Convivial Constitutionality: Human-Predator Interrelations in Complex Social-Ecological Systems

1. Summary

This research project aims to not only fill an important gap in understanding environmental conservation from a social science perspective but also contribute to the wider understanding relevant across various disciplines on the role interaction between humans and non-humans plays in conservation. The proposal is related - and a response - to a research project funded by the Belmont Forum and NORFACE called *Towards Convivial Conservation:* Governing Human-Wildlife Relations in the Anthropocene (CON-VIVA¹) currently underway to answer critical questions around the most pressing issues facing conservation. CON-VIVA addresses the need 'to move beyond currently dominant paradigms that promote nature-culture dualisms and market-based funding mechanisms'². Intervening within the current debate concerning alternatives to conventional economic development strategies in conservation, the concept put forth by the convivial conservation project aims at reconciling the latest state-of-theart conservation approaches with new ecological research findings that work towards integrating apex predators in diverse contexts, as these play a crucial role in maintaining healthy ecosystems (for further reading see also Büscher and Fletcher 2019, 2020). Since the presence of such (often large) carnivores poses a myriad of challenges, especially in terms of conflicts that arise with people, the project gathers data and looks for ways to successfully overcome human-nature divides. The SNSF proposal 'Towards Convivial Constitutionality' aims to address an important gap in the CON-VIVA project by exploring an issue it does not directly consider: how local groups perceive conviviality and how they would craft new institutions to make conviviality possible, based on the constitutionality approach that looks at elements for successful bottom-up institution building (Haller et al. 2016). This will be done by comparative social anthropological research focusing on three agro-pastoralist contexts in three different countries, each with one case-study of a famous predator and its interactions with the local communities studied by three PhD students using an actor-oriented and bottom-up perspective. These case-studies include the following countries and animals: Ecuador (Jaguar, South America), Romania (Wolf, Europe) and Kenya (Lion, Africa). Each of the three PhDs will cover one area of study in order to compare similarities and differences regarding institutional arrangements in specific conservation cases and relate the specific circumstances regarding convivial concepts between humans and predators to each other. The project can profit from already existing work in these areas but provides an important opportunity to contribute original research on the local heterogeneous perspective and ecological knowledge as well as innovative ideas concerning how to cope with challenges of conservation related to these often-dangerous animals. The project then addresses the important research questions of local perspectives regarding this mode of conservation, on power specific issues in the external crafting of conservation rules and options of bottom-up institution building (constitutionality), which will contribute to sustainable convivial solutions.

The project will be led by Prof. Tobias Haller (University of Bern, Switzerland, main applicant) with additional co-supervisors for the PhDs, who will also bring in additional topics: for the European case (Prof. Michaela Schäuble; Anthropology of Europe and Anthropology of Religion), Africa (Prof. Daniel Brockington, University of Sheffield, Anthropology of NGOs), America (Prof. Robert Fletcher, University of Wageningen, NL).

¹ https://convivialconservation.com/_18.03.2020

 $^{^2\} https://convivial conservation.com/2018/10/16/research-symposium-1-november-wageningen-university-towards-convivial conservation/_18.03.2020$

2. Research Plan

The project will build on a comparative study of three research areas where human-wildlife conflicts arise in the constellation between: agro-pastoralist societies, their understanding of cultural landscape and resource use; conservation organisations and their ecological approach to and understanding of sustainable land use; and the human and non-human actors interacting within these arenas of overlapping spaces. The projects reasons here for choosing agro-pastoralist societies confronted with conservation are mainly two-fold:

Firstly, the people and their culture as agro-pastoralists is closely intertwined with land-use, animal husbandry and interaction with the ecologies of their landscape. This entails dealing with predatory animals, whose interests might directly conflict with those of the humans, concerning the overlapping ecological niches. These areas of conflict are of interest for the study, since they offer a point of analysis at a directly measurable interaction point (e.g. the praying on livestock and damaging of property by predators on the one hand, and the encroachment of humans into predator-habitat, the (illegal) hunting of predators perceived as problem animals and the competition over resources overlapping with those needed by predators on the other hand). Additionally, the contexts offer higher probability for comparison between the three research areas. (Homewood 2008).

Secondly, the project focuses on the issue of local perception and local solution crafting to problems of conservation - issues often neglected in research - based on social anthropological findings that local actors have A) a large range of ecological knowledge, which presents itself however differently from western scientific knowledge (Berkes 1999) and B) have developed institutional arrangement in the past to deal with issues of predator-human interaction in practical and also spiritual ways (see Descola 2013, Haller et al. 2009).

Of interest is the fact that actual conservation projects often treat local and indigenous peoples rather as a problem than as a solution, despite the fact that predators all over the world have for centuries been co-existing with local humans and that the threat of extinction only came up between the 19th and the 20th century in a colonial and post-colonial context (Dawson 2016). This reflection, as well as the fact that local people often face what is called green grabbing (loss of territories for local groups because of conservation), leads to the need to scientifically focus on the impact of such top down conservation approaches and to conduct research on local solutions as well as on pitfalls of such initiatives from the perspective of a new institutional and political ecology approach. The project looks at the institutional change in areas where apex predators are problematized and how this change moved from being able to deal with these animals based on local worldviews to state and privatized conservationist control, removing the power from local actors to co-decide on the way human-predator relations shall be shaped, based on their own forms of knowledge. The project also includes the experiment of involving local heterogeneous actors in focus group discussion concerning their ideas on how to deal with apex predators with which they are or were experienced but no longer have a voice. Furthermore, the project addresses the fact that some sites are facing the re-emergence of these animals in contexts where humans previously enacted a predatory function in order to compensate. Switzerland is one of these sites: while wolves were finally extinct in the 20th century (see Manz 2017), hunting took over their function regarding the 'natural' limitation of the wild animal population. However, since these animals are internationally targeted for protection, they have changed their value and now include international, national and NGO-actors defining the conservation rules, often without including local actors. Focussing on local views and ideas or already existing solutions based on a bottom-up institution building process (constitutionality) in order to redress this oversight is thus at the core of this research project.

2.1. State of the Art

Current literature in social anthropology yields a variety of possible approaches to examine conservation. We propose to focus on three main debates surrounding the latest findings: the political ecology debate as put forth by political economy and poststructuralist scholars; the nature/culture debate as put forth by scholars of ontological and epistemological theory; and the commons debate in regard to institutional management structures relating to sustainable ecological and economic practices as put forth by economic anthropology.

2.1.1. Political Ecology Debate and the Post-Human Turn

The discursive distinction of nature as 'essential' or 'pure' is strongly debated in political ecology, since it negates the influence of 'anthropogenic factors', which, arguably, complicate efforts to develop holistic conservation politics and practices (Paulson et al. 2005: 25ff). Historically, initial efforts in the global north led to actual, physical separation of humans from what was thought to be a wilderness or 'pure' nature, leading to highly discriminatory intervention methods in these landscapes that were protected (see Robbins 2004; Galvin and Haller 2008). Although strides have been made since this early 'fortress conservation' (Brockington 2002) to redress these issues, the conservation landscape, distinguished today by forms of community based conservation (CBC) approaches (Galvin and Haller 2008, Chabwela and Haller 2010), has become a seemingly experimental playground where various international stakeholders have started to intervene using various techniques, whereby they are increasingly critiqued for their importation of problematic neoliberal policies (Fletcher 2010).

Important hereby are the implications discursive legitimacy and politically motivated action have on governance structures of protected areas and environments in general. This is because both national, state-based programs and privatised initiatives are found to be insufficient in many cases due to various shortcomings such as complex land management issues where actual conservation is not producing the intended effect (Brockington et al. 2008, Haller and Galvin 2011) also as outlined by global environmental bodies such as the UN's Sustainable Development Goals (SDGs), especially SDG 15³, or other international conservation organisations (Haller et al. 2018 SDG paper). These developments also lead to further enlarging protected areas, interconnecting them and making them part of hegemonial land use planning by the state in the context of what Foucault has labelled 'biopolitics 'based on the discourse of more space needed for conservation (see Bluwestein and Lund 2018).

One of the main remaining challenges in governance of this extension of space for conservation revolves around issues of integrating human and non-human entities within the same landscapes since conflict over resources between groups of humans as well as with animals both domesticated and non-domesticated are at the forefront of the discussion. From a more classical political ecology stance (see Blaikie and Brookfield 1987) this has to be interpreted as a result of increasing exclusion of local people within conservation contexts, creating more scarcity and increasing the likelihood of conflicts. What has disturbed this process further is the removal of cultural landscapes (see Haller et al. 2013) as a system of governance, which often cannot be managed by the state adequately, leading to the privatization and militarisation of conservation debate is that it is discussed in a great asymmetrical power context exhibiting increasing forms of violence. This presents great obstacles to convivial solutions that need to address the land and resource rights causes as well as the loss of trust in the state by local actors (Dowie 2009). Looking at the issue of locally based discussions of ways forward and researching local

³ https://sustainabledevelopment.un.org/sdg15_18.03.2020.4

solutions and the conditions under which these are possible is a central element for the research on alternative forms of conservation. This means addressing the issue of so called 'neoliberal environmentality' and as well as land, commons and green grabbing (Fletcher 2010, Fairhead et al. 2012) and linking this to the new post-human debate. This debate runs the danger of asserting animals as more important than humans in a context of a greater legitimacy for top down conservation via area extension as demands of especially predators might be placed higher than the ones of local actors. This aspect brings us to the roots of the debate regarding the divide between culture and nature as in this view, this divide is at the basis of the conservation puzzle.

Political Ecology debates on the issue of power when referring to this puzzle. Hereby there are two more classical definitions of power: the political economy power definition on creating marginalization and environmental destruction on the one hand and the constructivist Foucauldian view of nature as a hegemonic construction and discourse on the other. However, there is a third strand that argues that we are dealing with patriarchal power that also does not incorporate the non-human world and that what thus is needed is exactly a feminist and non-human perspective, in order to not only include human beings in the analysis of power. In fact, following a large set of social anthropological empirical literature and theoretical reflections by Descola (2013) many local and indigenous groups include such other ontologies and epistemologies demanded by this third strand of political ecology, which is helpful in order to combine New Institutionalism with the three strands of power definitions in political ecology (NIPE), see Haller 2019a, b for a summary).

To give more scope to this broad theoretical field, it is worth looking at the theoretical concepts of Animal Turn and Multispecies Ethnography (see Kirksey and Helmreich 2010, Harraway 2003, Ogden et al. 2013, Wenk 2016, Ritvo 2007). Multispecies ethnography allows a deeper understanding of the relationship between humans and large carnivores, helps to understand how attribution, characterization and narratives are developed and shows the extent to which large carnivores have their own agency (Ogden et al. 2013: 16). From this point of view, it can be argued that culture and tradition are not only subject to human influences, but also to animal influences (considering, for example, specific aspects of agro-pastoral societies and herd protection measures, which would not exist without the presence of large predators) (see Wenk 2016: 292). This seems particularly important for the study of agro-pastoral societies. Likewise, with a multispecies-oriented understanding the much-discussed and questionable separation between nature and culture appears even more unsustainable, for, as the above mentioned argumentation shows, the boundary between the sphere of life of the large predator (nature) and that of man (culture) becomes blurred and enters into an existence of mutual influence (see Wenk 2016: 288). The multispecies approach has a central analytical importance for our research when it comes to research question No. 1.2 'How are apex predators locally perceived and embedded in the social, religious and economic context?' (see 2.2 Research questions and hypothesis). The nature/culture debate is also elementary for the theoretical basis of this research and will be discussed in the following chapter.

2.1.2. Nature/ Culture Debate

What has come to the forefront in recent social anthropological discussions surrounding the environment and environmental conservation is the problematization of treating the environment as being divided between the human, e.g. cultural, and the non-human, e.g. natural realm. To this end, anthropological, empirical collections that lead to the understanding of this divide have been provided by several scholars such as Escobar (1999) and Descola (2013) in critiquing the ontological and epistemological bias of this division. This problematization of the human/nature divide or what the west calls 'nature' has, by convergent results from various scholars (see

Brockington 2002; Chatty and Colchester 2002; Paulson et al. 2005; West et al. 2006; Galvin and Haller 2008), come to constitute an underlying premise in the debate surrounding political ecology.

It has, by now, become quite evident that 'nature', also in its categorical distinction, is a historical and therefore social construction, which by its ideological distinction has also led to the political and practical separation between humans and non-humans in protected areas and other spheres (Fairhead and Leach 1996, Escobar 1999, Haller 2007). Descola (2013) argues that while 'western' understanding of this distinction may differ from other cultural forms of how the world is viewed, it is evident that humans universally, albeit quite multifariously, form understanding of their environment. This in turn necessitates not only understanding 'nature' as an historical production, but also one defined by the 'anthropology of local knowledge' (Escobar 1999: 6), whereby 'nature' becomes less clear as different ontologies combine environmental elements according to different valuations (Descola 2013). Descola for example indicates that in the Amazon, as in other areas inhabited by local groups attached to the environment, some have an animistic or totemistic rather than a naturalistic ontology. By this, he means that people do not make a separation of nature and culture but perceive what we call 'nature' as being inhabited by spiritual beings to which humans have several and often ritual forms of relations (animism) or to which they are related in the same way as they are related to other human kin (totemism). A naturalistic ontology, in contrast, would indicate a western view of fragmentation and mainly economic valorisation of elements within the ecosystem (2013). This is similar to Escobar's (1999) view of so-called capitalist nature and it has become further evident that conceptions of nature situated within political constructions of the global north are articulated within capitalist valuation (See Emerton 2001; Brockington 2008; Ojeda 2011; Benjaminsen and Bryceson 2012; Fairhead et al. 2012). A similar line of argument is put forward by scholars like Fairhead and Leach (1996), Berkes (1999) and Haller (2007, 2013, 2016, Haller et al. 2013, Galvin and Haller 2008). Linking to the perspectives of Descola and Escobar, these scholars highlight that concerning local views in the global south there is a current misreading of landscapes as nature while in actuality these have been transformed into cultural landscape ecosystems for centuries (such as forests, floodplain ecosystems, savannahs and mountain areas etc.). Colonial and post-colonial ideologies labelled these as pure natures free of humans while humans not only have transformed these landscapes but also have the view that they are not the only ones living in these areas otherwise also inhabited by spiritual beings and ancestors with whom humans must maintain a positive relationship via rituals. Rather than perceiving this as a natural environment (German 'Umwelt') it might rather translate as 'co-world' (or German 'Mitwelt'), which, however, can be transformed in a more extensive way (i.e. combination of grass cover in a savannah pastures) to a completely transformed forest with a high variety of planted trees, protective shrubs and food crops or mountain areas covered by terraces. (Haller 2007: 2013).

One central element of these landscape ecosystems is the often not visible institutional context: Many of these areas are owned collectively by local communities and are managed based on common property institutions, which constitute a central element for resource management and also the interrelation with predators.

2.1.3. Commons Debate, Institutional Change and Constitutionality

Often protected landscapes are situated within complex land-rights issues (see Galvin and Haller 2008, Brockington et al. 2008), especially in cases where common pool resources (CPRs) such as pastures, forests, water and wildlife were sustainably managed under common property institutions but might lead to overuse of CPRs under institutional change with pluralistic and not robust institutional foundations (see the debate by Ostrom 1990, Acheson 1996, Agrawal 2002). This is especially true when common property systems are changed into state

property or private property, also for protected areas (Chabwela and Haller 2010, Haller 2013, Büscher et al. 2014): Fortress or top down participatory conservation leads to alienation of CPRs, which push local actors to lose sense of ownership and to an incentive to overuse CPRs. More importantly, however, states in the Global South often lack the financial means to monitor and sanction their institutions and therefore this leads to an open access situation prone to overuse, especially by national actors as citizens, claiming the resource as state property (leading to the paradox of the state being present or absent at the same time) (Haller 2010). Regarding apex predators the situation is related. Apex predators have been part of the pre-colonial resource management context; they were also part of the predator-prey system as humans were and are as well. So, these CPRs are not only used by humans but also by apex predators. While pre-colonial settings, for example in Africa, Latin America and Asia, indicate a not harmonious but locally regulated co-existence between predators and humans, conservation measures often contributed to human wildlife conflicts because predators moved out of protected areas (such as lions in Africa or tigers in Asia) and entered into the smaller remaining areas used by humans, whose livestock or loved ones are attacked without the option to defend themselves (see Galvin and Haller 2008, Mbeyale 2010, Meroka 2010). Today, as most predators are under centralized international protection, these conflicts remain, as does the damage to livestock without or at least not adequate compensation, as well as fear regarding safety (Hiedanpää et al. 2016, Skogen et al. 2017, Zangger 2018).

In this context, even in Europe, the moving of apex predators into human controlled areas can lead to the abandonment and degradation of commonly used pastures, as the case study of Törbel (Switzerland) shows (Zangger 2018). While in some of the areas proposed to be studied in this project there is a continued existence of predators, in most European areas, apex predators were 'made extinct' by state demand in the 19th century. In the 21st century, however, apex predators are now institutionally labelled as a protected species to be tolerated by law and thus a "new" phenomenon, as it is the case in Switzerland (Manz 2017 and Berner Konvention 1979). Research has shown that in situations of re-introduction or re-emergence, robust and participatory institutions have to be developed and thus there is an evident need of adapting former institutions⁴ and establishing an institutional process to deal with the new challenges. But also, in areas where apex predators have been living permanently there is a need to adapt institutional setting to the changing needs of the local people, especially in CBC environments, as found in East African models of conservation, where the goal is to return to an equilibrium within human integrated ecosystems (German et al. 2017). While Ostrom's (1990) design principles could be used to assess whether local institutions manage resources and resource areas sustainably, this does not pay attention to historical, structural and power dynamics of actors involved. Therefore, the New Institutionalist approach of Jean Ensminger (1992) and her model of institutional change helps to understand the historic processes by which apex predators influence the relative prices of a socio-ecological systems: The new legal environment, increasing pressure on resources by land and resource grabbing dynamics and new technologies of more intensive land use, raise the relative price for protected areas and also flagship predators (for conservation agencies and for tourism) and reduce the bargaining power of local actors and their common property institutions radically, which are transformed into state property institutions, which are again legitimated by the discourse of expansion of

⁴ Formal institutions can be understood in terms of established state institutions (executive, legislative and judicial), there can also be informal institutions found in more localised arrangements such as 'customary law'. Furthermore, individuals' and groups' lives and human actions and interactions are structured by institutions, which incorporate rules and regulations, laws, constraints, norms and values, as a whole making up the 'rules of the game', influencing economic activities, collective action and sustainable resource use (Haller 2007: 29).

commercial land use reducing predator habitats. However, as people have lost access to land and CPRs with increasing conservation on their areas, predators are competing more intensively with what is left for marginalised people. Furthermore, this process is leading to an unfair distribution of gains from conservation and tourism for the profit of foreign companies and NGOs, externalizes costs on local people and reduces their access to their former common property. This process again undermines their willingness to participate in the protection of predators (see Galvin and Haller 2008, Haller 2010). Therefore, the claim for convivial conservation is not an easy undertaking, given the structural alienation of land that has been called green grabbing and in which context local actors do not seem to be involved at all. We thus propose to use approaches that stem from the study of (successful) bottom-up institution building processes and make them fruitful for bringing in a more participatory approach we call constitutionality (Haller et al. 2016). This approach argues that there is a need for another form of examination of institutional change, enabling analysis of a process of bottom-up institution-building. The argument is that participatory approaches as well as decentralization attempts to sustainable development and governance have earned a range of critique. Therefore, the study proposes an institution-building process termed constitutionality, highlighting natural resource management from below, as it analyses 'community members' views on participation, the strategies they employ in negotiating such initiatives, and the extent to which they can develop a related sense of ownership in the institution-building process for CPR management' (Haller et al 2016: 69). Based on several case studies, the study identified six preconditions necessary in the formation of institutions that have a potential for long-term sustainable use. These preconditions are: (a) emic perception of need of new institutions, (b) participatory processes addressing power asymmetries, (c) pre-existing institutions, (d) outside catalysing agents (fair platform), (e) recognition of local knowledge, and (f) higher-level state recognition' (Haller et al. 2016: 69).

The concept of constitutionality seems evident in the contexts where apex predators influence local resource management and livestock breeding: while in the case study of Törbel the state of Switzerland owes a complex institutional setting which doesn't fit perfectly, the local people are in need to change and adapt their institutions and also feel a sense of ownership in the institution building process (Zangger 2018). The research done by Zangger forms at the same time our State of the Art as it is the most important single case to date for the general discussion on robust common property institutions by Netting (1981) used by Ostrom for her Nobel prize winning publication (1990), and because the case study of Törbel will be our point of reference for the whole research project. Furthermore, there hasn't been any other research, except this one, applying the concepts of Constitutionality (Haller 2016 et al.) and Ensminger's institutional change (1992) to the subject of apex predator conservation.

We are aware of the ongoing SNSF-funded research currently being carried out at the ISEK in Zurich called "Wölfe: Wissen und Praxis. Ethnographien zur Wiederkehr der Wölfe in der Schweiz" (for further reading see also Heinzer 2016, Heinzer and Frank 2019a, Heinzer and Frank 2019b, Heinzer et al. 2019, Frank 2020a (forthcoming), Frank 2020b (forthcoming)). The study conducted by Nikolaus Heinzer and Elisa Frank deals with the wolf in Switzerland as a whole and will produce various ethnographies on different topics. The theoretical basis includes other concepts as our planned research, which is why Zangger's master's thesis is given here as the state of research. So far, there is no other research in the Swiss context that combines the wolf issue with concepts of the Commons debate, institutional change and the constitutionality approach.

Zangger's research (2018) shows how such a bottom-up institution building process can look like in the context of convivial constitutionality and has inspired this research project greatly: By the end of the 20th century

Switzerland had no more wolves as a consequence of a state induced extinction of the predators. It was not until 1995 that the first wolves came back from Italy and settled down permanently, respectively created the first wolf pack in 2012 in the Calanda Region (Manz 2017: 13, Kora 2019). Therefore, for the last five years, Törbel has faced several challenges concerning the increasing wolf presence and the settling down of a wolf pack in 2016 (Kora 2017b). This led to a significant increase of wolf attacks and subsequent killing of sheep and goats (Kora 2017a). Besides wolves, Törbel is also home to a high number of the traditional Valais black nose sheep: a breed which stands for the local forming of identity and prestige among the farmers and holds high importance for the village bonding and of course the landscape care (Zangger 2018: 46, Niederer 1993). The farmers of Törbel work mostly fulltime in industrial companies in the valley (Lerjen 1998) and therefore have little spare time for farming activities and especially for the implementation of herd protection measures. This is one point of conflict concerning the dealing with wolves. Another point of conflict concerns the commonly used Moosalp, where the local sheep, goats and cows spend the summer grazing. Subsequently it wasn't possible any more to leave the sheep and goats alone on the summer pastures - for this reason the first shepherd project was launched in 2015 in collaboration with the neighbour community and the local herd protection officer. Finally, a woman was hired with a sheep dog and although she had experience in shepherding, she lacked experience concerning sheep and wolves (Zangger 2018: 35ff, 55ff). During the project implementation there were various disagreements between the local farmers and the herd protection officer regarding the implementation of herd protection measures (Night pen and herd protection dogs). After many heavy attacks by wolves leading to high losses of 10% of the herd, the shepherd project was ended before the end of the Alpine season (Zangger 2018: 55ff). After this, frustrated local farmers refused to bring their animals to the pasture again, which was then left unused and which led to a rapid lowering of the quality of the pasture due to increased shrub growth. Individual strategies of bringing animals elsewhere or putting them in the village's pastures and thereby overusing them was no solution in the long run (Zangger 2018: 64ff).

In summer 2017 the community decided to launch another shepherd project, this time without the local herd protection officers but instead with a farmer from the neighbouring village who provided the idea of a new project: a wolf-experienced shepherd, from a country with a long existing wolf presence, should be hired. The decision finally fell on a young Romanian, who brought his own Carpathian herd protection dogs and cared for the installation of the night pen (Zangger 2018: 76). While the first shepherd project involved around 450 sheep, only about 64 sheep could be raised in the second. This did not detract from the success of the second project: despite three wolf attacks, not a single sheep was injured (Zangger 2018: 76ff). Despite the positive end result, however, the project has not been continued since then. The reasons lie within several caveats by the local sheep farmer concerning: the critical attitude towards the night pen and herd protection dogs, fear of sheep losses and loss of confidence towards state institutions and organisations, financial questions, high amount of work, questions of infrastructure on the alp, and finally because of the high social pressure by other sheep farmers and the tendency of wolf opponents to demonize herd protection projects (Zangger 2018: 81ff, 59).

The presented case study of Törbel is an example for bottom-up institution building processes (Haller et al. 2016) whose outcome, however, is uncertain and not yet fixed. But to summarize: the community of Törbel including the mayor and the local sheep farmers felt the need to change their institutions (emic perception of need of new institutions and pre-existing institutions) concerning the summer grazing on the Moosalp. They realized that the previous institutions were insufficient as they don't withstand the wolf's presence. Further, the second shepherd

project enabled the complete participatory collaboration of the local sheep farmers and made the implementation of herd protection measures possible according to their own ideas (participatory processes addressing power asymmetries and recognition of local knowledge). The farmer from the neighbouring village, who had the idea with the wolf-experienced shepherd, acted as a so-called "outside catalysing agent" and brought important and innovative inputs. What remains uncertain is how far the state would have recognized or supported the adapted institutions (higher-level state recognition) (Haller et al. 2016: 69). Given this intriguing case, it seems important to find other examples of bottom-up institution building processes concerning the dealing with apex-predators and to compare them. This enables researchers to do a comparison and to see what has worked in one case and why it didn't work in another and finally to draw conclusions and new insights.

While the CON-VIVA project also aims to find new ways for conservation to 'enable humans to sustainably 'live with' (con-vivire) other species and ecosystems'it doesn't directly investigate the perceptions of conviviality by local communities, potential processes of bottom-up institution building to make conviviality possible and the necessary local knowledge systems as well as anticipating power relations and institutional changes in an area (see Haller et al eds. 2019). This is where we see our contribution. We suggest that there are already manifold ideas on how to deal sustainably with apex predators present in many contexts. Hence it is not a question of how to get new conservation strategies introduced, but to learn from what exists already locally or what local ideas and perceptions of the issue exist.

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