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An Updated Checklist of the Mammal Species of Spain with Notes on Exclusions, Additions, and Taxonomic Changes

Lista actualizada de las especies de mamíferos de España con notas sobre exclusiones, adiciones y cambios taxonómicos

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Abstract

Countries' species checklists provide essential references for documenting current wildlife diversity, but they require periodic revisions due to constant changes in distribution and taxonomic arrangements. This study presents an updated and annotated list of the present Spanish mammals, covering the country's mainland territories, archipelagos, Spanish enclaves in North Africa, and Spanish marine demarcations. We first explicitly defined inclusion categories and criteria: i) mammal species with wild populations that breed or complete part of their life cycle within the territories described in the study area; ii) species that meet the previous criterion but are currently extinct, with reliable records of their presence after 1500 CE; and iii) occasional species that reach the study area naturally. Established exclusion categories include: i) domestic species, including those that reproduce naturally in the wild; ii) species that only have captive breeding populations; and iii) introduced or escaped species into the study area that do not currently have wild breeding populations. The resulting list recognises 157 species within the orders Lagomorpha (5), Rodentia (28), Eulipotyphla (19), Chiroptera (34), Artiodactyla (44, including 36 marine species), and Carnivora (27, including 8 marine species). This list of Spain´s mamals is built on explicit, well-founded criteria, wich enables the list to be updated while maintaining the same standars (or revising them transparently) and facilitates comparisons at both national and international scales.
Keywords: Conservation baseline, Extant species, Faunal inventories, Iberian Peninsula, Taxonomy.

Resumen

Los listados de especies constituyen puntos de referencia esenciales para documentar la diversidad actual de la fauna de un país, pero requieren revisiones periódicas a medida que las distribuciones cambian y la taxonomía avanza. Este estudio presenta una lista actualizada y anotada de mamíferos de España, que abarca los territorios peninsulares y archipiélagos, los enclaves españoles en el norte de África y las demarcaciones marinas. Se han definido criterios explícitos para incluir una especie en el listado: i) especies silvestres que se reproducen o que regularmente incluyen en su ciclo vital el área de estudio; ii) especies que, cumpliendo el criterio del punto anterior, se encuentran actualmente extinguidas, pero existen referencias fiables de su presencia después del año 1500 e. c.; y iii) especies de presencia ocasional que llegan de forma natural. También definimos los criterios de exclusión de especies del listado: i) especies domésticas, incluidas aquellas que presentan poblaciones asilvestradas; ii) especies que solo cuentan con poblaciones reproductoras en cautividad; y iii) especies introducidas o escapadas sin poblaciones reproductoras silvestres en la actualidad. La lista resultante reconoce 157 especies: orden Lagomorpha (5), orden Rodentia (28), orden Eulipotyphla (19), orden Chiroptera (34), orden Artiodactyla (44, incluidas 36 marinas) y orden Carnivora (27, incluidas 8 marinas). Esta lista de mamíferos de España se apoya en criterios explícitos y fundamentados, lo que permite actualizar el listado manteniendo los mismos estándares (o revisándolos de forma transparente), y facilita las comparaciones tanto a escala nacional como internacional.

Palabras Clave: Conservación, especies presentes, inventarios de fauna, peninsula ibérica, taxonomía.

Introduction

Countries' mammal lists are critical for documenting current wildlife diversity. These lists facilitate the recognition of native and introduced species and the inclusion of newly recorded taxa resulting from range expansions or previous oversight. Recent advances in molecular techniques have transformed our previously defined taxonomy by enabling the identification of cryptic taxa and by modifying the phylogenetic relationships traditionally inferred from morphological characters alone. As new, more robust techniques are incorporated, the taxonomic classifications continue to evolve. Therefore, regular updates based on scientific evidence are needed to adapt the country's faunal lists to these continuous changes.

Not all mammal checklists produced for the country have included the species present in all the Spanish territories or covered the full range of mammalian groups. The first comprehensive list of a Spanish mammal fauna was compiled by Graells (1897) in his 'Fauna Mastodológica Ibérica', which included wild, domestic, and extinct fossil species. Two subsequent seminal books by Miller (1912) and Cabrera (1914) presented the mammals in a systematised structure, focusing exclusively on wild mammals. Miller addressed terrestrial mammals across Europe, whereas Cabrera covered the Spanish part of the Iberian Peninsula and the Balearic Islands, including marine mammals. Throughout the 20th century, several works attempted to compile the species at worldwide, Palearctic, or European levels (Ellerman & Morrison-Scott 1951, Niethammer & Krapp 1978-1990, Honacki *et al.* 1982, Wilson & Reeder 1993, 2005). However, it was not until the end of the 20th century that new Spanish checklist were available, elaborated by García-Perea & Gisbert (1997). This list enumerated the species and subspecies of mammals but did not include detailed commentaries. The publication of the two atlases of terrestrial mammals (Palomo & Gisbert 2002, Palomo *et al.* 2007, hereinafter Atlas07) was also significant, including species from the Spanish North African territories, but without considering marine mammals. Finally, in 2017, the complete, but unannotated, list of all Spanish fauna was published, encompassing the entire country's territory (Resolución de 17 de febrero de 2017, de la Secretaría de Estado de Medio Ambiente, por la que se establecen tres listas patrón: la de las especies terrestres, la de las especies marinas y la de los hábitats terrestres, presentes en España. BOE núm. 55, de 6 de marzo de 2017, páginas 16648 a 16649; hereinafter List17).

The objectives of this publication are:

- To compile an updated species-level list of mammal taxa present in the Spanish territory and marine demarcations.
- To present and justify changes due to new taxonomic considerations, newly recorded species, and the exclusion of species in relation to the last 2007 Spanish atlas of terrestrial mammals (Atlas07) or the 2017 official list (List17).

Methods

Delimitation of the study area

The study area encompasses the Spanish territory of the Iberian Peninsula and its adjacent islets, the Balearic Islands, the Canary Islands, the autonomous cities of Ceuta and Melilla, and other territories in North Africa named strongholds of sovereignty (i.e., Chafarinas Islands, Alborán Island, Rock of Vélez de la Gomera, and Alhucemas Island); and the five Spanish marine demarcations (North Atlantic, Levantine-Balearic, Strait and Alborán, South Atlantic, and Canary; Figure 1).

Categories and criteria for species inclusion in the checklist

This list compiles the species that meet the following criteria:

- Mammal species with wild populations that breed or complete part of their life cycle within the territories described in the study area.
- Species that meet the previous criterion but are currently extinct, with reliable records of their presence after 1500 CE.
- Occasional species that reach the study area naturally.

Categories of excluded species in the checklist

The following list excludes:

- Domestic species, including those that reproduce naturally in the wild.
- Species that only have captive breeding populations.
- Introduced or escaped species into the study area that do not currently have wild breeding populations.

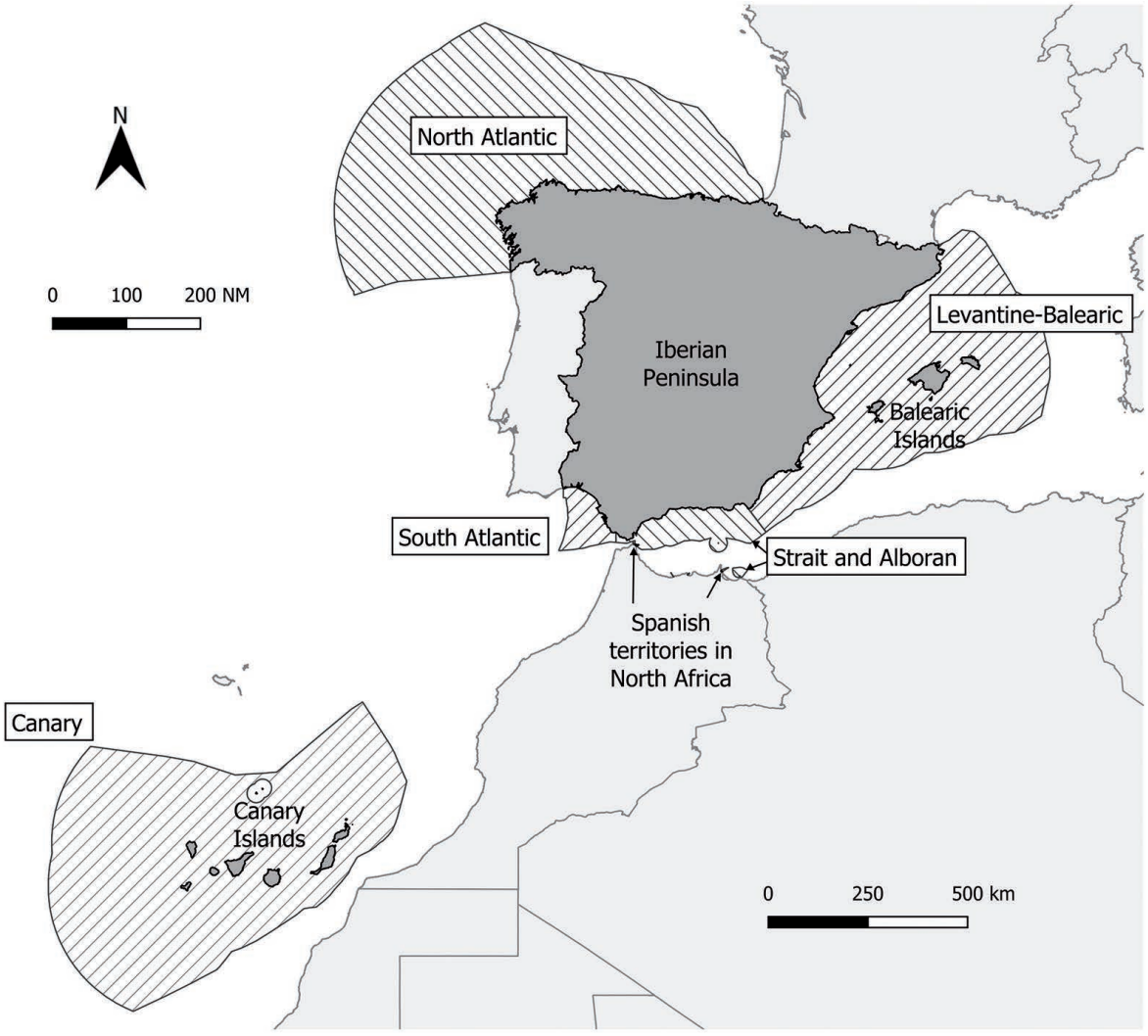

Figure 1. Study area map showing terrestrial areas in dark gray and marine boundaries with stripes. Demarcation names are shown in labeled boxes.

Results and Discussion

This section will provide a well-reasoned justification for the species that differ from Atlas07 and List17, including species that are excluded, newly added species, and taxonomic changes.

Notes on excluded species

In Atlas07 and List17, several North African species are listed as present in the Spanish territories on that continent. Nevertheless, a recent revision by Román *et al.* (2025) has shown that three of these species (*Crocidura whitakerii*, *Elaphantulus rozeti*, and *Dipodillus campestris*), although present in nearby areas of Morocco, lack specific references supporting their presence within Spanish territories. There is also no data on *Felis lybica* and *Canis lupaster*; although it has been suggested that they may have appeared occasionally (González *et al.* 2005). Also, there is a reference to some *Hystrix cristata* bristles found in Ceuta (Aísa & Martínez 1995). These vague references predate the construction of the perimetrical fence around the autonomous cities, making it highly unlikely that these species could move naturally and establish breeding populations. Therefore, as long as no specific records of their presence are known, these species have been excluded from this catalogue.

Two marine species, included in List17, have been excluded from the present checklist since they show no reliable records in the study area (*Cephalorhynchus heavisidii*, and *Mesoplodon grayi*). Another two species, *Tursiops obtusus* and *Delphinus capensis*, are taxa not currently recognised as species but have been synoymised with *Tursiops truncatus* and *Delphinus delphis*, respectively (Costa *et al.* 2025).

Several species commonly considered as pets were listed in List17 (*Urva javanica*, *Urva auropunctata*, *Nyctereutes procyonoides*, *Atelerix albiventris*, *Hemiechinus auritus*, *Nasua narica*, *Nasua nasua*, *Callosciurus erythraeus*, *Callosciurus prevostii*, *Cynomys ludovicianus*, *Eutamias sibiricus*, *Pteromys volans*, *Sciurus carolinensis*, *Sciurus lis*, and *Sciurus niger*). Although individuals of these species occasionally appear in the wild (Duarte *et al.* 2023), there are no established breeding populations. Therefore, they are not included in the current checklist of Spanish mammal fauna. Nevertheless, monitoring their presence and implementing early warning measures are necessary to prevent the establishment of breeding populations.

A notable example of exclusion is the ring-tailed coati (*Nasua nasua*) in Mallorca. Since the intentional or accidental release of a few individuals from a hotel in the early 2000s, a breeding population has become established in the northern part of the island (Mayol *et al.* 2009). Between 2002 and 2013, an eradication program was developed, and since then, only sporadic records have been reported (Bertolino *et al.* 2025); therefore, this species has not been included in the present checklist.

Another illustrative case of exclusion is the Egyptian fruit bat (*Rousettus aegyptiacus*) in Tenerife. In 2000, a feral population was detected, originated with certainty from escapes from individuals in captivity. An eradication campaign was conducted in 2002, resulting in the removal of over 40 individuals (Trujillo 2003). Following the capture of only two specimens between 2004 and 2005, the species was considered practically extinct (Trujillo 2006). Subsequent surveys in 2008, 2009, and 2014 yielded negative results, with no individuals or signs of presence detected (Trujillo 2009, Trujillo 2014); consequently, this species has not been included in the present checklist. Nevertheless, the species is still kept in zoological collections, and it is necessary to maintain prevention measures to avoid the establishment of new breeding populations in the event of future escapes.

Notes on new species added

Castor fiber

The European beaver was present in the Iberian Peninsula, where it became extinct in historical times, likely not before the beginning of the Common Era (Román & Aguilar-Gómez 2025). In 2003, several specimens were illegally released into the Ebro River (Halley & Rosell 2003, Ceña *et al.* 2004), from which the species has since expanded and occupied nearly the entire basin. Subsequently, its presence was detected in the Duero basin in 2022 (Calderón *et al.* 2022), in the Guadalquivir basin in 2023 (Burón *et al.* 2023), and in the Tajo basin in 2024 (Ansón & García-Prendes 2024, Mairal *et al.* 2025), in all cases as a result of new illegal releases. The establishment of breeding populations in the Ebro basin (Aguilar-Gómez 2023) justifies the inclusion of the European beaver among the species considered in this checklist.

Sorex alpinus

There are three historical records of Alpine shrew captures in the Pyrenees, all in the Benasque area

(Huesca). Two of them (Trutat 1878, Gourdon 1930) merely mention the capture in the Plan de Están, while Cabrera (1914) added a description, including biometric data, of a specimen from the Puerto de Benasque, whose characteristics coincide with the diagnostic criteria of the species.

No further records emerged until 2012, when a black shrew was captured, photographed, and immediately released in the Soaso de Ordesa, near the Cola de Caballo waterfall (Torla, Huesca). One of those images was published by Carmena (2019), and years afterward, Anděra (2023) identified the specimen in the image "without any doubt" as *Sorex alpinus*. However, Calzada *et al.* (2023) do not rule out the possibility that it could be a melanistic specimen of *Sorex coronatus*.

While awaiting definitive confirmation of the current presence of *Sorex alpinus* in the Pyrenees and based on the detailed description provided by Cabrera (1914), the species has been included in the current list.

Vespertilio murinus

This is a widely distributed bat, extending from Western Europe to the eastern coast of Asia. In Spain, it has been recorded recently but constantly since 2009. The first observations were made in the central Pyrenees in 2009 (Alberdi *et al.* 2009, 2012). Subsequently, new records have been documented in both the Pyrenees and in more southern localities along the Iberian mountain range (Lorente *et al.* 2010, Ortega & Merino 2015, Olasagasti *et al.* 2021). Consequently, the species is included in the present checklist.

Peponocephala electra

This species has a circumglobal distribution in tropical and subtropical waters. In Spain, there is only one record of a live stranded juvenile male, located on Tenerife (Suárez-González *et al.* 2024).

Stenella clymene

This species inhabits tropical and subtropical waters of the Atlantic Ocean. There is only one documented case of two females stranded dead in Villaviciosa, Asturias, in 2016 (Pis-Millán *et al.* 2019).

Lynx lynx

Genetic studies on skeletal remains from Pleistocene and Holocene sites have revealed the presence of Eurasian lynxes along a northern strip of the Iberian Peninsula, from Galicia to Catalonia (Rodríguez-Varela *et al.* 2016, Lucena-Perez *et al.* 2022). The most recent remains identified date back to the 16th century in Navarra (Rodríguez-Varela *et al.* 2016).

On the other hand, works compiling historical references identify a somewhat wider distribution area to the south and place its presence, at least, until the 19th century and even the mid-20th century (Clavero & Delibes 2013, Jiménez *et al.* 2018).

The evidence known in recent years on the presence of the Eurasian lynx after 1500 CE is conclusive, so this species has been included in the present checklist.

Canis aureus

The golden jackal has recently expanded its range westward, establishing populations throughout much of Europe. In nearby countries such as Italy and Germany, it is now considered a resident species (Hatlauf 2025). In Spain, there are two records: a roadkilled specimen in Álava (January 2023; Sáenz de Buruaga *et al.* 2023) and a photo-trapped individual near Zaragoza (February 2024; Royo-Vicente & García 2024). These references, due to the natural expansion of this species (Hatlauf 2025), justify its inclusion in the present checklist.

Procyon lotor

The raccoon is a species of American origin that was first recorded in the wild in Spain in 2001, probably from specimens released from the pet trade (García *et al.* 2012). The largest population is located in the center of the Iberian Peninsula and appears to have originated from several independent introduction events (Alda *et al.* 2013, Fischer *et al.* 2017). Likewise, stable populations exist in Galicia and the Balearic Islands (García *et al.* 2012). Thus, the raccoon has become well established in Spain.

Notes on taxonomic changes

Lepus mediterraneus

African hares have traditionally been considered to belong to a single disjunctly distributed species, the Cape hare (*Lepus capensis*) (see, e.g., Burgin *et al.* 2020). However, population genetic studies (Lado *et al.* 2019) support that it is a multispecific taxonomic complex, whose current classification does not adequately reflect its true evolutionary diversity.

The hares of Ceuta and Melilla have historically been assigned to *Lepus capensis*, when it was assumed that all African hares corresponded to a

single species, or to *Lepus schlumbergeri* (Johnston *et al.* 2019, Román *et al.* 2025). However, a recent mitochondrial DNA analysis (Soria-Boix *et al.* 2019) has pointed to a greater supra-specific diversity, revealing the presence of at least three different species in northwestern Africa. Based on their geographic distribution, the hares present in the Spanish territories of North Africa should be assigned to *Lepus mediterraneus*, which occupies the northern and central part of Morocco, while *Lepus schlumbergeri* is distributed further south.

Clethrionomys glareolus

Red voles have been assigned to two genera: *Myodes* and *Clethrionomys*. A recent revision has indicated that the name *Myodes* had previously been established as a synonym for lemmings (*Lemmus*), making it unavailable for red voles. Consequently, the oldest valid genus name for this genus is *Clethrionomys* (Kryštufek *et al.* 2020).

Arvicola scherman

The Spanish populations of this species are strictly fossorial (Cubo *et al.* 2006) and have received up to four different designations (Table 1): *Arvicola terrestris* (García-Perea & Gisbert 1997, Saucy 1999, Shenbrot & Krasnov 2005, Ventura 2002, 2007), *Arvicola scherman* (Wilson & Reeder 2005), *Arvicola monticola* (Pardiñas *et al.* 2017, Burgin *et al.* 2020), and *Arvicola amphibius* (Kryštufek & Shenbrot 2022, MDD 2025).

Genetic studies based on mitochondrial DNA (Kryštufek *et al.* 2015, Mahmoudi *et al.* 2020, Chevret *et al.* 2020) indicate that the Iberian fossorial voles of the genus *Arvicola* belong to a lineage that includes populations from northern Spain, southern and eastern France, Switzerland, and an isolated population in north Britain. This lineage differs from another one that occupies north-central Europe and Asia. However, the K2P genetic distances between lineages, which are usually used as a standard measure to delimit species, are at the threshold observed in closely related species. This allows the data to be interpreted as either high intraspecific or low interspecific variability (Kryštufek *et al.* 2015). Consequently, the conclusions differ: while Kryštufek *et al.* (2015) and Chevret *et al.* (2020, 2022) include both lineages within a single species (*Arvicola amphibius*), Mahmoudi *et al.* (2020) recognize the Iberian fossorial vole lineage as a distinct species (*Arvicola monticola*).

Given the limited resolution of mitochondrial DNA, Balmori de la Puente *et al.* (2022) conducted a study using genomic sequencing techniques (ddRAD) and isolation models with migration (IMa3). Genomic analyses offer a more accurate reflection of a species' evolutionary history than single-gene analyses, helping to resolve inconsistencies that result from relying solely on mitochondrial DNA. The samples in this study do not cover the full distribution range, so they cannot provide a complete picture of aquatic and fossorial *Arvicola* voles. Nonetheless, their findings support the view that the Iberian fossorial *Arvicola* vole is a distinct species, along with Swiss populations, that diverged from it approximately 145 ka (107-207 ka) ago. Divergence from *Arvicola amphibius* is estimated at 381 ka (276-628 ka).

Therefore, based on this latest genomic information and in accordance with some interpretations of mitochondrial differentiation, it is proposed that the two European lineages of *Arvicola* should be considered distinct species. This taxonomic arrangement reflects the clear ecological and morphological differences between the two lineages and is consistent with several publications (Wilson & Reeder 2005, Pardiñas *et al.* 2017, Burgin *et al.* 2020, Mahmoudi *et al.* 2020).

Regarding the valid name of these species, some authors use *Arvicola scherman* (Wilson & Reeder 2005, Balmori de la Puente *et al.* 2022), while others use *Arvicola monticola* (Pardiñas *et al.* 2017, Burgin *et al.* 2020). *Arvicola scherman* was described in 1801, with Strasbourg, France, as the type locality. Conversely, *Arvicola monticola* was described in 1838 from Saint-Bertrand-de-Comminges, Hautes-Pyrénées, France. The decisive factor in choosing between these names is the status of the Strasbourg *Arvicola* populations. If these populations belong to the *Arvicola amphibius* lineage, the name would not be valid because *A. scherman* would become a synonym of *A. amphibius*, and the Iberian species would be called *A. monticola*. By contrast, if they are part of the same species as the Iberian fossorial forms, then *A. scherman* would have priority based on the publication date. CytB data indicate that Strasbourg is about 160 km from the nearest Swiss locality with the Iberian fossorial lineage and is within the range of *Arvicola amphibius* (Chevret *et al.* 2020). However, no genomic data are available to confirm this.

Until a definitive resolution is reached, the current list recommends using *A. scherman* to

maintain the nomenclatural stability of Spanish authors, as this has been the most commonly used name in recent years (Durão *et al*. 2020, Rodríguez *et al*., 2020; Villanúa *et al*. 2021, Balmori de la Puente *et al*. 2022; Somoano *et al*. 2020, 2022, 2024).

This proposal remains provisional and subject to the results of a needed comprehensive revision incorporating samples from multiple locations, which will finally clarify the taxonomic status of water and fossorial vole populations across Europe and Asia.

Chionomys nivalis

The type specimen of the snow vole was originally used to describe the species *Hypudaeus syriacus* and not *Microtus socialis*, as it had been assumed (Kryštufek *et al.* 2021). Consequently, the name *Chionomys syriacus* (Brants, 1827) would have priority over *Chionomys nivalis*, and it should therefore be considered the valid name for the species. This arrangement is stated, for example, in the latest update of the IUCN Red List (Kryštufek 2016).

However, a proposal has been submitted to the International Commission on Zoological Nomenclature to maintain the use of the name *C. nivalis*, to avoid nomenclatural instability (Notice of New Applications to the Commission 2021). In accordance with Article 82 of the International Code of Zoological Nomenclature, the predominant use should be retained until the Commission adopts a final decision. Therefore, in the present checklist, the name *Chionomys nivalis* is maintained for the Iberian snow vole.

Microtus cabrerae

The Cabrera's vole has been placed in two genera in recent years: *Iberomys* and *Microtus*. In support of including it in *Iberomys*, where it would be the only living species, are morphological (skull, jaw, and dentition), physiological (the lowest basal metabolism in relation to its weight among arvicolines), and molecular (multiple polymorphic copies of the male-specific SRY gene, mitochondrial genomes) characters; in addition, paleontological remains indicate an evolutionary succession from other extinct species that would also have been assigned to this genus (Cuenca-Bescós *et al.* 2014, Abramson *et al.* 2021).

However, phylogenetic studies employing both mitochondrial and nuclear data confirm that *M. cabrerae* belongs to the genus *Microtus*, although it is placed in its own subgenus, *Iberomys* (Barbosa *et al.* 2018).

Currently, publications with both designations are found, with the genus *Iberomys* being more commonly used in paleontological studies, while *Microtus* predominates in research on the current ecology of the species. *Microtus cabrerae* is the name used in most recent listings (Table 1), so it has been adopted in the present checklist.

Microtus lavernedii / Microtus rozianus

Until a few years ago, *Microtus agrestis* "sensu lato". was considered a single species. However, multilocus analyses of mitochondrial and nuclear DNA have revealed three distinct evolutionary lineages: Northern, Southern, and Iberian (Paupério *et al.* 2012). The genetic distances observed among these lineages are comparable to those separating species already recognised within other groups of the same genus and to those between other small mammal species. Although the populations are morphologically very similar, these molecular results indicate that *M. agrestis* "sensu lato" actually constitutes a complex of three cryptic species. Two of them are found in the Iberian Peninsula: *Microtus rozianus* and *Microtus lavernedii*, whereas the remaining *Microtus agrestis* is distributed from Central and Eastern Europe to Asia.

Microtus pyrenaicus

This species is also named *Microtus gerbii*, or more commonly with the incorrect transcription *Microtus gerbei* (MMD, 2025). This scientific name was introduced when Spitz (1978) questioned the taxonomic identity of *Microtus pyrenaicus,* established by Miller (1912), although without reviewing the Miller's specimens. Spitz (1978) identified several of his specimens as *Microtus lusitanicus*. Although these specimens were collected from areas beyond the known range of this species, they were within the distribution of *M. pyrenaicus*. That is why Kryštufek & Shenbrot (2022) reject Spitz's conclusions and have reinstated *M. pyrenaicus* as the valid name for this species.

Neomys anomalus / Neomys milleri

The study based on the sequencing of 13 introns and the mitochondrial cytochrome b gene, combined with the application of a Bayesian multilocus species delimitation method and gene flow estimation of the classically recognized *Neomys* species, has revealed, with strong statistical support, that two of the taxa previously considered as subspecies constitute

independent evolutionary lineages (Igea *et al.* 2015). Consequently, they should be treated as distinct species, despite their morphological similarity. Thus, *Neomys anomalus* is the more widely distributed species across the Iberian Peninsula, whereas *Neomys milleri*, the Eurasian species, occurs only in the northeastern region of the country.

Crocidura gueldenstaedtii

It is the species present on the island of Menorca (Román *et al.* 2024). It was originally described as *Crocidura balearica* (Miller 1907), later considered a subspecies of *Crocidura caudata* (Ellerman & Morrison-Scott 1951), and finally assigned to *C. suaveolens* (Kahman & Vesmanis 1974, Rey & Rey 1974, Vesmanis & Alcover 1980).

Genetic studies have revealed the proximity of the Menorca lesser white-toothed shrew to the species from the Near East, indicating that it should therefore be named *Crocidura gueldenstaedtii* (Dubey *et al.* 2007, Ibiş *et al.* 2023). The origin of the lesser white-toothed shrews in Menorca is probably linked to the arrival of the Romans (Reumer & Sanders 1984, Sanders & Reumer 1984), associated with an accidental anthropogenic translocation in historical times (Vigne 1999, Dubey *et al.* 2007).

Crocidura iculisma

Crocidura suaveolens "sensu lato" corresponds to a complex composed of several cryptic species (Vogel *et al.* 2003, Dubey *et al.* 2006, Bannikova *et al.* 2006, Biedma *et al.* 2018). Early studies using mitochondrial DNA have already demonstrated a clear separation between species of lesser white-toothed shrews from Asia, on the one hand, and those from Europe and the Near East, on the other (Bannikova *et al.* 2006, Dubey *et al.* 2007). For reasons of nomenclatural priority, the designation *C. suaveolens* corresponds to the Asian species (Bannikova *et al.* 2006, Burgin & He 2018, Burgin *et al.* 2020, Gritsyshin *et al.* 2023, Ibiş *et al.* 2023).

Within the group of European and Near Eastern lesser white-toothed shrews, the populations of the Iberian Peninsula and France form a well-differentiated and basal clade (Dubey *et al.* 2006, 2007, Biedma *et al.* 2018, Gritsyshin *et al.* 2023, Ibiş *et al.* 2023). Although the analyses based on nuclear DNA and mitogenomes did not include samples from the Iberian clade, they do confirm the specific status of the different clades and the basal position of the Iberian lineage, which should therefore also be recognized as a separate species (Gritsyshin *et al.* 2023, Ibiş *et al.* 2023, Román *et al.* 2024).

The lesser white-toothed European shrews would be composed of two species: *Crocidura mimula*, from central Europe, and *Crocidura iculisma*, from the Iberian Peninsula and southern France (Román *et al.* 2024).

Crocidura pachyura

This is the species found on the island of Ibiza (Román *et al.* 2024). It was originally described as an insular endemic subspecies and named as *Crocidura russula ibicensis* (Vericad & Balcells 1965), although some authors assigned it to *Crocidura russula pulchra*, the same subspecies found in the Iberian Peninsula (Rey & Rey 1974). Early studies based on enzymes and associated flea species (Beaucournu & Alcover 1984, Catalan *et al.* 1988) indicated that the shrews of Ibiza were actually more related to the shrews of North Africa.

Genetic analyses have identified two main lineages within *Crocidura russula* "sensu lato" (Vogel *et al.* 2003, Lo Brutto *et al.* 2004, Brändli *et al.* 2005, Cosson *et al.* 2005). On the one hand, a lineage comprising populations from Morocco and continental Europe, assigned to *Crocidura russula*; on the other hand, a distinct lineage including populations distributed across eastern Algeria and Tunisia, recognized as *Crocidura pachyura*. The shrews of Ibiza group with this latter lineage and therefore, they belong to this species. They were also temporally assigned to the species *Crocidura ichnusae* (Wilson & Reeder 2005); however, the denomination *Crocidura pachyura* has taxonomic priority (Turni *et al.* 2007).

It is generally accepted that continental populations are older and naturally originated, whereas insular populations have resulted from accidental introductions of anthropic origin in historical times (Alcover 1980, 2010, Cosson *et al.* 2005). In this case, the introduction in Ibiza appears to have occurred between 645 and 123 BCE (Alcover 2010).

Talpa aquitania

Western European mole populations were traditionally assigned to two species: *Talpa europaea* and *Talpa occidentalis*, the latter considered endemic to the Iberian Peninsula. However, molecular studies based on mitochondrial and nuclear DNA have shown that part of the populations previously assigned to *Talpa europaea* actually represent a third species, sister to *T. occidentalis*, although both clusters together with *T. europaea*, in a European

clade (Nicolas *et al.* 2017a, Aleix-Mata *et al.* 2020). This new species was described as *Talpa aquitania* (Nicolas, Martinez-Vargas & Hugot 2017b) and can also be differentiated by a unique combination of morphological characters (Nicolas *et al.* 2017a, b). The divergence time between *T. aquitania* and *T. occidentalis* was estimated in 2.47 ± 0.12 Ma, while the separation of these two from *T. europaea* was estimated in 2.82 ± 0.10 Ma (Nicolas *et al.* 2017a).

Traditionally, those Iberian populations of mole that did not correspond to *T. occidentalis* had been assigned to *T. europaea*. However, in the new taxonomic arrangement, *T. europaea* does not reach the Iberian Peninsula, although there are records close to the northern Pyrenees (Nicolas *et al.* 2017b). Consequently, all Iberian records previously assigned to *T. europaea* should be reassigned to *T. aquitania*.

Cnephaeus isabellinus / Cnephaeus serotinus

These two bat species were traditionally included in the genus *Eptesicus*, which showed species in both the Old and New World. A recent comprehensive study considering morphology and genetic data has shown that *Eptesicus* was paraphyletic, with two sister clades: one clade included the New World *Eptesicus* together with the also American genus *Histiotus* and another clade grouping Old World *Eptesicus* (Cláudio *et al.* 2023).

In this reevaluation of *Eptesicus*, Cláudio *et al.* (2023) actually distinguish four distinct genera: *Eptesicus*, restricted to only two American species and sister to *Histiotus* which some authors had placed as subgenus of the former to try to keep taxonomic consistency (Hoofer & Van Den Bussche 2003); *Neoeptesicus*, which groups the rest of the Neotropical species and cluster with the other American species, and finally *Cnephaeus*, which includes all Old World species and is basal to the rest. This new arrangement is taking time to be assumed by the European bat people, but it is taxonomically very solid and well supported. As such, we are following it in the present checklist.

Myotis crypticus / Myotis escalerai

In the Atlas07, these bat species were grouped under a single complex, identified as *Myotis nattereri / Myotis escalerai* (Quetglas 2007). In this entry, it was already noted that, at the taxonomic level, it actually constituted a complex of cryptic species.
These bats, found from central-western Europe to North Africa, and that were all traditionally considered as a single species *Myotis nattereri*, consist, at least, of five lineages, corresponding to five distinct species, according to recent molecular studies (Ibáñez *et al.* 2006, García-Mudarra *et al.* 2009, Salicini *et al.* 2013, Juste *et al.* 2019, Razgour *et al*. 2023). Of these species, only two are present in Spain: *Myotis escalerai*, which is an endemism distributed throughout the Iberian Peninsula and the Balearic Islands, and *Myotis crypticus*, found from the northern half of Spain and Portugal to the Balkans, including all of Italy and Sicily.

Leucopleurus acutus

The traditional classification of *Leucopleurus acutus* within the genus *Lagenorhynchus* has been consistently questioned in recent years. Various molecular and morphological analyses have highlighted the polyphyletic nature of this genus, placing *L. acutus* as an early divergent lineage within Delphinidae and separate from the other species traditionally included in *Lagenorhynchus* (Vollmer *et al.* 2019, McGowen *et al.* 2020, Galatius *et al.* 2025).

Vollmer *et al.* (2019) synthesized genetic, morphological, acoustic, and biogeographic evidences, and retained the name *Lagenorhynchus* exclusively for *L. albirostris* and reassigned *L. acutus* to the genus *Leucopleurus*. This proposal has been supported by subsequent studies (McGowen *et al.* 2020, Galatius *et al.* 2025), which emphasize the need to adjust the classification to ensure monophyletic genera and be consistent with their evolutionary history. Additionally, the vocalizations of different species also support the proposed taxonomic differentiation (Calderan *et al.* 2024).

Overall, the evidence supports the conclusion that *L. acutus* does not belong to *Lagenorhynchus* and that its assignment to the genus *Leucopleurus* best reflects evolutionary relationships and ensures a stable, monophyletic classification within Delphinidae.

Ovis gmelinii

It is widely accepted that mouflons introduced to the European continent originated from populations that have survived in mountainous areas of Corsica and Sardinia (Satta *et al.* 2021, Garel *et al.* 2022). On these islands, the mouflon was introduced by Neolithic peoples approximately 8,500 years BCE (Garel *et al.* 2022), likely from animals in a primitive state of domestication, as suggested by archaeological evidence (Poplin 1979, Vigne 1992, Vigne *et al.* 2014). Although their taxonomic status is still under debate, the most currently accepted

name for the Asian populations, from which the European mouflons would have derived, is *Ovis gmelinii*, distributed along eastern Turkey, Armenia, southern Azerbaijan, and northern Iraq and Iran (Demirci *et al.* 2013, Portanier *et al.* 2022, Garel *et al.* 2022).

In recent years, European and Canary Island populations of mouflon have been considered either feral domestic sheep (*Ovis aries*) or eastern mouflon (*O. gmelinii*) populations that were kept in captivity and subsequently released into the wild (Table 1). The debate, therefore, centers on determining the degree of domestication of these animals.

The domestication process of sheep had a first phase, identified by changes in the sex and age proportions of skeletal remains found in archaeological sites, without morphological alterations (Zeder *et al.* 2008). The earliest evidence of mouflon management dates to approximately 11,000-10,500 BP, and perhaps even earlier (Zeder 2009). These groups, still morphologically wild but under human control, expanded rapidly across the Fertile Crescent (Peters *et al.* 2005, Zeder *et al.* 2008). Subsequently, as part of the domestication process, morphological changes associated with artificial selection appear, such as horn reduction and non-shedding wool. These characters, which indicate the domestication of sheep, were first observed approximately 9,500-9,000 BP (Zeder *et al.* 2008, Zeder 2009). The arrival of these artificially selected animals in Europe occurred some millennia later (Tapio *et al.* 2006, Chessa *et al.* 2009, Satta *et al.* 2021).

For their part, genetic studies, mainly based on mitochondrial DNA, show that current sheep breeds descend from ancestral lineages of *Ovis gmelinii* (Demirci *et al.* 2013, Sanna *et al.* 2015, Mereu *et al.* 2025). Up to five distinct mitochondrial haplogroups are now recognized among sheep, resulting from independent domestication events occurring in the Near East (Meadows *et al.* 2011). Mouflons from Corsica and Sardinia are grouped within haplogroup B, the most common among Eurasian domestic sheep (Tapio *et al.* 2006, Sanna *et al.* 2015, Mereu *et al.* 2025). However, although belonging to the same haplogroup, the lineage of these mouflons evolved separately from those of domestic sheep, with an estimated divergence of between 120,000 and 80,000 years (Sanna *et al.* 2015, Satta *et al.* 2021, Mereu *et al.* 2019, 2025). The reconstructed topology suggests that only some mitochondrial lineages were involved in the domestication, indicating that the observed genetic differences predate this process. Consequently, the changes associated with domestication occurred long after the divergence of the lineages (Mereu *et al.* 2025).

Taken together, these results support the ascription of mouflon to *Ovis gmelinii*, whereas *Ovis aries* should be reserved for domestic sheep (Hadjisterkotis *et al.* 2020, Garel *et al.* 2022, Mereu *et al.* 2025).

Rupicapra pyrenaica

The taxonomy of the chamois species has been a subject of constant debate for over a century (Corlatti *et al.* 2022). The currently most accepted classification considers the Cantabrian and Pyrenean chamois belonging to the same species, but as two different subspecies: *Rupicapra pyrenaica pyrenaica*, found in the Pyrenees, and *Rupicapra pyrenaica parva*, found in the Cantabrian Mountains (Corlatti *et al.* 2021, MMD, 2025).

However, in recent years, some authors have proposed recognizing them as distinct species (Groves & Grubb 2011, Groves & Leslie 2011, Castelló 2016, Burgin *et al.* 2020). This consideration originated from the work of Groves & Grubb (2011), who differentiated them as species primarily based on morphological criteria. However, more recent studies integrating mitochondrial and nuclear molecular data have yielded inconsistent results, depending on the technique employed (Corlatti *et al.* 2022), which complicates the definitive resolution of their taxonomy.

In the absence of new studies on the taxonomic status of chamois, this list maintains the classification as a single species, *Rupicapra pyrenaica*, as it is also recognized in most lists (Table 1).

Neogale vison

The American mink is a species native to North America that was first recorded in the wild in Spain in the late 1970s, likely due to escapes from fur farms and intentional releases. Since then, it has expanded rapidly in the following decades, mainly in the northern half of the peninsula (Ruiz-Olmo *et al.* 1997, Bravo 2007).

In recent years, the species has been included in up to three different genera: *Mustela*, *Neovison*, and *Neogale* (Table 1). Phylogenetic studies have confirmed that the American mink constitutes a distinct lineage, along with other American mustelid species (Harding & Smith 2009, Law *et al.* 2018, Hassanin *et al.* 2021). Finally, Patterson *et al.*

(2021) proposed that this clade possesses sufficient entity to be recognized as a separate genus, for which they have proposed the name *Neogale*.

Updated taxonomic list

A total of 157 mammal species are recorded in Spain and distributed as follows Orders: Order Lagomorpha (5 species), Order Rodentia (28), Order Eulipotyphla (19), Order Chiroptera (34), Order Artiodactyla (44, including 36 marine species), and Order Carnivora (27, including 8 marine species). In this list, the sequence of Orders, Families, and Genus follows the phylogenetic criteria established by Wilson *et al.* (2009-2019) and Burgin *et al.* (2020). Within each Genus, the species have been arranged alphabetically.
The updated taxonomic checklist from Spain is:

Class Mammalia Linnaeus, 1758
- Order Lagomorpha Brandt, 1855
  - Family Leporidae G. Fischer, 1817
    - Genus *Oryctolagus* Lilljeborg, 1873
      - *Oryctolagus cuniculus* (Linnaeus, 1758)
    - Genus *Lepus* Linnaeus, 1758
      - *Lepus castroviejoi* Palacios, 1977
      - *Lepus europaeus* Pallas, 1778
      - *Lepus granatensis* Rosenhauer, 1856
      - *Lepus mediterraneus* J. A. Wagner, 1841
- Order Rodentia Bowdich, 1821
  - Family Castoridae Hemprich, 1820
    - Genus *Castor* Linnaeus, 1758
      - *Castor fiber* Linnaeus, 1758
  - Family Cricetidae G. Fischer, 1817
    - Genus *Ondatra* Link, 1795
      - *Ondatra zibethicus* (Linnaeus, 1766)
    - Genus *Clethrionomys* Tilesius, 1850
      - *Clethrionomys glareolus* (Schreber, 1780)
    - Genus *Arvicola* Lacépède, 1799
      - *Arvicola sapidus* G. S. Miller, 1908
      - *Arvicola scherman* (G. K. Shaw, 1801)
    - Genus *Chionomys* G. S. Miller, 1908
      - *Chionomys nivalis* (Martins, 1842)
    - Genus *Microtus* Schrank, 1798
      - *Microtus arvalis* (Pallas, 1779)
      - *Microtus cabrerae* O. Thomas, 1906
      - *Microtus duodecimcostatus* (Sélys-Longchamps, 1839)
      - *Microtus lavernedii* (Crespon, 1844)
      - *Microtus lusitanicus* (Z. Gerbe, 1879)
      - *Microtus pyrenaicus* (Sélys-Longchamps, 1847)
      - *Microtus rozianus* (Bocage, 1865)
  - Family Muridae Illiger, 1811
    - Genus *Micromys* Dehne, 1841
      - *Micromys minutus* (Pallas, 1771)
    - Genus *Rattus* G. Fischer, 1803
      - *Rattus norvegicus* (J. Berkenhout, 1769)
      - *Rattus rattus* (Linnaeus, 1758)
    - Genus *Lemniscomys* Trouessart, 1881
      - *Lemniscomys barbarus* (Linnaeus, 1767)
    - Genus *Apodemus* Kaup, 1829
      - *Apodemus flavicollis* (Melchior, 1834)
      - *Apodemus sylvaticus* (Linnaeus, 1758)
    - Genus *Mus* Linnaeus, 1758
      - *Mus musculus* Linnaeus, 1758
      - *Mus spretus* Lataste, 1883
  - Family Echimyidae Gray, 1825
    - Genus *Myocastor* Kerr, 1792
      - *Myocastor coypus* (G. I. Molina, 1782)
  - Family Sciuridae G. Fischer, 1817
    - Genus *Sciurus* Linnaeus, 1758
      - *Sciurus vulgaris* Linnaeus, 1758
    - Genus *Atlantoxerus* Forsyth Major, 1893
      - *Atlantoxerus getulus* (Linnaeus, 1758)
    - Genus *Marmota* Blumenbach, 1779
      - *Marmota marmota* (Linnaeus, 1758)
  - Family Gliridae Muirhead, 1819
    - Genus *Glis* Brisson, 1762
      - *Glis glis* (Linnaeus, 1766)
    - Genus *Eliomys* Wagner, 1840
      - *Eliomys munbyanus* (A. Pomel, 1856)
      - *Eliomys quercinus* (Linnaeus, 1766)
- Order Eulipotyphla Waddell, Okada, & Hasegawa, 1999
  - Family Erinaceidae G. Fischer, 1814
    - Genus *Erinaceus* Linnaeus, 1758
      - *Erinaceus europaeus* Linnaeus, 1758
    - Genus *Atelerix* Pomel, 1848
      - *Atelerix algirus* (Lereboullet, 1842)
  - Family Soricidae G. Fischer, 1814
    - Genus *Sorex* Linnaeus, 1758
      - *Sorex alpinus* H. R. Schinz, 1837
      - *Sorex araneus* Linnaeus, 1758
      - *Sorex coronatus* Millet, 1828
      - *Sorex granarius* G. S. Miller, 1910
      - *Sorex minutus* Linnaeus, 1766
    - Genus *Neomys* Kaup, 1829
      - *Neomys anomalus* Cabrera, 1907
      - *Neomys fodiens* (Pennant, 1771)
      - *Neomys milleri* Mottaz, 1907
    - Genus *Suncus* Ehrenberg, 1832
      - *Suncus etruscus* (Savi, 1822)
    - Genus *Crocidura* Wagler, 1832
      - *Crocidura canariensis* Hutterer, López-Jurado & Vogel, 1987

Crocidura gueldenstaedtii (Pallas, 1811)
Crocidura iculisma Mottaz, 1908
Crocidura pachyura (Küster, 1835)
Crocidura russula (Hermann, 1780)
Family Talpidae G. Fischer, 1814
Genus *Galemys* Kaup, 1829
Galemys pyrenaicus (É. Geoffroy Saint-Hilaire, 1811)
Genus *Talpa* Linnaeus, 1758
Talpa aquitania Nicolas, Martínez-Vargas & Hugot, 2017
Talpa occidentalis Cabrera, 1907
Order Chiroptera Blumenbach, 1779
Family Rhinolophidae Gray, 1825
Genus *Rhinolophus* Lacépède, 1799
Rhinolophus euryale J. H. Blasius, 1853
Rhinolophus ferrumequinum (Schreber, 1774)
Rhinolophus hipposideros (André, 1797)
Rhinolophus mehelyi Matschie, 1901
Family Molossidae P. Gervais, 1856
Genus *Tadarida* Rafinesque, 1814
Tadarida teniotis (Rafinesque, 1814)
Family Miniopteridae Dobson, 1875
Genus *Miniopterus* Bonaparte, 1837
Miniopterus schreibersii (Kuhl, 1817)
Family Vespertilionidae Gray, 1821
Genus *Nyctalus* Bowdich, 1825
Nyctalus lasiopterus (Schreber, 1780)
Nyctalus leisleri (Kuhl, 1817)
Nyctalus noctula (Schreber, 1774)
Genus *Pipistrellus* Kaup, 1829
Pipistrellus kuhlii (Kuhl, 1817)
Pipistrellus maderensis (Dobson, 1878)
Pipistrellus nathusii (Keyserling & J. H. Blasius, 1839)
Pipistrellus pipistrellus (Schreber, 1774)
Pipistrellus pygmaeus (Leach, 1825)
Genus *Vespertilio* Linnaeus, 1758
Vespertilio murinus Linnaeus, 1758
Genus *Hypsugo* Kolenati, 1856
Hypsugo savii (Bonaparte, 1837)
Genus *Cnephaeus* Kaup, 1829
Cnephaeus isabellinus (Temminck, 1840)
Cnephaeus serotinus (Schreber, 1774)
Genus *Barbastella* Gray, 1821
Barbastella barbastellus (Schreber, 1774)
Genus *Plecotus* É. Geoffroy Saint-Hilaire, 1818
Plecotus auritus (Linnaeus, 1758)
Plecotus austriacus (J. B. Fischer, 1829)
Plecotus macrobullaris Kuzjakin, 1965
Plecotus teneriffae Barrett-Hamilton, 1907
Genus *Myotis* Kaup, 1829
Myotis alcathoe Helversen & K. G. Heller, 2001
Myotis bechsteinii (Kuhl, 1817)
Myotis blythii (Tomes, 1857)
Myotis capaccinii (Bonaparte, 1837)
Myotis crypticus Ruedi, Ibáñez, Salicini, Juste & Puechmaille, 2019
Myotis daubentonii (Kuhl, 1817)
Myotis emarginatus (É. Geoffroy Saint-Hilaire, 1806)
Myotis escalerai Cabrera, 1904
Myotis myotis (Borkhausen, 1797)
Myotis mystacinus (Kuhl, 1817)
Myotis punicus Felten, 1977
Order Artiodactyla Owen, 1848
Family Balaenidae J. E. Gray, 1821
Genus *Eubalaena* J. E. Gray, 1864
Eubalaena glacialis (O. F. Müller, 1776)
Family Balaenopteridae J. E. Gray, 1864
Genus *Eschrichtius* J. E. Gray, 1864
Eschrichtius robustus (Lilljeborg, 1861)
Genus *Megaptera* J. E. Gray, 1846
Megaptera novaeangliae (Borowski, 1781)
Genus *Balaenoptera* Lacépède, 1804
Balaenoptera acutorostrata Lacépède, 1804
Balaenoptera borealis Lesson, 1828
Balaenoptera edeni J. Anderson, 1879
Balaenoptera musculus (Linnaeus, 1758)
Balaenoptera physalus (Linnaeus, 1758)
Family Physeteridae J. E. Gray, 1821
Genus *Physeter* Linnaeus, 1758
Physeter macrocephalus Linnaeus, 1758
Family Kogiidae Gill, 1871
Genus *Kogia* J. E. Gray, 1846
Kogia breviceps (Blainville, 1838)
Kogia sima (R. Owen, 1866)
Family Ziphiidae J. E. Gray, 1865
Genus *Ziphius* G. Cuvier, 1823
Ziphius cavirostris G. Cuvier, 1823
Genus *Hyperoodon* Lacépède, 1804
Hyperoodon ampullatus (J. R. Forster, 1770)
Genus *Mesoplodon* P. Gervais, 1850
Mesoplodon bidens (J. Sowerby, 1804)
Mesoplodon densirostris (Blainville, 1817)
Mesoplodon europaeus (P. Gervais, 1855)
Mesoplodon mirus F. W. True, 1913
Family Delphinidae J. E. Gray, 1821
Genus *Orcinus* Fitzinger, 1860
Orcinus orca (Linnaeus, 1758)
Genus *Leucopleurus* J. E. Gray, 1866
Leucopleurus acutus (J. E. Gray, 1828)
Genus *Lagenorhynchus* J. E. Gray, 1846
Lagenorhynchus albirostris (J. E. Gray, 1846)
Genus *Steno* J. E. Gray, 1846

Steno bredanensis (Lesson, 1828)
Genus *Grampus* J. E. Gray, 1828
Grampus griseus (G. Cuvier, 1812)
Genus *Pseudorca* Reinhardt, 1862
Pseudorca crassidens (Owen, 1846)
Genus *Feresa* J. E. Gray, 1870
Feresa attenuata J. E. Gray, 1874
Genus *Peponocephala* Nishiwaki & Norris, 1966
Peponocephala electra (J. E. Gray, 1846)
Genus *Globicephala* Lesson, 1828
Globicephala macrorhynchus J.E. Gray, 1846
Globicephala melas (Traill, 1809)
Genus *Tursiops* P. Gervais, 1855
Tursiops truncatus (G. Montagu, 1821)
Genus *Stenella* J. E. Gray, 1866
Stenella attenuata (J. E. Gray, 1846)
Stenella clymene (J. E. Gray, 1850)
Stenella coeruleoalba (Meyen, 1833)
Stenella frontalis (G. Cuvier, 1829)
Stenella longirostris (J. E. Gray, 1828)
Genus *Delphinus* Linnaeus, 1758
Delphinus delphis Linnaeus, 1758
Genus *Lagenodelphis* Fraser, 1956
Lagenodelphis hosei Fraser, 1956
Family Phocoenidae J. E. Gray, 1825
Genus *Phocoena* G. Cuvier, 1816
Phocoena phocoena (Linnaeus, 1758)
Family Cervidae Goldfuss, 1820
Genus *Dama* Frisch, 1775
Dama dama (Linnaeus, 1758)
Genus *Cervus* Linnaeus, 1758
Cervus elaphus Linnaeus, 1758
Genus *Capreolus* J. E. Gray, 1821
Capreolus capreolus (Linnaeus, 1758)
Family Bovidae J. E. Gray, 1821
Genus *Ammotragus* Blyth, 1840
Ammotragus lervia (Pallas, 1777)
Genus *Capra* Linnaeus, 1758
Capra pyrenaica H. R. Schinz, 1838
Genus *Ovis* Linnaeus, 1758
Ovis gmelinii E. Blyth, 1841
Genus *Rupicapra* Blainville, 1816
Rupicapra pyrenaica Bonaparte, 1845
Family Suidae J. E. Gray, 1821
Genus *Sus* Linnaeus, 1758
Sus scrofa Linnaeus, 1758
Order Carnivora Bowdich, 1821
Family Felidae G. Fischer, 1817
Genus *Lynx* Kerr, 1792
Lynx lynx (Linnaeus, 1758)
Lynx pardinus (Temminck, 1825)
Genus *Felis* Linnaeus, 1758
Felis silvestris Schreber, 1777
Family Viverridae J. E. Gray, 1821
Genus *Genetta* G. Cuvier, 1816
Genetta genetta (Linnaeus, 1758)
Family Herpestidae Bonaparte, 1845
Genus *Herpestes* Illiger, 1811
Herpestes ichneumon (Linnaeus, 1758)
Family Canidae G. Fischer, 1817
Genus *Vulpes* Frisch, 1775
Vulpes vulpes (Linnaeus, 1758)
Genus *Canis* Linnaeus, 1758
Canis aureus Linnaeus, 1758
Canis lupus Linnaeus, 1758
Family Ursidae G. Fischer, 1817
Genus *Ursus* Linnaeus, 1758
Ursus arctos Linnaeus, 1758
Family Odobenidae Allen, 1880
Genus *Odobenus* Brisson, 1762
Odobenus rosmarus (Linnaeus, 1758)
Family Phocidae J. E. Gray, 1821
Genus *Monachus* Fleming, 1822
Monachus monachus (Hermann, 1779)
Genus *Erignathus* Gill, 1866
Erignathus barbatus (Erxleben, 1777)
Genus *Cystophora* Nilsson, 1820
Cystophora cristata (Erxleben, 1777)
Genus *Halichoerus* Nilsson, 1820
Halichoerus grypus (O. Fabricius, 1791)
Genus *Pagophilus* J. E. Gray, 1844
Pagophilus groenlandicus (Erxleben, 1777)
Genus *Phoca* Linnaeus, 1758
Phoca vitulina Linnaeus, 1758
Genus *Pusa* Scopoli, 1771
Pusa hispida (Schreber, 1775)
Family Mustelidae G. Fischer, 1817
Genus *Meles* Brisson, 1762
Meles meles (Linnaeus, 1758)
Genus *Martes* Pinel, 1792
Martes foina (Erxleben, 1777)
Martes martes (Linnaeus, 1758)
Genus *Neogale* J. E. Gray, 1865
Neogale vison (Schreber, 1777)
Genus *Mustela* Linnaeus, 1758
Mustela erminea Linnaeus, 1758
Mustela lutreola (Linnaeus, 1761)
Mustela nivalis Linnaeus, 1766
Mustela putorius Linnaeus, 1758
Genus *Lutra* Brisson, 1762
Lutra lutra (Linnaeus, 1758)
Family Procyonidae J. E. Gray, 1825
Genus *Procyon* Storr, 1780
Procyon lotor (Linnaeus, 1758)

Table 1. List of the species included in this checklist and how they have been included in the different checklists that have appeared in recent years. The 2007 Atlas of Terrestrial Mammals (Atlas07) and the 2017 checklist (List17) are indicated for reference. HMW 2009-2019 is the Handbook of the Mammals of the World (Wilson *et al.* 2009-2019); CMW 2020 is the Checklist of the Mammals of the World (Burgin *et al.* 2020); IUCN 2025 is the designation that appears on the IUCN RedList websites; GBIF 2025 is the designation according to the GBIF backbone; MDD 2025 is the designation in the latest update of the Mammal Diversity Database. These last three have been revised in September 2025. =: indicates that the species is named in that work as in the present checklist; NA: indicates that the species is not included in that work; 1. Both IUCN and GBIF consider the two names valid for the Iberian population; 2. These species form complexes of recently separated cryptic species; 3. Genus taxonomically renamed; 4. In the Atlas07, they appeared together with two denominations in the same file; 5. The chamois is listed in HMW and in the CMW as two different species.

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Oryctolagus cuniculus	=	=	=	=	=	=	=
Lepus castroviejoi	=	=	=	=	=	=	=
Lepus europaeus	=	=	=	=	=	=	=
Lepus granatensis	=	=	=	=	=	=	=
Lepus mediterraneus	*Lepus schlumbergeri*	*Lepus schlumbergeri*	*Lepus capensis*	*Lepus capensis*	*Lepus capensis*	=	=
Castor fiber	NA	=	=	=	=	=	=
Ondatra zibethicus	=	=	=	=	=	=	=
Clethrionomys glareolus	*Myodes glareolus*	*Myodes glareolus*	*Myodes glareolus*	*Myodes glareolus*	=	*Myodes glareolus*	=
Arvicola sapidus	=	=	=	=	=	=	=
Arvicola scherman	*Arvicola terrestris*	=	*Arvicola monticola*	*Arvicola monticola*	*Arvicola amphibius/ scherman*[1]	*Arvicola amphibius/ scherman*[1]	*Arvicola amphibius*
Chionomys nivalis	=	=	=	=	*Chionomys syriacus*	=	=
Microtus arvalis	=	=	=	=	=	=	=
Microtus cabrerae	=	*Iberomys cabrerae*	=	=	=	=	=
Microtus duodecimcostatus	=	=	=	=	=	=	=
Microtus lavernedii[2]	*Microtus agrestis*	*Microtus agrestis*	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Microtus lusitanicus	=	=	=	=	=	=	=
Microtus pyrenaicus	*Microtus gerbei*	*Microtus gerbei*	*Microtus gerbii*	*Microtus gerbii*	*Microtus gerbii*	*Microtus gerbei*	=
Microtus rozianus[2]	*Microtus agrestis*	*Microtus agrestis*	=	=	=	*Microtus agrestis*	=
Micromys minutus	=	=	=	=	=	=	=
Rattus norvegicus	=	=	=	=	=	=	=
Rattus rattus	=	=	=	=	=	=	=
Lemniscomys barbarus	=	=	=	=	=	=	=
Apodemus flavicollis	=	=	=	=	=	=	=
Apodemus sylvaticus	=	=	=	=	=	=	=
Mus musculus	=	=	=	=	=	=	=
Mus spretus	=	=	=	=	=	=	=
Myocastor coypus	=	=	=	=	=	=	=
Sciurus vulgaris	=	=	=	=	=	=	=
Atlantoxerus getulus	=	=	=	=	=	=	=
Marmota marmota	=	=	=	=	=	=	=
Glis glis	=	=	=	=	=	=	=
Eliomys munbyanus	=	=	=	=	=	=	=
Eliomys quercinus	=	=	=	=	=	=	=
Erinaceus europaeus	=	=	=	=	=	=	=
Atelerix algirus	=	=	=	=	=	=	=
Sorex alpinus	NA	NA	=	=	=	=	=
Sorex araneus	=	=	=	=	=	=	=
Sorex coronatus	=	=	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Sorex granarius	=	=	=	=	=	=	=
Sorex minutus	=	=	=	=	=	=	=
Neomys anomalus[2]	*Neomys anomalus*	=	*Neomys anomalus*	=	=	=	=
Neomys fodiens	=	=	=	=	=	=	=
Neomys milleri[2]	*Neomys anomalus*	=	*Neomys anomalus*	=	=	=	=
Suncus etruscus	=	=	=	=	=	=	=
Crocidura canariensis	=	=	=	=	=	=	=
Crocidura gueldenstaedtii[2]	*Crocidura suaveolens*	*Crocidura suaveolens*	*Crocidura gueldenstaedtii*	*Crocidura gueldenstaedtii*	*Crocidura gueldenstaedtii*	*Crocidura suaveolens*	=
Crocidura iculisma[2]	*Crocidura suaveolens*	*Crocidura suaveolens*	*Crocidura gueldenstaedtii*	*Crocidura gueldenstaedtii*	*Crocidura gueldenstaedtii*	*Crocidura suaveolens*	=
Crocidura pachyura	*Crocidura russula*	*Crocidura ichnusae*	=	=	=	=	=
Crocidura russula	=	=	=	=	=	=	=
Galemys pyrenaicus	=	=	=	=	=	=	=
Talpa aquitania	*Talpa europaea*	*Talpa europaea*	=	=	=	=	=
Talpa occidentalis	=	=	=	=	=	=	=
Rhinolophus euryale	=	=	=	=	=	=	=
Rhinolophus ferrumequinum	=	=	=	=	=	=	=
Rhinolophus hipposideros	=	=	=	=	=	=	=
Rhinolophus mehelyi	=	=	=	=	=	=	=
Tadarida teniotis	=	=	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Miniopterus schreibersii	=	=	=	=	=	=	=
Nyctalus lasiopterus	=	=	=	=	=	=	=
Nyctalus leisleri	=	=	=	=	=	=	=
Nyctalus noctula	=	=	=	=	=	=	=
Pipistrellus kuhlii	=	=	=	=	=	=	=
Pipistrellus maderensis	=	=	=	=	=	=	=
Pipistrellus nathusii	=	=	=	=	=	=	=
Pipistrellus pipistrellus	=	=	=	=	=	=	=
Pipistrellus pygmaeus	=	=	=	=	=	=	=
Vespertilio murinus	NA	=	=	=	=	=	=
Hypsugo savii	=	=	=	=	=	=	=
Cnephaeus isabellinus[3]	*Eptesicus isabellinus/ serotinus*[4]	*Eptesicus isabellinus*	*Eptesicus isabellinus*	*Eptesicus isabellinus*	*Eptesicus isabellinus*	*Eptesicus isabellinus*	=
Cnephaeus serotinus[3]	*Eptesicus isabellinus/ serotinus*[4]	*Eptesicus serotinus*	*Eptesicus serotinus*	*Eptesicus serotinus*	*Eptesicus serotinus*	*Eptesicus serotinus*	=
Barbastella barbastellus	=	=	=	=	=	=	=
Plecotus auritus	=	=	=	=	=	=	=
Plecotus austriacus	=	=	=	=	=	=	=
Plecotus macrobullaris	=	=	=	=	=	=	=
Plecotus teneriffae	=	=	=	=	=	=	=
Myotis alcathoe	=	=	=	=	=	=	=
Myotis bechsteinii	=	=	=	=	=	=	=
Myotis blythii	=	=	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Myotis capaccinii	=	=	=	=	=	=	=
Myotis crypticus[2]	*Myotis nattereri/ escalerai*[4]	=	=	=	=	=	=
Myotis daubentonii	=	=	=	=	=	=	=
Myotis emarginatus	=	=	=	=	=	=	=
Myotis escalerai[2]	*Myotis nattereri/ escalerai*[4]	=	=	=	=	=	=
Myotis myotis	=	=	=	=	=	=	=
Myotis mystacinus	=	=	=	=	=	=	=
Myotis punicus	=	=	=	=	=	=	=
Eubalaena glacialis	NA	=	=	=	=	=	=
Eschrichtius robustus	NA	=	=	=	=	=	=
Megaptera novaeangliae	NA	=	=	=	=	=	=
Balaenoptera acutorostrata	NA	=	=	=	=	=	=
Balaenoptera borealis	NA	=	=	=	=	=	=
Balaenoptera edeni	NA	=	=	=	=	=	=
Balaenoptera musculus	NA	=	=	=	=	=	=
Balaenoptera physalus	NA	=	=	=	=	=	=
Physeter macrocephalus	NA	=	=	=	=	=	=
Kogia breviceps	NA	=	=	=	=	=	=
Kogia sima	NA	=	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Ziphius cavirostris	NA	=	=	=	=	=	=
Hyperoodon ampullatus	NA	=	=	=	=	=	=
Mesoplodon bidens	NA	=	=	=	=	=	=
Mesoplodon densirostris	NA	=	=	=	=	=	=
Mesoplodon europaeus	NA	=	=	=	=	=	=
Mesoplodon mirus	NA	=	=	=	=	=	=
Orcinus orca	NA	=	=	=	=	=	=
Leucopleurus acutus	NA	*Lagenorhynchus acutus*	*Lagenorhynchus acutus*	=	*Lagenorhynchus acutus*	*Lagenorhynchus acutus*	=
Lagenorhynchus albirostris	NA	=	=	=	=	=	=
Steno bredanensis	NA	=	=	=	=	=	=
Grampus griseus	NA	=	=	=	=	=	=
Pseudorca crassidens	NA	=	=	=	=	=	=
Feresa attenuata	NA	=	=	=	=	=	=
Peponocephala electra	NA	NA	=	=	=	=	=
Globicephala macrorhynchus	NA	=	=	=	=	=	=
Globicephala melas	NA	=	=	=	=	=	=
Tursiops truncatus	NA	=	=	=	=	=	=
Stenella attenuata	NA	=	=	=	=	=	=
Stenella clymene	NA	NA	=	=	=	=	=
Stenella coeruleoalba	NA	=	=	=	=	=	=
Stenella frontalis	NA	=	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Stenella longirostris	NA	=	=	=	=	=	=
Delphinus delphis	NA	=	=	=	=	=	=
Lagenodelphis hosei	NA	=	=	=	=	=	=
Phocoena phocoena	NA	=	=	=	=	=	=
Dama dama	=	=	=	=	=	=	=
Cervus elaphus	=	=	=	=	=	=	=
Capreolus capreolus	=	=	=	=	=	=	=
Ammotragus lervia	=	=	=	=	=	=	=
Capra pyrenaica	=	=	=	=	=	=	=
Ovis gmelinii	*Ovis aries*	=	*Ovis aries*	*Ovis aries*	NA	*Ovis aries*	=
Rupicapra pyrenaica	=	=	*Rupicapra pyrenaica/parva*[5]	*Rupicapra pyrenaica/parva*[5]	=	=	=
Sus scrofa	=	=	=	=	=	=	=
Lynx lynx	NA	NA	=	=	=	=	=
Lynx pardinus	=	=	=	=	=	=	=
Felis silvestris	=	=	=	=	=	=	=
Genetta genetta	=	=	=	=	=	=	=
Herpestes ichneumon	=	=	=	=	=	=	=
Vulpes vulpes	=	=	=	=	=	=	=
Canis aureus	NA	NA	=	=	=	=	=
Canis lupus	=	=	=	=	=	=	=
Ursus arctos	=	=	=	=	=	=	=
Odobenus rosmarus	NA	=	=	=	=	=	=
Monachus monachus	=	=	=	=	=	=	=

CURRENT CHECKLIST	Atlas07	List17	HMW 2009-2019	CMW 2020	IUCN 2025	GBIF 2025	MDD 2025
Erignathus barbatus	NA	=	=	=	=	=	=
Cystophora cristata	NA	=	=	=	=	=	=
Halichoerus grypus	NA	=	=	=	=	=	=
Pagophilus groenlandicus	NA	=	=	=	=	=	=
Phoca vitulina	NA	=	=	=	=	=	=
Pusa hispida	NA	=	=	=	=	=	=
Meles meles	=	=	=	=	=	=	=
Martes foina	=	=	=	=	=	=	=
Martes martes	=	=	=	=	=	=	=
Neogale vison	*Neovison vison*	*Neovison vison*	*Neovison vison*	*Mustela vison*	=	*Mustela vison*	=
Mustela erminea	=	=	=	=	=	=	=
Mustela lutreola	=	=	=	=	=	=	=
Mustela nivalis	=	=	=	=	=	=	=
Mustela putorius	=	=	=	=	=	=	=
Lutra lutra	=	=	=	=	=	=	=
Procyon lotor	NA	=	=	=	=	=	=

Table 2. Known presence of each species in the different terrestrial areas included in the study zone. 1 indicates presence and 0 indicates absence.

	Terrestrial areas			
Species	Iberian peninsula	Canary Islands	Balearic Islands	North Africa
Oryctolagus cuniculus	1	1	1	1
Lepus castroviejoi	1	0	0	0
Lepus europaeus	1	0	0	0
Lepus granatensis	1	0	1	0
Lepus mediterraneus	0	0	0	1
Castor fiber	1	0	0	0
Ondatra zibethicus	1	0	0	0
Clethrionomys glareolus	1	0	0	0
Arvicola sapidus	1	0	0	0
Arvicola scherman	1	0	0	0
Chionomys nivalis	1	0	0	0
Microtus arvalis	1	0	0	0
Microtus cabrerae	1	0	0	0
Microtus duodecimcostatus	1	0	0	0
Microtus lavernedii	1	0	0	0
Microtus lusitanicus	1	0	0	0
Microtus pyrenaicus	1	0	0	0
Microtus rozianus	1	0	0	0
Micromys minutus	1	0	0	0
Rattus norvegicus	1	1	1	1
Rattus rattus	1	1	1	1
Lemniscomys barbarus	0	0	0	1
Apodemus flavicollis	1	0	0	0
Apodemus sylvaticus	1	0	1	1
Mus musculus	1	1	1	1
Mus spretus	1	0	1	1
Myocastor coypus	1	0	0	0
Sciurus vulgaris	1	0	0	0
Atlantoxerus getulus	0	1	0	0
Marmota marmota	1	0	0	0
Glis glis	1	0	0	0
Eliomys munbyanus	0	0	0	1
Eliomys quercinus	1	0	1	0
Erinaceus europaeus	1	0	0	0
Atelerix algirus	1	1	1	1
Sorex alpinus	1	0	0	0
Sorex araneus	1	0	0	0
Sorex coronatus	1	0	0	0

	Terrestrial areas			
Species	Iberian peninsula	Canary Islands	Balearic Islands	North Africa
Sorex granarius	1	0	0	0
Sorex minutus	1	0	0	0
Neomys anomalus	1	0	0	0
Neomys fodiens	1	0	0	0
Neomys milleri	1	0	0	0
Suncus etruscus	1	1	1	0
Crocidura canariensis	0	1	0	0
Crocidura gueldenstaedtii	0	0	1	0
Crocidura iculisma	1	0	0	0
Crocidura pachyura	0	0	1	0
Crocidura russula	1	1	1	1
Galemys pyrenaicus	1	0	0	0
Talpa aquitania	1	0	0	0
Talpa occidentalis	1	0	0	0
Rhinolophus euryale	1	0	1	1
Rhinolophus ferrumequinum	1	0	1	1
Rhinolophus hipposideros	1	0	1	1
Rhinolophus mehelyi	1	0	0	1
Tadarida teniotis	1	1	1	1
Miniopterus schreibersii	1	0	1	1
Nyctalus lasiopterus	1	0	0	0
Nyctalus leisleri	1	1	1	1
Nyctalus noctula	1	0	0	0
Pipistrellus kuhlii	1	1	1	1
Pipistrellus maderensis	0	1	0	0
Pipistrellus nathusii	1	0	1	0
Pipistrellus pipistrellus	1	0	1	1
Pipistrellus pygmaeus	1	0	1	1
Vespertilio murinus	1	0	0	0
Hypsugo savii	1	1	1	1
Cnephaeus isabellinus	1	0	0	1
Cnephaeus serotinus	1	0	1	0
Barbastella barbastellus	1	1	1	0
Plecotus auritus	1	0	0	0
Plecotus austriacus	1	0	1	0
Plecotus macrobullaris	1	0	0	0
Plecotus teneriffae	0	1	0	0
Myotis alcathoe	1	0	0	0
Myotis bechsteinii	1	0	0	0

	Terrestrial areas			
Species	Iberian peninsula	Canary Islands	Balearic Islands	North Africa
Myotis blythii	1	0	0	0
Myotis capaccinii	1	0	1	1
Myotis crypticus	1	0	0	0
Myotis daubentonii	1	0	1	0
Myotis emarginatus	1	0	1	0
Myotis escalerai	1	0	1	0
Myotis myotis	1	0	1	0
Myotis mystacinus	1	0	0	0
Myotis punicus	0	0	0	1
Dama dama	1	0	0	0
Cervus elaphus	1	0	0	0
Capreolus capreolus	1	0	0	0
Ammotragus lervia	1	1	0	0
Capra pyrenaica	1	0	0	0
Ovis gmelinii	1	1	0	0
Rupicapra pyrenaica	1	0	0	0
Sus scrofa	1	0	0	1
Lynx lynx	1	0	0	0
Lynx pardinus	1	0	0	0
Felis silvestris	1	0	0	0
Genetta genetta	1	0	1	0
Herpestes ichneumon	1	0	0	1
Vulpes vulpes	1	0	0	1
Canis aureus	1	0	0	0
Canis lupus	1	0	0	0
Ursus arctos	1	0	0	0
Monachus monachus	1	1	1	1
Meles meles	1	0	0	0
Martes foina	1	0	0	0
Martes martes	1	0	1	0
Neogale vison	1	0	0	0
Mustela erminea	1	0	0	0
Mustela lutreola	1	0	0	0
Mustela nivalis	1	0	1	1
Mustela putorius	1	0	0	0
Lutra lutra	1	0	0	0
Procyon lotor	1	0	1	0
Species number in each area	104	19	37	30

Table 3. Known presence of each species in the different marine areas included in the study zone. 1 indicates presence and 0 indicates absence.

	Marine areas				
Species	North Atlantic	South Atlantic	Strait Alboran	Levantine Balearic	Canary
Eubalaena glacialis	1	0	0	0	1
Eschrichtius robustus	0	0	0	1	0
Megaptera novaeangliae	1	1	1	1	1
Balaenoptera acutorostrata	1	1	1	1	1
Balaenoptera borealis	1	1	0	0	1
Balaenoptera edeni	0	1	1	0	1
Balaenoptera musculus	1	1	0	0	1
Balaenoptera physalus	1	1	1	1	1
Physeter macrocephalus	1	1	1	1	1
Kogia breviceps	1	1	1	0	1
Kogia sima	1	1	0	0	1
Ziphius cavirostris	1	1	1	1	1
Hyperoodon ampullatus	1	1	1	0	1
Mesoplodon bidens	1	1	0	0	1
Mesoplodon densirostris	1	1	0	0	1
Mesoplodon europaeus	0	1	0	0	1
Mesoplodon mirus	1	1	0	0	1
Orcinus orca	1	1	1	1	1
Leucopleurus acutus	1	0	0	0	0
Lagenorhynchus albirostris	1	0	0	0	0
Steno bredanensis	1	0	0	0	1
Grampus griseus	1	1	1	1	1
Pseudorca crassidens	1	1	1	1	1
Feresa attenuata	1	0	0	0	1
Peponocephala electra	0	0	0	0	1
Globicephala macrorhynchus	1	1	0	0	1
Globicephala melas	1	1	1	1	1
Tursiops truncatus	1	1	1	1	1
Stenella attenuata	0	0	0	0	1
Stenella clymene	1	0	0	0	0
Stenella coeruleoalba	1	1	1	1	1
Stenella frontalis	0	0	0	0	1
Stenella longirostris	0	0	1	0	1
Delphinus delphis	1	1	1	1	1

	Marine areas				
Species	North Atlantic	South Atlantic	Strait Alboran	Levantine Balearic	Canary
Lagenodelphis hosei	0	0	0	0	1
Phocoena phocoena	1	1	1	0	0
Odobenus rosmarus	1	0	0	0	0
Monachus monachus	1	1	1	1	1
Erignathus barbatus	1	0	0	0	0
Cystophora cristata	1	1	1	0	0
Halichoerus grypus	1	1	1	0	0
Pagophilus groenlandicus	1	1	1	0	0
Phoca vitulina	1	1	0	0	0
Pusa hispida	1	0	0	0	0
Species number in each area	36	29	21	14	32

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