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THE HISTORICAL AND RECENT DISTRIBUTION AND STATUS OF MAMMALS IN PORTUGAL

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ABSTRACT – Historical and recent data on Portuguese mammals are presented in this paper, occurring on the mainland and/or in the Azores and Madeira Atlantic islands. Nowadays, 95 species of mammals are known in Portugal, of which only one (*Nyctalus azoreum*) is an endemic species and three 'others (*Pipistrellus maderensis*, *Microtus cabrerae* and *Lynx pardina)* are exclusive for Portugal and Spain. Moreover, two other species, *Mustela vison* and *Sciurus vulgaris* are recent records for the Portuguese fauna, the first due to an accidental introduction and the second resulting from a recolonization by Spanish populations. Of the remaining species, around 50% (46 species) are threatened in different degrees, 34.8% (16 species) being considered endangered or vulnerable. Mammals extinct in Portugal are the Gerês goat (*Capra pyrenaica lusitanica*) and the bear (*Ursus arctos*).

Key words: Mammals, Biodiversity, Conservation.

INTRODUCTION

In European terms, the Portuguese mammal fauna can still be considered a rich and diversified community, in spite of some species being threatened different degrees.

Research on mamnials has greatly increased in Portugal in the past twenty years, allowing a great accumulation of knowledge. During this period, the presence of several species was confirmed or recorded for the first time. This is the case of Cabrera's vole (Niethammer, 1970), the lesser mouse-eared bat (Palmeirim, 1978), the noctule bat (Palmeirim *et al.*, 1979), the pygmy shrew (Madureira and Magalhães, 1980), the stoat (Santos-Reis, 1985), the American mink (Vidal-Figueroa and Delibes, 1987), the northern water vole (Ramalhinho and Mathias, 1988) and the brown long-eared bat (Palmeirim, 1990). **A** case of recolonization, involving the squirrel, was also recognized (Petrucci-Fonseca and Mathias, 1987), and the presence of the stone marten was confirmed through the observation of a few dead specimens (Santos-Reis and Petrucci-Fonseca, in prep.).

Other published papers concern annotated lists of the extant species, on the mainland (e.g. Almaça, 1968, 1971) as well as on islands (e.g. Ulfstrand, 1961; Mathias, 1988; Mathias and Santos-Reis, in prep.), general data on a restricted group of species *(e.g.* Madureira and Ramalhinho, 1982; Santos-Reis, 1983a; Palmeirim, 1990) or more intensive studies on selected species *(e.g.* Madureira, 1984; Santos-Reis, 1989; Petrucci-Fonseca, 1990). Recently, a book by Mathias *et al.* (in press) compiles all the available data on the taxonomy, distribution and ecology of the terrestrial mammals of Portugal.

Herein we have made an attempt to summarize the available information on the historical and recent distribution and status of mammals in Portugal.

METHODS

For nomenclature and taxonomy we followed 'Mammals of the Palearctic region: a taxonomic review' by Corbet (1978), 'Mammal species of the World' by Honaclu *et al.* (1982) and 'Walker's mammals of the World' by Nowak and Paradiso (1983).

The most widely used vernacular names are given for each species both in English (UK) and in Portuguese (P). The English vernacular names were selected from Corbet (1978), Corbet and Ovenden (1980) and Nowak and Paradiso (1983). The adopted Portuguese common names follow Mathias *et al. (inpress).*

The status of the species in the wild are indicated as in the 'Livro Vermelho dos Vertebrados de Portugal. Vol. I - Mamiferos, Aves, Répteis e Anfíbios.' (SNPRCN, 1990) which follows the IUCN (International Union for the Conservation of Nature) categories for threatened species: endangered (E), vulnerable (V), rare (R), indeterminate (I), and insufficiently known (K). Special mention is given when species are referred to in the Bern Convention.

The distribution of the different species listed refers to the ranges within which species can be found in their preferred habitats.

SPECIES ACCOUNT

At present, 95 species, included in 8 orders, are known for Portugal (Tab. 1). Bats and cetaceans are the best represented orders, with 24 species each, while Lagomorpha is the least, with only two species. Some authors added three more species to the number referred above: the lesser white-toothed shrew, *Crocidura suaveolens* (Madureira and Ramalhinho, 1982), the whiskered bat, *Myotis mystacinus,* and the Nathusius' pipistrelle, *Pipistrellus nathusii* (Palmeirim, 1990). However, due to their still doubtful occurrence they were excluded from this paper.

INSECTIVORES

This order includes the hedgehog (Fam. Erinaceidae), 5 species of shrews (Fam. Soricidae) and 2 species of moles (Fam. Talpidae). Of these, only the hedgehog (*Erinaceus europaeus*) also occurs in the islands of Azores, where it was introduced probably in the recent past (Ulfstrand, 1961).

The most common insectivore is the greater white-toothed shrew (*Crocidura russula*) which, like the hedgehog and the mole (*Talpa occidentalis),* is widespread over Portugal. The mole represents the only true subterranean mammal of the Portuguese fauna. Moles build extensive tunnels with their specially adapted forefeet, sometimes in agricultural areas where they can cause economic problems.

The occurrence of the other soricids, the Spanish shrew (*Sorex granarius*), the pygmy shrew (*Sorex minutus)* and the water shrew (*Neomys anomalus*), is more or less coincident in the north of the country, down to the river Tejo, except for the pygmy white-toothed shrew (*Suncus etruscus),* one of the smallest terrestrial

mammals in the world, which presents a southern distribution (Madureira and Ramalhinho, 1982).

The Pyrenean desman *(Galemys pyrenaicus)* is the only Portuguese insectivore included in Annex II of the Bern Convention. With semi-aquatic habits it is considered a vulnerable species. Another threatened species is the pygmy shrew, classified as insufficiently known at a national level. Both species have a fragmented distribution in northern regions, facing regression (Ramalhinho, 1986; Queiroz, 1989, 1991; Ramalhinho' and Tavares, 1989). Major threats are population fragmentation and habitat changes, namely due to the impact of small Hydro-electric plants and to pollution (Almaça, 1992; Queiroz *et al.,* 1992; Ramalhinho and Boavida, 1992).

BATS

Bats, one of the better represented orders of the Portuguese mammal fauna, include 24 species, 9 genera and 4 families.

Two families, Miniopteridae and Molossidae, include a single species, respectively the Schreiber's bat *(Miniopterus schreibersi),* distributed all over the country, and the rare *Tadarida teniotis,* the single European representative of free-tailed bats, only known at few sites in the north and centre of Portugal.

The Rhinolophidae has but one.extant genus *(Rhinolophus)* with 4 species: the greater horseshoe bat *(R. ferrumequinum)* and the lesser horseshoe bat *(R. hipposideros)*, occurring from north to south, the Mediterranean horseshoe bat *(R. euryale)*, rarely found in the southern region, and Mehely's horseshoe bat *(R. mehely)* with a Mediterranean distribution. Horseshoe bats can be found in mines, caves or buildings, hanging free by their toes. Numbers of these species are declining everywhere.

Representatives of 6 genera of Vestertilionidae, consisting of 18 species, live in Portugal. They can hang free but usually are found in crevices, in rocks, under bridges, in buildings or in caves.

Six species of *Myotis* are known. The smallest are Daubenton's bat *(M. daubentoni),* which is also the commonest species, and the mouse-eared bat *(M. myotis)*, occurring both on the mainland and in the Azores (Palmeirim, 1979). Of the remainder, the lesser mouse-eared bat *(M. blythii)* and Natterer's bat *(M. nattereri)* occur all over the country although the first is much more frequent in the south. Geoffroy's bat *(M. emarginatus)* and Bechstein's bat *(M. bechsteinii)* were exceptionally observed in few localities.

The *Pipistrellus* genus includes 4 species of which the common pipistrelle (*P. pipistrellus*), the smallest European bat, is one of the commonest and the one that presents the higher degree of anthropophilia. A less common species, although occurring all over the country, is Kuhl's pipistrelle (*P. kuhli*), also closely associated with human settlements. An extremely rare species is Savi's bat (*P. savii),* about which almost no data exist. The Madeiran bat *(Pipistrellus maderensis),* endemic for the Madeiras and the Canaries, is also poorly known.

Other rare species are the greater noctule (*Nyctalus lasiopterus*), the largest bat species in Europe, the noctule (*Nyctalus noctula*), the Azorean endemic bat *(Nyctalus azoreum)* and the barbastelle (*Barbastella barbastellus*). More frequent are the

serotine (*Eptesicus serotinus)* and Leisler's bat *(Nyctalus leisleri),* which occurs also in the Madeira islands where it was considered a subspecific form *(Nyctalus leisleri verrucosus)* different from the continental one (*Nyctalus leisleri Zeisleri)* (Palmeirim, 1991). The serotine, although locally declining in numbers, is one of the few species expanding its range northwards in Europe.

Of the two *Plecotus* species, the brown long-eared bat (*P. auritus)* is only known from a northern locality. By contrast, the grey long-eared bat (*P. austriacus)* seems rather frequent in the center and south, being also present in the Madeira islands.

Bats are a vulnerable group of mammals because they usually live in large colonies which can easily be destroyed (Palmeirim, 1989). All bat species are protected in European countries. In Portugal 37.5% of the species are threatened with extinction, namely all *Rhinolophus* and *Myotis* except *M. daubentonii*; 8% are vulnerable, *Nyctalus leisleri* on the mainland and *Miniopterus schreibersii;* and the remainder species are considered in other categories. Major dangers to their survival are remedial timber treatment to buildings, human disturbance, loss of roost sites and reduction in food'availability due to changes in agricultural practices (Palmeirim and Rodrigues, 1992).

Except for the common pipistrelle, included in Annex III of the Bern Convention, all the other bats are listed in Annex 11.

LAGOMORPHS

The two species of Leporidae occurring in Portugal, the rabbit (*Oryctolagus cuniculus)* and the hare (*Lepus capensis),* are quite easy to observe, due to their partly diurnal habits, and consequently their distribution is very well known. Both species can be found throughout the country although hares preferentially near the Spanish border. Rabbits are also introductions in the Azores and Madeiras, since the XV century (Mathias, 1988; Mathias and Santos-Reis, in prep.). Neither of these species is threatened, but the range of the hare has progressively declined during the past few years. Changes in farming practices may be partly responsible.

Rabbits and hares are extensively hunted. Hares are also used in races by hare-coursing clubs. The legislation on this matter should be revised. Hares are included in Annex III of the Bern Convention.

RODENTS

The Rodentia are represented in Portugal by 4 families and 13 species. Two of these families, Sciuridae and Gliridae, include only one species, respectively the red squirrel *(Sciurus vulgaris)* and the garden dormouse (*Eliomys quercinus*), both very attractive in external appearance. After an absence of four centuries, the last specimen apparently reported from the sixteenth century (Telles-Antunes, 1985), the red squirrel is now a recent recolonizer expanding from Spain (Petrucci-Fonseca and Mathias, 1987). Formerly occurring throughout Portugal, modern populations are confined to the most northern part of the country where they inhabit coniferous forests. Factors responsible for population depletion in the past were hunting pressure and habitat loss. Nowadays, red squirrels were firstly considered a rare species, but now they are becoming more and more frequent. The garden dormouse, on the other hand, can be quite abundant in some spots, all over the country.

The Arvicolidae family is the most well represented with 6 species, 4 belonging to the genus *Microtus* and 2 to the genus *Awicola*. Both the Lusitanian pine vole *(Microtus lusitanicus)* and the Mediterranean pine vole *(Microtus duodecimcostatus)* can be very abundant in agricultural lands, mainly in orchards where serious damage to fruit trees has been recorded. Occurring respectively in the north and south of the country, their distribution overlaps in the central regions (Madureira, 1984). Of the other two species of *Microtus,* the field vole (*Microtus agrestis*) only occurs in the north and Cabrera's vole *(Microtus cabrerae)*, a rare species and one of the least known rodents in Europe, presents a very localized distribution over southwestern Iberia (Madureira and Ramalhinho, 1982). Also, probably uncommon is the northern water vole *(Awicola terrestris),* so far only captured in Serra de Montesinho, the most northeastern region of Portugal (Ramalhinho and Mathias, 1988). The only species of this genus occurring all over the country, closely associated with freshwater, is the southern water vole (*Arvicola sapidus),* which can reach high densities.

Other abundant rodents are the murids (Fam. Muridae) represented in Portugal by 2 species of rats and 3 species of mice. The rat species, the black (*Rattus rattus*) and the brown *(Rattus norvegicus)* rats, as well as the house mouse *(Mus musculus)*, all originated from Asia, are widely distributed in the mainland as well as in the Azores and in the Madeiras on islands, house mice also colonize natural habitats while on the mainland they are mostly associated with man. The Algerian mouse *(Mus spretus)* and the wood mouse (*Apodemus sylvaticus*), on the contrary, occur only on the mainland, where they are abundant.

Of all the species referred to, only the squirrel, Cabrera's vole and the garden dormouse are listed in Annex III of the Bern Convention.

CETACEANS

The Cetacea, another numerous order of mammals in Portugal, includes also 24 species. Eighteen are toothed whales (dolphins, porpoises, sperm whales and beaked whales), belonging respectively to 5 families (Delphinidae, Phocoenidae, Physeteridae, Kogidae and Ziphiidae), and 6 are baleen whales (rorquals and right whales) included in two families (Balaenopteridae and Balaenidae) (Sequeira and Teixeira, 1988).

The Phoconidae, the Physeteridae and the Kogidae are represented in Portugal by a single species, namely the common porpoise *(Phocoena phocoena),* the sperm whale (*Physeter macrocephalus*) and the pygmy sperm whale *(Kogia breviceps).* The first is a common species in the continental and Azorean sea waters, the second is of regular presence in the Azorean and Madeiran waters but occasional on the mainland coast, while the third is a rare species in the Portuguese marine environment (Reiner, 1981a, b).

The most abundant and varied cetaceans are the Delphinidae which comprises 10 species. Of these, the rough-toothed dolphin *(Steno bredanensis)* and the bridled dolphin (*Stenella frontalis*) are only known in the Azores. The short-finned pilot whale (*Globicephala macrorhyncus*) occurs also in Madeira and the false killer whale (*Pseudorca crassidens)* and Risso's dolphin (*Grampus griseus*) are occasionally observed in both continental and Azorean waters. The killer whale

(Orcinus orca) is rare in all Portuguese waters. The more frequent species are the common dolphin (*Delphinus delphis),* the bottle-nosed dolphin (*Tursiops truncatus)* and the striped dolphin (*Stenella coeruleoalba*), the last of which is particularly abundant in the Azores. The same applies to the long-finned pilot whale (*Globicephala melaena*) which is a common species both in continental and Azorean waters. The bottle-nosed dolphin is the only marine mammal having a resident population on the Portuguese coast, the river Sado estuary (Santos and Lacerda, 1987).

The Ziiphidae includes 5 species in Portugal (Sequeira, 1990). Of these, the northern bottlenose whale *(Hyperoodon ampullatus)* and Sowerby's beaked whale *(Mesoplodon bidens)* are only present in insular waters, the first in the Azores and the second also in Madeira. Blainville's beaked whale *(Mesoplodon densirostris)*, in all Portuguese waters, and Gervais' beaked whale *(Mesoplodon europaeus)*, only along the mainland coast, are exceptionally observed (Reiner, 1979). A species regularly observed in continental waters, is Cuvier's beaked whale *(Ziphius cavirostris).*

Of all the baleen whales, the right whale (*Eubalaena glacialis*) is the only Balaenidae ever referred to Portugal, both in continental and insular waters. Being a rare species, it was lastly observed in 1977 in the Madeiran waters.

The Balaenopteridae is the most numerous baleen family, including 5 species. The humpback whale *(Megaptera novaeangliae)*, the sei whale *(Balaenoptera borealis)* and the minke whale *(Balaenoptera acutorostrata),* in continental and Azorean waters, and the blue whale *(Balaenopteru musculus)*, only near the mainland, are all rare species (Reiner, 1980, 1988). The most common baleen in Portuguese waters, both continental and insular, is the fin whale *(Balaenoptera physalus)*, although considered a vulnerable species.

The Phocoenidae, most of the Delphinidae and Ziphidae, and the humpback and blue whales (Balaenopteridae) are listed in Annex II of the Bern Convention. All the other cetacean families, including the bridle dolphin and the short-finned pilot whale (Delphinidae) and Sowerby's and Cuvier's beaked whales (Ziphidae) are included in Annex III. According to Portuguese legislation, the baleen whales are the most threatened cetaceans, being the blue whale endangered, the fin whale vulnerable and the minke whale rare, while the three other species have an indeterminate status. Of the toothed whales, most species are not threatened or insufficiently known, and only the killer whale is considered a rare species.

CARNIVORES

The Carnivores include 14 species representative of 10 genera and 4 families.

Most of the extant species have an ubiquitous distribution occurring all over the country in favorable habitats. These are one canid (the fox, *Vulpes vulpes*), five mustelids (the weasel, *Mustela nivalis*, the polecat, *Mustela putorius,* the beech marten, *Martes foina*, the badger, *Meles meles,* and the otter, *Lutra lutra),* one viverrid (the genet, *Genetta genetta)* and one felid (the wild cat, *Felis silvestris*).

In spite of a widespread distribution, these species differ in their population status. Abundant species are the fox, the weasel, the beech marten, the badger and the genet, inhabiting a wide range of rural and forested habitats (Santos-Reis, 1983a;

Petrucci-Fonseca and Santos-Reis, in prep.). The weasel is the only true wild carnivore also present in the Portuguese islands. Common in the Azores it was presumably introduced after human settlement (Mathias and Santos-Reis, *in prep.).* The polecat appears to be declining in several regions supposedly due to many threats faced by the wetlands, its preferred habitat (Santos-Reis, 1983a). The domestic form of the polecat, the ferret (*Mustela furo*) was also introduced to the atlantic islands where some individuals escaped, or were abandoned during the game season, allowing the establishment of feral populations which expanded through natural habitats, reaching high altitudes (Mathias and Santos-Reis, in prep.).

The situation of the otter is somewhat different. Inhabiting different types of aquatic environments (Macdonald and Mason, 1982; Santos-Reis,1983b), including the southwestern coast (Beja, 1989), it represents one of the few viable populations in Europe (Trindade *et al.,* 1993). Recent studies allow a better knowledge of the species (*e.g.* Beja, 1991, 1992; Trindade, 1991) but, in spite of this, the otter faces different threats that can compromise its long term survival.

Of the carnivores still occurring statewide, the situation of the wild cat seems the worst. The population is becoming more and more fragmented, due to local reductions in numbers caused by habitat destruction, persecution and reduced prey availability, namely rabbits (Petrucci-Fonseca and Santos-Reis, in prep.). Hybridation with feral domestic cats seems another threat that should be urgently investigated.

All the other carnivores have more or less restricted distributions. Formerly abundant all over the country, the Iberian wolf (*Canis lupus signatus),* the other canid species, inhabits nowadays the northeastern and central mountainous regions, specially in areas bordering Spain, being threatened with extinction (Petrucci-Fonseca, 1990). A scarcity of natural prey (wild ungulates), habitat destruction and human persecution are the main causes of regression.

The endemic Iberian lynx *(Lynx pardina*), the largest wild felid in the Iberian Peninsula, is also threatened with extinction. Its distribution area, although not perfectly known, is greatly fragmented with records scattered in different places from north to south. However, three main population nuclei can be considered. Two in central regions contiguous with Spain and the third in the most southern mountains of the country. Highly specialized both in terms of habitat (mediterranean vegetation) and food (rabbits), major causes of decline are habitat destruction, prey regression, specially due to diseases, and persecution (Castro, 1992; Petrucci-Fonseca and Santos-Reis, in prep.).

Two mustelids, the stoat (*Mustela erminea*) and the stone marten (*Martes martes*), whose presence was only recently confirmed (Santos-Reis, 1985; Santos-Reis and Petrucci-Fonseca, in prep.), are only present in the northern area with the southern border of their range not clearly defined. Another mustelid, the American mink (*Mustela vison*), is a recent introduction in the northwestern river system, due to the accidental escape of an unknown number of individuals from the fur farming settlements located in the margins of river Minho (Vidal-Figueroa and Delibes, 1987).

Another common carnivore is the mongoose (*Herpestes ichneumon),* an African viverrid introduced in the Iberian Peninsula in historical times, jointly with the genet

(Petrucci-Fonseca and Santos-Reis, in prep.). Abundant in southern Portugal, specially south of the river Tejo, the latter species is now facing an expansion period being observed northwards. The northern border of its distribution is not yet clearly defined.

Carnivores are a vulnerable group with most species facing decline due to persecution and habitat destruction. Besides the two endangered species, the wolf and the lynx, five more, four mustelids and the wild cat, are considered threatened although the lack of knowledge does not allow a clear definition of their status. The fox and the mongoose are game species with a restricted period of hunting, except in social hunting reserves where their numbers can be controlled all year round. The majority of the mustelids and the two viverrids are listed in Annex III of Bern Convention, while the wolf, the otter, the lynx and the wild cat are included in Annex 11.

Another species, historically occurring in Portugal but now extinct, is the brown bear (*Ursus arctos*). When Portugal was established as an independent nation (XII century), bears were abundant all over the country. However, in the XV century they were already becoming rare, due to the management of the landscape for agriculture and pastures, jointly with excessive hunting. The last specimen was shoot in 1650 in the Serra do Gerês (Baeta-Neves, 1967).

PINNIPEDS

The single family with representatives in Portugal (Fam. Phocidae), includes 6 species of seals of which 5 can be found in continental coastal waters and one is resident in the coastal waters of Madeira.

The grey seal (*Halichoerus grypus*), the largest member of this family, the common seal (*Phoca vitulina),* the ringed seal (*Phoca hispida*), the smallest of pinnipeds, the hooded seal (*Cystophora cristata*) and the bearded seal (*Erignathus barbetus*) are occasionally encountered near Portugal, all observations probably concerning vagrants (Duguy *et al.,* 1989). The common seal was also recently observed in Madeiran waters (Reiner and Lacerda, 1987).

The monk seal (*Monachus monachus*) is the only species living in or near the Mediterranean. A breeding colony is established in caves below cliffs in Deserta Grande Island (Madeira), but the number of individuals is extremely reduced. its survival being seriously threatened. It is also considered endangered in worldwide terms. Main threats are related to commercial fishing and human persecution. The monk seal is listed in Annex II of the Bern Convention. The remaining seals are included in Annex 111.

ARTIODACTYLS

The order Artiodactyla is represented by 4 species of two modern families of large mammals, the Suidae and the Cervidae.

The wild boar *(Sus scrofa*), is the only suid occurring in Portugal, as in the rest of Europe. It is nowadays a very abundant species, extending throughout the country except near the littoral border, in spite of being considered almost extinct in the sixties. Often forages in cultivated fields, where considerable loss in crops occurs. Locally it is regarded as a pest.

The remainding species, all cervids, the red deer (*Cervus elaphus*), the fallow deer (*Cewus dama*) and the roe deer (*Capreolus capreolus*), have a scattered distribution in the wild but some populations are kept in captivity in parks or confined areas. Occurrences of these species in the wild are reported for the roe deer in the mountainous areas of the most northern part of the country, for the red deer in small spots mainly in the centre, near the Spanish border, and for the fallow deer in diminute areas throughout the country, the most important group being located 50Km south of Lisbon.

Wild boar are extensively hunted for sport, while the other species can be shot only in special hunting reserves. All the cervids are included in Annex III of Bern Convention.

Formerly found in the mountains of Serra do Gerês, the Gerês goat (*Capra pyrenaica lusitanica*), the only wild bovid species ever recorded in Portugal, was extinct during the XIX century (Lagrifa-Mendes, undated). Relatives still live in southern Spain and the Pyrenees.

Table 1 Species, vernacular names in English (UK) and Portuguese (P), and status of the extant Portuguese mammals. (C: Mainland; A: Azores; M: Madeira; E: endangered; V: vulnerable; R: rare; I: indeterminate; N T Not Threatened; K: insufficiently known).

SPECIES	VERNACULAR NAMES		PORTUGUESE STATUS		
	UK	P	C	A	M
ORDER INSECTIVORA					
Family Erinaceidae					
Erinaceus europaeus	Hedgehog	Ouriço-cacheiro	NT	NT	
Family Soricidae					
Sorex minutus	Pygmy shrew	Musaranho-anão	K		
Sorex granarius	Spanish shrew	Musaranho-de-dentes-vermelhos	NT		
Neomys anomalus	Water shrew	Musaranho-de-água	NT		
Crocidura russula	Greater white-toothed shrew	Musaranho-de-dentes-brancos	NT		
Suncus etruscus	Pygmy white toothed shrew	Musaranho-anão-dentes-brancos	NT		
Family Talpidae					
Golemys pyrenaicus	Pyrenean desman	Toupeira-de-Bgua	V		
Talpa occidentulis	Mole	Toupeira	NT		
ORDER CHIROPTERA					
Family Rhinolophidae					
Rhinolophusferrequinum	Greater horseshoe bat	Morcego-de-ferradura-grande	E		
Rhinolophus hipposideros	Lesser horseshoe bat	Morcego-de-ferradura-pequeno	E		
Rhinolophus euryale	Mediterranean horseshoe bat	Morcego-de-ferradura-mediterrbnico	E		
Rhinolophus mehelyi	Mehely's horseshoe bat	Morcego-de-ferradura-mourisco	E		

(continued)

Table 1 - *coninued*

SPECIES	VERNACULAR NAMES		PORTUGUESE STATUS		
	UK	P	C	A	M
Family Vespertilionidae					
Myotis emarginatus	Geoffroy's bat	Morcego-lanudo	E		
Myotis nattereri	Natterer's bat	Morcego-de-franja	E		
Myotis bechsteinii	Bechsteinii bat	Morcego de Bechstein	E		
Myotis myotis	Mouse-eared bat	Morcego-rato-grande	E	K	
Myotis blythii	Lesser mouse-eared bat	Morcego-rato-pequeno	E		
Myotis daubentonii	Daubenton's bat	Morcego-de-água	NT		
Pipistrellus pipistrellus	Common pipistrelle	Morcego-aiiao	NT		
Pipistrellus kuhli	Khul's pipistrelle	Morcego de Khul	NT		
Pipistrellus muderensis	Madeiran bat	Morcego da Madeira			K
Pipistrellus savii	Savi's bat	Morcego de Savi		K	
Nyctalus leisleri	Leisler's bat	Morcego-arboricola-pequeno	V		I
Nyctalus azoreum	Azorean bat	Morcego dos Açores		R	
Nyctalus noctula	Noctule	Morcego-arboricola-grande	I		
Nyctalus lasiopterus	Greater noctule	Morcego-arborìcola-gigante	I		
Eptesicus serotinus	Serotine	Morcego-hortelão	NT		
Barbastella barbastellus	Barbastelle	Morcego-negro	I		
Plecotus auritus	Brown long-eared bat	Morcego-orelhudo-castanho	I		
Plecotus austriacus	Grey long-eared bat	Morcego-orelhudo-cinzento	NT		I
Family Miniopteridae					
Miniopterus schreibersii	Schreiber's bat	Morcego-de-peluche	V		
Family Molossidae					
Tadarida teniotis	Free-tailed bat	Morcego-rabudo	R		
ORDER LAGOMORPHA					
Family Leporidae					
Lepus capensis	Hare	Lebre	NT		
Oryctolagus cuniculus	Rabbit	Coelho-bravo	NT	NT	NT
ORDER RODENTIA					
Family Sciuridae					
Sciurus vulgaris	Red squirrel	Esquilo	R		
Family Arvicolidae					
Arvicola terrestris	Northern water vole	Rato-dos-lameiros	NT		
Arvicola sapidus	Southern water vole	Rato-de-agua	NT		
Microtus cahrerae	Cabrera's vole	Rato de Cabrera	R		
Microtus agrestis	Field vole	Morcego-de-campo-de-rabo-curto	NT		
Microtus lusitanicus	Lusitanean pine vole	Rato-cego	NT		

Microtus duodecimcostatus	Mediterranean pine vole	Rato-cego-mediterrânico	NT		
Family Muridae					
Apodemus sylvaticus	Wood mouse	Rato-do-campo	NT		
Rattus rattus	Black rat	Ratazana, rato-preto	NT	NT	NT
Rattus norvegicus	Brown rat	Ratazana	NT	NT	NT
Mus musculus	House mouse	Rato-caseiro	NT	NT	NT
Mus spretus	Algerian mouse	Ratinho-ruivo	NT		
Family Gliridae					
Eliomys quercinus	Garden dormhouse	Leirão	NT		
ORDER CETACEA					
Family Phocoenidae					
Phocoena phocoena	Common porpoise	Bôto	I	I	
Family Delphinidae					
Steno bredanensis	Rough-toothed dolphin	Caldeirão		K	
Delphinus delphis	Common dolphin	Golfinho	NT	NT	NT
Tursiops truncatus	Bottle-nosed dolphin	Roaz	NT	NT	NT
Stenella frontalis	Bridled dolphin	Golfinho-pintado		NT	
Stenella coeruleoalba	Striped dolphin	Golfinho-riscado	NT	NT	NT
Pseudorca crassidens	False killer whale	Orca-bastarda	NT	NT	
Orcinus orca	Killer whale	Orca	R	R	R
Grampus griseus	Risso's dolphin	Grampo	NT	NT	
Globicephala melaena	Long-finned pilot whale	Baleia-piloto	NT	NT	
Globicephala macrorhynchus	Short-finned pilot whale	Baleia-piloto-tropical		NT	NT
Family Ziphiidae					
Hyperoodon ampullatus	Northern bottlenose whale	Botinhoso		K	
Ziphius cavirostris	Cuvier's beaked whale	Zifio	NT		
Mesoplodon densirostris	Blainville's beaked whale	Baleia-de-beco-grosso	K	K	K
Mesoplodon bidens	Sowerby's beaked whale	Bico-de-garrafa		K	K
Mesoplodon europaeus	Gervais' beaked whale	Baleio de bico das Antilhas	K		
Family Kogidae					
Kogia breviceps	Pygmy sperm whale	Cachalote-pigmeu	K	K	K
Family Physeteridae					
Physeter macrocephalus	Sperm whale	Cachalote	NT	NT	NT
Family Balaenidae					
Eubalaena glacialis	Right whale	Baleia-basca	I	I	I
Family Balaenopteridae					
Megaptera noveangliae	Humpback whale	Jubarte	I	I	
Baluenoptera musculus	Blue whale	Baleia-azul	E		
Balaenoptera physalus	Fin whale	Baleia-fina	V	V	V
Balaenoptera borealis	Sei whale	Baleia-boreal	I	I	
Balaenoptera acutorostrata	Minke whale	Baleia-anã	R	R	
ORDER CARNIVORA					
Family Canidae					
Canis lupus	Wolf	Lobo	E		
Vulpes vulpes	Red fox	Raposa	NT		

(continued)

Table 1 - *coninued*

SPECIES	VERNACULAR NAMES UK	P	PORTUGUESE STATUS C	A	M
Family Mustelidae					
Mustela nivalis	Weasel	Doninha	NT	NT	
Mustela erminea	Stoat	Arminho	K		
Mustela putorius	Polecat	Toirão	K		
Mustela vison	American mink	Visão			
Martes martes	Stone marten	Marta	I		
Mavtes foina	Beech marten	Finha	NT		
Meles meles	Badger	Texugo	NT		
Lutm lutra	Otter	Lontra	K		
Family Viverridae					
Genetta genetta	Genet	Geneta	NT		
Herpestes ichneumon	Mongoose	Sacarrabos	NT		
Family Felidae					
Felis silvestris	Wild cat	Gato-bravo	I		
Lynx pardina	Iberian lynx	Lince-ibérico	E		
ORDER PINNIPEDIA					
Family Phocidae					
Halichoerus grypus	Grey seal	Foca-cinzenta	NT		
Phoca vitulina	Common seal	Foca-vitulina	NT		
Phoca hispida	Ringed seal	Foca-anelada	NT		
Cystophora cristata	Hooded seal	Foca-de-crista	NT		
Erignathusbarbatus	Bearded seal	Foca-barbuda	NT		
Monachus monachus	Monk seal	Lobo-marinho			E
ORDER ARCTIODACTYLA					
Famili Suidae					
Sus scrofa	Wild boar	Javali	NT		
Family Cervidae					
Cervus dama	Fallow deer	Gamo	NT		
Cervus elaphus	Red deer	Veado	NT		
Capreolus capreolus	Roe deer	Corço	NT		

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