
1014 Trichechus_manatus,
1015 Trichechus_senegalensis,
1016 Trichechus_inunguis,
1017 Dugong_dugon,
1018 Loxodonta_africana,
1019 Elephas_maximus,
1020 Procavia_capensis,
1021 Heterohyrax_brucei,
1022 Dendrohyrax_validus,
1023 Dendrohyrax_dorsalis,
1024 Dendrohyrax_arboreus,
1025 Orycteropus_afer,
1026 Rhynchocyon_cirnei,
1027 Rhynchocyon_chrysopygus,
1028 Rhynchocyon_petersi,
1029 Elephantulus_myurus,
1030 Elephantulus_edwardii,
1031 Macroscelides_proboscideus,
1032 Petrodromus_tetradactylus,
1033 Elephantulus_rufescens,
1034 Elephantulus_brachyrhynchus,
1035 Elephantulus_intufi,
1036 Elephantulus_rupestris,
1037 Potamogale_velox,
1038 Limnogale_mergulus,
1039 Microgale_talazaci,
1040 Microgale_longicaudata,
1041 Microgale_cowani,
1042 Oryzorictes_tetradactylus,
1043 Tenrec_ecaudatus,
1044 Hemicentetes_semispinosus,
1045 Setifer_setosus,
1046 Echinops_telfairi,
1047 Eremitalpa_granti,
1048 Amblysomus_hottentotus,
1049 Calcochloris_obtusirostris,
1050 Chrysospalax_trevelyani,
1051 Chrysochloris_asiatica,
1052 Dasypus_hybridus,
1053 Dasypus_novemcinctus,
1054 Dasypus_kappleri,
1055 Dasypus_septemcinctus,
1056 Zaedyus_pichiy,
1057 Euphractus_sexcinctus,
1058 Chaetophractus_vellerosus,

1059 *Chaetophractus villosus*,
1060 *Chlamyphorus truncatus*,
1061 *Tolypeutes matacus*,
1062 *Priodontes maximus*,
1063 *Cabassous unicinctus*,
1064 *Tamandua tetradactyla*,
1065 *Tamandua mexicana*,
1066 *Myrmecophaga tridactyla*,
1067 *Cyclopes didactylus*,
1068 *Choloepus hoffmanni*,
1069 *Choloepus didactylus*,
1070 *Bradypus tridactylus*,
1071 *Bradypus variegatus*,
1072 *Rhyncholestes raphanurus*,
1073 *Caenolestes fuliginosus*,
1074 *Glironia venusta*,
1075 *Monodelphis domestica*,
1076 *Gracilinanus microtarsus*,
1077 *Metachirus nudicaudatus*,
1078 *Didelphis virginiana*,
1079 *Didelphis marsupialis*,
1080 *Didelphis albiventris*,
1081 *Chironectes minimus*,
1082 *Caluromys philander*,
1083 *Dromiciops gliroides*,
1084 *Notoryctes typhlops*,
1085 *Notoryctes caurinus*,
1086 *Macrotis lagotis*,
1087 *Isoodon macrourus*,
1088 *Isoodon obesulus*,
1089 *Perameles gunnii*,
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1097 *Thylacinus cynocephalus*,
1098 *Myrmecobius fasciatus*,
1099 *Phascolarctos cinereus*,
1100 *Vombatus ursinus*,
1101 *Lasiorhinus latifrons*,
1102 *Cercartetus concinnus*,
1103 *Trichosurus vulpecula*,
1104 *Spilocuscus maculatus*,
1105 *Phalanger sericeus*,
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1108 *Thylogale billardierii*,
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1110 *Petrogale penicillata*,
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