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REVISED CHECKLIST OF NORTH AMERICAN MAMMALS NORTH OF MEXICO, 2003

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Since the first checklist of scientific and vernacular names of species of North American mammals was published by Jones et al. (1973), the checklist has been updated periodically (Jones et al., 1975; 1979; 1982; 1986; 1992; 1997). The publication of this revision marks the 30th anniversary of the checklist. From the beginning, it was hoped that the checklist would provide a useful reference for many scientific endeavors in general, both in the field and in the laboratory, and that it would be useful to students in particular. Since the publication six years ago of the most recent revision of the checklist (Jones et al.,

1997), demand for copies essentially has eliminated the original supply. In addition, some significant taxonomic changes have been published in the primary literature on mammals since that time. As in previous revisions of the checklist, we have attempted to include all species of Recent mammals known to occur in North America (and its adjacent waters) to the north of Mexico and in the recognized published literature through 2003. The checklist represents a general consensus among the authors, but does not necessarily imply complete agreement among them on all issues.

THIRTY YEARS OF CHANGE

After 30 years and 8 checklists, it seemed appropriate to review and summarize the changes that have occurred in the recognized fauna of North America north of Mexico since the first checklist was published in 1973. Table 1 illustrates the number of orders, families, genera, and species recognized in each revision of the checklist in the Occasional Papers (O.P.) series. From 1973 to 2003, there has been an increase at every taxonomic level (orders, 11 to 12; families, 41

to 46; genera, 141 to 166; species, 403 to 474). Many of the changes in the species classification were made to ensure monophyly of taxa. The greatest percentage change has been in the number of genera (17.7%). The increase in the number of species (71, or 15%) reflects taxonomic changes (46), distributional changes (5), the addition of introduced, non-native mammals to the list (19), and the recognition of humans as a component of the native fauna (1).

Table 1. Changes in the number of taxa for North American mammals north of Mexico as recorded on the checklist published in the Occasional Papers of the Museum, Texas Tech University.

Year (O.P. #)	Orders	Families	Genera	Species	
1973 (12)	11	41	141	403	
1975 (28)	11	41	141	404	
1979 (62)	11	42	142	412	
1982 (80)	11	42	141	417	
1986 (107)	10	43	148	425	
1992 (146)	12	44	156	447	
1997 (173)	12	45	164	462	
2003 (229)	12	46	166	474	

During the last 30 years, the science of mammalogy has changed dramatically as rapid advancements in laboratory techniques, including the study of individuals at the molecular level, have been developed and refined. Technological advances undoubtedly will continue to influence our understanding of the systematic relationships of species and will be reflected in continuing changes to the taxonomy and classification of mammals. Although changes in taxonomy require the student to adapt constantly to a new list of names and a new understanding of species relationships, it clearly should be the goal of all mammalogists to achieve the most accurate classification possible.

Recent advances in molecular biology have provided resolution to questions related to species identification, reproductive isolation and hybridization with proof of the presence/absence of F1 and backcrossed individuals within local populations. This new level of resolution, in combination with the application of the Genetic Species Concept (Avise and Walker, 1999; Bradley and Baker, 2001; Dobzhansky, 1950; Mayden, 1997; Mayr, 1969; Simpson, 1943), suggests that there are many species of mammals that are currently unrecognized (Bradley and Baker, 2001) on lists such as those provided herein and in Wilson and Reeder (1993). Some estimates are that there will be an increase of

25% (Baker, 2002) in number of species in the class Mammalia, but this may indeed be an underestimation. Our understanding of the systematics of mammals is probably the greatest in North America north of Mexico (the focus of this checklist) and it remains open to speculation how many additional species will ultimately be recognized within the North American faunal groups. An example of a cryptic species that was defined by gene sequence data is Notiosorex cockrumi (Baker et al., 2003). The more common situation will probably involve examples where subspecific differences have been described and the application of molecular data indicates the presence of more than one species. Examples covered on this checklist include Neotoma macrotis (Matocq, 2002), Neotoma leucodon (Edwards et al., 2001), Canis lycaon (Wilson et al., 2000; Wilson et al., 2003) and within the Neotoma lepida complex (Patton and Alvarez-Castañeda, in press). Undoubtedly, there will be many other examples within the shrews, rodents and possibly other taxa.

It might be predicted that vagile species such as bats would be the least likely to have well defined phylogroups and unrecognized biological species. At a recent meeting of the North American Symposium on Bat Research (8-11 October 2003 in Lincoln, NE) two papers presented on bat species with a wide geographic range suggest geographically distinct phylogroups. These were studies on Myotis lucifugus presented by Tanya A. Dewey of the University of Michigan and on Antrozous pallidus presented by Sarah E. Weyandt of Oklahoma State University. At this time it is not possible to understand how many if any of those phylogroups represent currently unrecognized species but it is probable that some do. The significant observation here is that the work of Dewey and Weyandt document that potentially vagile species of bats are divided into well-defined phylogroups based on gene sequence data. Further, these phylogroups need to be interrogated relative to specific status to better understand the biodiversity of the mammals north of Mexico.

TAXONOMIC DIVERSITY

Orders.—Although the overall number of orders (11) remained stable from 1973 to 1982, changes to the recognized orders occurred in 1979, when Mysticeti and Odontoceti were recognized as orders (eliminating the order Cetacea), and Pinnipedia was reduced to a suborder of Carnivora. In 1986, the order Cetacea was restored, and Mysticeti and Odontoceti were reduced to suborders, thus reducing the overall count of orders to ten. In 1992, Primates and Perissodactyla were added to the checklist. The recognized orders have remained unchanged since that time.

Families.—In 1979, the walrus was recognized as belonging to a distinct family, Odobenidae. In 1982, the number of families did not change, but Kogiidae was reduced from familial status and Phocoenidae was recognized as a family separate from Delphinidae. In 1986, Kogiidae was restored as a family, bringing the total count to 43. In 1992, the families Cercopithecidae and Equidae were added to reflect the presence of the introduced rhesus monkey and the feral horse and ass in the North American fauna. Also in 1992, Cricetidae was abandoned as a family, and all New World rats, mice, and voles were recognized as belonging to the family Muridae. In 1997, the skunks were grouped as the family Mephitidae. On the current checklist, the family Hominidae was added, bringing the total number of families to 46.

Genera.—In 1975, the number of genera was unchanged from 1973, but Idionycteris was recognized as a distinct genus, and the bobcat and lynx were returned to the genus Felis, eliminating the genus Lynx. The addition of the genus Feresa brought the number of recognized genera to 142 in 1979. In 1982, Arborimus was recognized as distinct at the generic level, Microsorex was reduced from generic rank, and Tamias was recognized as the generic name for all chipmunks, eliminating the genus Eutamias. On the subsequent checklist, Arborimus was not recognized as a distinct genus, but eight new genera appeared on the checklist as the result of taxonomic changes (Brachylagus, Chaetodipus, Pusa, Pagophilus, Histriophoca), distributional changes (Lagenodelphis),

and the addition of exotic species (Boselaphus, Antilope). Eight additional genera were recognized in 1992, bringing the number of recognized genera to 156. Of the eight new genera, three were added as the result of taxonomic changes (Nyctinomops, Lynx, Panthera), and five were added to reflect the presence of introduced mammals (Macaca, Equus, Oryx, Hemitragus, Capra). In 1997, taxonomic changes added six genera to the checklist (Arborimus, Puma, Leopardus, Herpailurus, Axis, Dama), and the discovery of Molossus molossus in Florida and reports of Peponocephala electra in Florida and Maryland added two genera. On the current checklist, the genus Alopex was deleted and the genera Homo, Eubalaena, and Neotamias were added, bringing the total recognized genera to 166.

Species.—Total species increased by one from 1973 to 1975; 3 species were added and 2 were deleted from the checklist as the result of taxonomic changes. In 1979, 14 species were added to the checklist and 6 were removed, bringing the total species count to 412. Thirteen additions and eight deletions to the 1982 checklist brought the species count to 417. All of the changes in 1982 were the result of taxonomic revisions, with the exception of the addition of a cetacean based on a new record for North America. In 1986, taxonomic revisions added 12 names to the list and deleted 9; one cetacean was added based on a new record; and 4 introduced species were added. The total species count rose dramatically from 1986 to 1992 (from 425 to 447); taxonomic revisions accounted for 14 additions and 3 deletions, and 11 introduced or feral species were added to the list. The 1997 checklist included 4 additional introduced species and 2 new species (one bat and one cetacean) based on recent discoveries in North America, and taxonomic revisions added 15 names and deleted 6, bringing the checklist total to 462 species. On the current checklist, 15 additions and 4 deletions were reported as the result of taxonomic changes, and the addition of modern man to the list added one species, bringing the total to 474 species.

DEPARTURES FROM JONES ET AL. (1997) AND OTHER NOTES

The changes that have been made in the scientific names from those listed in Jones et al. (1997) are discussed below. Some other pertinent comments are included that might help to explain the current list of recognized species. Readers should note that although Wilson and Ruff (1999) was a more recent publication than the last checklist (Jones et al., 1997), Wilson and Ruff (1999) relied heavily on Wilson and Reeder (1993) as the basis for their book. Thus, there are numerous discrepancies between Wilson and Ruff (1999) and the current checklist. For clarification, we have noted these discrepancies throughout the following notes. We referred primarily to Rice (1998) for marine mammal designations. With a few exceptions, common names are adapted from Wilson and Cole (2000) for terrestrial mammals and Rice (1998) for marine mammals.

INSECTIVORES

Soricidae.—The taxonomy of the Sorex cinereus group has a long and confusing history. Most recently, Demboski and Cook (2003) attempted to resolve the phylogenetic relationships among 8 members of the group using molecular data analyses. Demboski and Cook (2003) based their study of the group on the morphological phylogeny presented by van Zyll de Jong (1991). Although the results of Demboski and Cook (2003) generally supported the phylogeny of van Zyll de Jong (1991), we note that the taxonomy of the entire Sorex cinereus group remains unresolved, and additional clarification is needed on the composition and nomenclature of this group.

Of particular concern are three species of the Sorex cinereus group – haydeni, fontinalis, and jacksoni. Brunet et al. (2002) contended that Sorex haydeni does not warrant specific status. Demboski and Cook (2003), however, refuted this change. We have chosen to retain specific status for haydeni at this time. Likewise, we continue to recognize fontinalis as a species based on the electrophoretic analyses presented by George (1988). Van Zyll de Jong (1999) and Demboski and Cook (2003), however, relegated Sorex fontinalis to subspecific status. In 1997 (Jones et al., 1997), we accepted the results of the karyological analyses of Rausch and Rausch (1995), which re-

duced *Sorex jacksoni* to subspecific status. Both van Zyll de Jong (1999) and Demboski and Cook (2003), however, continued to recognize *jacksoni* as a species. Based on the data of Demboski and Cook (2003), we have chosen once again to recognize *S. jacksoni* as a species on the current checklist.

We follow Alexander (1996) in elevating *Sorex monticolus neomexicanus* to a distinct species. Note that George (1999), however, retained *neomexicanus* as a subspecies. We follow Stewart et al. (2002) in elevating *Sorex arcticus maritimensis* to specific status.

Notiosorex cockrumi, Cockrum's desert shrew, has been added to the checklist. Baker et al. (2003) described this new species based on nuclear and mitochondrial sequence data.

In his account of *Sorex palustris*, Harris (1999) recognized *alaskanus* as a subspecies of *palustris*. Based on the works of Carraway (1995), George (1988), and Hutterer (1993), however, we continue to recognize *Sorex alaskanus* as a species.

We continue to recognize *Sorex pribilofensis* as the correct name for the Pribilof Island Shrew, following van Zyll de Jong (1991), Rausch and Rausch (1997), and Demboski and Cook (2003). Note that Hoffmann (1999), however, referred to the subspecies *S. hydrodromus pribilofensis*.

Wilson and Ruff (1999) failed to provide an account for *Sorex yukonicus*. This species was described by Dokuchaev (1997), and we continue to recognize the species.

BATS

Phyllostomidae.—Several unconfirmed reports of new bat records have come from the Florida Keys region, including the possible occurrence of Artibeus jamaicensis, Phyllonycteris poeyi, and Erophylla sezekorni. None of these reports have been substantiated through any scientific outlets, however, and we refrain from adding any of these species to the current checklist.

Vespertilionidae.—As summarized by Piaggio et al. (2002), the systematic relationship between Myotis lucifugus and Myotis occultus has been the subject of multiple studies, with often conflicting results and conclusions. Based on this most recent study, utilizing mitochondrial gene sequencing analyses, Piaggio et al. (2002) concluded that Myotis occultus represents an evolutionarily distinct monophyletic lineage and warrants specific status. We have accepted that conclusion and included Myotis occultus as a species on the current checklist.

Shump (1999) did not recognize Lasiurus blossevillii as a valid species, and continued to recognize blossevillii as a South American subspecies of Lasiurus borealis. We continue, however, as do most authors, to accept the results of Baker et al. (1988) and recognize Lasiurus blossevillii as a valid North American species.

Similarly, Kurta (1999) did not recognize the specific status of *Lasiurus xanthinus*, and placed it as a subspecies of *Lasiurus ega*. As on the 1992 checklist (Jones et al., 1992), however, we continue to recognize *Lasiurus xanthinus* as specifically distinct based on chromosomal and electrophoretic data (Baker et al., 1988).

Several authors have argued for the recognition of *Corynorhinus* as a separate genus for the New World big-eared bats and the restriction of *Plecotus* to the Old World forms of this group (Frost and Timm,1992; Tumlison and Douglas, 1992). In the last revision of this checklist (Jones et al., 1997), we retained the name *Plecotus*, but noted that the problem warranted additional study. Recent works by Bogdanowicz et al. (1998) and Hoofer and Van Den Bussche (2001) have provided further support for the monophyly of the Old World genus *Plecotus* and the New World genus *Corynorhinus*. Therefore, we recognize *Corynorhinus* as the genus for the two North American species.

Molossidae.--Although Wilson and Ruff (1999) did not include an account for Molossus molossus, we continue to list this species based on its discovery in the Florida Keys (Frank, 1997).

LAGOMORPHS

Leporidae.—We follow Ruedas (1998) who, based on a morphological analysis of 26 characters, elevated Sylvilagus robustus to specific status. Ruedas (1998) also suggested that S. f. holzneri and S. f. cognatus may warrant specific status, but he refrained from naming them as such. We continue to recognize holzneri and cognatus as subspecies pending further studies of this group.

Halanych et al. (1999) questioned the validity of Lepus othus, given its minimal genetic distinctness from Lepus arcticus. As Halanych et al. (1999) emphasized, however, further studies are necessary to resolve the taxonomic status of the arctic hare group. Thus, we have retained Lepus othus on the current checklist.

RODENTS

Sciuridae.—Jameson (1999) concluded, based on the evolutionary relationships of chipmunk ectoparasites, that the subgenera Neotamias, Tamias, and Eutamias should be elevated to three separate genera. Recently, this conclusion was supported by Piaggio and Spicer (2001) based on their analyses of cytochrome b sequence data. We have revised the current checklist to reflect this change. Of the North American chipmunks, only the eastern chipmunk, Tamias striatus, is assigned to the genus Tamias. All other North American chipmunks are assigned to the genus Neotamias.

Arbogast (1999) suggested, based on cytochrome b analyses, that Glaucomys sabrinus oregonensis may warrant specific status. Further investigation by Arbogast, however, did not find fixed allozymic differences between oregonensis and the remaining conspecific populations of G sabrinus (B. Arbogast, pers. comm.). Although it may yet be determined that G s. oregonensis is a cryptic species, the evidence does not warrant elevation to specific status at this time.

Arbogast et al. (2001) also investigated the taxonomy of *Tamiasciurus*, and found little differences between the 3 recognized species (*mearnsi*, *douglasii*, and hudsonicus) based either on mitochondrial DNA (mtDNA) or allozyme analyses. Arbogast et al. (2001) proposed that the recognition of a single, phenotypically variable species, T. hudsonicus, comprised of 3 subspecies (hudsonicus, douglasii, and mogollonensis), may best reflect the currently available genetic and morphologic data. Pending further supportive data, however, we have chosen not to accept this reorganization of Tamiasciurus.

Geomyidae.—We follow Jolley et al. (2000) in recognizing Geomys streckeri as a species.

Heteromyidae.—As in 1997 (Jones et al., 1997), we continue to accept the conclusion of Lee et al. (1996) that Chaetodipus eremicus warrants specific status. Note that Price (1999), however, continues to recognize Chaetodipus eremicus as a subspecies of C. penicillatus.

We follow the recommendation of Riddle et al. (2000a) that the western populations of *Chaetodipus baileyi* be recognized as a distinct species, *C. rudinoris*. We also follow the conclusion of Riddle et al. (2000b) that *Peromyscus fraterculus* (previously assigned as a subspecies of *P. eremicus*) warrants specific status.

We continue to relegate *elephantinus* to subspecific status under *Dipodomys venustus* based on the genic and bacular data presented by Best et al. (1996). More recently, Best (1999) recognized *D. elephantinus* as a species, but readers should be aware that this account was written at the request of Don Wilson and Sue Ruff, and reflects the taxonomy proposed by Wilson and Reeder (1993); it does not reflect the taxonomy supported by the most recent available data (pers. comm., Troy Best).

Muridae.—Hogan et al. (1997) suggested that some of the currently recognized subspecies of *Peromyscus maniculatus* may warrant specific status. We agree that this group needs further study and clarification, but no changes are warranted at this time.

Edwards et al. (2001) examined the molecular phylogenetics of the *Neotoma albigula* species group, and concluded that *Neotoma albigula* is comprised of two cryptic species. The eastern form was designated as *Neotoma leucodon*, the Eastern white-throated

woodrat. Matocq (2002) elevated *Neotoma macrotis*, the large-eared woodrat, to a species separate from *N. fuscipes* based on morphological and molecular analyses.

The taxonomy of the *Neotoma lepida* group is complex, and recent research indicates that *lepida* actually may be comprised of at least two species (Patton and Alvarez-Castañeda, in press). Those authors also suggested that the western form of *lepida* should probably be given specific status, although they hesitated to make a formal designation pending further research. Further, it is not clear if *devia* represents a valid species. Given the uncertainty of the taxonomy of the *lepida* group, we have not made any changes to the current checklist until further data are available.

Following Frey (1999) and Frey and Moore (1990), we recognize the Mogollon vole, *Microtus mogollonensis*, as a species distinct from *M. mexicanus*. Batzli (1999) recognized the brown lemming by the specific name *Lemmus sibiricus*, but acknowledged that *trimucronatus* may be the correct name for the species. We recognize the name *trimucronatus* following Jarrell and Fredga (1993). We continue to follow the taxonomy presented on the last checklist (Jones et al., 1997) for the *Dicrostonyx* group. See Engstrom (1999), however, for an alternative view.

CARNIVORES

Canidae.—Recent molecular evidence (Wilson et al., 2000; Wilson et al., 2003) provided support for the recognition of the eastern Canadian wolf as a species distinct from the gray wolf. The species Canis lycaon is therefore added to the checklist.

At this time we continue to recognize the arid land foxes as distinct species, *Vulpes velox* and *V. macrotis*, following Mercure et al. (1993). While noting that the status of this species is questionable, Thacker and Flinders (1999) chose to follow Wilson and Reeder (1993) in recognizing one species, *Vulpes velox*. Readers are referred to Dragoo and Wayne (2003) for a review of the systematics of the species.

We follow Geffen et al. (1992) and Mercure et al. (1993) in recognizing the arctic fox as *Vulpes lagopus*. Karyology, DNA hybridization, and allozyme

electrophoretic data all indicate a close relationship of the arctic fox, kit fox, and swift fox and conflicts with the previous assignment of generic distinctness for the arctic fox.

Phocidae.—We have chosen to follow Rice (1998) in the taxonomic classification of the species in this group. Note that the various authors of Wilson and Ruff (1999), however, differed in their classification.

Mephitidae.—Based on external and cranial morphology and molecular data, Dragoo et al. (2003) recently revised the taxonomy of the genus Conepatus. Two species, Conepatus leuconotus and C. mesoleucus, and their subspecies were determined to represent only a single species, C. leuconotus.

Felidae.—We follow Wozencraft (1993) in recognizing the correct spelling for the scientific name of the jaguarundi as Herpailurus yaguarondi rather than yaguaroundi.

CETACEANS

Balaenopteridae.—Based on Dizon et al. (1996), we chose in 1997 (Jones et al., 1997) to recognize Balaenoptera brydei and B. edeni as two distinct species, with the smaller B. edeni being restricted to the coastal waters of the eastern Indian Ocean and the western Pacific Ocean (Jones et al., 1997). Additional studies have supported that arrangement (Wada and Numachi, 1991; Dizon et al., 1998), and we continue to recognize B. brydei on the current checklist. Rice (1999), however, retained the more conservative arrangement of B. edeni as a single species, although he acknowledged that questions remain regarding the taxonomy of B. brydei/edeni. See Rice (1998) for a more thorough discussion.

Balaenidae.—The taxonomy of this family remains in dispute. Most authors recognize two genera, Balaena and Eubalaena, but others include both species in Balaena (see Clapham, 1999). We have chosen to recognize both genera. Further, the number of species within the genus Eubalaena is a matter of controversy. The most common taxonomic arrangement recognizes two species: Eubalaena glacialis, the north-

ern right whale, and E. australis, the southern right whale. Rosenbaum et al. (2000), however, found that the North Atlantic, North Pacific, and Southern Hemisphere populations were each diagnosable by the presence of unique nucleotides at three or four base-pair positions in the control region of the mtDNA. By invoking an extreme version of the phylogenetic species concept, they suggested that each population should be ranked as a full species: E. glacialis, E. japonica, and E. australis, respectively. However, these nucleotide substitutions have no discernable phenotypic expression, and are probably selectively neutral; they cannot be construed as evidence of either prezygotic or postzygotic isolating mechanisms. No other consistent differences have been found between the three populations, so under the biological species concept all three must be regarded as members of a single biological species, Eubalaena glacialis.

Delphinidae.—Wilson and Ruff (1999) did not include an account for Peponocephala electra. This species was added to the checklist in 1997 based on reports of the species from Texas and Maryland (Barron and Jefferson, 1993).

LeDuc et al. (1999) proposed a revised classification of the Delphinidae based on a molecular systematics analysis. Under their system, Lagenorhynchus acutus becomes Leucopleurus acutus, and Lagenorhynchus obliquidens becomes Sagmatias obliquidens. However, we follow most cetologists (Perrin et al., 2002) in holding these changes in abeyance, pending further studies.

Ziphiidae.—Dalebout et al. (2002) described a new species of beaked whale, Mesoplodon perrini, based on molecular studies of five animals stranded on the coast of California. All of the North American specimens previously identified as M. hectori are now recognized as M. perrini. M. hectori is removed from the checklist because, as it is now understood, M. hectori occurs only in the southern hemisphere.

Kogiidae.—Wilson and Ruff (1999) did not recognize the family Kogiidae for the pygmy sperm whales. We follow Rice (1998) in continuing to recognize this family.

ARTIODACTYLS

Suidae.—The genetic history of the stocks that gave rise to Sus scrofa populations in North America represent two different histories. Wild boar have been introduced that have not been through any artificial selection process and probably are indistinguishable from native populations in Europe and Asia. Alternatively, there have been many releases of artificially selected breeds of pigs that have established feral populations. What is present in free-ranging herds is an interbreeding combination of these stocks in various degrees of genetic recombination. In most areas, feral pigs are primarily derivatives of domestic stocks.

Cervidae.—We have accepted the recommendation of Geist (1998), further supported by Randi et al. (2001), that the wapiti of North America and eastern Asia be recognized as specifically distinct (Cervus canadensis) from the red deer of western Eurasia (Cervus elaphus).

Bovidae.—Although he noted the controversy surrounding the generic placement of the American bison, Shaw (1999) continued to classify the species in the genus Bison. Shaw (1999) provided no supporting data for this arrangement, however, whereas several studies have supported the placement of Bison in synonomy with Bos (see Jones et al., 1997). Thus, we continue to recognize the American bison as Bos bison.

CHECKLIST

Although several authors, including Wilson and Ruff (1999), have adopted a different sequence for the phylogeny of mammals, we have chosen to present this checklist in the same phylogenetic sequence as on the previous checklist (Jones et al., 1997), and to again

arrange the species alphabetically within each genus. The intent of this arrangement is to facilitate use of the checklist and comparison with previous revisions of the checklist. As in previous revisions, non-native species are identified by an asterisk.

ORDER DIDELPHIMORPHIA - Opossums

Family Didelphidae - Opossums

ORDER INSECTIVORA - Insectivores

Family Soricidae - Shrews

Sorex alaskanus	Glacier Bay Water Shrew
Sorex arcticus	Arctic Shrew
Sorex arizonae	
Sorex bairdii	
Sorex bendirii	
Sorex cinereus	
Sorex dispar	Long-tailed or Rock Shrew
Sorex fontinalis	Maryland Shrew
Sorex fumeus	Smoky Shrew
Sorex gaspensis	
Sorex haydeni	
Sorex hoyi	Pvgmv Shrew
Sorex jacksoni	St. Lawrence Island Shrew
Sorex longirostris	
Sorex lyelli	
Sorex maritimensis	
Sorex merriami	
Sorex monticolus	
Sorex nanus	Dwarf Shrew
Sorex neomexicanus	

	Sorex ornatus	Ornate Shrew
	Sorex pacificus	
	Sorex palustris	
	Sorex preblei	
	Sorex pribilofensis	
	Sorex sonomae	Fog Shrew
	Sorex tenellus	Invo Chraw
	Sorex trowbridgii	Troubridge's Shrow
	Sorex tundrensis	Tundro Chrow
	Sorex ugyunak	
	Sorex vagrans	
	Sorex yukonicus	
	Blarina brevicauda	Mortham Chart tailed Chroni
	Blarina carolinensis	
	Blarina hylophaga	
	Cryptotis parva	
	Notices cockrumi	
Famil	Notiosorex crawfordi	Crawford's Desert Shrew
ranni	y Talpidae – Moles	
	Neurotrichus gibbsii	
	Scapanus latimanus	
	Scapanus orarius	
	Scapanus townsendii	
	Parascalops breweri	
	Scalopus aquaticus	
	Condylura cristata	Star-nosed Mole
	IIROPTERA – Bats y Mormoopidae – Leaf-chinned Bats	
	1.4	
D. 11	Mormoops megalophylla	Ghost-faced Bat
Famil	y Phyllostomidae - New World Leaf-nosed Bats	
Famil	y Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus	California Leaf-nosed Bat
Famil	y Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana	California Leaf-nosed Bat Mexican Long-tongued Bat
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	ly Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae – Vesper Bats Myotis auriculus Myotis austroriparius	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis
	y Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata y Vespertilionidae – Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis
	ly Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae – Vesper Bats Myotis auriculus Myotis austroriparius	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis
	y Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata y Vespertilionidae – Vesper Bats Myotis auriculus Myotis californicus Myotis ciliolabrum Myotis evotis	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis
	y Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata y Vespertilionidae – Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus Myotis ciliolabrum	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis
	ly Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae – Vesper Bats Myotis auriculus Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis
	y Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata y Vespertilionidae – Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus Myotis ciliolabrum Myotis grisescens Myotis keenii Myotis leibii	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis
	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis lucifugus	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis
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	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis lucifugus	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Arizona Myotis
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	ly Phyllostomidae – New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae – Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis occultus Myotis occultus Myotis septentrionalis	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Little Brown Myotis Northern Long-eared Myotis Indiana Bat or Social Myotis
	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis occultus Myotis septentrionalis Myotis sodalis	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Little Brown Myotis Northern Long-eared Myotis Indiana Bat or Social Myotis Fringed Myotis
	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis austroriparius Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis occultus Myotis septentrionalis Myotis sodalis Myotis velifer	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Little Brown Myotis Northern Long-eared Myotis Indiana Bat or Social Myotis Fringed Myotis Cave Myotis
	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis austroriparius Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis occultus Myotis septentrionalis Myotis sodalis Myotis velifer Myotis velifer Myotis velans	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Little Brown Myotis Northern Long-eared Myotis Indiana Bat or Social Myotis Fringed Myotis Cave Myotis Long-legged Myotis
	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis occultus Myotis septentrionalis Myotis sodalis Myotis velifer Myotis velifer Myotis volans Myotis vumanensis	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Little Brown Myotis Northern Long-eared Myotis Indiana Bat or Social Myotis Fringed Myotis Cave Myotis Long-legged Myotis Long-legged Myotis Yuma Myotis
	ly Phyllostomidae — New World Leaf-nosed Bats Macrotus californicus Choeronycteris mexicana Leptonycteris curasoae Leptonycteris nivalis Diphylla ecaudata ly Vespertilionidae — Vesper Bats Myotis auriculus Myotis austroriparius Myotis californicus Myotis ciliolabrum Myotis evotis Myotis grisescens Myotis keenii Myotis leibii Myotis occultus Myotis septentrionalis Myotis sodalis Myotis velifer Myotis volans Myotis yumanensis Lasiurus blossevillii	California Leaf-nosed Bat Mexican Long-tongued Bat Southern Long-nosed Bat Mexican Long-nosed Bat Mexican Long-nosed Bat Hairy-legged Vampire Bat Southwestern Myotis Southeastern Myotis California Myotis Western Small-footed Myotis Long-eared Myotis Gray Myotis Keen's Myotis Eastern Small-footed Myotis Little Brown Myotis Little Brown Myotis Northern Long-eared Myotis Indiana Bat or Social Myotis Fringed Myotis Fringed Myotis Cave Myotis Long-legged Myotis Yuma Myotis Western Red Bat
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Lasium	is intermedius	Northern Yellow Bat
	is seminolus	
		Western Yellow Bat
		Silver-haired Bat
		Western Pipistrelle
Pinistra	ellus subflame	Western Pipistrelle Eastern Pipistrelle
		Big Brown Bat
	ius humeralis	
Fudama	na maculatum	Evening Bat
Commo	whimes we fine a samili	Spotted Bat
Corynol	whimus rayinesquit	
Idiamon	rninus iownsenaii	Townsend's Big-eared Bat
		Allen's Big-eared Bat
	ous pallidus	Pallid Bat
	ne – Free-tailed Bats	
		Brazilian Free-tailed Bat
		Pocketed Free-tailed Bat
		Big Free-tailed Bat
		Wagner's Bonneted Bat
		Western Bonneted Bat
Eumops	s underwoodi	Underwood's Bonneted Bat
Molossi	us molossus	Velvety Free-tailed Bat
ORDER PRIMATES - Prim		
	nates ecidae – Old World Monkeys	
		Japanese Macaque
		Knesus Macaque
	e – Great Apes and Humans sapiens	V 1 V
1101110 3	suprems	
ORDER XENARTHRA - A	Armadillos, Anteaters, and Sloths	
ORDER XENARTHRA – A Family Dasypodic		
Family Dasypodic	dae – Armadillos	Nine-banded Armadillo
Family Dasypodio Dayspu	dae – Armadillos us novemcinctus	
Family Dasypodic Dayspu ORDER LAGOMORPHA	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas	Nine-banded Armadillo
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits	Nine-banded Armadillo
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps	Nine-banded Armadillo
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris	Nine-banded ArmadilloCollared Pika
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits	Nine-banded ArmadilloCollared Pika
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochoton Ochoto Family Leporidae Brachy	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits olagus idahoensis	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris - Pikas ona princeps e – Hares and Rabbits olagus idahoensis	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochoton Ochoto Family Leporidae Brachy Sylvilag Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Family Leporidae Brachy Sylvilag Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits glagus idahoensis gus aquaticus gus audubonii gus bachmani	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag Sylvilag Sylvilag Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus bachmani gus floridanus	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Family Leporidae Brachy Sylvilag Sylvilag Sylvilag Sylvilag Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus bachmani gus floridanus gus nuttallii	
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Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag Sylvilag Sylvilag Sylvilag Sylvilag Sylvilag Sylvilag Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus bachmani gus floridanus gus nuttallii gus obscurus gus palustris	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae – Armadillos us novemcinctus – Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e – Hares and Rabbits glagus idahoensis gus aquaticus gus adubonii gus floridanus gus nuttallii gus obscurus gus palustris gus robustus	
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus floridanus gus nuttallii gus obscurus gus palustris gus robustus gus robustus gus robustus	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus floridanus gus nuttallii gus obscurus gus robustus gus robustus gus transitionalis lagus cuniculus*	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus adubonii gus floridanus gus nuttallii gus obscurus gus robustus gus robustus gus transitionalis lagus cuniculus* alleni	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus floridanus gus nuttallii gus obscurus gus robustus gus transitionalis lagus cuniculus* alleni americanus	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit Snowshoe Hare
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus floridanus gus nuttallii gus obscurus gus robustus gus transitionalis lagus cuniculus* alleni americanus	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit Snowshoe Hare Arctic Hare
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus floridanus gus floridanus gus robustus gus robustus gus transitionalis lagus cuniculus* alleni americanus arcticus californicus	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit Snowshoe Hare Arctic Hare Black-tailed Jackrabbit
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus floridanus gus floridanus gus robustus gus robustus gus transitionalis alagus cuniculus* alleni americanus arcticus callotis	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit Snowshoe Hare Arctic Hare Black-tailed Jackrabbit White-sided Jackrabbit
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ona collaris ona princeps e — Hares and Rabbits olagus idahoensis gus aquaticus gus audubonii gus bachmani gus floridanus gus nuttallii gus obscurus gus robustus gus robustus agus cuniculus* alleni americanus californicus callotis europaeus*	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit Snowshoe Hare Arctic Hare Black-tailed Jackrabbit White-sided Jackrabbit European Hare
Family Dasypodic Dayspu ORDER LAGOMORPHA Family Ochotonic Ochoto Ochoto Family Leporidae Brachy Sylvilag	dae — Armadillos us novemcinctus — Pikas, Hares, and Rabbits dae - Pikas ma collaris ma princeps e — Hares and Rabbits malagus idahoensis mas aquaticus mas adubonii mas pus floridanus mas gus nuttallii mas robustus mas robust	Collared Pika American Pika Pygmy Rabbit Swamp Rabbit Desert Cottontail Brush Rabbit Eastern Cottontail Mountain Cottontail Appalachian Cottontail Marsh Rabbit Davis Mountains Cottontail New England Cottontail European Rabbit Antelope Jackrabbit Snowshoe Hare Arctic Hare Black-tailed Jackrabbit White-sided Jackrabbit European Hare

ORDER	RODENTIA -	Rodents
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Family Aplodontiidae – Mountain Beaver	
Aplodontia rufa	Sewellel or Mountain
Family Sciuridae - Squirrels	and the second of the second

Sewellel or Mountain Beaver
Alpine Chipmunk
Yellow-pine Chipmunk
Gray-footed Chipmunk
Gray-collared Chipmunk
Cliff Chipmunk
Merriam's Chipmunk
Least Chipmunk
California Chipmunk
Yellow-cheeked Chipmunk
Palmer's Chipmunk
Panamint Chipmunk
Long-eared Chipmunk
Colorado Chipmunk
Red-tailed Chipmunk
Hopi Chipmunk
Allen's Chipmunk
Siskiyou Chipmunk
Sonoma Chipmunk
Lodgepole Chipmunk
Townsend's Chipmunk
Uinta Chipmunk
Eastern Chipmunk
Alaska Marmot
Hoary Marmot
Yellow-bellied Marmot
Woodchuck
Olympic Marmot
Vancouver Marmot
Harris's Antelope Squirrel
Texas Antelope Squirrel
White-tailed Antelope Squirrel
Nelson's Antelope Squirrel
Uinta Ground Squirrel
California Ground Squirrel
Belding's Ground Squirrel
Idaho Ground Squirrel
Columbia Plateau Ground Squirre
Columbian Ground Squirrel
. Wyoming Ground Squirrel
Franklin's Ground Squirrel
Golden-mantled Ground Squirrel
Mexican Ground Squirrel
. Mohave Ground Squirrel
. Great Basin Ground Squirrel
. Arctic Ground Squirrel
. Richardson's Ground Squirrel
. Cascade Ground Squirrel
. Spotted Ground Squirrel
. Round-tailed Ground Squirrel
. Townsend's Ground Squirrel
Thirteen lined Ground Squiller
Thirteen-lined Ground Squirrel Rock Squirrel

Cynomys gunnisoni	Gunnison's Prairie Dog
Cynomys leucurus	White-tailed Prairie Dog
Cynomys ludovicianus	
Cynomys parvidens	
Sciurus aberti	Abert's Squirrel
Sciurus arizonensis	Arizona Gray Squirrel
Sciurus aureogaster*	Mexican Gray Squirrel
Sciurus carolinensis	Eastern Gray Squirrel
Sciurus griseus	
Sciurus nayaritensis	
Sciurus niger	Eastern Fox Squirrel
Tamiasciurus douglasii	Douglas's Squirrel
Tamiasciurus hudsonicus	
Glaucomys sabrinus	
Glaucomys volans	Southern Flying Squirrel
Family Geomyidae - Pocket Gophers	Southern Trying Squitter
	Botta's Pocket Gopher
Thomomys bulbiyorus	Camas Pocket Gopher
Thomomys clusius	
Thomomys idahoensis	
Thomomys mazama	
Thomomys monticola	Mountain Pocket Gopher
Thomomys talnoidas	North Pocket Gopher
Thomomys townsendii	Northern Pocket Gopher
Thomomys umbrinus	Townsend's Pocket Gopher
Geomys arenarius	Southern Pocket Gopher Desert Pocket Gopher
Geomys athustori	Desert Pocket Gopher
Geomys bravisans	Attwater's Pocket Gopher
Geomys breviceps	Baird's Pocket Gopher
Geomys bursarius	Plains Pocket Gopher
Geomys knoxjonesi	Jones's Pocket Gopher
Geomys personatus	Texas Pocket Gopher
Geomys pinetis	Southeastern Pocket Gopher
Geomys streckeri	Strecker's Pocket Gopher
Geomys texensis	Llano Pocket Gopher
Cratogeomys castanops	Yellow-faced Pocket Gopher
Family Heteromyidae - Pocket Mice and	Kangaroo Rats
Perognathus alticolus	
Perognathus amplus	Arizona Pocket Mouse
Perognathus fasciatus	Olive-backed Pocket Mouse
Perognathus flavescens	
Perognathus flavus	Silky Pocket Mouse
Perognathus inornatus	
Perognathus longimembris	Little Pocket Mouse
Perognathus merriami	Merriam's Pocket Mouse
Perognathus parvus	Great Basin Pocket Mouse
Chaetodipus baileyi	Bailey's Pocket Mouse
Chaetodipus californicus	
Chaetodipus eremicus	Chihuahuan Desert Pocket Mouse
Chaetodipus fallax	San Diego Pocket Mouse
Chaetodipus formosus	Long-tailed Pocket Mouse
Chaetodipus hispidus	Hispid Pocket Mouse
Chaetodipus intermedius	
Chaetodipus nelsoni	Nelson's Pocket Mouse
Chaetodipus penicillatus	Sonoran Desert Pocket Mouse
Chaetodipus rudinoris	Baja Pocket Mouse
Chaetodipus spinatus	Spiny Pocket Mouse
Microdinodons megacenhalus	
Microdinodons nallidus	Pale Kangaroo Mouse
microurpouops puntius	Faie Kangaroo Mouse

Dipodomys agilis	Agile Kangaroo Rat
Dipodomys californicus	
Dipodomys compactus	
Dipodomys deserti	
Dipodomys elator	
Dipodomys heermanni	
Dipodomys ingens	
Dipodomys merriami	
Dipodomys microps	
Dipodomys nitratoides	
Dipodomys ordii	
Dipodomys panamintinus	
Dipodomys simulans	
Dipodomys spectabilis	
Dipodomys stephensi	
Dipodomys venustus	
Liomys irroratus	
Family Castoridae – Beavers	The state of the s
Castor canadensis	American Beaver
Family Muridae - Mice, Rats, and Voles	
Oryzomys couesi	Coues's Rice Rat
Oryzomys palustris	
Reithrodontomys fulvescens	
Reithrodontomys humulis	
Reithrodontomys megalotis	
Reithrodontomys montanus	
Reithrodontomys raviventris	
Peromyscus attwateri	
Peromyscus boylii	
Peromyscus californicus	
Peromyscus crinitus	
Peromyscus eremicus	
Peromyscus fraterculus	
Peromyscus gossypinus	
Peromyscus gratus	
Peromyscus keeni	
Peromyscus leucopus	White-footed Mouse
Peromyscus maniculatus	
Peromyscus melanotis	Black-eared Mouse
Peromyscus merriami	
Peromyscus nasutus	Northern Rock Mouse
Peromyscus pectoralis	White-ankled Mouse
Peromyscus polionotus	Oldfield Mouse
Peromyscus truei	Piñon Mouse
Podomys floridanus	. Florida Mouse
Ochrotomys nuttalli	. Golden Mouse
Baiomys taylori	Northern Pygmy Mouse
Onychomys arenicola	
Onychomys leucogaster	Northern Grasshopper Mouse
Onychomys torridus	
Sigmodon arizonae	. Arizona Cotton Rat
Sigmodon fulviventer	. Tawny-belled Cotton Rat
Sigmodon hispidus	. Hispid Cotton Rat
Sigmodon ochrognathus	. Yellow-nosed Cotton Rat
Neotoma albigula	
Neotoma cinerea	
Neotoma devia	. Arizona Woodrat
Neotoma floridana	. Eastern Woodrat
그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그 그	

Neotor		Dusky-footed Woodrat
1.00101	na lepida	Desert Woodrat
Neotoi	na leucodon	Eastern White-throated Woodrat
Neotoi	na macrotis	Large-eared Woodrat
Neotoi	na magister	Appalachian Woodrat
Neotor	na mexicana	Mexican Woodrat
Neoto	na micropus	Southern Plains Woodrat
Neotoi	na stephensi	Stephens's Woodrat
Rattus	norvegicus*	
Rattus	rattus*	
Mus n	usculus*	House Mouse
Clethr	ionomys californicus	
Clethr	ionomys ganneri	Southern Red-backed Vole
Clethr	ionomys rutilus	
Arbori	mus alhines	
Arbori	mus longicaudus	Pod Tree Vale
Arbori	mus nomo	Sonoma Tree Vole
Phana	comus intermedias	Sonoma free voie
Phona	comys intermedius	Western Heather Vole
r nena	comys ungava	Eastern Heather Vole
	tus abbreviatus	
	tus breweri	
	us californicus	
Micro	us canicaudus	Gray-tailed Vole
	tus chrotorrhinus	
Micro	us longicaudus	Long-tailed Vole
Micro	tus mogollonensis	Mogollon Vole
Micro	tus miurus	Singing Vole
	tus montanus	
	us ochrogaster	
	tus oeconomus	
	us oregoni	
	tus pennsylvanicus	
	tus pinetorum	
Micro	tus richardsoni	Water Vole
Micros	us townsendii	
		Yellow-cheeked or Taiga Vole
Lemm	iscus curtatus	Cogobrush Volo
Neofih	or alloni	Round-tailed Muskrat
Ondat	ra zihathicus	
Lamm	us trimuoron stus	Brown Lemming
		Northern Bog Lemming
Synapi	tomys cooperi	Southern Bog Lemming
Dicros	tonyx exsul	St. Lawrence Island Collared Lemming
Dicros	tonyx groenlandicus	Peary Land Collared Lemming
Dicros	stonyx hudsonius	Labrador Collared Lemming
		Victoria Collared Lemming
Dicros	tonyx nelsoni	Nelson's Collared Lemming
Dicros	stonyx nunatakensis	Ogilvie Mountain Collared Lemming
Dicros	stonyx richardsoni	Richardson's Collared Lemming
Dicros	stonyx rubricatus	Bering Collared Lemming
Dicros	tonyx unalascensis	Unalaska Collared Lemming
	e - Jumping Mice	Anne - Ang brend
		Meadow Jumping Mouse
Zanus	princens	
		Pacific Jumping Mouse
		Woodland Jumping Mouse
Mana	ULUPUS IIISIKIIIS	woodiand Jumping Mouse
	ntidae - New World Porcupines	

Family Myocastoridae - Coypus	
Myocastor coypus*	Nutria or Covnu
ANTEN SERVICE AT THE PARTY OF T	
ORDER CARNIVORA - Carnivores	
Family Canidae - Dogs, Foxes, and Wolves	
Canis familiaris*	Feral Dog
Canis latrans	Covote
Canis lupus	Grav Wolf
Canis lycaon	
Canis rufus	
Vulpes lagopus	
Vulpes macrotis	
Vulpes velox	
Vulpes vulpes	
Urocyon cinereoargenteus	
Urocyon littoralis	
Family Ursidae – Bears	Island Gray Pox
Ursus americanus	American Black Bear
Ursus arctos	
Ursus maritimus	
Family Otariidae – Eared Seals	Folai Beai
Callorhinus ursinus	Northern Fur Coal
Arctocephalus townsendi	
Eumetopias jubatus	
Zalophus californianus	
Family Odobenidae – Walrus	California Sea-Lion
Odobenus rosmarus	The Wall-service and the service and the servi
	wairus
Family Phocidae – Earless, True, or Hair Seals	9 10 1
Phoca largha	
Phoca vitulina	
Pusa hispida	
Halichoerus grypus	
Pagophilus groenlandicus	
Histriophoca fasciata	
Erignathus barbatus	
Cystophora cristata	
Monachus tropicalis	
Mirounga angustirostris	Northern Elephant Seal
Family Procyonidae - Raccoons, Ringtails, and Coatis	AND THE RESERVE AND THE PROPERTY OF THE PROPER
Bassariscus astutus	
Procyon lotor	
Nasua narica	White-nosed Coati
Family Mustelidae – Weasels, Otters, and Badgers	
Martes americana	
Martes pennanti	
Mustela erminea	
Mustela frenata	
Mustela nigripes	
Mustela nivalis	
Mustela putorius*	
Mustela vison	
Gulo gulo	
Taxidea taxus	
Lontra canadensis	Northern River Otter
Enhydra lutris	Sea Otter
Family Mephitidae - Skunks	
Spilogale gracilis	Western Spotted Skunk
Spilogale putorius	

	Mephitis macroura	Hooded Skimk
	Mephitis mephitis	Strined Skunk
	Conepatus leuconotus	White-backed Hog-nosed Skunk
	Family Felidae – Cats	
	Felis catus*	Feral Cat
	Puma concolor	Mountain Lion or Puma
	Leopardus pardalis	
	Leopardus wiedii	Margay
	Herpailurus yaguarondi	Jaguarundi
	Lynx canadensis	
	Lynx rufus	Bohcat
	Panthera onca	
ORDER	CETACEA – Whales	
	Family Eschrichtiidae - Gray Whale	
	Eschrichtius robustus	Cross Whale
	Family Balaenopteridae – Rorquals	Gray whate
		N .1 N. 1 W. 1
	Balaenoptera acutorostrata	Northern Minke Whale
	Balaenoptera borealis	
	Balaenoptera brydei	Bryde's Whale
	Balaenoptera musculus	
	Balaenoptera physalus	Fin Whale
	Megaptera novaeangliae	Humpback Whale
	Family Balaenidae - Right Whales	
	Eubalaena glacialis	Right Whale
	Balaena mysticetus	Bowhead Whale
	Family Monodontidae - Beluga and Narwhal	
	Delphinapterus leucas	White Whale or Beluga
	Monodon monoceros	Narwhal
	Family Delphinidae – Dolphins	THE TIME
	Steno bredanensis	Rough-toothed Dolphin
	Tursiops truncatus	Rottlenose Dolphin
	Stenella attenuata	
	Stenella clymene	Clamana Dalahin
	Stenella coeruleoalba	
	Stenella frontalis	
	Stenella longirostris	
		Long-beaked Saddleback Dolphin
		Short-beaked Saddleback Dolphin
	Lagenodelphis hosei	
	Lagenorhynchus acutus	
	Lagenorhynchus albirostris	White-beaked Dolphin
	Lagenorhynchus obliquidens	
	Grampus griseus	
	Peponocephala electra	
	Feresa attenuata	
	Pseudorca crassidens	
	Globicephala macrorhynchus	
	Globicephala melas	
	Orcinus orca	
		Northern Right-whale Dolphin
	Family Phocoenidae – Porpoises	
	Phocoena phocoena	
	Phocoenoides dalli	Dall's Porpoise
	Family Ziphiidae - Beaked Whales	
	Berardius bairdii	North Pacific Bottlenose Whale
	Ziphius cavirostris	

Hyperoodon ampullatus	North Atlantic Bottlenose Whale
Mesoplodon bidens	
Mesoplodon carlhubbsi	
Mesoplodon densirostris	
Mesoplodon europaeus	
Mesoplodon ginkgodens	
Mesoplodon mirus	
Mesoplodon perrini	
Mesoplodon stejnegeri	Stejneger's Beaked whate
Family Kogiidae – Pygmy Sperm Whales Kogia breviceps	D C VII. 1.
Kogia sima	Dwart Sperm whate
Family Physeteridae – Sperm Whales	
Physeter macrocephalus	Sperm Whale
ORDER SIRENIA – Sea Cows	
Family Trichechidae - Manatees	
Trichechus manatus	West Indian or Caribbean Manatee
ORDER PERISSODACTYLA - Odd-toed Ungulates	
Family Equidae – Horses and Asses	
Equus asinus*	Feral Ass
Equus caballus*	
Equus cabanus	retal Hoise
ORDER ARTIODACTYLA - Even-toed Ungulates	
Family Suidae – Pigs	
Sus scrofa*	Feral Pig or Wild Boar
Family Tayassuidae – Peccaries	
Pecari tajacu	Collared Peccary
Family Cervidae – Deer	and the second and the second
Axis axis*	Axis Deer
Dama dama*	
Cervus canadensis	
Cervus nippon*	
Cervus unicolor*	
Odocoileus hemionus	
Odocoileus virginianus	
Alces alces	
Rangifer tarandus	
Family Antilocapridae – Pronghorn	
Antilocapra americana	Drongham
Family Povides Cottle Antelone Sheen and Gosta	Proligioni
Family Bovidae – Cattle, Antelope, Sheep, and Goats Bos bison	American Dican
Bos taurus*	
Boselaphus tragocamelus*	
Oryx gazella*	
Antilope cervicapra*	
Hemitragus jemlahicus*	
Capra hircus*	
Capra ibex*	
Oreamnos americanus	
Ovibos moschatus	Muskox
Ovis aries*	European Mouflon Sheep
Ovis canadensis	Mountain or Bighorn Sheep
Ovis dalli	
Ammotragus lervia*	

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