

‘Among predators’: the place of humans, Iberian lynx and other wild carnivores

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Using an ethnoecological approach we studied perceptions, empirical classifications and practices towards wild predators in Portuguese protected areas. Results from 131 semi-structured interviews allowed the analysis of classification, criteria used by key actors and the understanding of an emic perspective on the differentiation of the natural world. Further analysis and data from observation reveal local ecological knowledge associated with characteristics of carnivores. Oral memories about coexistence of humans with wolf and lynx in the late 20th century in Baixo Alentejo are described. Humans are recognized as one of the predators in a complex and apparent dualistic view of domestic and wild realms associated with past control practices. In its reintroduction area the threatened Iberian lynx raised much interest locally and after being classified as an “outsider” it became the centre of touristification. This case study characterizes a European rural scenario “among predators” where nature conservation is facing challenges and Anthropology has an opportunity of interdisciplinary application.

KEYWORDS: local knowledge, ethnobiological classifications, predator conservation, perception, Iberian lynx, wolf.

“Entre predadores”: o lugar dos humanos, do lince ibérico e de outros carnívoros selvagens ♦ Seguindo uma abordagem etnoecológica, estudámos as percepções e classificações empíricas e práticas sobre os predadores selvagens em áreas protegidas portuguesas. Em 131 entrevistas semiestruturadas analisámos os processos de classificação, os critérios usados por atores-chave e a compreensão de uma perspectiva émica sobre a diferenciação do mundo natural. Uma análise de conteúdo e dados de observação indicam um conhecimento ecológico local associado às características biológicas dos carnívoros. Memórias sobre a coexistência com lobo e lince no Baixo Alentejo são descritas. Os humanos são reconhecidos como um entre os predadores numa perspectiva complexa e aparentemente dualista dos domínios doméstico e selvagem. O lince ibérico, espécie ameaçada, suscita particular interesse localmente à medida que a sua reintrodução se processa e passa de “intruso” a objeto de turistificação. Este estudo de caso caracteriza o cenário “entre predadores” num contexto rural europeu em que a conservação da natureza encara desafios e a Antropologia oferece uma oportunidade de aplicabilidade interdisciplinar.

PALAVRAS-CHAVE: conhecimento local, classificações empíricas, conservação de predadores, percepções da natureza, lince ibérico, lobo.

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OPENING

“Early morning, we climb up the hill all together; hunters advance slowly, one of them makes me a sign of tiredness, pointing to the heart. A mobile rings with bullfight music. Each hunter stays in his *porta* position (waiting for wild boar). We reach the top and we walk some 10 minutes in thick scrubland. Already in place, ‘my hunter’ loads the gun and whispers: ‘This is good for the lynx, if the animal likes dirtland [meaning scrubland]. There is a lot here.’ We hear gunshots ‘in this area the *caçadeira* is better, it is a closed terrain [...] one hardly has time to put the gun to the face and shoot’. Dogs are far away, barking ‘Look, there they go with the pig [wild boar]’. We commented about wild asparagus, how to cook them. ‘I mix them with mushrooms that I collect here’. I asked him how he learned it. ‘We’re born with it.’” [Hunter A]

[During lunch:] “I remember wolves, lynxes... there has to be equilibrium in nature, they can’t bother us too much nor we them.” [Hunter B]

“There are less and less partridges, with drinking points and everything. There are a lot of predators about – fox and mongoose, there’s the owl that comes down from on high... That’s not the worst...” [Hunter C] [participant observation during a wild boar hunt, M. Lopes-Fernandes, Moura-Barrancos, Alentejo, 2014].¹

1 “De manhã cedo subimos a encosta juntos, os caçadores avançam devagar, um faz-me sinal para o coração, de cansaço. Toca uma música de tourada num telemóvel. Cada caçador vai ficando na sua porta. Chegamos ao topo, andamos uns 10 minutos no mato cerrado. Já parados, o ‘meu’ caçador carrega a arma, sussurra. ‘Isto é bom para lince, se o animal gostar de sujo. Aqui terreno há.’ Ouvem-se tiros. ‘Para aqui é melhor esta caçadeira, o terreno é fechado [...] mal dá tempo de pôr a [continua]

This description from a field notebook during participant observation exemplifies several fundamental aspects of local constructions around nature and the relationship with wild species. First, the local perspective of the wild domain, separated from the human, occupying a different space/“territory”, untamed, nature experienced as fundamentally non-human, less valuable, in their own words “dirtland”, “closed” scrubland, “wild land” (as opposed to “tame land”), “a land where we can never get rid of the scrub, where the Devil is on the loose”. Second, the position of humans entering and conquering that domain, organized with guns, hunting skills, dogs, but mostly enjoying being “out there”, as a group, in contact with “nature”. From the description above, emerges also a third relational aspect, the ancestral idea of competition between humans and predators, the importance of game species to humans and the primacy of human interests. Finally, there transpires the construction that knowledge is innate in people from a rural background, “is born with us”, a metaphor for wisdom based on experience as opposed to theoretical acquisition from formal education. These are some of the main concepts by which nature is understood, experienced and managed in southern Portuguese rural areas of Alentejo.

Understanding all these perceptions and conceptions which legitimate and organize the relationship of humans and predators is the purpose of this case study. In an in-depth approach lies the possibility of a closer dialogue between local key actors and conservation entities. In this local framework, coexistence with the lynx is developing and a new relationship between humans and non-humans is taking place.

INTRODUCTION

Each local population can have a characteristic way of relating to and exploring nature and denominating and classifying species. Ellen (1993) refers to a variability of classificatory processes and connections to social contexts, namely its variation dependent on different social actors, aims and in different moments. Studies of classifications have been taking place in non-Western contexts and focused mainly on plants (*e.g.*: Dieterlen 1952; Friedberg 1970; Atran 1986). Some authors emphasize the understanding of conceptions of nature and the intellectual need of organizing the natural world, underlining the universal

espingarda à cara e atirar.’ Os cães vão longe, a latir., ‘Olhe lá onde vão com o porco!’ Comentamos os espargos silvestres desta época, como se cozinham. ‘Eu misturo-lhe cogumelos que apanho daqui.’ Pergunto como e com quem aprendeu. ‘Já nasce com a gente!’ [caçador A]. [Durante o almoço:] “Lembro-me de lobos, lince... na natureza tem de haver equilíbrio, não podem incomodar-nos muito e nós a eles.” [caçador B]. “Perdiz há cada vez menos, com bebedouros e tudo. Há muito predador, raposa e saca-rabos, há o bufo que vem lá do alto... Esse não é o pior...” [caçador C]. [Observação participante durante batida ao javali, M. Lopes-Fernandes, Moura-Barrancos, Alentejo, 2014].

character of classifications (*e.g.*: Lévi-Strauss 1983; Berlin 1992), while others focus on utilitarian rational and cultural significance (Hunn 1982; Frazão-Moreira 2001) and question the existence of a universal taxonomic model of ethnoclassifications (*e.g.*: Friedberg 1986; Tamisari and Bradley 2005). Less commonly, classification studies deal with zoological classifications (*e.g.*: Hunn 1975; Dwyer 1976; Ellen 1993; Krause, Vaccaro and Aswani 2010; Silva, Neto and Carqueija 2015) but, to our knowledge, ethnozoological classifications of rural populations in western contexts is a subject on which there are very few publications and only focused on linguistic issues (Trumper 2005).

Local ecological knowledge has mainly been documented in traditional and indigenous cultures (*e.g.* Ellen and Harris 1997). Within Europe work has been carried out about knowledge on plants (*i.e.* Camejo-Rodrigues *et al.* 2003; Carvalho and Frazão-Moreira 2011; Gras *et al.* 2019; Pieroni 2017) and on emblematic communities in remote regions of the periphery of Europe, but research focusing on certain actors such as farmers is still scarce (Gómez-Baggethun *et al.* 2010; Hernández-Morcillo *et al.* 2014). Specific perceptions and knowledge about large predators have been reported in Europe but only recently following an anthropological approach (Lescureux and Linnell 2010; Lopes-Fernandes, Espírito-Santo and Frazão-Moreira 2018). Local knowledge and cultural memory as Nazarea (2006: 318) puts it “are crucial for the conservation of biodiversity because both serve as repositories of alternative choices that keep cultural and biological diversity flourishing”. Given that, ethnographies might contain two new challenges: (1) figuring out new collaborative moods between conservationists and local populations; (2) understanding the creativity that emerges when the local encounters the global (*e.g.*: Tsing 2005; Frazão-Moreira 2015).

The Iberian lynx is an emblematic species which has attracted considerable efforts in Europe towards the recovery of habitats and prey. In the context of a transnational conservation project,² the reintroduction of animals to the wild in Iberia was planned and several areas were assessed for biological aptitude as well as concerning local positions towards the species return (Lopes-Fernandes, Espírito-Santo and Frazão-Moreira 2018). The Iberian lynx was historically hunted and eliminated as a vermin but became the symbol of nature protection (Lopes-Fernandes and Frazão-Moreira 2016) and governments assumed efforts to counteract its extinction. In Portugal, three protected areas close to the border with Spain were initially considered as potential reintroduction areas and a social survey was requested as part of international protocol (*e.g.* IUCN). The experience of nature conservation by residents in these rural areas seems to be of an imposed model in which restrictions are often claimed

2 LIFE+10/NAT/ES/000570-Iberlynce (< <http://www.iberlynce.eu> >).

(Lopes-Fernandes, Espírito-Santo and Frazão-Moreira 2018) and profitability follows EU standards. In that context wild predators, which are often very appreciated among urban public, might be perceived differently. For those reasons an understanding of the local perceptions and knowledge about the lynx and predators was opportune.

In this study our aims were to understand local knowledge, perceptions and the local constructions around Iberian lynx and other carnivores. Empirical classifications were a tool to assess how predators were seen and differentiated by people, how their place and uses were interpreted locally and integrated in practices and relations with nature. We did not however depart from the assumption that classifications would necessarily define the social context or that perceptions were disconnected from action as pre-notions which would limit people's actions in relation to lynx or other non-humans.

METHODS

Interlocutors were what we called "key actors for conservation", meaning that they have a more privileged contact with the rural environment in specific areas pre-selected for Iberian lynx reintroduction. They have a particular interest and the capacity to make management decisions in those areas. In each area we selected approximately the same number of technicians (administration, NGO, surveillance), landowners (including livestock breeders), hunting managers, hunting guards, council representatives and individuals involved with nature activities such as nature tourism promoters, beekeepers or hikers. We also sought lynx observers and followed a "snowball" sampling method (Bernard 2006) to get contacts with local wildlife "specialists".

To address the theme of perceptions and practices about predators, it was important and necessary to have had previous knowledge about common names of carnivores which vary regionally, *e.g.* *gineto* or *gato-bravo* (genet), *gato-bravo* or *gato-cabeçanas* (wild cat), *papalvo* (stone marten), *raposa* or *zorra* (red fox), *escalavardo* or *saca-rabos* (mongoose), *lince*, *gato-cravo* or *liberne* (Iberian lynx). Similarly, it was crucial to know of traps to capture wild animals and their popular names – *rateira*, *ferro*, *caixa*, *visgo*, *cepo*, *laço* (jaw trap, snare, box trap, wire trap, etc.). The interviewer's personal experience of capturing wild carnivores helped with the conduction of the interviews and informal conversations. As some of these species are legally protected nowadays, and all practices, but box traps, became illegal, it was mostly important to reach an atmosphere of trust with interviewees, and create confidence about anonymity.

We presented interviewees with a group of unidentified images on A5 size cards picturing the full body of each species. These included the wild terrestrial small-medium size carnivores which occur in the region where interviews took place (common genet, stone marten, red fox, weasel, wild cat, mongoose,

badger), the Iberian lynx, and the wolf, a large carnivore which disappeared in the eighties from these southern regions (Petrucci-Fonseca 1990). Cards depicting a wild rabbit, a domestic cat and a livestock guard dog of a Portuguese breed, as well as a 60 year-old man of a rural background, were also included. During semi-structured interviews we used a pile sorting method (*e.g.*: Martin 1995; Bernard and Gravlee 2014) and asked participants to sort the picture cards into categories of their choice, and then explain their own criteria.

Ethnographic work between 2012 and 2015 comprised 131 interviews in three protected areas (Malcata Natural Reserve, Moura-Barrancos Natura 2000 site and Guadiana Natural Park). In the two last areas of southern Portugal an in-depth work was carried out registering informal conversations and observations. Moura-Barrancos and Malcata were historical lynx occurrence areas, initially considered for lynx reintroduction, and Guadiana was the area where lynx reintroduction eventually started in 2015. Interviews lasted around one hour, and were transcribed and analyzed using open categories (on local contexts and methodological details see also Lopes-Fernandes, Espírito-Santo and Frazão-Moreira 2018).

Qualitative and quantitative data analyses were performed with the support of Atlas.ti, Microsoft Excel and IBM SPSS (version 20). For multidimensional scaling with classifications we used binary data from each grouping completed by 120 interviewees of all areas. Euclidean distance was used as a distance measure and two- and three-dimensional representations were built.

ETHNOBIOLOGICAL CLASSIFICATIONS

“[...] once there was a dog, a wolf and a fox, and the dog promised to get a lamb and a chicken [...] but then it went to tell the owner and all the servants went with their rifles to kill them [...] the fox said (at the end): ‘one of our own will surely avenge us!’” (Machado 1998)³

This local tale is relevant to some of our main results concerning free pile sorting done by the interviewees: the two worlds of domestic and wild (*e.g.* Descola 2004) are described in this introduction by the three carnivore species which communicate among themselves and transgress the two domains by stealing livestock. However, the supremacy of human’s rules over the non-human animals and, as a consequence, some species have to be eliminated. An example of classification of fauna from 1943 (figure 1) testifies that centrality

3 “[...] era um cão, um lobo e uma raposa e o cão promete arranjar um borrego e uma galinha [...] mas depois foi logo avisar o dono levando este todos os criados que com espingardas os foram matar [...] diz (no fim) a raposa: ‘Algum dos nossos nos há-de vingar!’”

A CAÇA NO IMPERIO PORTUGUES

PRINCIPAIS ANIMAIS BRAVIOS DA FAUNA CONTINENTAL E INSULAR QUE PODEM SER, OU NÃO, CONSIDERADOS OBJECTO DE CAÇA

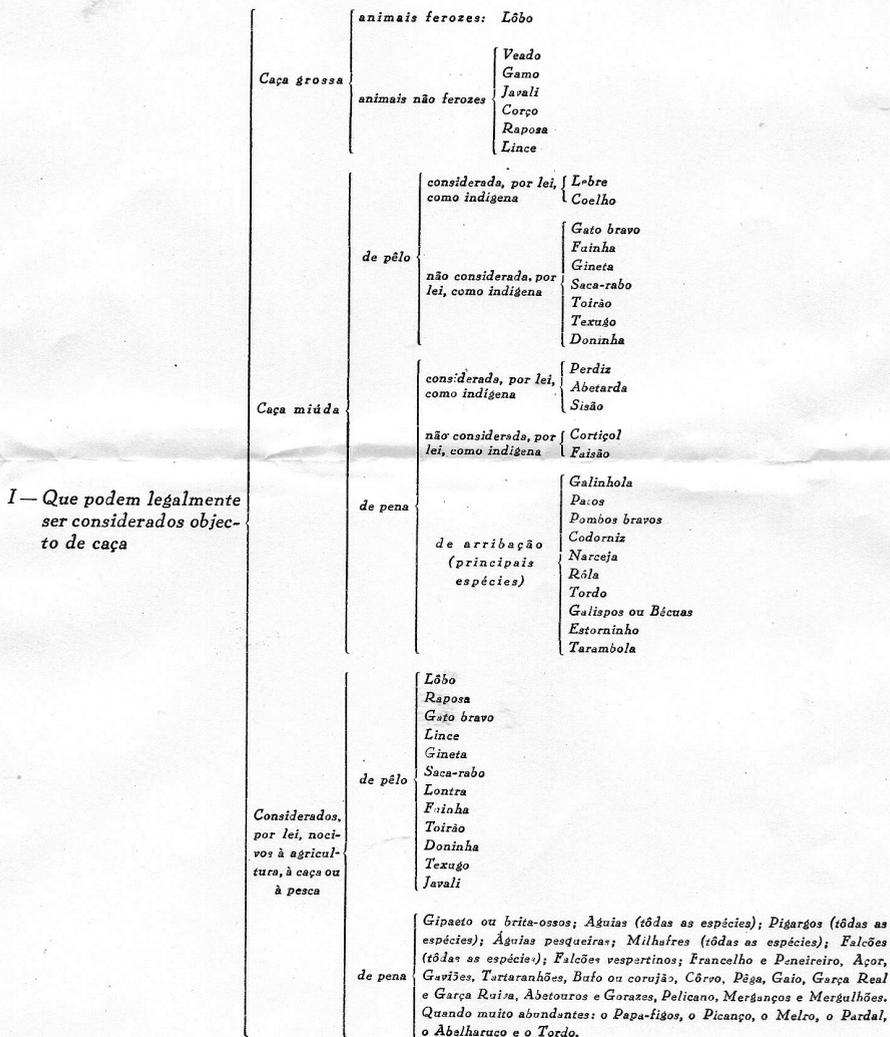


Figure 1 – Classification of hunting species in Portugal in the mid twentieth century according to Galvão, Cruz and Monteiro (1943). First level: 1. big game, 2. small game, and 3. “considered by law as vermin to agriculture, hunting or fishing”. Second level: 1. ferocious and non-ferocious animals, 2. with fur, 3. with feathers, 4. with fur and with feathers. Third level (differentiating among small game): considered by law as indigenous, not considered by law as indigenous and migrant bird.

in the human interest which prevails in certain thoughts and practices until today.

A final moral note of the tale leaves us, however, the impression that nature holds an unconquerable character, so the astute fox reminds us of the continuous cycle of interactions between humans and predators, the recognition of the interactive properties of human-animal relationships (*e.g.* Lescureux and Linnell 2010).

Analyzing the groupings obtained with all species shows two and three dimensional MDS diagrams (figure 2). We can visualize four main groups of species: (1) human, domestic cat and dog, corresponding to the domesticated sphere or “safe” area around home, the human controlled dominion by opposition to the wild one; (2) genet, stone marten, badger, weasel – the wild carnivores often considered morphologically similar and inhabiting scrubland and uncultivated areas, outside human dominion; (3) Iberian lynx, wolf and red fox – the carnivores considered as larger, also from the wild realm (plotted in graph along dimension 1 with other carnivores) but distinct for their size or potential for damage – livestock losses, being dangerous, interfering with the domesticated dominion; (4) the wild rabbit separated from other species for its economic importance as a game species and as a natural prey; (5) the wildcat is between the two groups of wild carnivores and also closer to the domestic cat; (6) the mongoose is also in a distinct place of its own, due to its predatory perceived effect over small game species.

Lynx was isolated from other species in 15 cases/groupings revealing its unique character for some interviewees. Reasons for that position were based on its ecology or its past geographical occurrence: being a top predator, being rare, being different in its way of living, being absent from the region, and having a special type of presence.

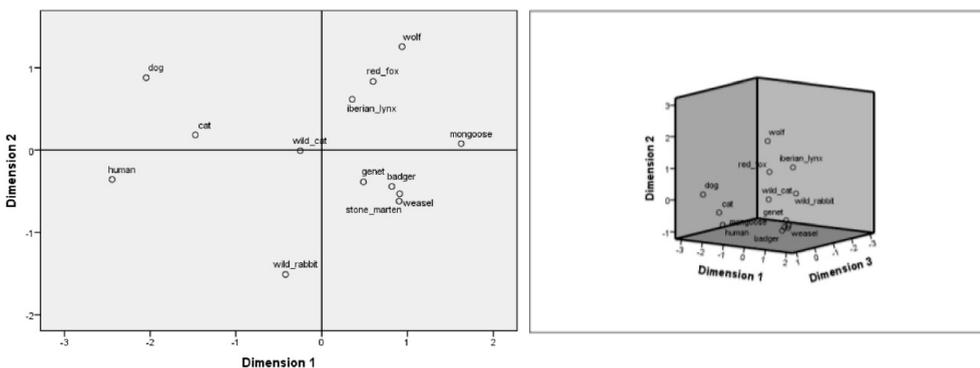


Figure 2 – Multidimensional scaling with all interviewees, all geographical areas (n = 451 cases).

Interviewees also grouped the lynx and the wolf, the other large carnivore of the group, in another 11 cases, mentioning their extinction risk or absence in the area, and being top predators; these criteria reveal local ecological knowledge despite the disappearance of the species.

Lynx and rabbit were grouped by eight informants due to their predator-prey relationship. One interviewer from Malcata grouped the lynx and the human emphasizing the importance of crops to increase wild rabbit abundance. These beliefs in the capacity of humans in re-establishing nature and the dependence of wild species from humans have been a central idea among interviewees and reveals a concern with wildlife management in these areas.

Among domestic carnivores, the dog was more often associated with humans than the cat. Its guarding character against wild species was mentioned (as in the story quoted above). The domestic cat was sometimes considered a wild predator or between both domains, due to its feral character and impact on game populations. Wild predators were sometimes referred to in two opposed places: as a nuisance or as a victim, *i.e.*, again as natural enemies (Knight 2000) or as fragile, rare and less known species (the genet and all mustelids are protected by law).

In statistical terms the stress of the configuration indicates how faithful the representation is to original data. In our results the figure in two dimensions is acceptable but still high (0.13) which is not ideal (Kruskal 1978). This can be due to the high variability of groupings among a large sample of interviewees, making the representation of all individual variability in doing empirical classifications a difficult process. The three-dimensional plot does represent a better configuration (stress = 0.06 considered excellent) allowing species distances to be more representative according to how interviewees put them in different combinations.

In 21 cases, interlocutors from southern areas spontaneously indicated that humans were predators as well, and that “Man could be the largest of the predators”. This comparison and identification of people with predators did not necessarily result in grouping them together.

“These are the ones that can cause the most damage: wild cats – worse than mongooses; Man – a great predator [...]”⁴

“Man should be in last place because he’s the one who causes harm to everyone.” [Moura-Barrancos 2013]⁵

4 “E estes os que podem causar mais danos: gato bravo, é pior que um saca-rabos; o Homem – grande predador [...]”

5 “O Homem devia ficar em último é o que faz mal a todos.”

We explored differences in classifications in the three different geographical areas and results are presented in figure 3. Moura-Barrancos and Guadiana present similar configurations reflecting a geographical and cultural proximity. Malcata, a more northern area and a lynx historical area, presents a different configuration placing the lynx closer to the wild rabbit and more distant from the wolf. The wolf is closer to the red fox for these interviewees, a proximity that could be morphological (they are both canids) or related to their livestock damaging character since both species cause damage to livestock in northern Malcata (ICNF data).

Constructions around predators and organization of the natural world seem to vary according to local contexts and differences in the way land is managed, as it is the case. In Malcata, for instance, property size tends to be smaller and less focused on economic exploitation of game, than in the south.

In figure 4 we present different configurations of classifications according to the profiles of the interviewees. The most important findings are: (1) land-owners place the lynx closer to rabbit; (2) council representatives are the profile most similar to the global representation with differentiation between domestic and wild dominion and between the larger and smaller wild carnivores; (3) nature conservation technicians place the lynx closer to the wildcat,

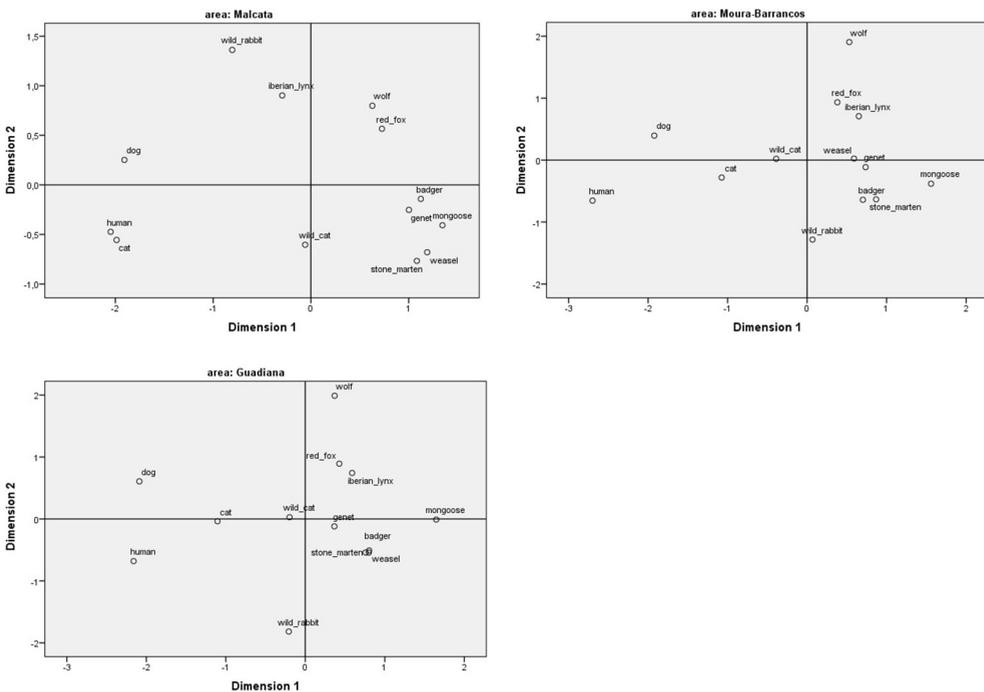


Figure 3 – Multidimensional scaling by different geographical areas

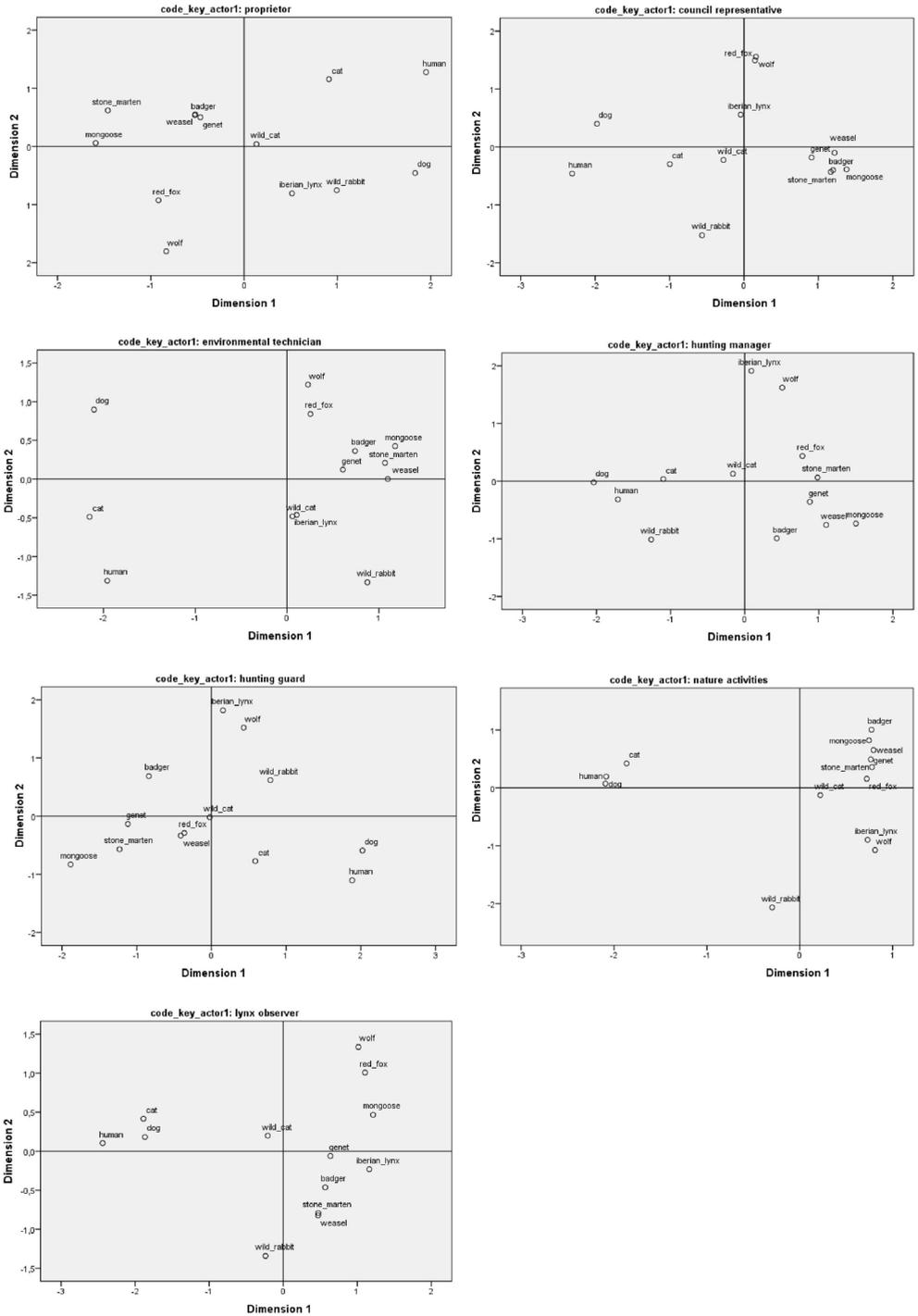


Figure 4 – Multidimensional scaling by different type of key actors interviewed in all areas

showing a taxonomic proximity to scientific classifications; (4) hunting managers' classifications are the ones in which species are most individualized, possibly representing a more diverse ecological knowledge about all species; (5) hunting guards present a similar configuration to hunting managers with large predators well separated from other species; (6) interviewees related to nature activities (*e.g.*: hikers, amateur photographers, local promoters of nature tourism, beekeepers) place wild species distant from domestic ones and humans; due to their focus/interest on nature; (7) lynx observers are the ones who most fully integrated the lynx among the other wild carnivores, reflecting their experience and close contact with nature, where lynx is part of the local fauna.

Configurations by profile also present dissimilarities among cases resulting in high stress values (around 0.1). Individual heterogeneity exists in all profiles so classifications do not necessarily depend on the main activity of the interlocutor but rather on other variables that were not fully explored.

CRITERIA FOR SPECIES DISTINCTION

“I start here with the strangest ones – lynx, genet, wildcat, badger, stone marten... [hesitates], and then it's the fox. [...] Strangest means starting with the one that is nature, which we see the least”⁶ [lynx observer, Moura-Barrancos 2013]

Among the interviewees of Moura-Barrancos and Guadiana we found a high diversity of criteria used to create the groupings shown in figure 5 by different frequencies of occurrence. The most used criterion was the predators' diet, *i.e.* the relationship between predators and their prey, the wild rabbit. Behaviour ecology (habitat use) was the next most frequent argument. Key actors apply their ecological knowledge in their pile sorting.

Being part of the domestic or the wild domain was also a very common criterion for separating species in the multidimensional scaling. Other anthropocentric criteria are utility, causing damage to livestock or game species, being harmless to humans or being “superior”. Furthermore, lynxes and wolves were classified twice as a nuisance.

Taxonomy, a criterion based on biological families, was named in 9% of the groupings and all profiles used it. The resulting groups did not always match scientific criteria; for example, the genet was often considered as a felid. Although pile sorting and groupings may or may not correspond to scientific

6 “Eu começava aqui pelos mais estranhos – lince, genet, gato-pardo [bravo], texugo, papalvo, [hesita], a seguir é a raposa. O que quer dizer o mais estranho? É pra começar por aquilo que é a natureza, o que menos a gente vê” [observador de lince, Moura-Barrancos 2013].

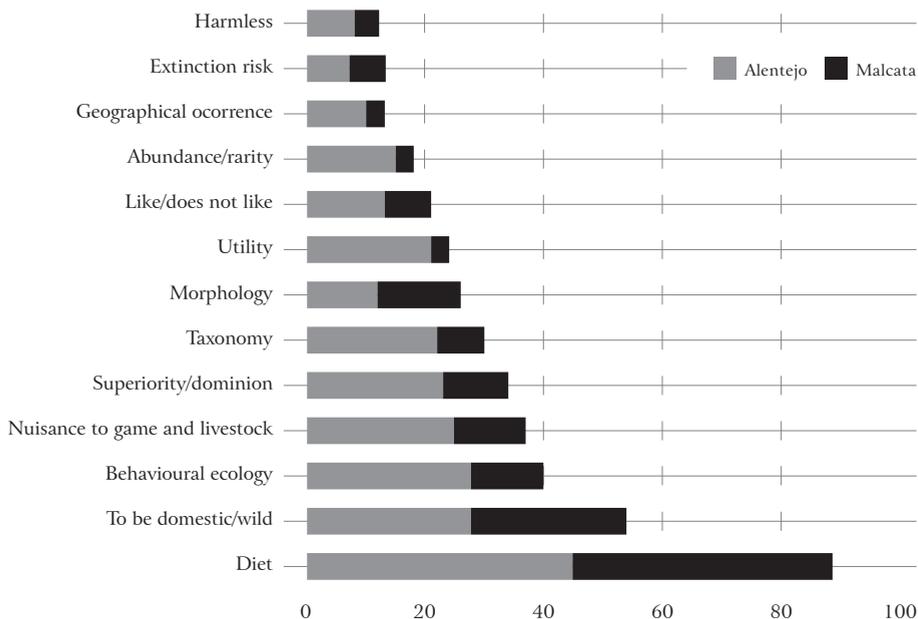


Figure 5 – Criteria used by interviewees for pile sorting predators (wild and domestic), human and wild rabbit. Frequency presented in terms of total number of cases.

classification of species (Martin 1995), our results show proximity with formal classification or a concern with scientific criteria.

The knowledge about species occurrence in the region was also meaningful for key actors as well as the emotional attachment of liking or disliking a species. Among those last cases the lynx was positively differentiated. Finally, the risk of extinction, a nature conservation concern, was also used as a criterion for classifying predators.

IT IS ALL *MURRAÇA*: PERCEPTIONS AND LOCAL KNOWLEDGE ABOUT WILD CARNIVORES

“All of these together [classifying], are all the same *murraça*⁷ [...] Man is apart but is even more destructive [...] predators are no use for anything, they can’t be used. They’re needed for equilibrium... [ironically]... what equilibrium?”⁸ [Moura-Barrancos 2013]

7 Depreciative term meaning useless.

8 “Estes todos juntos [classificando], é tudo a mesma “murraça” [...] o Homem é à parte mas ainda é mais destruidor [...] os predadores não servem para nada, não se aproveita. Fazem falta ao equilíbrio... [irónico] qual equilíbrio?!”

In terms of carnivore species identification, interviewees in Alentejo ($n = 98$) either identified all the carnivore species shown (25%), did not identify all the species (44%), or identified most species, with the exception of the mustelids – weasel and stone marten – whose identification required a specialized knowledge (32%).

One general perspective about all wild carnivores is being competitors with hunters or useless to humans: “these are all species that will eat everything that is game”⁹ [Guadiana 2014]. The other major negative image of the carnivores, among livestock breeders in particular, is their potential damage to livestock, mainly chicken but also lamb, in the case of foxes and mongooses.

“Most people are not even slightly interested in these species [...] they are not productive, if anything they do wrong, they eat chickens, lambs...” [Moura-Barrancos 2013]¹⁰

The predatory character of carnivores is impressively described. People believe that most of these species kill their prey by sucking the blood after biting the throat, leaving the prey “without blood”. There is no scientific evidence for this behaviour in these wild species, however the ecological literature describes that carnivore species kill their prey by biting the cervical vertebrae or suffocating the prey by grabbing the neck. So, on one hand our interviewees drew on their knowledge from an accurate observation of predators in action and, on the other hand, they stayed with an impression of bloodthirsty creatures possibly related to the imaginary scene of the vampire bite perpetuated globally by films and fiction. Moreover, the observer of an attack on domestic animals usually describes several kills and blood spread. The “surplus kill” (Linnell *et al.* 1999) is a characteristic of some predators which negatively impresses humans who say that these animals “kill but they do not necessarily eat”. This is not well accepted and it exacerbates the image of predators as unsatisfied creatures which kill for pleasure and can always cause more damage due to greediness. One of the negative aspects about wolves mentioned by Portuguese livestock breeders, in most of its distribution area, is also this surplus kill characteristic (other interview data). The wolf is a good example of a species which was traditionally killed in response to damage caused to livestock. This is an aspect of reciprocity in the human-wolf relationship (Lopes-Fernandes *et al.* 2016, Lescureux 2007) which might apply to a certain extent to all predators.

9 “Isto são tudo espécies que vão comer tudo o que é caça.”

10 “A maior parte das pessoas não tem o mínimo de interesse nestas espécies, [...] não é produtivo, se alguma coisa, fazem mal, comem as galinhas, os borregos... Estão lá, podiam não estar.”

Interviewees hold specific perceptions about different species of carnivores present in the area also depending on the knowledge about their ecology: habits, diet, abundance.

“The genet is a murderer, it kills for pleasure, it killed 39 of my father’s rabbits in just one night in the village. The stone marten does wrong, the fox is bad or good (depends on the situation)...”¹¹ [Moura Barrancos 2013]

“It’s amazing, foxes spend a whole night eating melon, and badgers take hours to eat wheat, it’s to hand... The fox eats mice, and I’m not talking about what you read in books [...] any one of these animals is needed here [...] we learn with time and seeing traces [...]”¹² [Moura-Barrancos 2013]

“There are very few wildcats... we have less information about the genet... we knew the oak trees where they were, by the nails and the scats... we called this one ‘parpaílha’ [stone marten] [...] Because it has a collar...”¹³ [Moura-Barrancos 2013]

Among all the carnivores occurring in the areas, we recorded strong animosity towards the mongoose (27% of the respondents in the south). Is not only a carnivore known to be a species introduced into Portugal, therefore “external” or “not belonging to place”, but it is also perceived as “too abundant”, ugly and hateful by most interviewees:

“The mongoose I would put it into Hell [...] because it eats everything that exists, it’s a scavenging predator, if it went extinct I would not be sorry at all”¹⁴ [Moura-Barrancos 2013]

Hunting guards in the Guadiana area were locally referred to as “mongooses” (“caça rabos”) as a nickname, associating the elimination of species, task of the guard, due to the negative predator character. The use of human nicknames related to non-humans, as we found, has also been described in Frazão-Moreira (1994).

11 “Ginete é assassino, mata por prazer, matou 39 coelhos ao meu pai numa noite, na vila. Fuinha faz mal, raposa faz mal ou bem (depende da situação)...”

12 “Impressionante, as raposas que levam uma noite inteira a comer meloa, texugo a comer trigo levam horas, está à mão... Raposa come ratos e não estou a falar do que vem nos livros [...] qualquer bicho destes faz falta [...] a gente vai aprendendo com o tempo e a ver rastros.”

13 “Gato-bravo há muito poucos, genetito temos menos informação, conhecíamos as azinheiras onde estavam, pelas unhas e fezes... chamamos a isto parpaílha [fuinha]. [...] Porque tem colar...”

14 “Saca rabos punha-o no inferno [...] Porque come tudo quanto há, é um predador necrófago, se se extinguisse não tinha pena nenhuma.”

In a different tone few interviewees presented a holistic view of nature, where the presence of predators is an indicator of the ecosystem's health. Tolerance or interest in the presence of all wild carnivores was expressed and there was even pride in "having them" in their lands.

"[wolf, wildcat and lynx] these are the princes, they are the alive/living mirror of nature's purity. If these species are stable, then everything else is fine"¹⁵ [Malcata 2015]

In terms of positive qualities, summarily, carnivore predators seem to be aesthetically valued by people for their beauty and being expected to attract nature tourism. Few key actors also recognize their ecological role and benefits for hunting management as consumers of diseased prey and carcasses (cleaning role).

Lynxes and wolves are also perceived as predators capable of damage to humans. However, some hunters' discourse includes the beneficial role of lynxes and wolves as super predators able to reduce the number of foxes and mongooses in a certain area.

The lynx photograph was recognized by practically all interviewees, although interviews took place before reintroduction and the species was not present in terrain. The media, specifically television, was referred to as the main way of "knowing" the Iberian lynx. Moreover, lynx was often associated with the large wild felids, such as the tiger and the lion, establishing a connection to idealized natural territories popularized by wildlife documentaries, the lost world of exotic distant and vast lands such as India and Africa, and the construction of pure wilderness or primeval nature (Norton 1996).

Lynx characteristics which drew more attention were the following: (1) the ears or the tufts and the short tail, (2) the sideburns, (3) the look of the eyes, (4) the head and the face, (5) the way of moving. The pelage was mentioned less often as a distinctive trait but the overall robustness of the animal was another characteristic emphasized by interviewees. These characteristics have also been named in descriptions of live observations, in particular the agile appearance of the animal. In Malcata, 21 out of 37 interviewees had seen a live lynx in the wild; in Moura-Barrancos we registered nine observers out of 52 interviewees; and, in Guadiana, a growing number of residents, since 2015, have direct contact with reintroduced animals and their descendants. Emotional aspects of these encounters and local knowledge about the lynx have been analyzed before (Lopes-Fernandes, Espírito-Santo and Frazão-Moreira 2018).

15 "[Lobo, gato-bravo e lince] estes são os príncipes, o espelho vivo da natureza pura. Se estas espécies estiverem estáveis, então tudo o resto estará bem."

THE LARGE PREDATORS:
MEMORY AND COEXISTENCE IN THE PAST

Taxidermied lynxes and pelts still exist nowadays in private houses of Moura-Barrancos. They testify to the local presence of the species from the beginning of the 20th century until the early eighties. Those interlocutors describe memories from personal experience of casual encounters with lynxes or hunted animals. The lynx's solitary character, breeding sites and traces in the field were known by few.

"[...] the breeding... those kinds of animals, cats, lynxes, have their time in Spring, so from January onwards. [...] no dog [while hunting] could catch that type of cat."¹⁶ [Moura-Barrancos 2013]

"It is a spectacular animal, in a certain way it is similar to the wolf, but it is a feline, it is an animal that walks very carefully through woods. In scrubland one can only see a lynx when they come out [...] they can walk without moving the bushes, it is an extremely shy animal... when one sees it from the front, the ears with a point and a brush! I do not believe that there is anyone who does not fall in love with a lynx."¹⁷ [Moura-Barrancos 2013]

"[...] I heard an old man who said that the lynx bred twice a year, I am not sure, but I heard that [...] I was always inclined towards matters of nature."¹⁸ [Moura-Barrancos 2013]

"This is an animal that goes to the top of a tree, it spends the whole day there, only goes hunting at night."¹⁹ [Moura-Barrancos 2013]

The main causes of lynx disappearance from the region mentioned in interviews were the decline of rabbit numbers, and the fencing of properties which prevented animals from circulating. Two interlocutors also mentioned that hunting lynx in the past might have contributed to its extinction. Scientific

16 "[...] a criação..., essas bichezas deve ser na primavera o mês de janeiro é o mês dos gatos, dos lince a partir daí. [...] não há cão nenhum [de caça] que apanhe uma gata dessas."

17 "O animal é espetacular, devo dizer que é em certa medida parecido com o lobo, já se sabe que é um felino, mas é bicho que anda no extremo cuidado no mato. Nas estevas para se ver um lince só quando saem [...] conseguem andar quase que não mexem estevas, é um bicho extremamente tímido... quando se vê de frente, as orelhinhas com ponta e penacho! Eu não acredito que não haja ninguém que não se apaixone por um lince."

18 "[...] eu ouvi um homem antigo que dizia que o lince acasalava duas vezes por ano, não tenho a certeza, mas ouvi o homem dizer, a conversa era com outro mas eu ouvi, eu tive sempre aquela inclinação da natureza."

19 "Isto é um animal que vai para cima de uma árvore, leva lá o dia inteiro, só à noite vai à caça."

literature points to all of these causes for lynx decline: prey and habitat regression, lack of connectivity between populations and human persecution (*e.g.* Simon *et al.* 2012).

“Lynxes came to an end because what are the animals going to eat if there isn’t any rabbit? – animals die off, they’ll go to find better areas. The foxes will stay, because the fox stocks up on dying rabbits. The lynx can’t only eat in the summer – it has to eat all year, and in winter there are no sick rabbits.”²⁰ [Moura-Barrancos 2013]

In Malcata, nine interlocutors had tasted lynx meat from animals killed in hunts, often prepared as a delicacy. This was not described for Moura-Barrancos or Guadiana but older informants from Vale do Sado, and other historical lynx areas also mentioned it (Lopes-Fernandes 2018) in meals shared among hunt participants and other neighbors. Presently, carnivores are generally referred to as not good to eat. However, ten interlocutors mentioned that fox can be tasted, occasionally, as a curiosity or a trick to colleagues. Wealth of rural populations in the country and access to animal protein has improved significantly since the sixties.

The wolf disappeared from Moura-Barrancos and Guadiana areas allegedly in the eighties and fifties respectively (Petrucci-Fonseca 1990). Attacks caused by “hungry wolves” were described in Moura-Barrancos and sometimes occurring inside the villages (Ficalho) or during the night (Santo Aleixo da Restauração). Fascination and fear are linked to the memory of the wolf. The presence of the species was associated with local toponyms. As part of the wild carnivores group, nowadays, the wolf is remembered in these areas as a ferocious animal, with strategic behaviour and well known intelligence.

“So we organized these hunts with the Spanish. We had entry points in Portugal and Spain and we had dogs in place, but it’s an animal that only appears with extreme difficulty because it has an impressive sense of smell. And it’s not an animal that runs from the dogs: the wolf turns around, keeps smelling and stopping, it sees where it can go, it doesn’t lose its head, it doesn’t panic, it’s a spectacular animal!”²¹ [Moura-Barrancos 2013]

20 “Os lincos foram acabando porque não comem, então os animais vão comer o quê se não há coelhos? Os animais vão morrendo, vão procurando outras zonas melhores... As raposas mantêm-se porque a raposa tem abastecimento dos coelhos que morrem doentes, mas o lince não pode comer só no verão, tem que comer o ano todo e no inverno não há coelhos doentes.”

21 “Então nós organizávamos umas batidas com espanhóis púnhamos portas em Portugal e Espanha e púnhamos cães, mas é um bicho extremamente difícil de entrar numa porta porque tem um faro impressionante. E não é bicho que foge com cães, o lobo volta, vai cheirando, vai parando, vai vendo por onde pode ir, não perde a cabeça, não entra em pânico, bicho espetacular!”

Some voices express ambivalence and, mostly, some proximity and knowledge about the species.

“The wolf is actually good looking, it’s bad but it’s good looking, but when they’ve eaten, they do no more harm [...] the little ones could be heard singing at night [...] the wolf used to attack the wild boars [...] I think wolves have difficulty hunting deer, which jump a lot.”²²

Interlocutors immediately associated wolf presence to attacks on livestock, and several described techniques for scaring wolves away and protecting livestock from wolf attacks. One example is the use of spiked iron collars by livestock guarding dogs, for protection from wolf bites during a fight. Those collars were kept as memorabilia in southern Portugal but, although increasingly rarely, are being recreated locally and can be seen in use in the north (observations in Serra da Estrela and Moimenta, 2015 and 2020). Another practice commonly remembered to protect livestock in Moura-Barrancos was the installation of lines around the sheep flock at night with lights or cloths hanging from them. This would scare wolves away by raising suspicion.

“The sheep lambled on the farm and there were rope enclosures. My father used to make them and I actually learned as well. It was like this, like you [women] knit. Then, a metre away we put a wire with lights at chest height but sometimes they [the wolves] came through anyway.”²³

This protection technique is similar to what is described in literature as “fladry” specific to wolves and used in different parts of the world for the same purpose (Musiani *et al.* 2003). Recent experiments indicated that wolves avoid and fear this structure but keep investigating the area and trying to cross it. The origin of this livestock protection technique is unknown, but it is presently used in southern Europe (*e.g.* Iliopoulos *et al.* 2019). It has been part of local knowledge about wolves in Moura-Barrancos and can be considered as part of their cultural heritage.

When asked about possible causes of the wolf disappearance in the region, interlocutors mentioned the new colonization of wild boar. This association is based on the increased abundance of wild boar coinciding with a decrease of

22 “O lobo até é bonito, é mau mas é bonito mas quando estão saciados já não fazem mal [...] Ouvia-se os pequeninos cantar de noite... [...] O lobo atacava o javardo [...] acho que lobo tinha dificuldade em caçar veado, que dão muitos saltos.”

23 “As ovelhas pariam no monte e havia cercas de corda, o meu pai fazia-as e eu por acaso também aprendi. [Era] assim, género como vocês [as mulheres] fazem malha. Depois punha-se a um metro uma fiada com candeiros à altura do peito, mas às vezes eles [lobos] passavam na mesma.”

wolf. They described wild boars as able to scare away the wolves, mostly ignoring that wild boars are part of this predator's diet (Mori *et al.* 2017).

Some considered that the wild boar can be negative for lynx as well as it is not regarded as a prey species of large predators. Galhano-Alves (2004) also reports this representation of wild boar at the top of the trophic chains, more "powerful" than the wolf. That means it can be considered stronger, more resilient and at a higher stage than wolves in a certain hierarchy. These perceptions of relationships between species clash with scientific studies that portray complex dynamics of predator-prey systems. According to local common sense, predator populations grow exponentially and are unregulated. This construction around predators is what also justifies the conviction that "there is a need to control them" and associates discourses and practices. That was one of the reasons why wolves and lynxes were hunted in the past; nowadays, legal practices of culling fox and mongoose remain. Predator control is, particularly for landowners, hunting managers and hunting guards, a way of regulating the natural world, which has historically been of basic importance to human beings in the western world (Descola 2013).

PRACTICES FROM THE PAST AND THE PRESENT

"The fox hunts used to be a party! We killed twelve foxes, skinned them... [...] we only ate them once, just the smell made me run away." [Moura-Barrancos 2013]

"I come here to hunt, I don't come to do predator control! That's for other managers, not for me."²⁴ [Moura-Barrancos 2013]

Today, wild carnivores are the target of unlike practices related to different interests and perceptions that coexist in these rural areas. They can be aesthetically appreciated and be the new focus of nature tourism programs or be used as a certificate of high biodiversity areas. On the other hand, they are also captured in hunting areas. In one way these species are in a crisscross of practices from the past and the present and will probably be in the arena of future debate not only in terms of conservation but also animalism and protection of non-human animals.

Wild carnivores were considered as vermin in Portugal as elsewhere and, at least since the 16th century, their extermination was rewarded by the state (Cruz 1945). An empirical classification from the mid-20th century exemplifies

24 "As batidas às raposas antes era uma festa! Matávamos 12 raposas, esfolavam-se... [...] só comemos uma vez, eu, só o cheiro fugia delas." "Eu venho cá caçar, não venho fazer controlo de predadores! Isso é para outros gestores, não é para mim."

the division of Portuguese wild species into big game, small game and animals considered by law as vermin to agriculture, hunting and fishing (Galvão, Cruz and Monteiro 1943: figure 1). All carnivores, namely the lynx and the wolf, were included in this last category. Lynx was also classified as big game, but as a non-ferocious animal.

Sacarrão (1959), criticizing predator control practice, testified that at the time “all predators are vermin even if it is a rare species”. The author relates the killing of 7000 wild animals considered as vermin in Portugal and in Spain, during the fifties, including the culling of 55 lynxes.

The archives of southern areas in Portugal (Comissão Venatória Regional do Sul) refer to the culling of three lynxes and 16 wolves among a total of 6203 wild specimens eliminated between 1950 and 1952.

After the sixties, most carnivores were excluded from the list of hunting species and others became protected later (mostly under the Bern Convention in Europe 1986). However, fox and mongoose remained legal to kill and the practice of capturing them to control abundances prevailed as a common tool for hunting management. It was a practice attributed to certain experts as an “art”: these were “bicheiros”, who made snares, used leg-hold traps, and carefully chose places where fauna passed by to set them. Some of this activity had an important role in the subsistence of families. Historically, Alentejo has been a region strongly shaped by large properties, organised around the production of cereals. The social structure associated with this agrarian system was marked by social inequality and poverty of the salaried rural workers (*e.g.*: Baptista 1993; Cutileiro 1971).

“What I can remember about hunting in my childhood is this: good that a rabbit or a hare was killed because we were going to have bread for three days. And that was a celebration. We wouldn’t eat the rabbit, we would eat the bread. The happiness was because of that, because it was a way of carrying on [...] for everyone who was poor.”²⁵ [Moura-Barrancos 2013]

The testimonies of people who captured wild animals, “ex-bicheiros”, exemplify a highly specialized knowledge about the different species of predators, the techniques to track them and the ability to trap them. The choice among different traps was matched to the knowledge on different predator characteristics. Even today, it is known locally that “old adult foxes” do not fall into box traps. Many of these men worked for powerful owners of large estates during

25 “Aquilo que eu me recordo da caça na minha infância era: ainda bem que se matou um coelho ou uma lebre porque vamos ter pão durante três dias. E aquilo era uma festa. Nós não comíamos o coelho. Nós comíamos o pão. A alegria era por isso, era porque era uma forma de sustentabilidade [...] para todas as pessoas que eram pobres.”

a social scenario of eliminating vermin to improve game species, and they could be rewarded by the amount of predators eliminated. Leg-hold traps used during these days are nowadays a decoration in restaurants in the region, a kind of museological display (figure 6). At present, only box traps can be used legally by hunting guards. Illegal snares and poison to eliminate predators are still found in the area however.

“Yes, I’ve also seen cages like that for catching animals, mainly mongooses [...] We’ve also found mandibles, one that was disarmed. Just as if already forgotten, lost [...] there was a member of our family who had them and I had to teach him and tell him off, to not use it anymore”²⁶ [Moura Barrancos 2014]

The present exploitation of hunting as an economic resource, in particular, associated with a profitable business in touristic hunting zones, presents the control of common predators – foxes and mongoose – as a way of efficiently



Figure 6 – Images from study area relative to past and present practices and touristification: fenced hunting area with sign “Wild animals. Do not come close!” (2013); box traps for predator control (2012); lynx products for sale (2016); open air sculptures allusive to “capital of hunting” (2017); lynx an emblem for tourism initiatives (2020); traps for capturing predators in the past used as decoration in restaurants (2015)

26 “[...] também já tenho visto gaiolas dessas de apanhar estes bichos, principalmente os saca-rabos. [...] Também já encontrámos ferros, um desarmado. Assim já esquecido, perdido. [...] já houve um familiar nosso que tinha e acabei por sensibilizá-lo e dar-lhe um ‘raspanete’, para não usar mais.”

managing populations of partridge and wild rabbit. Predator control is a deeply rooted practice and since fox hunting is not so popular today, trapping is assumed as an important control tool. It is a practice claimed by most hunting managers and subjected, with resistance, to permits and inspection by authorities. The reintroduction of the lynx as a natural super predator might be changing already the necessity for hunters to use this practice. There might be also some moralistic pressure from growing animalist movements against animal killing.

With an increasing number of tourists, residents and their lifestyles get confronted with exposure and to opening their private life in a certain way. As Sá (2017) points out, modern life demands that people rethink, for instance, the place of their hunting trophies (taxidermy) that decorate their walls. In fact we testify this trend in two ways of capturing nature and wild carnivores: with pelts and taxidermied animals at homes, and with nature photo exhibitions. The lynx, in particular, has been appropriated in recent years and features in local products, school projects and touristic promotion materials. Nature tours value the possibility of wildlife watching and the practice tends to gather more and more people, even locally, intensifying touristification around these species.

THE LYNX' PLACE: CLASSIFICATIONS, LOCAL KNOWLEDGE AND AGENCY

Our results indicate that the use of ethno-biological classifications in a western context can show much variability and be informative about local interpretations of nature. As Hell (1996: 205) states:

“In Europe, as much as in Amazonia or Africa, certain animals are either protected, trapped or hunted, while others are highly prized, shunned or destroyed. Their symbolic status thus constitutes an index of ontological boundaries and social classifications.”

Free pile sorting seems a more comprehensive method than the use of a sociozoological scale exploring hierarchical positions attributed to good animals and bad animals (Arluke and Sanders 1996). Our data points to the existence of variations among those dualistic categories and prevalence of other logics as well. Species can be classified simultaneously in different ways, and large predators such as the lynx and the wolf can be seen and experienced with ambivalence (Lopes-Fernandes *et al.* 2016).

A comparison of our results with published work is limited as studies on classifications with European carnivores and rural residents are not known. An MSc study in a Portuguese protected area found similar assortments to ours

with domestic species in one differentiated group and wolf and fox together in another (Soares 2010). There are also similarities with a case study from Guinea-Bissau where primates and mammals with morphological and ecological similarities were considered closer to one another than to other species (Sousa, Frazão-Moreira and Gonçalves 2010).

Our interviewees also followed the criteria of some ethnobotanical classifications like morphology, habitat and usefulness (*e.g.*: Frazão-Moreira 2009; Poncet, Vogl and Weckerle 2015). In these studies local ecological knowledge becomes evident. Some of the criteria we observed such as utility, harmlessness, nuisance, were also what Thomas (1991) describes as of anthropomorphic tendency and man-centered for classification of natural elements in historical Western Europe. As this author describes, those systems of classification changed in the 19th century into a more naturalistic, neutral and objective approach in which it was possible to regard plants and animals also according to their intrinsic qualities than just according to their relationship to humans. Empirical criteria used by rural key actors in this study such as ecology, taxonomy and morphology also expressed that difference in perception. Morris (2000) studied folk classifications in Malawian subsistence agriculturists experiencing continual depredation of their crops by wild mammals. As in our study there is a pervasive sense that animals are in “opposition” to human concerns and well-being. This “opposition” however does not necessarily involve an attitude of control or dominion over nature. It implied humans and animals essentially as equals but in competition. In our European context, and considering frequent classifications by locals, in which there was a clear hierarchy of humans over non humans, dominion values are the background of attitudes towards wildlife (see also Lopes-Fernandes and Frazão-Moreira 2017).

Predators seem to be, for people who live together with them in these rural areas, boundary cross species, non-human animals that cross borderlines, invade the human domain of the house (Knight 2000; Johansson and Karlsson 2011). This has been noted as an anomalous behaviour since historical times, natural elements that “seem to blur those crucial categories of wild and tame around which so much popular thinking revolved. The encroachment of wild creatures into the human domain was always alarming [...]” (Thomas 1991: 99). Predators are experienced mainly as a resource, a pest (Knight 2000) and a subordinated being (Arluke and Sanders 1996). This was an expected scenario in a western context with hunting and predator control practices (remembrance of vermin elimination) with a background dualistic conception that separates the natural world and the “human world”.

On the other hand, our data shows that local knowledge and tolerance are specific to each predator species and related to the experience people have with each one of them, *i.e.*, to their behaviour and natural history. For instance, the fox is a “clever thief” and the mongoose is an “ugly stranger”

related to livestock attacks and recent range expansion, respectively. Brunois (2005) already refers to the influence of specific behaviours of animals in local popular knowledge. Differentiation of non-human animals contains an emic perspective resulting from a combination of formal education and personal experience.

The lynx was positively differentiated from other wild carnivores by some interviewees (5%). We related this attachment to its mysterious feline character, aesthetic appreciation and desire to observe it in the wild (Lopes-Fernandes, Espírito-Santo and Frazão-Moreira 2018). Lynx was also spontaneously associated with other exotic large felids which always played a symbolic and imaginary role for humans (*i.e.* tiger in India and jaguar in South America). That was also an added factor for the fascination the lynx creates in people. An ethnographic study among Maasai showed that during free lists of animals the lion was appreciated as a beautiful species by 10% of informants (Goldman, Roque de Pinho and Perry 2010).

The lynx is a carnivore admired for its strength, beauty and rarity. It is a constant presence and a “beautiful emblem” (Lopes-Fernandes and Frazão-Moreira 2016) even if only on virtual and perceptual terms. Like Lescureux and Linnell (2010) suggest, despite the absence of interactions with Eurasian lynx in geographical areas, that has not prevented the construction of a particular image of the species. Its elusiveness, like other wild felids of the world, makes it symbolically powerful (Hurn 2009). The lynx, in our case, often represents the wild, maybe a more distant “nature” and imagined adventurous wild places. As Luig (2002) *apud* Frömming (2009: 410) comments: “Nature is conceptualized as the other, standing in opposition to culture instead of being a part of it, thus fulfilling the need for primevalness, timelessness and eternalness”. On the other hand lynx becomes a non-human animal out of place in the sense that Johansson and Karlsson (2011) explain, as being an object in the landscape which does not match, being reintroduced in the natural world by humans. The process triggers local reflections about orientations towards wildlife, pureness, wildness (Lopes-Fernandes and Frazão-Moreira 2016).

On a third facet, relating with a predator like the lynx allows people to think of themselves as predators as well. The relationship is constructed with the natural element as an inner force, an inherent essence, part of humans. This perspective is also related to the notion of alterity summed up in the title “Among predators”, a recognition of proximity and simultaneously of differentiation from humans in a rural European context.

Finally, lynxes can also be considered as having agency. As Sayes (2014) puts it, a non-human can have agency being a mediator, a member of moral and political associations gathering other actors from other times and other spaces. The lynx, in its reintroduction areas in Iberia, acts in those three ways as: (1) encounters of humans with lynxes can change perceptions about the

species; often these animals are described as beautiful, calm and connecting eye to eye; (2) lynx presence becomes a theme among human actors and modifies relationships among them, even because different positions of being in favor or against it take place; (3) lynx presence causes change of practices to a certain degree, development of nature observation activities, local initiatives to create merchandising, etc. In fact the agency of the lynx translates as a non-human animal having a higher status in the natural world, playing a role as a negotiating object among actors and having new meanings locally.

Considering the lynx to have agency is an important aspect that enhances the non-fixed and static character to the relationship among humans and lynxes. Although seen mainly as a predator among other wild carnivores, the lynx, a new presence, reintroduced in an area and providing new experiences, acquires different meanings and places for locals. As Ingold (2021) states, we perceive the world as we act in it and how we do it. The concept of nature as a construction is a paradox for this author. In fact, in terms of relationship with nature, in a more classic perspective we would say naturalism will be the predominant ontology in our social contexts (Descola 2013) but there are signs of other existent logics and ways of relation and experience. Our ethnographic data demanded reference to apparently opposed theoretical frameworks such as Descola and Ingold, but data interpretation points to a dynamic process of interrelationship, of constant change, of “biosocial becomings” (Ingold and Palsson 2013). This is particularly evident for the lynx already coexisting with people in Vale do Guadiana now and having its own agency. Considering also some aspects of memory of large predators in our studied areas, the new presence of lynx might allow in the future what Ingold calls a rebirth for humans and non-humans, a new path (or a return to an ancestral living together) of recognition of “selves” as Kohn (2013) uses or as subjects as Lestel, Brunois and Gaunet (2006) prefer.

We found a diversity of knowledge, classifications and actions – from hunting and nature tourism to contemplation and ethical morals – that point to the existence of several rationales when considering wild species. A sensibility towards the risk of extinction was present among locals. Dissimilar perceptions coexist and reveal a heterogeneous rural world, probably where the relationship of humans to other species is being redefined once again as Thomas (1991) described.

The rural lifestyle in Portugal as in other southern European countries is experiencing a major change, with some residents becoming more distant from wild species, others adopting and constructing an environmentalist discourse (Lopes-Fernandes and Frazão-Moreira 2017), and some others keeping a close direct experience of predators and perpetuating the perception and practice towards the vermin (Knight 2000). In fact, livestock herding is one of the main activities in Guadiana, the lynx reintroduction area, and husbandry practices

have changed in the last decades. There is no longer a permanent shepherd in the field or strong protection measures, as large predators disappeared. Lambs are commonly born in the field and there is conflict with other predators, especially foxes and mongooses reported to cause some loss.

Social characterization of human conflict and coexistence with wild predators as well as analysing scenarios of the return of wild species continue to be relevant. These anthropological studies can be applied to conservation projects and give voice to local actors and multiple perceptions beyond public narratives.

Registering and giving visibility to the memories about coexistence with large predators is very opportune at a time when that knowledge is getting lost in local communities and there is a wide discussion about the return of large predators to new territories of Europe (Boitani and Linnell 2015). The results of this article are important for lynx conservation in the future and to understand society's support for this theme in Portugal. It is also an example of an interdisciplinary case study and a novel approach to the human dimensions of nature conservation.

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