

## Counter arguing the bullfighting industry's claim on environmental issues

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**BULLFIGHTING INDUSTRY'S CLAIM 1:** *“The bull is the guardian of the ‘dehesa’, a unique space in the world that allows for the conservation of one of the richest ecosystems in the world . With an extension of 540.000 hectares, it is one of the best examples of sustainable forest and helps to preserve the environment.”*

### What is a dehesa?

*Dehesas* are a traditional system for the exploitation of natural resources in the Iberian Peninsula in which agricultural, farming and forestry uses are integrated. *Dehesas* are human created environments set up on unfavourable physical conditions: very poor soil (with scarce organic matter and minerals and tendency to erosion) and harsh weather conditions (long and hot summers and cold and humid winters). *Dehesas* are therefore an unstable forestry formation managed through continuous human intervention.



The different components that made up the original dehesas have been manipulated by man in the following ways:

- \* Tree component. The original primitive oak tree forests were cleared up by cutting down, burning and ploughing them up long ago, preventing its regeneration through the action of domestic livestock. Of the remaining types of oak trees, pruning by man has manipulated the natural development of these trees and given them a peculiar aspect.
- \* Herb component. Intensive shepherding of the land, has lead to a reduction in the number of species by selecting only those with higher renewal rates. As drought is common and because of the poorness of the soil, frugal species that would dominate, have no nutritional value (so no interest for farming), and are eliminated.
- \* Shrubs component. Which in the past was very diverse, has been eliminated from most of its original extension, to rise solar radiation to the ground and increase the production of pastures for livestock.

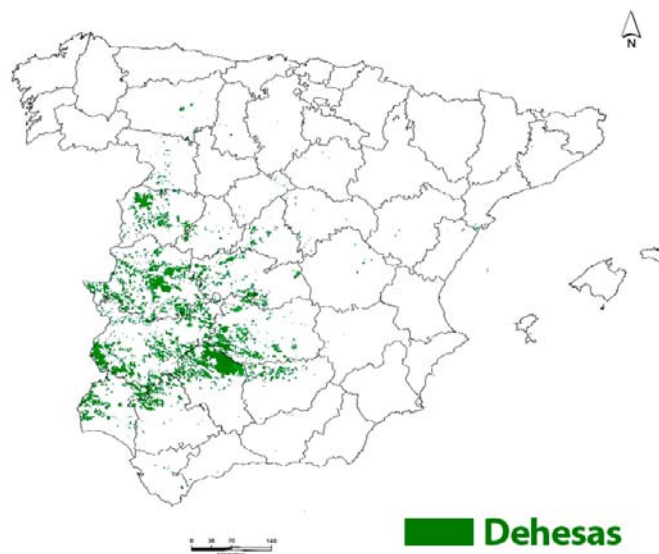
The simplification of the Mediterranean forest into *dehesas* increases the productivity of pastures and their economic profits at the expense of a reduction of the habitat's complex structure, degrading the soil and vegetation and leading to the impoverishment of biodiversity. Moreover, *dehesas* pose many problems from the sustainability point of view for its own resources (such as the regeneration of its tree cover), as for the conservation of its own biodiversity.

The impoverishment of the plant component consequently impoverishes the component of the invertebrates that live on and feed from it, as of the vertebrates predate over them.

**1<sup>st</sup> CONCLUSION TO CLAIM 1: It is, therefore, an exaggeration to claim that *dehesas* are “one of the richest areas in Europe” or that they “fully respect environmental diversity”. In fact, *dehesas* are considered by environmentalists as unstable and very limited ecologically.**

### Definition and Extension

The somehow lax definition of *dehesa* poses certain difficulty in ascribing a specific area to this formation; some define *dehesas* as a type of environment whilst others define them as a type of management system for certain estates



Therefore, there is no general agreement on the total area occupied by *dehesas* in Spain, varying with regards to the source, this extension can be from 2 million hectares to over 6 million (9 million if we include Portugal's equivalent which are named “*montados*”). According to the most ecological criteria, the total area for *dehesas* in Spain is estimated to occupy 5,8 million hectares.

These *dehesas* are spread around disconnected areas in the west & South-West of Spain (in the autonomous communities of Extremadura, Andalucía, Castilla y León, Castilla la Mancha and Madrid) and extend into the bordering zones in Portugal.

### Uses of *dehesas*

The uses of *dehesas* include:

- Farming Activities

- Shepherding. Pastures and acorns are combined with cows, sheep and pigs in extensive agriculture. However drought periods force the animals to be fed with supplementary feed
- Pastures. With the related single species selection problem.
- Agricultural Activities. The most common is cereal, to provide feed for animals, avoid the development of bushes and provide habitat for quails used for hunting. Also used for figs, citrus fruits, walnut and almond trees, vineyards and other fruit trees.
- Montanera. Is the shepherding of pigs to consume acorns for a certain period of the year.
- Ramoneo. When animals feed on the short and tender branches of trees and shrubs. This activity eliminates young sprouts therefore making the regeneration of the tree component impossible.
- Hunting is very common. And there are an increasing number of hunting farms. Fishing is also carried out in dehesas.
- Ecotourism.
- Products: Firewood, cork, honey, mushrooms, asparagus, aromatic herbs, etc



Oak used for cork

The raising of bulls for bullfights is never mentioned in any document on the uses and protection of dehesas.

### **Fauna in *dehesas***

The species of animals that would more often be found in *dehesas* (and in many other environments) are doves, hares, storks, lizards and a certain type of bird called *Rabilargo*,

Although you could also find fox, deers, rabbits, wild boars and partridges, these species prefer areas with a higher vegetable cover. Vultures can also be found in *dehesas* but they would usually inhabit mountainous habitats.

Many species found in *dehesas*, such as wild boars, are used for hunting and are often bred and released specifically for organised hunts.

If certain *dehesas* house numerous species of animals, this is due to the fact that these animals live in the nearby forests and use the *dehesas* secondarily. It is not due to their capacity to house high levels of biodiversity, as diversity requires the original structural complexity of the habitats.

### **Protection of *dehesas***

The main threats to *dehesas* are the lack of an appropriate reforestation system, inappropriate management, overexploitation, abandonment, *La seca* (an oak disease that kills these trees), the substitution of ovine for bovine livestock and, especially, the intensification of farming, especially concerning.

From the numerous organisations that advocate for the protection of *dehesas*, none of them mention the fact that bullfighting bulls are bred in them as a beneficial factor or as a reason for their protection.

In any case, In Spain about 25% of the *dehesa* land is already protected per se, regardless of whether they raise bulls on them or not.

Even when subsidies are given to the extensive farming of these animals in *dehesa* lands, the farming load allowed is unsustainable; these subsidies allow for a load of animals that consume an amount of food that the *dehesa* land, in general, cannot produce at a sustainable rate. Therefore, these subsidies actually degrade *dehesas*.

*Dehesas* have more of an economical and social importance than an ecological one, as they are usually located in “marginal areas”, where there is a limited agricultural vocation and a limited industrial network so the activities carried out in them keep rural populations in their areas.

### ***Dehesas* with bullfighting bulls**

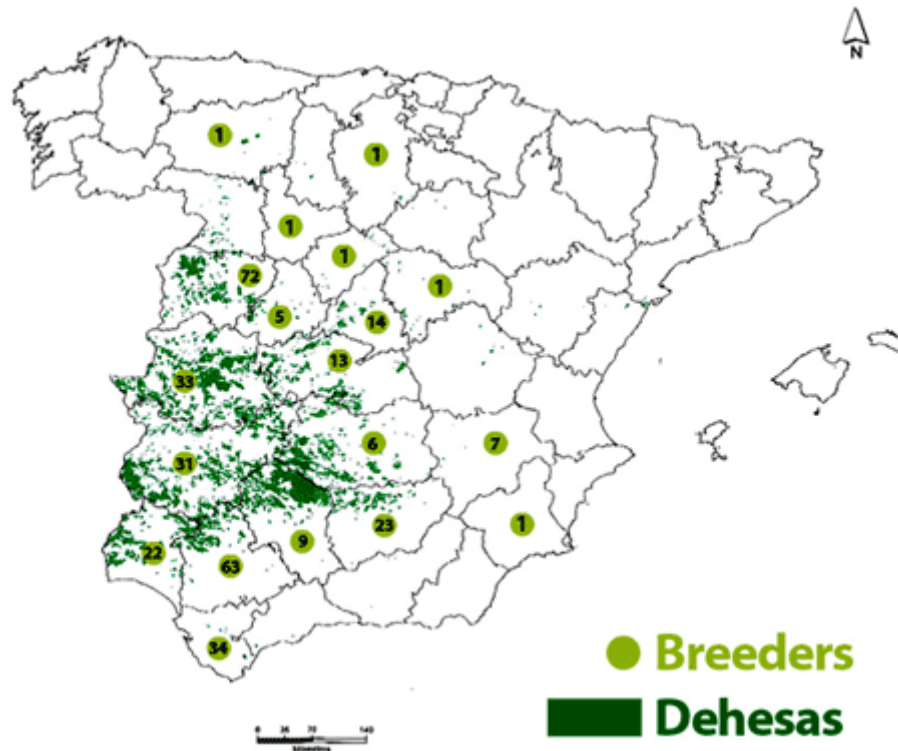
According to the Union of Bullfighting Bull Breeders , there are:

\* In Spain: 338 breeders spread out in 528 estates and occupying 288.962,71 hectares.

\* In Portugal: 26 breeders spread out in 7 estates and occupying 33.543 hectares.

\* In France: 4 breeders spread out in 38 estates and occupying 658 hectares.

These are breeders that are related to the Union of Bullfighting Bull Breeders, which they claim is 70% of the total, therefore the total of hectares of land used in Europe for raising bullfighting bulls would be of 461.661 ha.



The breeders of bullfighting bulls in Spain are located especially in Andalucía, Extremadura, Castilla y León, Castilla la Mancha, Madrid and Murcia.

There is no general agreement about the area of dehesa habitat occupied by bullfighting bull breeding. Even if we considered that all bullfighting bulls were bred in *dehesas*, which is not the case, the occupation of dehesas for the breeding of bullfighting bulls would be between 4,8% - 9,3%. This small representation demonstrates that **the supposed protection of dehesas by the breeding of bullfighting bulls is false.**

### Benefits and inconveniences of raising bulls in *dehesas*

No specific environmental benefit to the presence of bullfighting bulls in dehesas can be observed. However, the inconveniences include:

- Damage done to growing trees through the Ramoneo activity which avoids regeneration of trees (as animals eat the growing branches and sprouts) . In fact, 3 decades would be necessary to recover the tree component of dehesas that have been used for bovine production.
- Intensive shepherding by one single species of cattle, selects only those herb species with a higher renewal rate leading towards an impoverishment of the habitat.
- Even in extensive farming systems such as these, and as these herbivorous animals are heavily browsing and trampling, severely detrimental environmental effects arise such as:

- Destruction of vegetation near rivers – which can affect water quality, cause streams to widen and gravel to be washed down by floods, affecting other species of wildlife that depend on these streams.
  - An increasing number of animals per hectare can result in the ploughing and draining of vast tracts of previously unspoilt land and can erase surface draining systems
  - Destruction of land can result in loss of rare plant and animal species
  - Problems of soil compaction, erosion and decreased soil fertility
  - Desertification –due mainly to overgrazing
- Cattle raising requires strong fences which can also pose problems to the movements of wild animals.
  - Because it is necessary to complement their diet with dry feed, there are also the negative environmental impacts related to its productions such as the used of genetically modified organisms and deforestation related to soy crops,
  - From an ecological point of view, bulls play no role in the ecosystems in which they are kept/introduced. They are neither prey nor predator of other inhabitants of the land and, they do not contribute to the reproduction of any plant species



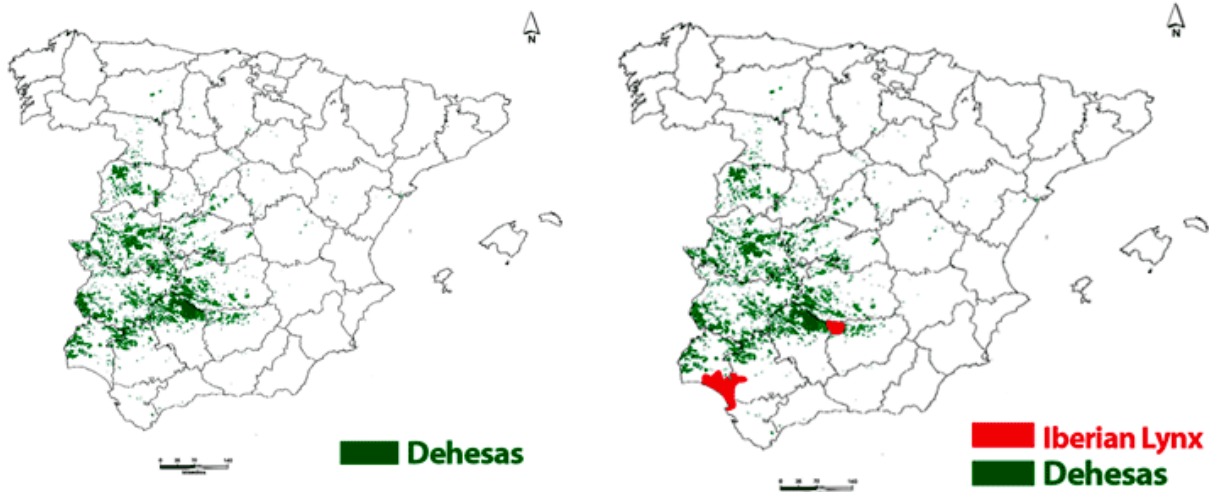
In fact, in the national park of Doñana in Andalusia and where 50 of the last 200 lynx in Spain live, cattle raising is not allowed even on their *dehesas*.

**2<sup>nd</sup> CONCLUSION TO CLAIM 1: The supposed protection of dehesas by the breeding of bullfighting bulls is false.**

**BULLFIGHTING INDUSTRY'S CLAIM 2: “ Bulls share this space [dehesas] with the lynx and the imperial eagle, and if bullfighting bulls disappear, so will these other species.”**

## LYNX

There are only about 200 individuals left in the world that live in two small nucleus in the South of Spain. The IUCN considers them (together with the Bengal tiger) the most endangered feline in the world. They could disappear in 10 years and are listed in the Spanish and Portuguese Red Books of Vertebrates as “in danger of extinction”



Lynxes preferably lives in areas of well-preserved Mediterranean forest, with changing plant stages, with abundant bushes (which provides them of shelter and spaces to hunt rabbits- their favourite prey) and isolated from human activity.

Lynxes avoid crop lands and areas with exotic trees (like eucalyptus and pine used for reforestation). Moreover, **lynxes show aversion towards the dehesa environment**, so they will avoid them as much as possible.

The main threats to this species are hunting, car accidents, non selective predator control methods, reduction of rabbit population due to several viruses, fragmentation of their populations (through construction of dams, roads, railways, etc.), forest fires, development and construction, inappropriate reforestations with species of economic interest (eucalyptus, pines...) and loss of habitats.



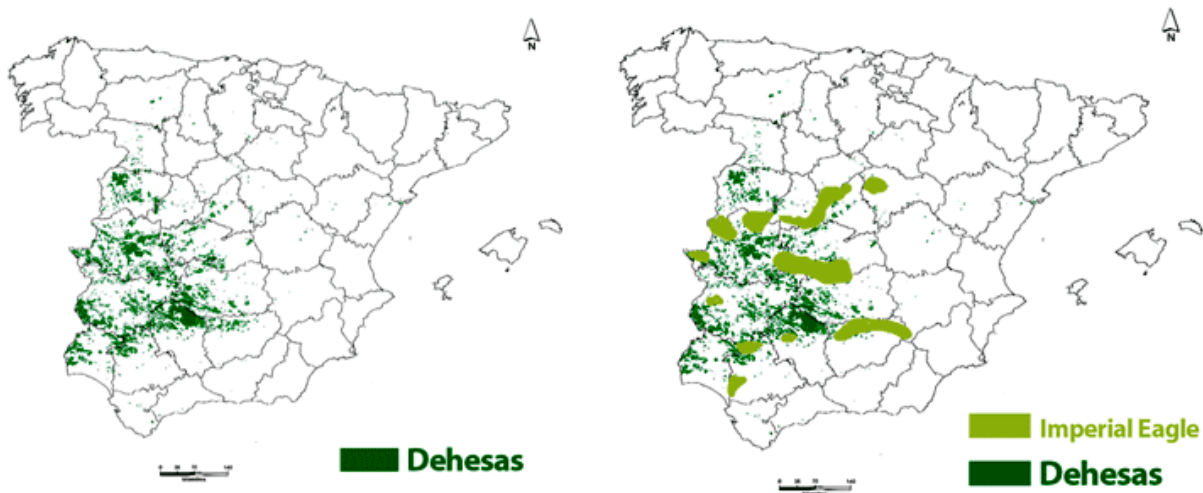
Lynx caught on a leghold trap

There are about 50 laws, action plans and regulations for the protection of the lynx in Spain. In fact, the LIFE (EU) Programme for the conservation and reintroduction of the lynx in the Spanish region of Andalusia is the one that has received most funding in the history of Europe with a total of 26 million euros.

## IMPERIAL EAGLE

Imperial eagles are the only bird of prey that live exclusively in the Iberian Peninsula. There are little over 200 breeding pairs left in the world and are included in the Spanish National Catalogue of Endangered Species, under the category of "in danger of

extinction". They are one of the 4 most scarce species of birds of prey in the Planet, and the most endangered eagle type in the European continent.



Their favourite habitats are the Mediterranean forest and bushes, with grasslands close by. So they would be found more often in *dehesas* than lynx would, however, the dehesa environment would not be enough for them to survive as their fertility depends on heterogenous habitats (as opposed to the simplified dehesas)

The main threats to this species are collisions, electrocution in electric wires (responsible for most deaths of young individuals), poisoning, uncontrolled tourism (human nuisances can cause reproductive failures), rabbit population decline, viruses, illegal hunting, habitat destruction, inappropriate forest management (cutting trees in nesting areas for fire lines) and construction (urbanization) in nesting areas. The biggest nuisance for imperial eagles is the presence of humans, which is frequent in *dehesas* with tourism and farmers.



Imperial Eagle shot by illegal hunters

There are about 75 laws and regulations for the protection of the imperial eagles in Spain.

**CONCLUSION TO CLAIM 2: There are numerous and subsidised plans for the conservation of lynxes and imperial eagles independently of whether these populations are located in a dehesa-type land or not and regardless of bullfighting bulls being raised in the same habitats. Therefore, it is false to claim that the lynx and the imperial eagle would disappear if bullfights did so.**

### **BULLFIGHTING INDUSTRY'S CLAIM 3: “Without bullfighting, the bullfighting bulls’ species would be in danger of extinction”**

The taxonomical (Biological) hierarchy is as follows:

Class / Sub-class/ Order/ Sub-order/ Family/ Sub-Family/ Genus/ Species/ Sub-Species

And after sub-species come varieties. Within varieties you can find breeds, casts, lineages, populations, families and individuals. However it is breeders of animals that define these breeds, casts, etc, not taxonomists.

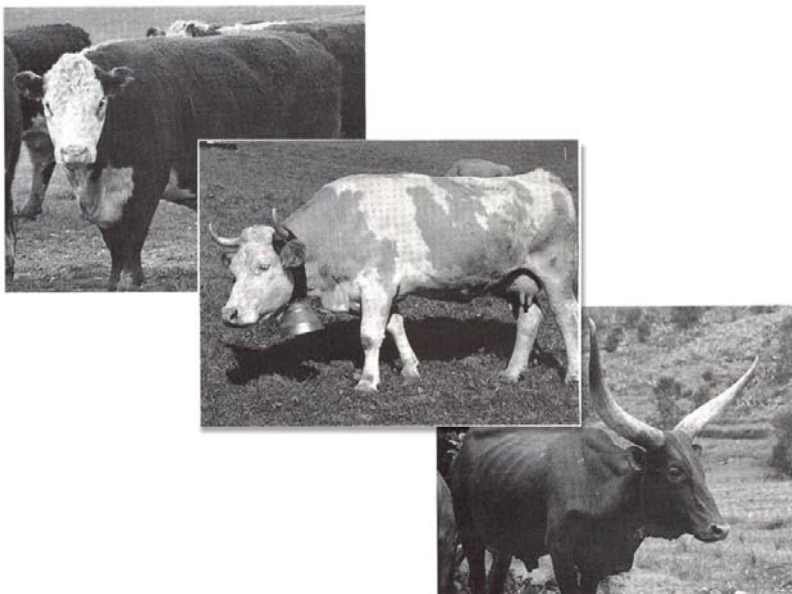
From a conservational point of view, only sub-species and higher taxonomical groups are protected. All classification bellow that do not have taxonomical value so are not objects of conservation ecology, although they can be object of conservation initiatives for commercial, agricultural/farming purposes or sentimental and historical ones.

Bullfighting bulls do not have enough biological differences with the ordinary bulls to be classified taxonomically as a special sub-species or taxa. The only difference with other bulls is the purpose they are bred for. Although bullfighting bulls have some common and particular elements (such as the shape of horns, weights, musculature, etc.) these are the result of selection for these traits.

#### **Artificial Selection**

Genetic variation within species occurs when domesticated animals are selected for certain characteristics. Through this process of artificial selection, varieties of species are developed through the alteration of their gene pools to be more adapted to local conditions, or for commercial benefits

This process is accelerated with breeding that manipulate genetic variation to meet specific purposes. For example: Australian cows are bred to produce abundant meat, Swiss cows are selected to produce high quantities of milk, Kenyan cows are bred to survive long droughts and Bullfighting bulls have been bred and selected for the last 3 centuries with commercial objectives.



## Origins

There has been much debate on whether there was a wild original *Bos primigenius* as a precursor species of the domesticated *Bos Taurus*. Although the International Commission on Zoological Nomenclature decided *Bos primigenius* and *Bos Taurus* could not be considered different species, it was decided that there would be a primitive wild bull species called Aurochs (*Bos primigenius Taurus*).

It is scientifically and generally accepted that all domesticated bulls derive from the *Bos Taurus Taurus* and that all different types of bulls are varieties of this one species.



Although the bullfighting industry repeatedly attempts to claim that their bulls derive from a *Primigenius* species, all domesticated bulls fall under the *Bos Taurus* species.

## Extinction

A species is considered extinct when no member of the species (or group of taxa) remains alive anywhere in the world. There is an estimate 1.3- 2.4 billion cattle in the world.

Bullfighting bulls cannot go extinct as varieties do not go extinct, only species do. Although the disappearance of certain genetic varieties can be important for biological evolution, if these varieties have been artificially created by humans they are not.

**CONCLUSION TO CLAIM 3: It is a fallacy to claim that bullfighting bulls may become extinct.**

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