

## **Geographic distribution ranges of terrestrial mammal species in the 1970s**

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# METADATA

## CLASS I. DATA SET DESCRIPTORS

**A. Data set identity:** A spatial dataset of geographic distribution ranges of terrestrial mammal species in the 1970s

**B. Data set identification code:**

**Suggested Data Set Identity Codes:** Mammal\_ranges\_1970s.zip

**C. Data set description**

**1. Originators:**

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**2. Abstract:** Here we provide geographic distribution ranges for 205 species of terrestrial non-volant mammals in the 1970s. We selected terrestrial non-volant mammals because they are among the most studied groups, have greater availability of historical distribution data for the 1970s decade, and also show the largest range contractions compared to other taxonomic groups (Di Minin et al. 2013; Ripple et al., 2014). Species belong to 52 families and 16 orders. Range maps were extracted from scientific literature including published papers, books, and action plans. For Australian species, due to the absence of published maps, we collated occurrence data from individual data sets (maintained by museums and government agencies) and converted these into polygonal range maps. Taxonomic and geographic biases towards more studied (charismatic) species are inevitably present. Among the most abundant orders, the highest percentage representation is for Carnivora (55 species, corresponding to 21% of species in the order), Cetartiodactyla (24 species, 10% of the order) and Perissodactyla (6 species, 38% of the order). In contrast, the percentage representation is low for Rodentia (66 species, 3% of species in the order), Primates (19 species, 4%) and Eulipotyphla (6 species, 1%). The proportional representation of less speciose orders is highly variable. The dataset offers the opportunity to measure the recent (1970-present) change in the distribution of terrestrial mammal species, and test ecological and

biogeographical hypotheses about such change. It also allows to identify areas where changes in species distribution were largest. No copyright or proprietary restrictions are associated with the use of this data set other than citation of this Data Paper.

**D. Key words:** 1970s, distribution, geographic range, maps, range change, terrestrial mammals

## CLASS II. RESEARCH ORIGIN DESCRIPTORS

### A. Overall project description

**1. Identity:** Distribution of terrestrial non-volant mammals in the 1970s

**2. Originator:**

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**3. Period of Study:** 1965-1980

**4. Objectives:** To reconstruct the historic distribution range of terrestrial non-volant mammals, in order to compare it with their current distribution and identify possible drivers of range contraction and expansion.

**5. Abstract:** Same as above. These data are not part of a larger program of study.

### B. Specific subproject description

**1. Site description:** Data were collated from the literature and include range maps for species from six biogeographic realms (Nearctic, Neotropical, Palearctic, Afrotropical, Indo-Malayan, Australasian). Due to a higher availability of data, most represented species in our database are those that live in North America and Eastern Africa (Fig. 1).

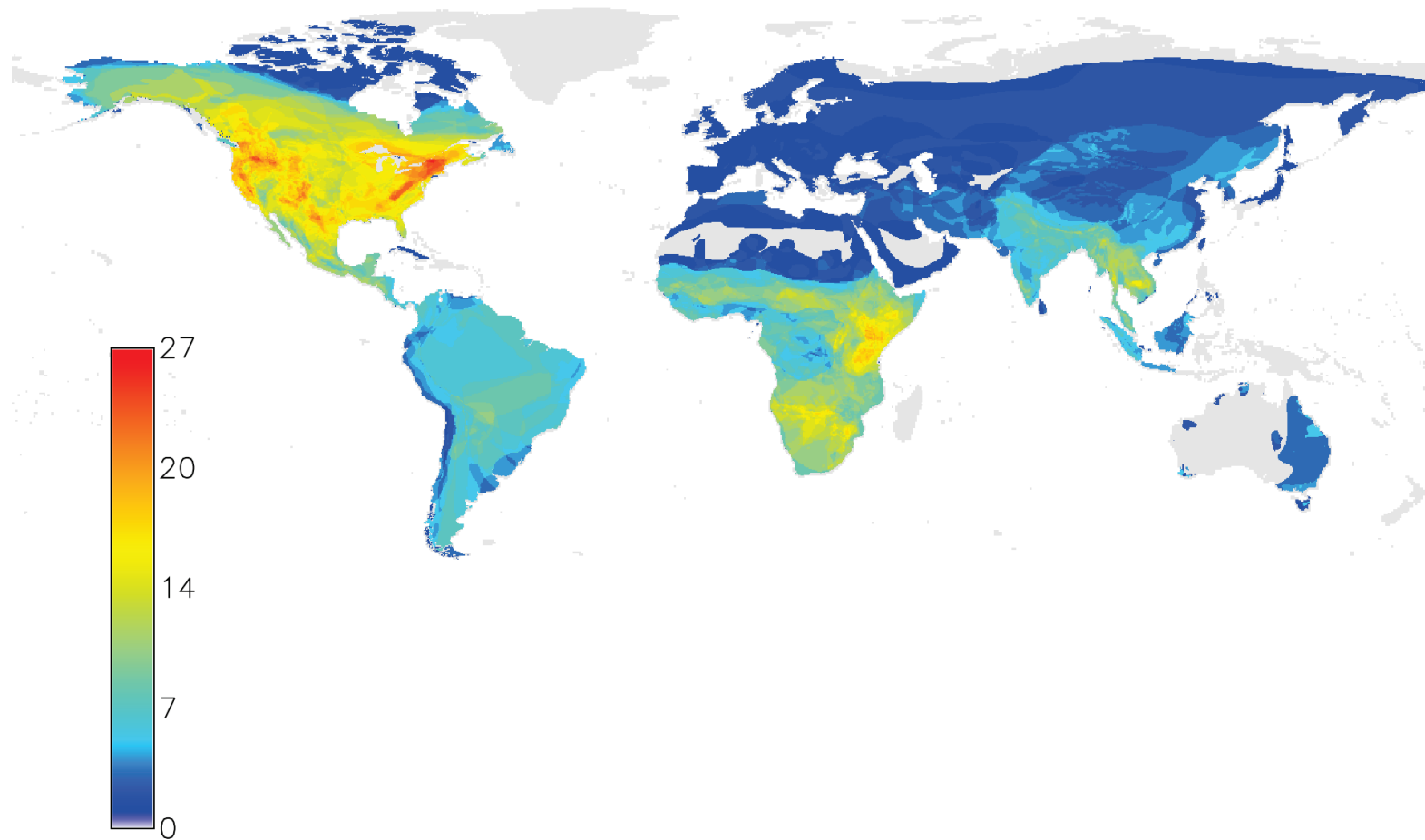


FIG. 1 Richness map showing the distribution of species in our sample in the 1970s.

**2. Experimental or Sampling design:** All data were obtained from published literature or collated from individual datasets maintained by museums and government conservation agencies.

**3. Research Methods:** We obtained historic distribution ranges for a total of 205 species. Although this sample represents only about 5% of all terrestrial non-volant mammals, it includes representatives of all major taxonomic orders. We reconstructed the 1970s distribution ranges of terrestrial non-volant mammal species following IUCN Red List of Threatened Species mapping standards (IUCN 2018a). As current IUCN distribution ranges, all the maps in our database are expert-based. We made a literature search of the works published since 1965 that included distribution maps for the species of interest. We extended our search beyond 1979 because most of the range maps we found for the 1980s papers referred to the previous decade, and range maps included in the dataset referring to the period 1965-1970 were representative of the 1970s distribution. We included in the analysis only those species' maps produced following mapping protocols reflecting current IUCN standards, and for which the 1970s distribution was compatible with textual descriptions of the past range in the recent literature. IUCN mapping standards follow 5 basic steps: 1) plot occurrence points, 2) draw a minimum convex polygon around the points, 3) expand the distribution of the species taking into account its habitat preferences, 4) remove unsuitable/unoccupied habitat based on suitable area, and 5) smooth the polygon if necessary (IUCN 2018a). Range maps were available from the literature as polygons, with the exception of Australian species, for which we extrapolated observation records from range maps in the last action plan of Australian mammals (Woinarski et al. 2014). The action plan contained distributional data that the experts collated from individual datasets maintained by museums and government conservation agencies of all Australian states and territories. For each of the 205 species, we created a polygonal map of distribution range using all distributional information available, along with knowledge of habitat, elevation limits, and other expert knowledge of the taxon, following IUCN (2018a). To refine range maps based on habitat preferences, we used both information included in the scientific literature and the habitat suitability models published by Rondinini et al. (2011). For some of the species, the 1970s maps underestimated the actual extent of the range simply because of a lack of knowledge on the species distribution in the past. For those species, we included the missing portion of the range from the current IUCN map, assuming that the species has always been there. These polygons display the limits of each species' distribution. In most of the cases, only one reference was available for the historic distribution of the species. However, especially for African species [where our primary reference was Kingdon (1982)], we were able to use

different sources to produce the most reliable map according to the recent information found in the literature concerning the historic distribution of species.

For non-Australian mammals, maps have been revised by a certified IUCN Red List Assessor, M.P., and the Coordinator of the Global Mammal Assessment for IUCN, C.R. Australian mammals have been revised by A.A.B. and J.C.Z.W., members of the IUCN Species Survival Commission (SSC) Australian Marsupials and Monotremes Specialist Group, responsible for the IUCN Red List assessments of Australian mammals and authors of the Australian mammals action plan. In order to avoid the issue of non-genuine changes in the ranges, due to improved knowledge rather than distribution shift, we looked for evidence of each expansion/contraction with respect to the current range. For example, the range of the Indian rhinoceros (*Rhinoceros unicornis*) was 99.7% bigger than nowadays in the 1970s, and we found evidence in the literature of this dramatic contraction. We georeferenced and digitized all the maps with QGIS v3.2.

**Taxonomy:** Taxonomy used herein follows the IUCN Red List of Threatened Species (IUCN 2018b). Volant (Chiroptera) and aquatic (Cetacea, Sirenia, pinniped Carnivora) have been excluded. Fig. 2 shows the number of species in our database in each taxonomic order. Among the most abundant orders, the highest percentage representation is for Carnivora (55 species, corresponding to 21% of species in the order), Cetartiodactyla (24 species, 10% of the order) and Perissodactyla (6 species, 38% of the order). In contrast, the percentage representation is low for Rodentia (66 species, 3% of species in the order), Primates (19 species, 4%) and Eulipotyphla (6 species, 1%). Large mammals include many charismatic and well-studied species, therefore it was relatively easier to find reliable data for their historic distribution. The relatively low representation of Primates in the database is probably due to the numerous taxonomic changes this group has experienced in the last decades.

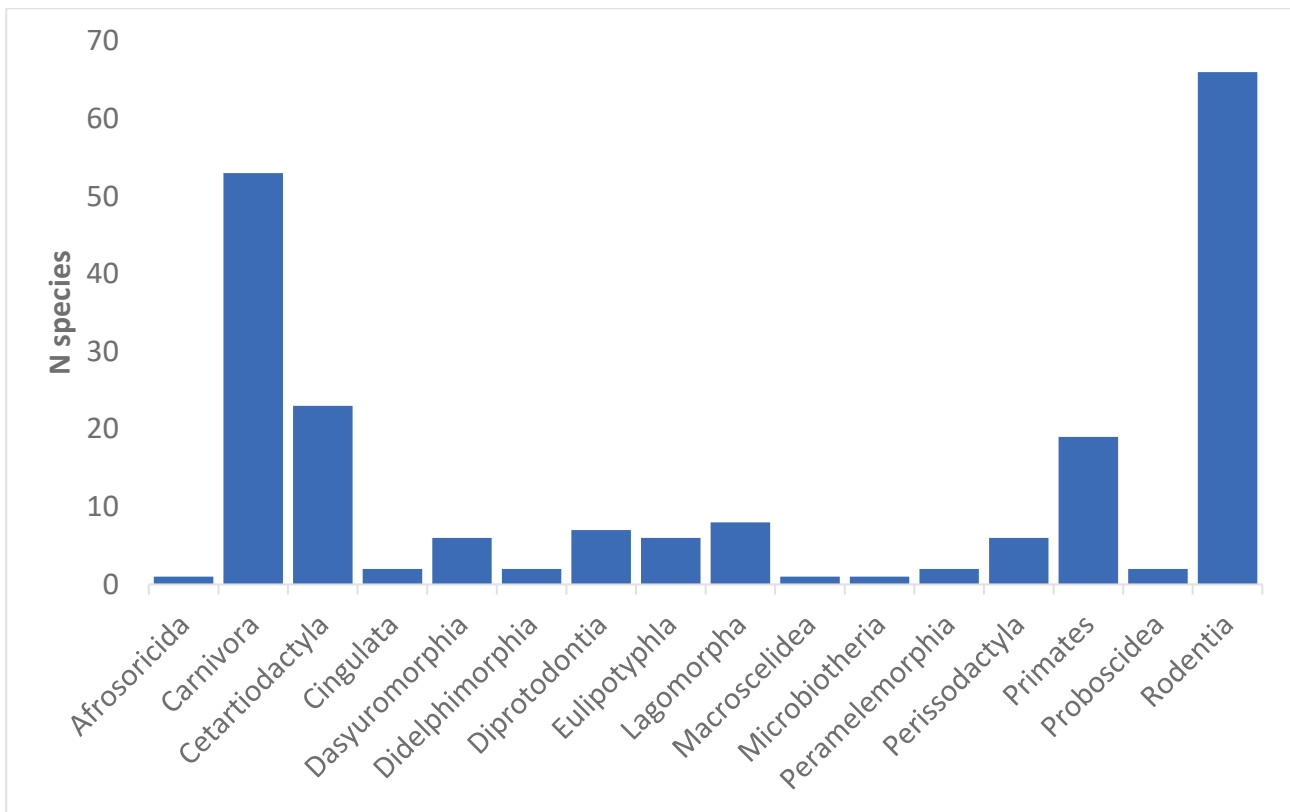


FIG. 2 Number of species in each taxonomic order.

#### Literature Cited:

Di Minin, E., I. Fraser, R. Slotow, and D. C. MacMillan. 2013. Understanding heterogeneous preference of tourists for big game species: implications for conservation and management. *Animal Conservation*, 16:249–258.

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### **CLASS III: DATASET STATUS AND ACCESSIBILITY**

#### **A. Status**

##### **List of species' maps and related references**

<b>Order</b>	<b>Family</b>	<b>Binomial</b>	<b>Main reference</b>
Afrosoricida	Chrysochloridae	<i>Chrysospalax trevelyani</i>	Nicoll and Rathbun 1990
Carnivora	Felidae	<i>Acinonyx jubatus</i>	Myers 1975 Kingdon 1982 Nowell and Jackson 1996
Carnivora	Ursidae	<i>Ailuropoda melanoleuca</i>	Chorn and Hoffmann. 1978
Carnivora	Mustelidae	<i>Aonyx cinereus</i>	Foster-Turley et al. 1990
Carnivora	Canidae	<i>Canis adustus</i>	Kingdon 1982 Ginsberg and Macdonald 1990 Hoffmann 2014
Carnivora	Canidae	<i>Canis latrans</i>	Bekoff 1977
Carnivora	Canidae	<i>Canis mesomelas</i>	Kingdon 1982 Ginsberg and Macdonald 1990
Carnivora	Canidae	<i>Canis rufus</i>	Paradiso and Nowak 1972
Carnivora	Canidae	<i>Canis simensis</i>	Gottelli and Sillero-Zubiri 1992
Carnivora	Felidae	<i>Caracal aurata</i>	Kingdon 1982 Nowell and Jackson 1996
Carnivora	Felidae	<i>Caracal caracal</i>	Kingdon 1982 Nowell and Jackson 1996
Carnivora	Canidae	<i>Cerdocyon thous</i>	Ginsberg and Macdonald 1990
Carnivora	Viverridae	<i>Civettictis civetta</i>	Kingdon 1982
Carnivora	Canidae	<i>Cuon alpinus</i>	Cohen 1978
Carnivora	Felidae	<i>Felis chaus</i>	Nowell and Jackson 1996
Carnivora	Viverridae	<i>Genetta victoriae</i>	Kingdon 1982
Carnivora	Mustelidae	<i>Gulo gulo</i>	Schreiber et al. 1989
Carnivora	Herpestidae	<i>Helogale hirtula</i>	Kingdon 1982
Carnivora	Mustelidae	<i>Hydrictis maculicollis</i>	Kingdon 1982
Carnivora	Mustelidae	<i>Ictonyx striatus</i>	Kingdon 1982
Carnivora	Felidae	<i>Leopardus colocolo</i>	Nowell and Jackson 1996
Carnivora	Felidae	<i>Leopardus geoffroyi</i>	Nowell and Jackson 1996
Carnivora	Felidae	<i>Leptailurus serval</i>	Kingdon 1982 Nowell and Jackson 1996
Carnivora	Mustelidae	<i>Lutra lutra</i>	Foster-Turley et al. 1990

Carnivora	Mustelidae	<i>Lutrogale perspicillata</i>	Foster-Turley et al. 1990
Carnivora	Canidae	<i>Lycalopex culpaeus</i>	Ginsberg and Macdonald 1990
Carnivora	Canidae	<i>Lycalopex griseus</i>	Ginsberg and Macdonald 1990
Carnivora	Canidae	<i>Lycaon pictus</i>	Kingdon 1982 Ginsberg and Macdonald 1990
Carnivora	Felidae	<i>Lynx canadensis</i>	Nowell and Jackson 1996
Carnivora	Felidae	<i>Lynx lynx</i>	Nowell and Jackson 1996
Carnivora	Felidae	<i>Lynx rufus</i>	Nowell and Jackson 1996
Carnivora	Mustelidae	<i>Martes americana</i>	Clark et al. 1987
Carnivora	Mustelidae	<i>Martes pennanti</i>	Powell 1981
Carnivora	Ursidae	<i>Melursus ursinus</i>	Herrero 1972
Carnivora	Mephitidae	<i>Mephitis mephitis</i>	Wade-Smith and Verts 1982
Carnivora	Felidae	<i>Neofelis nebulosa</i>	Nowell and Jackson 1996
Carnivora	Canidae	<i>Otocyon megalotis</i>	Kingdon 1982 Ginsberg and Macdonald 1990
Carnivora	Felidae	<i>Panthera leo</i>	Kingdon 1982 Nowell and Jackson 1996
Carnivora	Felidae	<i>Panthera onca</i>	Seymour 1989
Carnivora	Felidae	<i>Panthera tigris</i>	Nowell and Jackson 1996
Carnivora	Felidae	<i>Panthera uncia</i>	Nowell and Jackson 1996
Carnivora	Hyaenidae	<i>Parahyaena brunnea</i>	Mills 1982
Carnivora	Felidae	<i>Prionailurus bengalensis</i>	Nowell and Jackson 1996
Carnivora	Procyonidae	<i>Procyon lotor</i>	Lotze and Anderson 1979
Carnivora	Mustelidae	<i>Pteronura brasiliensis</i>	Foster-Turley et al. 1990
Carnivora	Felidae	<i>Puma concolor</i>	Nowell and Jackson 1996
Carnivora	Mustelidae	<i>Taxidea taxus</i>	Long 1973
Carnivora	Canidae	<i>Urocyon cinereoargenteus</i>	Fritzell and Haroldson 1982
Carnivora	Canidae	<i>Urocyon littoralis</i>	Ginsberg and Macdonald 1990
Carnivora	Ursidae	<i>Ursus americanus</i>	Herrero 1972

Carnivora	Viverridae	<i>Viverra megaspila</i>	Schreiber et al. 1989
Carnivora	Canidae	<i>Vulpes bengalensis</i>	Ginsberg and Macdonald 1990
Carnivora	Canidae	<i>Vulpes chama</i>	Ginsberg and Macdonald 1990
Carnivora	Canidae	<i>Vulpes velox</i>	Egoscue 1979
Cetartiodactyla	Bovidae	<i>Addax nasomaculatus</i>	Krausman and Casey 2007
Cetartiodactyla	Cervidae	<i>Alces americanus</i>	Fitzgerald et al. 1994
Cetartiodactyla	Antilocapridae	<i>Antilocapra americana</i>	O'Gara 1978
Cetartiodactyla	Bovidae	<i>Beatragus hunteri</i>	Kingdon 1982 Andanje 2002
Cetartiodactyla	Bovidae	<i>Bos gaurus</i>	Wharton 1968
Cetartiodactyla	Bovidae	<i>Bos javanicus</i>	Wharton 1968
Cetartiodactyla	Tayassuidae	<i>Catagonus wagneri</i>	Mayer and Wetzel 1986
Cetartiodactyla	Bovidae	<i>Cephalophus adersi</i>	Kingdon 1982
Cetartiodactyla	Bovidae	<i>Cephalophus zebra</i>	Kingdon 1982
Cetartiodactyla	Bovidae	<i>Connochaetes taurinus</i>	Kingdon 1982
Cetartiodactyla	Bovidae	<i>Eudorcas thomsonii</i>	Kingdon 1982
Cetartiodactyla	Giraffidae	<i>Giraffa camelopardalis</i>	Dagg 1971 Kingdon 1982
Cetartiodactyla	Tragulidae	<i>Hyemoschus aquaticus</i>	Kingdon 1982
Cetartiodactyla	Bovidae	<i>Litocranius walleri</i>	Kingdon 1982
Cetartiodactyla	Bovidae	<i>Nanger granti</i>	Kingdon 1982
Cetartiodactyla	Bovidae	<i>Nanger soemmerringii</i>	Kingdon 1982
Cetartiodactyla	Cervidae	<i>Odocoileus hemionus</i>	Fitzgerald et al. 1994
Cetartiodactyla	Bovidae	<i>Oreamnos americanus</i>	Rideout and Hoffmann 1975
Cetartiodactyla	Bovidae	<i>Oryx beisa</i>	Kingdon 1982
Cetartiodactyla	Cervidae	<i>Rucervus eldii</i>	Salter and Sayer 1986
Cetartiodactyla	Bovidae	<i>Saiga tatarica</i>	Sokolov 1974
Cetartiodactyla	Tayassuidae	<i>Tayassu pecari</i>	Mayer and Wetzel 1987
Cetartiodactyla	Bovidae	<i>Tragelaphus buxtoni</i>	Brown 1969 East 1988
Cingulata	Dasyopodidae	<i>Dasyopus novemcinctus</i>	McBee and Baker 1982
Cingulata	Chlamyphoridae	<i>Euphractus sexcinctus</i>	Redford and Wetzel 1985

			Abba et al. 2014
Dasyuromorphia	Dasyuridae	<i>Dasyuroides byrnei</i>	Woinarski et al. 2014
Dasyuromorphia	Dasyuridae	<i>Dasyurus hallucatus</i>	Woinarski et al. 2014
Dasyuromorphia	Dasyuridae	<i>Parantechinus apicalis</i>	Woinarski et al. 2014
Dasyuromorphia	Dasyuridae	<i>Phascogale pirata</i>	Woinarski et al. 2014
Dasyuromorphia	Dasyuridae	<i>Sarcophilus harrisii</i>	Woinarski et al. 2014
Dasyuromorphia	Dasyuridae	<i>Sminthopsis leucopus</i>	Woinarski et al. 2014
Didelphimorphia	Didelphidae	<i>Caluromys derbianus</i>	Bucher and Hoffmann 1980 Solari & Lew 2015
Didelphimorphia	Didelphidae	<i>Didelphis virginiana</i>	McManus 1974
Diprotodontia	Potoridae	<i>Bettongia penicillata</i>	Woinarski et al. 2014
Diprotodontia	Burramyidae	<i>Burramys parvus</i>	Woinarski et al. 2014
Diprotodontia	Petauridae	<i>Gymnobelideus leadbeateri</i>	Woinarski et al. 2014
Diprotodontia	Macropodidae	<i>Macropus giganteus</i>	Poole 1982
Diprotodontia	Macropodidae	<i>Petrogale persephone</i>	Woinarski et al. 2014
Diprotodontia	Pseudocheiridae	<i>Pseudocheirus occidentalis</i>	Woinarski et al. 2014
Diprotodontia	Macropodidae	<i>Setonix brachyurus</i>	Woinarski et al. 2014
Eulipotyphla	Talpidae	<i>Condylura cristata</i>	Petersen and Yates 1980
Eulipotyphla	Talpidae	<i>Parascalops breweri</i>	Hallett 1978
Eulipotyphla	Talpidae	<i>Scapanus orarius</i>	Hartman and Yates 1985
Eulipotyphla	Soricidae	<i>Sorex bendirii</i>	Pattie 1973.
Eulipotyphla	Soricidae	<i>Sorex fumeus</i>	Owen 1984
Eulipotyphla	Soricidae	<i>Sorex ornatus</i>	Owen and Hoffmann 1983
Lagomorpha	Ochotonidae	<i>Ochotona collaris</i>	MacDonald and Jones 1987
Lagomorpha	Ochotonidae	<i>Ochotona princeps</i>	Smith and Weston 1990
Lagomorpha	Leporidae	<i>Sylvilagus aquaticus</i>	Chapman and Feldhamer 1981
Lagomorpha	Leporidae	<i>Sylvilagus audubonii</i>	Chapman and Willner 1978
Lagomorpha	Leporidae	<i>Sylvilagus bachmani</i>	Chapman 1974
Lagomorpha	Leporidae	<i>Sylvilagus nuttallii</i>	Chapman 1975
Lagomorpha	Leporidae	<i>Sylvilagus palustris</i>	Chapman and Willner 1981
Lagomorpha	Leporidae	<i>Sylvilagus transitionalis</i>	Fitzgerald et al. 1994
Macroscelidea	Macroscelididae	<i>Elephantulus rufescens</i>	Koontz and Roeper 1983
Microbiotheria	Microbiotheriidae	<i>Dromiciops gliroides</i>	Tamayo and Fassinetti 1980

Peramelemorphia	Peramelidae	<i>Isoodon auratus</i>	Woinarski et al. 2014
Peramelemorphia	Thylacomyidae	<i>Macrotis lagotis</i>	Woinarski et al. 2014
Perissodactyla	Rhinocerotidae	<i>Ceratotherium simum</i>	Kingdon 1982 Cumming et al. 1990
Perissodactyla	Rhinocerotidae	<i>Dicerorhinus sumatrensis</i>	Foose and van Strien 1997
Perissodactyla	Rhinocerotidae	<i>Diceros bicornis</i>	Kingdon 1982 Cumming et al. 1990
Perissodactyla	Equidae	<i>Equus grevyi</i>	Kingdon 1982
Perissodactyla	Equidae	<i>Equus zebra</i>	Penzhorn 1988
Perissodactyla	Rhinocerotidae	<i>Rhinoceros unicornis</i>	Foose and van Strien 1997
Primates	Cercopithecidae	<i>Allochrocebus lhoesti</i>	Oates 1985
Primates	Cercopithecidae	<i>Allochrocebus preussi</i>	Oates 1985
Primates	Cercopithecidae	<i>Allochrocebus solatus</i>	Oates 1985
Primates	Cercopithecidae	<i>Cercopithecus hamlyni</i>	Oates 1985
Primates	Hominidae	<i>Gorilla beringei</i>	Harcourt and Groom 1972
Primates	Hominidae	<i>Gorilla gorilla</i>	Tuttle 1986
Primates	Hylobatidae	<i>Hylobates albibarbis</i>	Tuttle 1986
Primates	Hylobatidae	<i>Hylobates moloch</i>	Tuttle 1986
Primates	Hylobatidae	<i>Hylobates muelleri</i>	Tuttle 1986
Primates	Hylobatidae	<i>Hylobates pileatus</i>	Tuttle 1986
Primates	Callitrichidae	<i>Leontopithecus chrysomelas</i>	Kleiman 1981
Primates	Callitrichidae	<i>Leontopithecus rosalia</i>	Kleiman 1981
Primates	Hominidae	<i>Pan paniscus</i>	Reynolds 1965
Primates	Hominidae	<i>Pan troglodytes</i>	Reynolds 1965
Primates	Hominidae	<i>Pongo abelii</i>	Oates 1985
Primates	Hominidae	<i>Pongo pygmaeus</i>	Oates 1985
Primates	Callitrichidae	<i>Saguinus oedipus</i>	Hearn 1983
Primates	Cebidae	<i>Saimiri oerstedii</i>	Hearn 1983
Primates	Hylobatidae	<i>Symphalangus syndactylus</i>	Tuttle 1986
Proboscidea	Elephantidae	<i>Elephas maximus</i>	Shoshani and Eisenberg 1982
Proboscidea	Elephantidae	<i>Loxodonta africana</i>	Kingdon 1982
Rodentia	Sciuridae	<i>Ammospermophilus nelsoni</i>	Fitzgerald et al. 1994
Rodentia	Cricetidae	<i>Baiomys musculus</i>	Packard and

			Montgomery 1978
Rodentia	Castoridae	<i>Castor canadensis</i>	Jenkins and Busher 1979
Rodentia	Caviidae	<i>Cavia fulgida</i>	Mares 1981
Rodentia	Chinchillidae	<i>Chinchilla chinchilla</i>	Mares 1981
Rodentia	Chinchillidae	<i>Chinchilla lanigera</i>	Spotorno et al. 2004 Roach & Kennerley 2016.
Rodentia	Sciuridae	<i>Cynomys gunnisoni</i>	Pizzimenti and Hoffmann 1973
Rodentia	Sciuridae	<i>Cynomys leucurus</i>	Clark et al. 1971
Rodentia	Sciuridae	<i>Cynomys mexicanus</i>	Fitzgerald and Armstrong 1994
Rodentia	Heteromyidae	<i>Dipodomys gravipes</i>	Best and Lackey 1985
Rodentia	Heteromyidae	<i>Dipodomys ingens</i>	Williams and 1991
Rodentia	Heteromyidae	<i>Dipodomys stephensi</i>	Bleich n1977
Rodentia	Geomyidae	<i>Geomys personatus</i>	Williams 1982
Rodentia	Geomyidae	<i>Geomys pinetis</i>	Pembleton and Williams 1978
Rodentia	Heteromyidae	<i>Heteromys pictus</i>	McGhee and Genoways 1978
Rodentia	Heteromyidae	<i>Heteromys salvini</i>	Carter and Genoways 1978
Rodentia	Caviidae	<i>Hydrochoerus hydrochaeris</i>	Mones and Ojasti 1986
Rodentia	Caviidae	<i>Hydrochoerus isthmius</i>	Mones and Ojasti 1986
Rodentia	Hystriidae	<i>Hystrix cristata</i>	Santini 1980
Rodentia	Sciuridae	<i>Ictidomys mexicanus</i>	Young and Knox Jones 1982
Rodentia	Sciuridae	<i>Ictidomys tridecemlineatus</i>	Streubel and Fitzgerald 1978
Rodentia	Caviidae	<i>Kerodon rupestris</i>	Mares 1981 Catzefflis et al. 2016
Rodentia	Sciuridae	<i>Marmota flaviventris</i>	Frase and Hoffmann 1980
Rodentia	Caviidae	<i>Microcavia australis</i>	Mares 1981
Rodentia	Heteromyidae	<i>Microdipodops megacephalus</i>	O'Farrell and Blaustein 1974
Rodentia	Heteromyidae	<i>Microdipodops pallidus</i>	O'Farrell and Blaustein 1974
Rodentia	Cricetidae	<i>Microtus chrotorrhinus</i>	Kirkland and Jannett 1982
Rodentia	Cricetidae	<i>Microtus pinetorum</i>	Smolen 1981
Rodentia	Cricetidae	<i>Myodes gapperi</i>	Merritt 1981

Rodentia	Dipodidae	<i>Napaeozapus insignis</i>	Whitaker and Wrigley 1972
Rodentia	Cricetidae	<i>Neofiber alleni</i>	Birkenholz 1972
Rodentia	Cricetidae	<i>Neotoma phenax</i>	Knox Jones and Genoways 1978
Rodentia	Muridae	<i>Notomys aquilo</i>	Woinarski et al. 2014
Rodentia	Muridae	<i>Notomys cervinus</i>	Woinarski et al. 2014
Rodentia	Muridae	<i>Notomys fuscus</i>	Woinarski et al. 2014
Rodentia	Cricetidae	<i>Ochrotomys nuttalli</i>	Linzey and Packard 1977
Rodentia	Octodontidae	<i>Octodon degus</i>	Woods and Boraker 1975
Rodentia	Cricetidae	<i>Ondatra zibethicus</i>	Willner et al. 1980
Rodentia	Cricetidae	<i>Onychomys leucogaster</i>	McCarty 1978
Rodentia	Cricetidae	<i>Oryzomys palustris</i>	Wolfe 1982
Rodentia	Cricetidae	<i>Peromyscus attwateri</i>	Schmidly 1974 Sugg et al. 1990
Rodentia	Cricetidae	<i>Peromyscus californicus</i>	Merritt 1981
Rodentia	Cricetidae	<i>Peromyscus gossypinus</i>	Wolfe and Linzey 1977
Rodentia	Cricetidae	<i>Peromyscus leucopus</i>	Lackey et al. 1985
Rodentia	Cricetidae	<i>Peromyscus pectoralis</i>	Schmidly 1974
Rodentia	Cricetidae	<i>Peromyscus yucatanicus</i>	Young and Knox Jones 1983 Zarza et al. 2003
Rodentia	Cricetidae	<i>Podomys floridanus</i>	Jones and Layne 1993
Rodentia	Muridae	<i>Pseudomys australis</i>	Woinarski et al. 2014
Rodentia	Muridae	<i>Pseudomys fumeus</i>	Woinarski et al. 2014
Rodentia	Muridae	<i>Pseudomys novaehollandiae</i>	Woinarski et al. 2014 Rounsevell et al. 1991
Rodentia	Cricetidae	<i>Reithrodontomys fulvescens</i>	Spencer and Cameron 1982 Jones and Genoways 1970
Rodentia	Cricetidae	<i>Reithrodontomys gracilis</i>	Young and Knox Jones 1984
Rodentia	Cricetidae	<i>Reithrodontomys hirsutus</i>	Fitzgerald et al. 1994
Rodentia	Cricetidae	<i>Reithrodontomys megalotis</i>	Webster and Knox Jones 1982
Rodentia	Cricetidae	<i>Reithrodontomys raviventris</i>	Fitzgerald et al. 1994
Rodentia	Sciuridae	<i>Sciurus aberti</i>	Nash et al. 1977



Rodentia	Sciuridae	<i>Sciurus granatensis</i>	Nitikman 1985
Rodentia	Cricetidae	<i>Sigmodon alleni</i>	Shump et al. 1978
Rodentia	Cricetidae	<i>Sigmodon leucotis</i>	Shump 1978 Álvarez-Castañeda et al. 2016
Rodentia	Cricetidae	<i>Sigmodon ochrognathus</i>	Baker et al. 1978
Rodentia	Cricetidae	<i>Synaptomys cooperi</i>	Linzey 1983
Rodentia	Sciuridae	<i>Urocitellus beldingi</i>	Jenkins et al. 1984
Rodentia	Sciuridae	<i>Urocitellus elegans</i>	Zegers 1984
Rodentia	Sciuridae	<i>Urocitellus townsendii</i>	Fitzgerald et al. 1994
Rodentia	Sciuridae	<i>Xerospermophilus mohavensis</i>	Best et al. 1995
Rodentia	Sciuridae	<i>Xerospermophilus spilosoma</i>	Streubel et al. 1978

**1. Latest update:** July 2018 (higher taxonomic revisions added, some names updated; no new data added)

**2. Latest Archive date:** January 2019

**3. Metadata status:** July 2018, metadata are current.

**4. Data verification:** All data have been reviewed by IUCN Red List Assessors and/or experts of the IUCN SSC Specialist Groups.

## **B. Accessibility**

**1. Storage location and medium:** DataS1.zip with this publication and on Figshare (doi:10.6084/m9.figshare.7857461. Original data file exists on authors' personal computer in shapefile (.shp) format.

**2. Contact person:** Michela Pacifici, Global Mammal Assessment programme, Dipartimento di Biologia e Biotechnologie "Charles Darwin", Sapienza Università di Roma, Viale dell'Università 32, 00185 Roma, Italy. Email: michela.pacifici@uniroma1.it

**3. Copyright restrictions:** None.

**4. Proprietary restrictions:** None.

**5. Costs:** None.

## CLASS IV. DATA STRUCTURAL DESCRIPTORS

### A Data set file

- 1. Identity:** Mammal\_Ranges\_1970s.zip
- 2. Size:** 205 files
- 3. Format and storage mode:** Shapefiles (.shp) compressed as a single .zip file. The projection of the files is in Geographic coordinates (WGS84).
- 4. Header information:** see sections IVB 1-2

### B Variable information

Variable identity	Variable definition	Data type
cat	number that identifies each polygon	integer
SPECIES	Binomial name of the species, following the most recent IUCN Red List of Threatened Species taxonomy	character

## CLASS V. SUPPLEMENTAL DESCRIPTORS

### A Data acquisition

- 1. Data forms or acquisition methods:** For Australian occurrence points we filled the WildNet data licence agreement.
- 2. Location of completed Data forms:** Need to send an email to [WildNet@science.dsitia.qld.gov.au](mailto:WildNet@science.dsitia.qld.gov.au) to obtain the data forms
- 3. Data entry verification procedures:** All data have been reviewed by IUCN Red List Assessors and/or experts of the IUCN SSC Specialist Groups.

### B Quality assurance/quality control procedures

We did not include in the data set maps for which changes in the distribution are not documented in the published literature.

### **C Related materials**

See section IIIA for main references related to each species' map

### **D Computer programs and data-processing algorithms**

We georeferenced and digitized all the maps with QGIS v3.2 to create vector data.

### **E Archiving**

**Link to access the files in Figshare:** <https://figshare.com/s/f0907c5ceb828e2bb4f2>

**DOI in Figshare:** 10.6084/m9.figshare.7857461

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