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Abstract

Wolves' return to France since 1992 highlights the contradictory injunctions and the overlooked theoretical and political ideas as regards the relationship between biodiversity and food that mountainous regions are faced with. Government and regulatory responses have not yet succeeded in overcoming the conflicts brought about by the presence of wolves in the day-to-day lives of those living in mountainous regions. How can we transition from a mere adaptation of national sectoral policies on a territorial scale to the development of an actual territorial approach to the conservation of biodiversity, while taking account of the experiences and needs of inhabitants and players, and the specific challenges faced by such territories as regards food? By conducting a survey on the role played by agropastoralism in the development of mountainous regions, and cross-examining biodiversity and food issues, our territorial approach hypothesis raises the question of a collective debate regarding the future of such regions. In this study, we explain the work carried out since 2019 in the context of a research-action-creation project in Belledonne – RECIBIOLDAL – which is based partly on a long-term survey attempting to understand the relations between biodiversity and food in terms of how the landscape has evolved since 1920, and partly on the creation of a narrative surrounding current farming and food practices, with a view to understanding relations between inhabitants, both human and non-human. Lastly, we will look into how the *care* afforded to these links and various relationships can contribute towards discussion surrounding a territorial approach to wolf and food management.

Keywords: biodiversity; food; territorial approach; wolf; landscape;

Since their return to France, wolves have been the subject of much controversy and the cause of many conflicts due to their impact on domestic herds. The persistence of such conflicts over the last 30 years is tied to a combination of ethological, ecological, social, economic, political and legal issues, each articulated at various local and global scales (Dumez et al., 2017), found more generally in human/wildlife conflict (Redpath et al. 2013). Among these many issues, one challenge relates to the future of rural and mountainous regions affected by wolves. While these regions are the topic of diverging forecasts regarding the manner in

which biodiversity conservation or agropastoral breeding should be handled, their future is not really seen as a political issue requiring a collective debate.

Yet, wolves highlight the contradictory injunctions and the overlooked theoretical and political ideas in terms of the relationship between the conservation of remarkable and ordinary biodiversity and food that mountainous regions are faced with. Acting as food producer, landscape creator and environmental preserver, agropastoral practices have committed towards greening approaches that have been recognised by public policies. By relocating and developing local supply circuits, or by contributing towards (re)-territorialising agrifood systems, these approaches provide solutions to the combined challenges raised by food and ordinary biodiversity. Nonetheless, the impact of the presence of wolves, falling under the remarkable nature category, has had a lasting effect on these forecasts and the audiences affected.

The management of interactions between wolves and pastoralism itself has worsened this overlooked topic, in more ways than one.

Initially, this issue was problematised in public policies from an essentially technical standpoint, focusing on the need to protect wolves and to protect herds (Doré, 2011). Such wording led to binary public debates, with individuals “for or against [the protection/shots fired at] wolves” and “for or against pastoralism”. In particular, agropastoral activities have become subject to recommendations in terms of best practices to adopt in order to “co-exist with the living’ (Morizot, 2016). The mere focus on these necessary changes to farming practices set aside any potential political discussions relating to the future of these regions and limited any players with a stake in the matter to discussions directly relating to wolves.

In addition, wolf management has extended the view of an environment that is detached from any territorial specificities and from social issues, thereby restricting local players’ ability to tackle this issue. On the one hand, the diversity of regions (topographical, institutional, human, animal, etc.) implies “geographical effects” (Mounet, 2007) and regional specificities which require a pluralistic view that the national management of protected species struggles to take account of. There is not only one way of coexisting with the living or with wolves, but several methods of coexisting with wolves, in various landscapes (Mounet, 2008). On the other, the close entanglement between environmental and societal issues is rarely considered by sectoral policies on the conservation of remarkable biodiversity, which is disconnected from human activities. However, landscapes (understood as *tasksapes* in which humans live and experiment with practices; Ingold, 1993), agropastoralism, biodiversity and food are part of the same system. We hypothesise that the relations between these issues must be examined and discussed as a whole, from a theoretical point of view and in terms of human and non-human inhabitant practices.

These questions are studied here in the territory made up by the Belledonne chain, a mountain massif located in Isère and Savoie, bordered by two large metropolises – Grenoble and Chambéry – and affected by the return of wolves since 1996-1997. In this study, we explain the work carried out since 2019 in the context of research-action-creation project RECIBIODAL¹. Born from collaborative efforts between Belledonne players (Espace Belledonne - organisation for the preparation of a natural regional park -, Fédération des Alpagnes de l’Isère, Société d’économie alpestre de Savoie), and researchers (Pacte and ISARA), this project forwards the

¹ <https://www.pacte-grenoble.fr/programmes/recibiodal>

hypothesis of the need for a territorial approach to the wolf issue, developed for and based on this territory. In other words, how can we transition from the mere adaptation of a national sectoral policy on a territorial scale to the development of an actual territorial approach to the conservation of biodiversity, while taking account of the experiences and needs of inhabitants and players, what they are attached to, and the specific challenges these territories must face such as food and landscapes, as well as wolf dynamics? Considered in this light, our territorial approach raises the question of a collective debate regarding the future of such regions.

Since the future of each territory is influenced by past and current trajectories relating to how these issues intersect (Baud and Bonnemains, 2018), the study we have conducted is based on the accounts of players regarding how food, biodiversity and other issues have been considered and/or come across in the last century in a given territory and in their own professional practices. We hypothesise that understanding the trajectories of said territory and practices in the long term will help to identify and qualify how past and present relationships between food and biodiversity are expressed in mountainous landscapes. By confronting these trajectories, we aim to identify opportunities to reinvest in these relationships to adapt them to the future and apply them to wolf management. Ultimately, the goal is to fuel political discussions on biodiversity and food with a focus on this territory's future.

In the first part, we will examine the overlooked theoretical and political aspects of the relationship between food and biodiversity, notably by highlighting the contradictions found in the greening of agrifood practices.

In the second, after presenting our methodology and the terrain, we will present how the narratives on Belledonne trajectories in terms of pastoralism, food and environment reveal a territorial view centred around agropastoralism and the care afforded to a chain of interconnected living entities. We will look into how this care dimension can contribute towards discussion surrounding a territorial approach to wolf and food management.

Part 1: The overlooked links between food and biodiversity in mountain regions and in Belledonne.

1.1 The greening of agropastoral practices: attachment to ordinary biodiversity

In response to a “deterritorial” period (Rieutort, 2009), based on an agro-industrial system and the source of health crises and a feeling of food risk (Bergada & Urien, 2006), various transition models have emerged in recent years: agri-food practices have relocated and resumed spatial and/or social proximity (Guiraud et al., 2014); food and territorial quality has also been promoted, through food products with territorial and “terroir” meaning (Brand, 2015), allowing for territorial differences and economic development to emerge (Loudiyi & Houdart, 2019). Nonetheless, in the face of global change, the need to make agri-food practices greener by transforming production methods and lifestyles is clearly felt. In fact, the territorial roots of agri-food practices are not systematically consistent with and do not systematically converge

with a green approach (Ginelli et al., 2020), within the meaning of an evolution of frames of reference, integrating an environmental dimension.

Agropastoralism practices have been widely recognised for several decades as incorporating environmental dimensions. In pastoral mountain regions, legislation has recognised the role played by this activity in maintaining landscapes and ecological balances since 1972 (protection against risks of avalanche, fires, landslides), thereby surpassing its sole feeding attribute (Charbonnier, 2011). In 1992, the Common Agricultural Policy (CAP) granted the pastoral system a role in preserving the environment, by allocating grants and taking contractual measures (agri-environmental measures). The Rural Territories Development Act of 2005 finally explicitly tied the notion ‘biodiversity’ and its conservation to pastoralism (Article 181, DTR 2005-157). In addition to these institutional acknowledgments and injunctions, forms of bottom-up greening are developed with the creation of networks of agricultural players and their experiences (Barthélémy et al., 2020).

However, these methods of considering the environmental dimension focus only on one part of biodiversity. These methods favour ordinary nature (Banos et al., 2020) and are driven by an “agricolocentred” viewpoint in which the diversity of laws is appreciated, while the effects of wild animals are considered more or less harmful to their profession (Larrère et al., 2007). Thus, these agrifood systems suffer from a division between remarkable nature managed by the nature preservation community and ordinary nature which they contribute towards safeguarding.

Furthermore, the ties between greening practices and food production are not necessarily thought out. Promoting quality products is based on the promotion of the territory’s natural resources, but environmental and food certifications are clearly separated (MAEC v. quality label). Conversely, the conservation of biodiversity is only rarely linked to food issues in Europe and the only items of scientific analysis cross-referencing food and biodiversity relate to populations in the South (ref.)

1.2 Wolves, ‘inconvenient’ remarkable biodiversity in greening trajectories

Relationships with inconvenient remarkable biodiversity (Lévêque, 2008) such as wolves are even more overlooked. While in extensive livestock farming, farmers are connected to the landscape and to a type of ordinary nature that they help to preserve and produce (Alarcon, 2020), the effects of the presence of wolves bring this relationship into question by attacking these forms of greening.

First, outside of the direct and indirect effects of attacks (animal deaths, stress, abortions, etc.), predation and the introduction of measures to protect herds have led to significant changes in professional practices and to their “best practices” framework. For example, a reclassification of how pastoral spaces are used can be observed with the abandonment of some areas considered too risky (such as those that are too steep and could result in separation in case of attack), sometimes resulting in the fallowing of areas voluntarily reopened, as well as overgrazing and damage to routes to night-time resting places. Increasingly limited herding methods could also be the cause of less satisfactory animal health. Lastly, the overload of work required to obtain compensation or to implement protective measures give some the feeling of improper or lack of herding and leads to a drop in professional satisfaction.

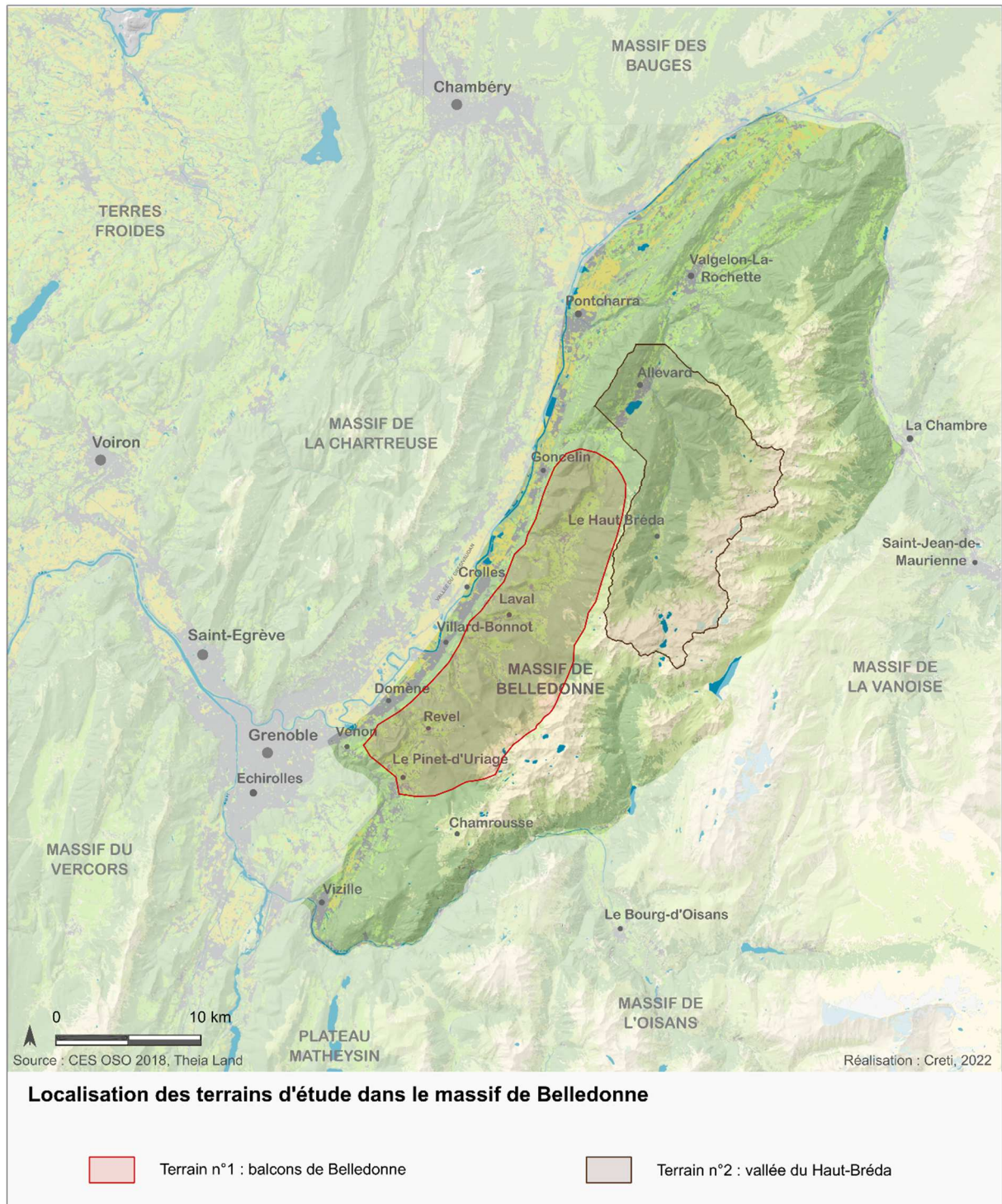
Furthermore, the social integration of farming professionals is also impacted, particularly due to recourse to guard dogs which are sources of conflict with those using pastoral spaces and with surrounding neighbours. Above all else, discussions on coexisting with wolves have brought into question the role played by farming in these territories and have questioned the positive impact and the point of pastoralism from an environmental and food perspective (Eychenne, 2018). Lastly, these arguments have led to questions regarding the social and environmental interest (and societal recognition) of these greening trajectories (Vincent, 2011). These words mirror the puzzlement of pastoralists:

“Do we decide to say: there are territories where pastoralism must be eliminated? [...] Do we prefer to have lambs reared in enclosed areas: without any contact with the ground, with fodder sources all around us? It’s political. The debate is political. Setting aside the passion and emotions one might feel: what do we want for our territories and for our food? Excerpt from “Les loups et nous” (“Wolves and us”), Mathieu Eisinger for the Confédération Paysanne.

Part 2: Methodology and context of the Recibiodal project in Belledonne

2.1. A narrative of territorial trajectories

To understand the trajectories of food, biodiversity, pastoralism and other issues in Belledonne, a survey was conducted from April to September 2021 in two areas of the Belledonne mountain massif (Créti, 2021): the Balcons de Belledonne, directly overlooking Grenoble, and the Haut-Bréda valley, extending to the towns of Allevard and Pontcharra (see map).

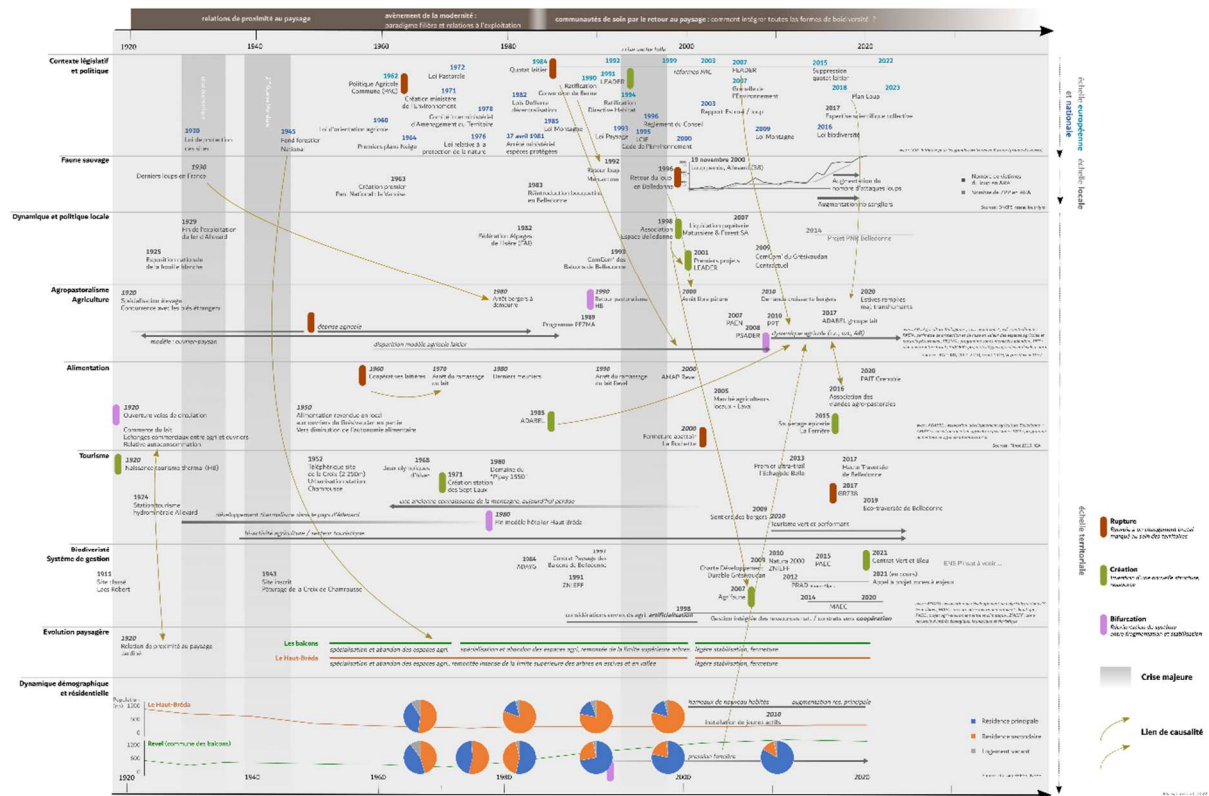


17 semi-directive interviews (see table below) were conducted in situ with high representation among players directly involved in pastoralism (3 livestock farmers, 2 farmer-shepherds and 2 shepherds) and or committed to a territorial dynamic centred around food (local circuits, local grocery shops and restaurant establishments promoting local ‘terroir’ produce: 3 restaurant owners, 3 mayors and 4 inhabitants involved in territorial development initiatives). The interview guide had surveyed individuals compare their professional trajectory with the territory’s trajectory in terms of the following topics: agropastoralism, food, biodiversity and wilderness, tourism, residential dynamics. Each interview was governed by a chrono-systemic

frieze (see figure 1), with a view to identifying and summarising change processes in action within the territory (national and local policies, individual initiatives, networks, etc.). Based on a timeline, divided into the entries previously set out, this frieze helps to direct and establish a narrative of such transformations, as well as of interactions between several components of a complex system (Bergeret et al., 2015).

	Surveyed individual	Sector studied
Livestock farmer 1	Organic suckler and milk cow farmer	Balcons de Belledonne
Livestock farmer 2	Organic milk sheep and goat farmer-shepherd	Balcons de Belledonne
Livestock farmer 3	Suckler ewe farmer	Balcons de Belledonne
Livestock farmer 4	Suckler cow farmer	Balcons de Belledonne
Livestock farmer 5	Suckler ewe farmer	Haut Bréda valley
Shepherd 1	Suckler ewe shepherd	Haut Bréda valley
Shepherd 2	Suckler ewe shepherd	Haut Bréda valley
Restaurant owner 1	Restaurant owner	Haut Bréda valley
Restaurant owner 2	Restaurant owner and shepherd depending on desire and need	Haut Bréda valley
Inhabitant 1	Logger	Balcons de Belledonne
Inhabitant 2	Hunter	Haut Bréda valley
Inhabitant 3	Hunter, former elected representative	Haut Bréda valley
Elected representative 1	Espace Belledonne elected representative	Balcons de Belledonne
Elected representative 2	Mayor	Haut Bréda valley
Elected representative 3	Naturalistic elected representative	Isère
Elected representative 4	Pastoralist engineer elected representative	Isère

Summary table of surveyed individuals



2.2. Wolves and agrifood practices in Belledonne

According to the Associations for the Development of Belledonne Agriculture (ADABEL)², Belledonne agriculture in the Isère region is subject to significant constraints due to its mountainous and peri-urban locations: sharp slopes, fragmented plots, a short vegetative season (6 to 8 months indoors) which make agricultural practices more difficult but also apply land pressure and render the sharing of land difficult due to the proximity of the Grenoble and Chambéry agglomerations. However, this urban proximity does provide it with a vast consumption and peri-urban locations: sharp slopes, fragmented plots, a short vegetative season (6 to 8 months indoors) which make agricultural practices more difficult but also apply land pressure and render the sharing of land difficult due to the proximity of the Grenoble and Chambéry agglomerations. However, this urban proximity does provide it with a vast consumption basin, divided between inhabitants and tourism. 85% of farms are focused on livestock farming, with a majority of suckling cows, followed by milk cows, sheep and goats. The dual activity that is conducted in 38% of holdings has transformed the originally dominant activity of dairy cow farming into suckling cow farming which is more compatible with double use. Lastly, in terms of produce promotion, no quality label has been created contrary to in surrounding massifs classified as natural regional parks. One third of farms use long chains, 1/3 short chains and 1/3 have no particular marketing strategy.

Wolf predation in Belledonne has mainly impacted sheep farming, since 1997-1998. Today, 3 to 4 packs have settled in the massif. Historically, this predation has been handled in a particularly conflictual manner, with one livestock farmer transhuming to La Crau and whose full commitment to a method of combatting this issue to protect his herd was widely mediated (Mounet, 2007). Further, in Alleverd, a poached wolf was exhibited on the town square in 2000. Unlike in the Vercors massif where the natural regional park acted as mediator (Mounet, 2007) and still continues to play a significant role in inventing a territorial approach to managing the

² <https://www.adabel.fr/>

effects of wolves (“Vercors action plan: wolf and territory”), Belledonne farmers have not benefitted from such a key intermediary. This is why Espace Belledonne has now taken on the burden of this issue.

Part 3. Agrifood and biodiversity trajectories in the Belledonne massif: relationships experienced and experimented with by inhabitants

3.1 Three periods in the relationship between farming, food, landscape and biodiversity

Accounts of Belledonne trajectories reveal three periods in the intersection between farming, food, landscapes and biodiversity, which match the periods demonstrated by Rieutort (2009).

- Territorial period: spatial and relational proximity

The roll-out and improvement of communication methods starting in the 1920s in the Belledonne massif allowed highly-agricultural and historically-isolated valleys to access trade and increased local exchanges. Belledonne territories specialised in a more profitable production activity – cow farming (Ténot, 1919) – and farmers sold their milk to workers in the Grésivaudan valley and in the city of Grenoble among others (Veyret-Verner, 1937). Dairy production, its transformation into cheese and its marketing relied on a network of various trades (farmers, livestock breeders, dairy farmers, butchers, traders) spanning the territory. In this “agro-artisanal system” (Rieutort, 2009), the links between producers, consumers and landscapes were very strong, rooted to the territory and characterised by a strong level of solidarity. Thus, during economically difficult periods for livestock farmers, some dairy farmers paid them with processed products to ensure they can feed themselves (livestock farmer 1). The landscape was also highly cared for, shaped with the creation of balconies for cultivating wheat or maintained as regards cultivated farmland (cutting trees on the edges of fields and maintaining boundaries), resulting in works to domesticate the mountain (Mauz, 2006).

Meanwhile, large wildlife continued to dwindle since the 19th century (Poinsot, 2008), with the reduction of their habitat. Due to their systematic destruction and suddenly unfavourable environmental conditions, wolves disappeared from French landscapes at the end of the 1930s, for close to fifty years.

- De-territorial period: change of scale and paradigm, advent of modernity

However, this territorial food system was brought into question with the significant post-war changes. The farming population had continued to drop since the 20th century, to the benefit of the labour population working in industries present in the Grésivaudan valley (paper manufacturers, electrometallurgy, etc.) (Veyret-Verner, 1937). In 1960, the French government launched a movement to improve openness and productivity (Fouilleux, 2008): this movement involved technical (mechanisation, motorisation and agronomical progress), political (agricultural framework laws on a national scale and the Common Agricultural Policy on a European scale) and economic changes (market economy).

In the massif, the wide majority of agricultural holdings ceased to exist; with those remaining needing to be “profitable and productive” according to one livestock farmer. Intermediate professions such as dairy produces progressively disappeared to the benefit of structures promoting standardised products. In just a few years, the cost price of milk, the lack of geographical identification, new health and marketing requirements brought about by dairy cooperatives, and the milk quotas of the 1980s resulted in the total death of the dairy model in Belledonne.

In the 60s, dairy cooperatives popped up. They came and told farmers: “produce more, whatever happens, we will take it [the milk] and you will earn more. We’re going to buy it from you for a slightly higher price than the dairy farm”. [...] So, what did farmers do? They sold to the cooperative and little by little my father [dairy farmer] had less milk. Except when they [the cooperatives] became aware of the quality of the milk at certain times, they told some: “we don’t want milk like that anymore”. It was the start of the end of milk in Belledonne (farmer 1)

In these agro-industrial systems, the relationships that count are not those with landscapes but rather those that are imposed and sectorised at international scale; what matters henceforth is producing large quantities to “feed” the world. But this does not prevent care from being afforded to biodiversity on farms, even when controlled: livestock farmers heal, protect (against disease among other things) and strengthen their herds or cultures with production in mind (Alarcon, 2020).

This period was also a period in which nature was compartmentalised, between domesticated and developed nature and a nature that was placed in a glass case in protected areas such as national parks.

- Re-territorial period: the landscape as an alternative to care for humans and non-human living beings

Starting in the 1980s, a few pioneer livestock farmers embarked on alternative trajectories to the dominant de-territorial approach. They decided to reinvest the territory, producing geographically-located ‘terroir’-type products (alpine lamb meat, alpine ewe cheese, local breeds) that set themselves apart with their qualities in terms of taste, health and environment. Bolstered by the arrival of other farmers in response to a societal demand for quality, and recent support from local authorities and institutions, this alternative model lives on today and coexists alongside a model more centred around long production chains.

With their narrative of their trajectory within the territory, the surveyed livestock farmers and shepherds demonstrate attentiveness at various scales, thereby providing consistency to their farming system with its local roots and environmental concerns.

Livestock farmers and shepherds are first attentive to the needs of their livestock and are aware of the relational reciprocity that they have with their herd: “if you’re calm, they’re all calm [ewes and dogs] and everything is fine” (shepherds 1 and 2).

The care afforded to animals and to the herd is part of a systemic approach that respects the environment, at farm, landscape and territorial level. This is seen for example in “respect for the soil”, in the “diverse flora” enabled by the absence of chemical inputs or the care products used on animals. “This year, we started using a sort of alternative medicine with plant-based medicines [...], it was interesting” (shepherds 1 and 2). Alarcon (2020) sees these as “forms of cooperation” between farmers and the plants they cultivate, where an increasing number of

species are tolerated or considered useful to farming. Another example is the fodder given to animals, with some attempting to increase their autonomy by producing what they need on their farm, thereby limiting their dependence on machines that required significant investment (livestock farmers 1 and 2).

Care is also afforded to promoting the quality of the products marketed and to the values adopted in consumer relations. Most of production is sold directly to the consumer (on the farm, on markets, through deliveries), thanks to a local and rural population spread out over the metropolises of Grenoble and Chambéry (Vianey, 2006; Rousselot-Pailley, 2012). In these local food networks (AMAPs, direct sales, producer markets), new forms of sociability are found between consumers and producers, with exchanges and discussions regarding production processes, the valorisation of products and attachments (I like talking, meeting with customers, explaining what we do, livestock farmer 3). With some, “wanting to produce something natural and to feed people” (livestock farmer 1), and others who “seek said food [...] and give work to local individuals” (livestock farmer 4).

In Haut Bréda in particular, all of this care is a collective concern that goes beyond the mere relationship between a producer and a consumer and marks a return to a truly territorial approach. Wanting to exist as something other than a “green lung” for surrounding agglomerations, the municipality is working hard to be “recognised as a place of life” (elected representative 2). A network of players (restaurants, grocers, mountain refuges, school restaurant in progress) has been built around the promotion of farm products, their local consumption and, in addition, the sharing of a way of living in this territory with what we are attached to (Hache 2011) This excerpt from an interview provides a good summary of the clear connection inhabitants make with their way of living: “I think that when you come to live here, you must necessarily be mindful of the environment, of [local] food” (elected representative 2).

Thus, as much as there is cooperation with some non-humans (from farm to landscape level), another form of cooperation can be found in these networks where different types of care intersect. These include exchanges, knowledge-sharing and even solidarity between these professions in horizontal relations.

3.2 Care relations at various scales

Several lessons can be learnt from the narrative of agrifood trajectories in Belledonne (see chrono-systemic frieze).

First, the surveyed individuals – pastoralism and food players – link food with nature (and biodiversity), landscapes and the territory with their practices and their ways of living, and through their narratives reveal a view of the territory centred around agropastoralism. This link can be qualified by the importance of the care provided at various scales, from the farm scale to that of multi-player territorial networks, with a varied degree of care for humans and non-human living beings (relationships of trust, co-production and cooperation phenomena). Care ethics identify such attentiveness as eminently relational (between the one that gives and the one that receives) where the concepts of vulnerability and interdependence are mobilised

(Tronto, 1993). This *care*³ is expressed in concrete practices developed in response to situations of vulnerability (Mollinier et al., 2009). This is the realisation of what is important to us, what we are concerned with and what we depend on (Laugier, 2011). Thus, agropastoralism sheds light on the human and non-human collectives and communities that form around such care and that could be defined as “communities of neighbours” (Dewey, 2010) or “communities of care” (Tronto, 1993) which are close to the notion of landscape as defined by Ingold (1993).

Second, narratives describe the presence of wolves and their effects as disconnected from these communities of care, or at the very least as perpendicular to said communities.

The narratives and practices of livestock farming players reveal technical weaknesses (as well as psychosocial ones: see MSA studies) brought about by wolves and a variety of situations within the Belledonne massif itself. These players experiment with more or less ease with how to protect their herds based on the herd itself, the topographical configuration and the frequency of visits to pastures. Some, who are less affected by predation, manage to achieve a special, albeit precarious balance, while others become exhausted during their efforts. The energy spent on such protection practices detracts from the values of caring for the herd that they hold dear. One farmer stated: “we have never cared for our animals so little since the wolves arrived” (livestock farmer 5).

Yet narratives also give a glimpse of a form of social vulnerability, with a growing divide between users of pastoral spaces (with the usual conflicts relating to the presence of guard dogs for example), and societal debates which question the relevance of pastoralism. In fact, livestock farmers are faced with contradictions that are difficult to handle: “the ones who complain about Pyrenean Mountain dogs are the same ones who advocate for food, short circuits, etc.” (livestock farmer 5). Adversity towards the farming world as regards wolves, from the same people who support and applaud the territorial agrifood project, disrupts trajectories and communities of care, and beg the question of integrating agropastoralism in landscapes⁴, depriving it of its relational dimension.

The difficulty in mobilising communities of neighbours (Dewey, 2010) to tackle wolf-related vulnerabilities collectively is a good illustration of this. Despite one surveyed farmer receiving help from around forty people from the municipality and their AMAP to participate towards building his sheep pen, at no point in the survey does said farmer consider mobilising these people as regards the wolf issue. Contracts with the state to implement protective measures appears to have given birth to a form of individual responsibility for this issue, with direct relationships between the state and the farmer. This fact, and the taboo surrounding the wolf issue, has resulted in a lack of local collective mobilisation outside of union stances. The rare levers of “local” support on which the surveyed farmers and shepherds rely are those involving very closed circles of individuals directly concerned by the issue (a Facebook group of

³Although care is generally based on the “coordination” of four different “phases”: caring about, taking care of, care-giving and care receiving, with Joan Tronto adding a fifth, “caring with” which “requires that needs associated with care and the manner in which they are met are compatible with the democratic commitments of justice, equality and freedom for all” (Larrère 2012, Petit 2014, Tronto 2012), here we have grouped them all under the term “care practices”.

⁴ The fear of rural actors of “losing their landscape”, in connection with the conservation of wolves, is described elsewhere, particularly in Spain and Sweden (Pettersson et al., 2021; von Essen and Allen, 2018)

shepherds, a friendly group of shepherds and livestock farmers working in the same area or a family circle providing daily support), leaving the question of sharing responsibilities and the possible forms of solidarity to be invented to tackle these issues wide open.

Our survey suggests that adopting a territorial approach to managing the effects of wolves in Belledonne would require (re)considering the issue with reference to the notions of care and collective effort. Thus, one of the first questions that arises is the following: how can we, in return, take care of these livestock farmers and shepherds who are on the frontline of experiments to coexist with wolves?

This notion of “taking collective care” allows us to consider re-dividing the responsibilities of each party in these landscapes. In other words, how can we rise to these challenges and provide solutions to those who face them? For us to collectively state what we are attached to and what compromises we are willing to make, as well as what new practices we can implement to do so. Although the management of the effects of wolves is currently shouldered by groups of players directly affected by the issue who mobilising in response to urgent predation situations (such as MapLoup, participatory map of real-time attack reports), the aim is to extend this community of care to include all the inhabitants of Belledonne and surrounding towns in these forms of responsibility.

Conclusion

While the relations between food and biodiversity are overlooked on a theoretical level, surveyed players in the Belledonne massif make connections between them in their day-to-day practices. With a long-term perspective of a trajectory, different relations to nature (Alarcon, 2020) are entertained by farmers’ agrifood practices. Once rejected during a period centred around modernity, the landscape (Ingold, 1993) once again became central to some in the 1980s. This new direction is experimented with in their practices, with the aim of quality food and quality treatment of humans and non-human living beings, and a new food trajectory emerged (from individual and collective initiatives to public governance). While these systems are seen as more resilient, they are currently being shaken under the effects of wolves. These are communities (farmers/livestock; farmers/tourism; farmers/consumers, etc.) in which particular care is practiced, which are brought into question but which are faced with the topic of wolf management and therefore biodiversity. By going through care, the care provided to all forms of landscape relations, the aim is to collectively state what we are attached to, for our landscapes in our mountainous territories, and to redistribute the responsibilities of each player, by taking account of the complexity of the ties between us and the intersecting issues of food and biodiversity.

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