

3. Wolf Agency

Wolf agency and coexistence

What happens when wolves settle in a new region? How does a region become a wolf territory? In this chapter I tell the story of the recent return of wolves to the Westerwald, culminating in the formation of its first-ever pack, the Feldkirchener Wald/Neuwied Pack.¹ This story begins years before my research and becomes a personal narrative from autumn 2019 onwards. It weaves together a variety (and, of course, a selection) of sources into a narrative that unfolds historically through time, but occasionally jumps back and forth, from one perspective to another, from one place to another. Official statements about wolf images, dead wolves, and wolf kills are complemented by local/regional press reports, social media posts, local events, and personal narratives from locals in the near and adjacent area. While the main narrative focuses on the immediate wolf territory, I show how events from outside feed into the local narratives, creating different geographical interconnections.

The purpose of this chapter is twofold. First, *I describe how wolves and humans share a common world in which their lives touch and matter to each other. Second, I explore the role of wolfish 'affective agency' in that process.* In both public debate and scientific discourse, this situation is usually described by the term coexistence, a term that, as Jean-Luc Nancy has noted, “often oscillates in meaning between indifference and resignation, or even between cohabitation and contamination”.² For wolf advocates, the term conjures up positive images of a community living peacefully together across species boundaries. For those who are sceptical about the wolf, on the other hand, it is an overly positive term,

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- 1 The chapter thus concludes in spring 2021. Later developments in 2021 and 2022 and the Leuscheid Pack are briefly discussed in Chapter 6.
 - 2 Nancy, Jean-Luc: *Being Singular Plural*, Stanford: Stanford University Press 2000, p. 43.

suggesting peace and harmony where they see only conflict and danger. So, the term has its own semiotic baggage that needs to be taken into account. Likewise, we must assume that coexistence is lived in various shades and forms.

As noted in the introduction, the most fundamental form of coexistence is rooted in the shared bodily constitution of human and non-human animal life. Rather than assuming a human exceptionalism that sets us apart from (and above) the rest of the world, it is important to recognise that we all share a common corporeal being (albeit in a variety of forms and capacities) that enables us to affect and be affected by each other in specific ways. In such a perspective, animals do not just exist, they occur and act;³ that is, animals are (and become for us) affective through what they do.⁴ A wolf becomes affective, so to speak, through its *wolfling*.⁵ For the return of wolves to the Westerwald, this means that every wolf on its way through the region, with every step, with every urine or scat mark, with every kill, begins to weave itself into the socio-ecological fabric of the region, thus creating the affective ground for a coexistence between wolves, other wildlife, livestock and pets, resident humans, and the landscape.

While this approach may be obvious to readers from environmental anthropology or the interdisciplinary field of human-animal studies, it is certainly less so for readers from the field of Human Dimensions of Wildlife (HDW), a field dominated by (mostly quantitative) sociologists and socio-ecologists working within a social science paradigm of empirical social research. In this field, the actual life of wolves is typically left to the natural sciences to study, while the social sciences deal with the 'human dimensions' of living with wolves, which usually consist of 'opinions', 'attitudes', 'values' etc. about wolves.⁶ By reproducing the presumably still dominant Western notion of a dichotomy between nature and culture, along with the accompanying disciplinary division into natural and social science research, they perpetuate a research paradigm that excludes animals from the social world of humans, as if their lives did not influence each other.

3 T. Ingold: Being Alive, p. 175.

4 Ibid., S. 170.

5 Ibid., S. 174.

6 In recent years, however, there has been a recognizable trend towards integrating qualitative approaches, and ethnography in particular, into HDW research. Although still marginal, ethnography is now considered not only a legitimate but also a valuable addition to available methodologies, see IUCN: IUCN SSC guidelines on human-wildlife conflict and coexistence. First edition. Gland, Switzerland: IUCN 2023, <https://doi.org/10.2305/YG1K2927>.

Wolves are thus not considered real agents (i.e. social agents) in this field, as the following quote from Ulrich Schraml, a leading German sociologist in this field shows. In an overview chapter titled “Wildlife Management for People”, he states: “Colloquially, it is common to speak of a human-wildlife-conflict or human-carnivore-conflict. This perspective assumes that animals also ‘go to battle’ to assert their interests. From a social science perspective, this is a strange idea”.⁷ Instead, Schraml argues for a socio-political classification of the conflict that focuses on the ‘symbolic content’ of the wolf. While other sociologists at least acknowledge that there is a conflict *with* wolves in addition to an internal societal conflict *about* wolves (e.g. between wolf advocates and wolf opponents),⁸ Schraml reduces the conflicts to their human-societal dimension and relegates wolves to being passive recipients of human attributions of meaning, whose behaviour has no influence on social processes. In this chapter, as throughout the book, I show that the stories of the conflicts cannot be told without the wolves themselves, and that leaving them out distorts the conflict and hinders understanding of people’s problems with wolves. The fact that my argument here are probably another ‘strange idea’ for Schraml can probably be explained by the fact that most sociologists in the field of HDW do not usually engage with literature from human-animal studies, multispecies ethnography, or more-than-human geography.⁹ Furthermore, the concept of culture seems problematic in the field of HDW. It could well be argued that their conceptualisation of culture is a mentalistic and intellectualistic one, focusing too

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- 7 Schraml, Ulrich: Wildtiermanagement für Menschen, in: Marco Heurich (ed.), Wolf, Luchs und Bär in der Kulturlandschaft. Konflikte, Chancen, Lösungen im Umgang mit großen Beutegreifern, Stuttgart: Ulmer 2019, pp. 113–148, here p. 113, translated by TG.
 - 8 See Skogen, Ketil/Figari, Helene/Krange, Olve: Wolf Conflicts. A Sociological Study (= Interspecies Encounters, Vol. 1), New York, NY: Berghahn 2017, p. 9. Yet it is noticeable that even in this otherwise very insightful book, wolves as ‘real’ animals and agents are conspicuously absent.
 - 9 Publication outlets for HDW research focus on a small range of journals such as Human Dimensions of Wildlife, Wildlife Biology, Biological Conservation, Wildlife Society Bulletin, Society and Natural Resources, PLOS Biology, or the European Journal of Wildlife Research. Citations of work outside this scope of journals are not very common. Similarly, though, scholars working on human-animal relations rarely engage with HDW literature and publish in ‘their’ journals. There is thus a need to start a more serious conversation (for an attempt from anthropology, see e.g. Schroer, Sara Asu: ‘The Arts of Coexistence: A View From Anthropology’, in: Front. Conserv. Sci. (2021) 2, pp. 711019. doi: 10.3389/fcosc.2021.711019.

narrowly on language, ideas and worldviews, opinions and attitudes.¹⁰ In fact, there is a strong influence of social psychology throughout the field – as evidenced by key social psychological concepts that provide key points of reference for much of the HDW literature, such as beliefs, attitudes, motivation, values, and so on.¹¹ This may explain why advances in cultural and social theory in recent decades, which see culture as embodied, situated, material, performed, and practised have had little impact on HDW research.¹²

It is therefore my intention to take the underlying ecological approach underlying the HDW literature more seriously by not treating the human social sphere as a *separate* dimension of wildlife and by not reducing wolf conflicts to ones *about* wolves only. Instead, this chapter shows how human-wolf coexistence is fundamentally rooted in the lives and actions of wolves, without which the ‘human dimension’ is incomplete and difficult to understand. My focus here is therefore on the agency of wolves, their capacity and power to act in ways that might have material effects as well as felt affective consequences. My understanding of animal agency is based on Edward Reed’s minimal definition: “This is just what *agency* means: agents make things happen, *they make their way in the world*”.¹³ Accordingly, the purpose of this chapter is to show how wolves, as affective agents in a shared world of coexistence, repeatedly and consistently provide powerful impulses that trigger individual and social processes, sometimes prompting or even forcing human actors to act. Although wolves can also sometimes become passive objects of discourse (and thus mere representations and symbols), they generally play an active role in shaping the human-wolf relationship.¹⁴ This is not to say that their actions always follow deliberate planning with a preconceived outcome, as might be inferred from a subject-oriented intentional approach to agency. Nor do I want to reduce

10 Reckwitz, A. (2017). How the senses organise the social. In M. Jonas & B. Littig (Eds.), *Praxeological political analysis* (pp. 56–66). Routledge.

11 IUCN: IUCN SSC guidelines on human-wildlife conflict and coexistence.

12 Seidman, Steven/Alexander/Jeffrey (eds.) *The New Social Theory Reader*, London: Routledge 2008; Badmington, Neil/Thomas, Julia (eds.) *The Routledge Critical and Cultural Theory Reader*, London: Routledge 2008.

13 Reed, Edward: *Encountering the world. Toward an Ecological Psychology*, Oxford: Oxford University Press 1997, p. 19 (emphasis added).

14 See Lescureux, Nicolas/Garde, Laurent/Meuret, Michel: ‘Considering wolves as active agents in understanding stakeholder perceptions and developing management strategies’, in: T. Hovardas (ed.), *Large Carnivore Conservation and Management*, pp. 147–167.

wolves' agency to that of any 'actor' (human or non-human, animate or inanimate), as is the case with some materialist approaches such as Actor-Network Theory.¹⁵ These would be less suited to dealing with questions of a wolf's sentience and affectivity.

Instead, I am interested in the wolfish capacity to affect humans in their own specific ways, from giving us a moment of goosebumps to leaving us stunned with fascination or fear. When it comes to the agency of wolves in relation to humans, I am not suggesting that their actions are necessarily intended to affect us (a scat mark is placed with the intention of affecting other wolves, perhaps other animals, probably not humans). Nor are they agents in the same way that humans are agents. Nevertheless, their actions have the capacity to 'make things happen' or 'set things in motion', and they can act as a catalyst for human responses (wolf officers are contacted, go into the woods to look for the scat, bag it and send it to the Senckenberg Institute for DNA analysis). Moreover, the affective power of wolf agency can have an impact without anything actually having to have happened. In this sense, it refers to both the wolves' *performed actions* and their *virtual capacities* for (inter)action. What do we think wolves are capable of? The mere sighting of a wolf, for example, affects people both through the actual behaviour of the wolf at that moment and through what he might have done or what might have happened.

However, this relational approach to wolf affective agency is necessarily incomplete. While we can trace how wolves affect us humans, it is difficult to work out how they are in turn affected by us. As I show in the following pages, wolves tend to appear suddenly and disappear just as suddenly. For most of their lives they exist unnoticed if not invisible to us. One of the reasons for this may be that wolves have superior hearing and smell, which allows them to hide from us long before we can notice them. This was clearly demonstrated in a recent pilot study of 21 'approach trials' with GPS-collared wolves.¹⁶ The researchers wanted to learn more about how wolves behave when they encounter humans. But in 21 trials not a single wolf was seen by the approaching

15 See Wirth, Sven et al.: *Das Handeln der Tiere. Tierliche Agency im Fokus der Human-Animal Studies* (= Human-Animal Studies, Vol. 9), Bielefeld: transcript 2016, <https://doi.org/10.14361/9783839432266>; McFarland, Sarah/Hediger, Ryan (eds.): *Animals and Agency: An Interdisciplinary Exploration*, Leiden: Brill 2009.

16 Versluijs, Erik/ Eriksen, Ane/ Fuchs, Boris/ Wilkenros, Camilla/ Sand, Hakan/ Wabakken, Petter/Zimmermann, Barbara: 'Wolf Responses to Experimental Human Approaches Using High-Resolution Positioning Data', in: *Frontiers in Ecology and Evolution* 10 (2022), pp. 792916, <https://doi.org/10.3389/fevo.2022.792916>.

researchers. Almost all of them had fled long before. So the story of the return of the wolf is still an anthropocentric one, primarily about how humans are affected by wolves, not the other way around. Although this pilot study at least proves *that* wolves are affected by human presence, the *how* remains largely a mystery outside of experiments.

With this caveat in mind, we can finally turn to the emerging structure of affective wolfish agency, which can be conceived as an ecology of affects or *affective arrangement*. The notion of affective arrangement, which takes a relational approach to affects in their situatedness, allows for “zooming-in on local constellations of elements that give rise to specific relational domains of affecting and being affected”.¹⁷ Wolfish affective agency is thus not to be understood here as a simple causal chain between wolfish subjects and human objects, in which wolves as ‘first movers’ act unilaterally on humans. It expands and transcends any intended goal of action; it always has more than measurable (material) effects. It unfolds through mere corporeal presence as well as in the execution of an action. And it has a lasting effect. Ultimately, it is also about understanding the conditions of coexistence itself as an affective arrangement in which all actors are involved before, during, and after the individual encounters that make up this coexistence.

The term affective arrangement also takes into account the dynamic, unfinished, and unstable nature of affects. Thus, we need to consider the opposing tendencies of affective arrangements to either consolidate into more stable and enduring patterns or to dissolve or transform into something else. Moreover, wolves produce different intensities of affect (a wolf sighting has a different and usually less intense affect than a sheep killed by a wolf). There are also changing thresholds of intensity to consider (as people become accustomed to sightings, the single sighting loses its affective impact). These intensities can also produce polycentric networks of relationships, that is, instead of a uniform wolf territory, we can expect several affective ‘hotspots’. Finally, we need to take into account the heterogeneous composition of the affective arrangement, which usually includes a multiplicity of agents who—although increasingly enmeshed in a wolfish arrangement—lead their own lives in a multiplicity of other arrangements.

17 Slaby, Jan/Mühlhoff, Rainer/Wüschner, Philipp: *Affective Arrangements*, p. 5.

How the wolves returned to the Westerwald

The Westerwald was wolf country for centuries before the last wolves were shot in the nineteenth century.¹⁸ After an absence of more than a hundred years, the first unconfirmed sightings of (presumably migrating) wolves occurred in 2010. A year later, another wandering wolf was hit and slightly injured in a traffic accident near Gießen – not far from the Westerwald. DNA testing of the blood on the car revealed that the wolf was from the Alpine population and was therefore named Pierre-Luigi. The injured wolf was seen several times after the accident and appeared to move further into the Westerwald, where it was filmed in the Neuwied district in February 2012 and subsequently became known in the media as the ‘Westerwald wolf’.

Then, in April, hikers found a dead wolf near Hartenfels—shot.¹⁹ Pierre-Luigi had been killed illegally, and the National Hunting Association offered a bounty of €1000 (plus a further €3000 from a private individual) to find the poacher. Two days later, an elderly hunter went to the police, admitted the crime and explained that he had mistaken the wolf for a stray German shepherd. A judge imposed a fine of 2500 euros, which the accused hunter refused to pay. As a result, the case went to trial in December – the first time anyone in Germany has been tried for the illegal killing of a wolf. The hunter was fined 3500 euros but appealed. In the second trial, the case was dismissed on the condition that the defendant pay 3500 euros and surrender his hunting

18 The retired Westerwald zoologist Dr Frank Wörner has compiled a lot of useful information on the history of wolves in the Westerwald until 2019. I am very grateful for his work and many insightful conversations with him. See Wörner, Frank: *Wölfe im Westerwald: Verfolgt bis in die Gegenwart—Ein Plädoyer für Akzeptanz*, Tierpark Niederfischbach e.V., Niederfischbach 2013; Wörner, Frank: *Rheinland-Pfalz erwartet den Wolf: Ein Management soll das Zusammenleben regeln*, Tierpark Niederfischbach e.V., Niederfischbach 2015; Wörner, Frank: *Neues vom Wolf im Westerwald: Notizen zu Wolfsnachweisen 2016 bis 2019*, Tierpark Niederfischbach e.V., Niederfischbach 2019, Wörner, Frank: *10 Jahre Wölfe im Westerwald: Notizen zu einer umstrittenen Rückkehr—Eine Zwischenbilanz 2011–2021*, Tierpark Niederfischbach e.V., Niederfischbach 2021.

19 Rumours said that the circumstances of the find were considered highly suspicious, as the wolf had died in very difficult terrain and had been found by someone from Cologne and not by a local. This fuelled the rumour that this wolf was not a ‘wild’ wolf, but one that had been kept in captivity (i.e. marked) and released. After all, it had probably already been seen several times and showed no signs of shyness (interview, district hunting master, 18.02.2020).

licence and weapons (which he accepted). Pierre-Luigi was taxidermised and put on display at the Natural History Museum in the state capital, Mainz.

According to a press release from the State Ministry of Environment, Energy, Food, and Forestry (MUEEF; today: Ministry for Climate Protection, Environment, Energy, and Mobility, MKUEM), the whole incident showed that proper wolf management was needed in Rhineland-Palatinate.²⁰ The minister at the time, Ulrike Höfken, invited representatives of affected groups (shepherds, hunters, conservationists) to a round table to draw up the state's first wolf management plan. She explained that the wolf could come to Rhineland-Palatinate in the foreseeable future: "This would be an enrichment for our biodiversity. The wolf can live in peaceful coexistence with humans".²¹ After two years of debate, the final plan was presented in February 2015. Although not a single wolf had been sighted in the meantime, the ministry felt prepared with the management framework now in place.

And indeed, it did not take long for the wolves to return. From 2016, the wolf presence in the Neuwied district became more dense. On two nights in September, five sheep were killed. A dead deer was found, killed by the same female wolf. A wolf was also photographed in September, and again a year later in November 2017. However, this evidence did not prove a permanent wolf presence in the area. No wolf was yet considered resident, nor was there a pack – as far as was known.

But that was to change in 2018. On 13 May 2018, a local forester photographed a female wolf on the Stegskopf military training area near Daaden in the eastern part of the Westerwald. Wolf GW1072f²² was photographed several times in the following months, and scat was found and analysed. By this time, wolf traces (both sightings and kills) had accumulated in various areas of the region. In addition to the Stegskopf wolf, there were several wolf kills in the Neuwied district (a fallow deer from a game enclosure, a red deer, a roe deer). The wolves could no longer be ignored, and in May 2018, the ministry officially declared the Westerwald a wolf prevention area, i.e. a potential wolf

20 "Ministerin Ulrike Höfken begrüßt Urteil zum Wolfsschützen", https://mkuem.rlp.de/de/pressemeldungen/detail/news/News/detail/ministerin-ulrike-hoefken-begruesst-urteil-zum-wolfsschuetzen/?no_cache=1&cHash=d31ed411576ce8e28ea2b155842a4218 (accessed: 18.06.2022, no longer available, translated by TG).

21 Ibid.

22 Wolves in Germany are named after genetic identification by a consecutive number, together with the abbreviation GW for grey wolf and followed by f (female) or m (male).

territory where herd protection measures are reimbursed. Almost a year later, in April 2019, the Stegskopf finally became the first wolf territory in Rhineland-Palatinate after a urine sample from January was identified as belonging to the same wolf as the scat found in the previous months. After January, however, there were no more traces of this wolf, and people began to wonder about her whereabouts.

Figure 13: The first resident wolf in the Westerwald, the female GW1072f.



Source: Research Institute of Forest Ecology and Forestry (FAWF)

Nevertheless, the ministry organised a regional wolf conference in August 2019 in Hachenburg, in the centre of the Westerwald region, to inform the public and bring together various concerned groups for discussion. Presentations were given by various experts, followed by three workshops to discuss the impact on society, hunting, and livestock farming.²³

While the Stegskopf wolf had not been seen for more than six months at the time of the conference, the wolf presence in the Neuwied district was becoming more and more established. In May, three sheep were killed by wolves near Dürrohlf-Muscheid. In October, six sheep were killed near Rheinbrohl, a week later one sheep near Oberirschen-Rimbach, and two weeks after that two sheep

23 I will return to this conference in more detail in Chapter 6.

near Sankt Katherinen. The regional newspaper *Rhein-Zeitung* reported: “Clear wolf traces in the Westerwald”²⁴ and “Hunters are sure: A wolf pack lives in the municipality”.²⁵ Yet, for the ministry, the only wolf territory in the Westerwald was on the Stegskopf and not in the Neuwied district.

When the public radio station Südwestrundfunk (SWR) hosted a live panel discussion on the wolf in Daaden on 21 November 2019, it became clear that official knowledge and local knowledge differed in their respective assessments of the wolf situation. During the audience discussion, a hunter stood up and remarked:

[HUNTER:] We just had a case down here on the Rhine during a driven hunt. There were nine wolves. It's proven that there were nine. And one of them came within ten metres of a hunter and didn't run away. Only when the hunter waved his arms and shouted did he slowly move away. That is not normal. [...]

[MODERATOR:] Now I have to ask. That just happened?

[HUNTER:] Yes, during the hunt of X.

[MODERATOR:] And you are sure that not [...], that it was not just one and the same animal seen nine times?

[HUNTER:] No, that is absolutely clear [...].

[MODERATOR:] This is sensational news.²⁶

What had happened? The following WhatsApp message circulated in the regional hunting community a few days earlier:

Dear colleagues, over the weekend I was told of 9 wolf encounters during the hunts of the Earl of X, Baron Y, Z etc., which were confirmed at the same time in different places. One wolf approached a hunter up to 10m without shyness and could only be frightened away by shouting loudly, but only crept away slowly. X, Y and others have been confirming a full pack for several months through sightings and photos! Despite this, the official authorities believe

24 Rhein-Zeitung from 05.11.2019.

25 Rhein-Zeitung from 15.11.2019.

26 SWR panel discussion, Daaden, 21.11.2019, author's minutes.

that there is only one female wolf! We hunters are not doing ourselves any favours by withholding the sightings and photos, which only serves to hide the presence of so many wolves and hence affords no pressure to act! Please, please, please collect scat samples in plastic bags and give them on to the large carnivore officers. Then they won't enter your hunting grounds, if that's your concern! Farmers, shepherds, livestock owners and hunters are now on high alert and we will only achieve the necessary pressure to act when the total number of wolves is officially confirmed! At the moment, whole populations of wild boar are congregating near villages and towns and avoiding the forests. In Bad Hönningen they are already roaming the streets at night, as I was told today! I don't even want to talk about the difficulty of hunting our game. Please convey this to all hunters in your region!²⁷

The district hunting master of Neuwied started to gather the hunters and asked them to cooperate in the monitoring, arguing that as 'professional experts' they should be involved in the monitoring measures. He organised a hunting contact person for each Large Carnivore Officer (LCO) in order to reduce the 'inhibitions' of hunters to cooperate with wolf management representatives and to increase the 'transparency' of the management processes by involving the hunters.²⁸ While one LCO welcomed the idea and saw her work made easier by working with the district hunting master, another LCO was more sceptical. He saw it as yet another attempt to influence wolf management in order to incorporate the concerns of hunters. Relations between hunters and LCOs had generally been tense up until then. In the words of one LCO: "We LCOs were frowned upon in hunter circles. This may be due to the fact that two of the three responsible LCOs in the area are also NABU Wolf Ambassadors."²⁹ The hunters did not like that at all".³⁰

27 WhatsApp message, received 19.11.2019.

28 Interview, District Hunting Master Neuwied, 18.02.2020.

29 NABU is one of the most established nature conservation organisations in Germany. Its wolf ambassadors are volunteers who do educational outreach work. Wolf sceptics often use 'NABU' as a disparaging acronym for 'wolf friends' in general.

30 Interview, LCO 1, 11.05.2020. Until then, local hunters were quite reluctant to participate in monitoring. There was a general mistrust towards the official wolf management (as too wolf-friendly and in league with conservationists), which was also fed by an earlier incident. A hunter had contacted a LCO because of a suspected wolf attack on a deer. According to his own information, the LCO took a genetic sample, but was also urged by the hunter to take the whole carcass. Although this is not actually the intended approach, he finally agreed, but left the carcass in the forest due to lack of

A meeting was held with the head of large carnivore monitoring, regional LCOs, and local hunters and farmers. When I reconstructed the meeting with one of the participants some time later, he said that people in the area were generally concerned about the presence of wolves. One owner of a riding centre (who is also a hunter) had feared that horse owners would stop renting his stables for fear of riding in wolf territory or turning a horse out to pasture where it might be at risk. This seemed to put his whole financial future on the line. A cattle farmer feared that his animals might escape if they were attacked by wolves. His cattle could be killed or injured by wolves or cause a road accident with cars or motorcycles if driven off their pasture by fear of approaching wolves. He had noticed a sharp increase in such incidents since the wolves had been in the area (whether they were actually caused by wolves or not, he could not say for sure). Sometimes the mere presence of wolves seemed to change the behaviour of his animals, he reflected. When they came back to the barn to feed, he would sometimes see them pacing restlessly, eating a bit and then going back again—as if wolves were somewhere nearby. And the part-time sheep farmer (who had already experienced an attack on his flock once before and is also a hunter) was generally sceptical and unhappy because, in his eyes, the wolves were making animal husbandry impossible.³¹

By the time of this meeting in December, the district hunting master's appeal for cooperation seemed to have been successful. Several photos, videos, and scat samples were suddenly submitted, including a photo of a female wolf with five pups taken in August. After several months of processing and verifying the new evidence, the ministry officially recognised the first pack in Rhineland-Palatinate in February 2020. In addition, the parents of the pack (GW914f and GW1159m) were retrospectively recognised as a resident pair for the previous monitoring year 2018–19.

cooling facilities and called the Forest Ecology and Forestry Research Institute (FAFW) to pick it up the next morning. By then, however, another hunter had found the carcass, and since then the story has been doing the rounds that the LCO deliberately wanted to conceal evidence of the presence of wolves. Subsequently, the LCO was repeatedly confronted with this story at public events and the hunters have distrusted it ever since (as well as the entire wolf management). Interview, LCO 2, 08.11.2019.

31 Interview, livestock farmers and hunters, 03.02.2020.

Figure 14: Wolves of the Feldkirchener Wald/Neuwied Pack.



Source: Research Institute of Forest Ecology and Forestry (FAWF)/private source

In other words, the wolves had been living in the area for at least two years without anyone noticing. Not quite, because local residents had known about them for some time. The district hunting master reflected on the last few months before the Neuwied Pack was officially recognised:

[HUNTER:] And then suddenly two (wolves) were seen, and in Mainz they [the ministry] still claimed that there was only one wolf, at the Stegskopf [...]. That's when the hunters got really upset. Not just the hunters, but the whole community here. Even though I talked to people who have nothing to do with hunting. [...] That the state government denied that there were wolves here or only admitted the one in the Westerwald [...].

[INTERVIEWER:] How did people know about the wolves? I suppose they hadn't seen any wolves themselves?

[HUNTER:] At the time it was in the press [...], even when my photo was taken [...], they still claimed [...], even two months ago [...], they still claimed there were only one or two wolves [...]. The people on the ground are saying, the state government, the Greens, the minister, they don't want to admit that we have wolves here [...]. Although we all know it by now, by

word of mouth. There are walkers in Rheinbrohl and in Bad Hönningen, they go for walks. There are wives of local councillors who have encountered a wolf in broad daylight [...].

[INTERVIEWER:] Yes?

[HUNTER:] Yes, yes, of course. They were too scared to go into the forest anymore. The mayor of Bad Hönningen told me that there are councillors' wives who don't go for walks in the forest anymore. [...] They are all afraid.³²

In the same area, a local professional hunter (and several other hunters) had also noticed the presence of wolves for at least two years. Not only did he see wolves every few months when he was hunting from a raised hunting blind, but he also found carcasses of game animals that had probably been killed by wolves. He noticed that red deer calves were becoming rarer; that red deer were less active during the day; that red deer were moving right up to the outskirts of the village; that red deer herds had become larger, as had the wild boar sounders; that wild boar had become more aggressive towards hunting dogs, resulting in more dogs being injured during the big driven hunts; that the roe deer had become very cautious, almost invisible. By now he had learned to read the signs of when wolves were moving through (and when they were leaving) his hunting district by observing the changing behaviour of his game.³³

Then the COVID epidemic started and suddenly wolves became less of an issue for most people. For example, a local mayor (of Hammerstein) in the wolf territory told me: "No, I haven't noticed that people here are worried about the presence of wolves. And frankly, we have other things [the epidemic] to worry about now." But he had heard about one wolf encounter from the wife of the local councillor in Rheinbrohl. His godmother, who knew an acquaintance of this woman, passed on a message about it through social media channels.³⁴

As public activities were severely restricted during the lockdown in the spring of 2020, many people went for walks in the local woods. Older people were out and about, alone or in pairs, with and without dogs, and there were riders on horses, mountain bikers, young families with prams. The woods

32 Interview, District Hunting Master Neuwied, 18.02.2020.

33 Interview, professional hunter, 27.04.2020.

34 Interview, Mayor of Hammerstein. 08.06.2020.

seemed to be full of people, especially on sunny weekends. The mayor of Hammerstein was happy to see so many people out walking all year round, and he could not see that the wolves had either reduced or increased the number of hikers. Everyone I met on my regular walks through the wolf area was aware that they were in a wolf area, but none had ever seen or otherwise noticed a wolf. Yes, some had seen photos or videos circulating on Facebook or WhatsApp groups. No, the dog walkers were not worried about their dogs. After all, they weren't moving far from them, I was told more than once.

One day a group of three elderly people sitting on a bench right in the heart of the wolf territory noticed me searching the ground on the path. After I told them I was looking for wolf scat, as a lot had been found in the area, we started talking about wolves. They told me that they were local people who regularly walked in this part of the forest. One of the men said it didn't bother him at all that there were wolves here; he went into the forest anyway. "But didn't you stop walking for a while when it came out?" the lady sitting next to him interjected. "Well, yes, but only for a short while", he replied apologetically, slightly embarrassed. He had simply not been sure whether wolves were dangerous at the time, so he had done his research first and only returned to the forest when he was sure that wolves were not dangerous.

When I returned from another field trip to Lusatia in June, my first impression was that things had become a little quieter in the Westerwald. I remembered that I had not yet introduced myself to the new conservation officer at the ministry and decided to give her a call. I told her about my research and mentioned the exciting developments in the Westerwald with the new pack. But her response was hesitant. We couldn't be sure that there was still a pack, she told me. There had been stories circulating recently about possible illegal wolf kills in the area. And no one had reported any signs of wolves in recent months. "What kind of stories?" I said. I hadn't heard anything like that. Everything had seemed fine before I went to Lusatia. I had regularly found wolf scat and no evidence that anything was wrong. I wanted to investigate.

A few phone calls to my various informants later, the situation became clearer. Someone had contacted NABU on the evening of 10 April 2020 because he had noticed a disturbance in a flock of sheep near Neuwied (close to where a wolf had been filmed by a hiker two weeks earlier). Shortly afterwards, two or three shots were fired. When I later asked the shepherd later what had happened, he told me that a hunter had indeed seen a wolf. But he could not say whether the shots were related to the sighting, he could not say. Since NABU was not responsible for further investigations, they first forwarded

the email to the Nature and Environment Foundation (SNU). As they were not responsible either, they forwarded the email to the Research Institute for Forest Ecology and Forestry (FAFW). From there, a local LCO was informed.³⁵ But nothing could be found out. There was no evidence and no clear indication that an illegal killing had taken place, he told me. Due to a sports injury, he had not been actively searching for wolf tracks, which explained why no evidence of wolf presence had been found recently. At the end of June, another informant sent me a photograph of what appeared to be a wolf pup from the core area of the wolf territory. As I was not sure whether this photo was private or had been passed on to the official monitoring agency, I was not allowed to pass it on. Yet I took it as a sign that the pack was still there and had even reproduced.

On the other side of the Rhine, in the Hunsrück region, a wolf killed a sheep on the night of 1 May 2020. The next day, a shepherd in nearby Boppard-Udenhausen decided to replace the fence for her seven sheep with a wolf-proof barrier. The sheep that was killed was less than 20 kilometres away, so her sheep were within range of this wolf. It did not bother her that there was a whole pack of wolves 50 kilometres away near Neuwied, because the Rhine was considered a border that the wolves were unlikely to cross. But now there was a wolf in her area. Moreover, her neighbour (who later joined our conversation) claimed to have recently heard a wolf howling in the nearby village of Hünenfeld. Then there was a video of a wolf recorded by a hunter near Halsenbach, less than ten kilometres away. And when we met in mid-June, the shepherdess told me that a dead deer, possibly killed by a wolf, had been found a few days earlier near the next village, Buchholz. I mentioned that a local forester had told me the day before that the first month of the roe deer season had been exceptionally difficult. Compared to previous years, far fewer roe deer had been shot and hardly any had been seen. This was highly unusual. When I mentioned this, the shepherdess's sister remarked that, strangely enough, she too had also seen very few roe deer over the past month or two on her daily walk around the village with her dog. Normally she saw them regularly.³⁶

35 This information comes from several emails from 16.04.2020 to 24.04.2020. The report of the alleged illegal killing of a wolf never went public (presumably because there was no evidence) but was subsequently discussed internally among the LCOs as events unfolded over the coming months.

36 Interview, shepherdess and sister, 18.06.2020.

So, while it was clear that a lot was happening at the time, it was uncertain what exactly was going on.³⁷ At the end of June, however, a new hotspot emerged in the Hunsrück, temporarily diverting attention from the Westwald pack. After a series of alleged wolf attacks near Emmelshausen, local livestock farmers had organised themselves in a WhatsApp group to exchange information about wolves in the region and to find out “how we can continue to keep our animals on pasture without living in constant fear of the wolf”.³⁸ They were planning a public lecture in the village of Niedert, with a shepherd known as a radical wolf opponent billed as the evening’s ‘wolf expert’, followed by a bonfire (and a barbecue). According to a member of the official wolf management agency, no wolf management representative wanted to go because it was considered ‘counterproductive’ to appear at a time of high emotion. Wolf advocates disagreed, as evidenced by an email I received shortly before the event:

Next Saturday X, you know him, is going to give a lecture [...] in Niedert (near Emmelshausen/Hunsrück). Mr X is rhetorically gifted, but he is a self-confessed wolf hater and he knows how to twist facts and present them in such a way that someone who is not familiar with the subject will fall for his abstruse representations. When facts are lacking, he is quick to make them up. When he speaks uninhibitedly in front of what is probably a rather uniform audience, his ideas are extremely dangerous for the cause of the wolves. I would have loved to go, but for family reasons I cannot. It would be nice if some of you (especially GzSdW members³⁹) could go there and bring some objectivity and above all FACTS to what is sure to be a heated discussion.⁴⁰

More than eighty farmers and a few hunters were present that evening (and no GzSdW members). It was not the mixed crowd one usually finds at such events. At the entrance I mentioned that I was also a hunter, and this was well noted: “Ah, then you are practically in the same boat as us. You are also affected by the wolf.” The mood that evening was subdued and uneasy, perhaps a little angry, but not defiant. The speaker lived up to his reputation and gave a rousing speech (see Chapter 6), but the reaction of the audience was more sober.

37 “Noch kein Beleg für die Rückkehr des Wolfs”, in: Rhein-Zeitung from 03.07.2020.

38 Press information of the organisers, n.d.

39 Society for the Protection of Wolves (GzSdW), one of the oldest and largest wolf protection organisations in Germany.

40 Email from a local GzSdW member, 30.06.2020.

“Couldn’t the Farmers’ Union do something?” was the first comment after a period of awkward silence when the speaker had ended his talk with a call to arms. And the planned bonfire and barbecue turned out to be just a barbecue.

Eventually, all the alleged wolf kills near Emmelshausen that had led to this meeting turned out not to be caused by wolves, and the situation calmed down (but, doubts remained: hadn’t the wolf expert explained that evening that the official DNA tests could not be trusted because there was a monopoly of a single laboratory that was in league with the wolf management?).⁴¹ Two months later, however, a wolf (later identified as GW1554m) attacked livestock in the Bitburg-Prüm district of the Eifel region (north of the Hunsrück and west of the Westerwald). One calf and three sheep were killed in four attacks within ten days. Again, a public meeting was organised, but this time by wolf management officials and with the participation of various experts, from shepherds to conservationists to politicians, “mainly to give the local people an opportunity to voice their fears, concerns, and needs”. Despite this, FDP member of state parliament Marco Weber and farmer president Michael Horper publicly called for the ‘removal’ (the killing) of ‘Billy’ (the new name for this wolf).⁴²

But back to the Westerwald: After the unofficial photo of a pup in the territory of the Neuwied pack, there was no further news. But since March there had been regular indications in the form of scat and photos of a wolf (or several?) in the Altenkirchen district of the Westerwald, not too far from the Neuwied pack’s territory. As it turned out, one of these photos, taken in June, even showed a female wolf with swollen teats (GW1415f), which the ministry took as evidence of reproduction. In other words, there was now a second pack in the Westerwald! There was also a photo of a wolf (the same one?) with two pups, so the pack was officially recognised in July.

Curiously, signs of the adult male wolf from the Neuwied Pack were found in the new pack’s territory from June onwards. He even killed two sheep there in mid-July.⁴³ What was he doing there? Could he be the father of the new pack’s pups? Had something happened to his mate from his pack? Had she perhaps been killed in the April incident after all? One LCO began to speculate, but the situation was unclear.

41 “DNA-Analyse zeigt: Kälber im Hunsrück wurden nicht vom Wolf gerissen”, in: Rhein-Zeitung of 15.07.2020.

42 “Naturschützer fordern: Kein Bumm für Wolf Billy”, in: Rhein-Zeitung of 12/09/2020.

43 “Wolf aus Kreis Neuwied hat Schafe gerissen”, in: Rhein-Zeitung of 10.08.2020.

A local resident expressed his displeasure with the wolf situation in a letter to the *Rhein-Zeitung*:

How many wolves can our region take? Once packs have formed and are roaming through our forests, who can be safe? Neither animals nor humans? Or do we have to wait until a pack of wolves, starved for days, attack a human being? [...] What benefit and what enrichment is there in this enormous potential danger for us and our native environment?⁴⁴

Even a local Westerwald member of parliament from the conservative CDU party (who had already been recommended to me by hunters and livestock farmers as someone with ‘reasonable views’ on wolves), called for a change in wolf policy. Presumably summarising all the incidents from the Westerwald, Eifel, and Hunsrück, Erwin Rüdchel issued a press release calling for action in the face of increasing problems with wolves in the region:

Hardly a day goes by without a report in the local press about wolves and wolf attacks on livestock in the Neuwied and Altenkirchen districts. The wolf population is growing by 30 per cent a year, the packs are getting bigger, and there are more and more wolves and packs also in our region. Therefore, it is time for rational politics instead of wolf romanticism.

He saw not only a problem for farm animals; it was ‘only a matter of time’ before people themselves feel threatened and wolves are seen near or even inside settlements. Rüdchel finally proposed a rigorous management regime, including the killing of problem wolves and even the establishment of wolf-free zones.⁴⁵

In the neighbouring Siebengebirge region of North Rhine-Westphalia (to the north of the Neuwied Pack’s territory and to the west of the Leuscheider Wald Pack’s territory), livestock owners applauded Rüdchel’s proposals at an ‘Open Pasture Day’ in September.⁴⁶ He and some politicians from the liberal FDP party had understood the threat posed by wolves. The invitation to the event mentioned the wolf as one of several problems facing livestock farmers today: the radical decline of both sheep and shepherds over the last twenty

44 “Enormes Gefährdungspotential” (letter to the editor), in: *Rhein-Zeitung* of 24.07.2020.

45 “Immer mehr Wölfe—und trotzdem ‘weiter so?’”, in: *Blick Aktuell* from 17.08.2020.

46 “Lammflüsterer zwischen Idylle und Existenzsorgen”, in: *Rhein-Zeitung* from 10.09.2020.

to thirty years, the near extinction of old regional sheep breeds, the costs of animal health and welfare, and the economic challenges (prices for animal products, fencing, etc.). But on the day itself, the wolf dominated many of the conversations. Local politicians and journalists were listening. A representative of the Society for the Protection of Wolves was present (which was welcomed by the shepherds, although it did not dispel their doubts about the wolf). But not a single person from the official wolf management agency “dared to show up”, said one livestock farmer, adding, “as was to be expected”. Farmers were becoming increasingly concerned about the two packs in the area and the disturbing images of the ‘Schermbeck incident’ further north. A video circulating on social media channels, filmed through the window of a house, showed two wolves chasing and attacking a deer in a field just beyond the garden fence.⁴⁷ This video was used as further evidence of the scale of the threat posed by wolves.

In Rhineland-Palatinate, a tenth Round Table was organised by the ministry in October.⁴⁸ Due to the incidents caused by wolf Billy, the Eifel was declared a new wolf prevention area. It was also agreed that the regulations for dealing with problem wolves would have to be revised.⁴⁹ The latest press release from the ministry (October 2020) reported that the first pack in the Westerwald, the Neuwied Pack, had disbanded for unknown reasons. Only the adult male wolf, GW1159m, appeared to remain, but he was now officially recognised as the lead wolf of the Leuscheider Wald Pack—now the only pack in Rhineland-Palatinate.⁵⁰

47 “Experten bestätigen Video: Wölfe haben Hirsch in Hünxe angegriffen”, in: *Dorstener Zeitung* from 15.04.2020.

48 I had actually asked to be allowed to participate in this event. However, I was told that no ‘outsiders’ were wanted, especially in view of the elections coming up next year. Not for the first time during my fieldwork, I had the impression that I encountered reservations about my research because I was someone who ‘made things public’. I learnt from one of my research participants that my name had recently come up at another management meeting where someone asked how much I could be told, as I was not part of wolf management.

49 “Griese: Wolf-Präventionsgebiet ‘Eifel-West’ kommt”, MUEEF press release, 06.10.2020, https://mueef.rlp.de/de/presse-meldungen/detail/news/News/detail/griese-wolf-praeventionsgebiet-eifel-west-kommt/?no_cache=1&cHash=88065029cd9fbc528772ef668e7c7c1 (accessed: 18.06.2022, no longer available).

50 “Umweltministerium informiert: Totes Tier an B8 bei Rettersen vermutlich Wolfswelpen”, 23.10.2020, <https://mueef.rlp.de/de/presse-meldungen/detail/news/News/detail/umweltministerium-informiert-totes-tier-an-b8-bei-rettersen-vermutlich-wolfswelpen>

Wolf agency in affective arrangements

Let's leave the story of the wolves' return to the Westerwald at this point and see what it tells us about wolfish affect and agency. So what did the wolves do to make the Westerwald a wolf territory? They wandered around the Westerwald and neighbouring regions; some of them decided to stay and 'settle down'; some of them got together and became a pair; two pairs (albeit perhaps with the same male wolf?) bred and became a pack/family; one of these packs probably ceased to exist, as something may have happened to the female wolf; they marked their territory with their scat; they killed wild animals, such as deer; they killed livestock, such as sheep, a calf and fallow deer.

How did people respond to these wolves and their actions? How were they affected? They carried out monitoring activities, looked for scat, took genetic samples and set up camera traps; they started political processes of wolf management, including round tables, conferences and public lectures; shepherds started to increase the protection of their animals, building new fences or improving old ones, integrating dogs into herds; Some people stopped going into the forest, some started going again; pictures and videos circulated on social media channels; someone may have killed a wolf; some people had encounters with wolves, most did not; (some) hunters actively participated in the monitoring regime and tried to increase their influence on wolf management.

Summarised in this way, the story of the return of wolves to the Westerwald is a typical one, as it contains all the elements of the return of wolves anywhere in Germany (or indeed in any other country). A wolf biologist who has followed developments over the last twenty years commented that there is a certain tragedy in the eternal stories of conflict that play out year after year in each new wolf region. In this sense, I believe that the story of the Westerwald wolves has significance beyond the regional specifics.

One of the most important lessons of this story is that very little happens without the wolves doing something first. This is the quintessence of wolfish agency. It was not enough for the wolves to return to Germany. The wolves had to enter the territory of Rhineland-Palatinate for the agency to become active. If a wolf has decided to settle, a regional wolf conference is organised to inform local people and listen to their concerns and fears. If a wolf kills livestock, public events are organised to counteract the negative public outcry and shepherds

pe/?no_cache=1&cHash=12d3d7305504e4d6969fd161d5ca5338 (accessed: 18.06.2022, no longer available).

suddenly feel compelled to build a fence. If a wolf attacks livestock too often, politicians are forced to react and call for the wolf's removal and stricter management. When several wolves suddenly appear during a big hunt, hunters feel compelled to take action. This list could go on and on. What would be left of the story if we wrote it without individual wolves and their actions?

Wolf activity and agency is everywhere. Sometimes it is just one wolf that touches us, moves us, shakes us. A migrating wolf also has a different kind of affective impact than a resident wolf (though not necessarily a less intense one, as the kills of Billy the Eifel wolf have shown us). But migratory wolves come and go; resident wolves are here to stay, and people expect to be affected by them all the time (though even that may not always be the case, as the Stegskopf wolf showed; she disappeared shortly after being officially recognised as resident). Packs, on the other hand, have a different kind of agency. They multiply, and with them the wolf's presence and agency in the region multiplies. Shepherds suddenly find themselves surrounded by packs of wolves. But the presence of a large river might be enough to prevent wolves, even whole packs, from affecting you. Wolves in another region will affect you differently than those on your doorstep. But sometimes wolves from several regions combine in their affective impact, so that a politician feels a condensed wolf presence around him, with wolf kills every day, and decides that enough is enough. Finally, the agency of wolves as a species manifests itself in the form of expectations about the capabilities attributed to them. A man stops walking in the forest when he hears for the first time that wolves live there. He is a little afraid because he does not know what to expect and whether he is in danger. After all, you hear stories ... hunters believe that it is 'only a matter of time before something happens'.

Another lesson from this story is the variation in the intensities of wolfish affect. A wolf on the move, captured in a blurry image from a camera trap (and subsequently not classified as C1,⁵¹ not officially recognised, and not published in the press), does not produce the same affect as a verified C1 image. An image, as a testimony of an encounter, perhaps shared through social media channels,

51 In scientific monitoring, wolf signs are classified according to the so-called SCALP criteria (Status and Conservation of the Alpine Lynx Population) into C1: clear evidence (e.g. dead wolf, genetic evidence, photo), C2: confirmed evidence (e.g. tracks or wolf kill), C3: unconfirmed evidence (e.g. visual observations without photo evidence), plus non-evaluatable evidence and false observations. See Reinhardt, Ilka et al.: Standards for the monitoring of the Central European wolf population in Germany and Poland (= BfN-Skript 398), Bonn: Bundesamt für Naturschutz 2015.

accompanied by a personal narrative of the experience, may have more impact. If the image captures a close encounter with a wolf, for example by hunters out on a hunt, the affective impact may be even greater (with questions of 'proper', 'natural' behaviour and shyness immediately raised). The intensity of sightings or encounters is again different from the intensity of wolf kills. While the killing of wild animals mainly concerns hunters, the killing of livestock seems to concern not only the owners but also the local community. Indeed, livestock kills seem to be the driving affective force behind concern about the return of wolves to the Westerwald. But the example of the Schermbeck incident shows that the killing of wild animals on one's own doorstep is likely to be experienced no less intensely.

The videotaped incident in Schermbeck, which so upset visitors to the North Rhine-Westphalian 'Open Day', also shows us what I have previously called the polycentric web of relationships. The livestock farmer I spoke to that day felt affected by the presence of the Westerwald wolves, but also by other wolves living further away, but in the same federal state. The shepherdess in the Hunsrück did not feel affected by the Westerwald wolves, but by those in her Hunsrück region. The minister, on the other hand, was affected by everything that happened in her federal state. As we can see from these examples, the affective arrangement traced in the story of the return of the wolves to the Westerwald develops from different centres and forms ever new smaller arrangements, which – depending on the actions of the wolves and their affective intensities in the region – can solidify or fade away. These affective centres come and go with the movements of individual wolves, and consolidate as wolves become established in a region.

Taken together, these findings suggest that the affective arrangements of human-wolf coexistence in an emerging wolf region are highly precarious, dynamic and thus open. Even the establishment of a wolf territory does not seem to guarantee the consolidation of these arrangements, as the Stegskopf wolf soon disappeared, the Neuwied Pack (presumably) disappeared, and the adult wolf of the Neuwied Pack changed territory and probably established a new pack elsewhere. As we can see, even two years after the return of wolves to the Westerwald, the region is still an emerging (or even declining?) wolf territory whose development is far from complete. What has stabilised are the efforts of the wolf management regime to produce a wolf management plan, to establish a monitoring regime (now with the support of the hunters?), to formalise the designation of new wolf prevention areas, and to plan the concentration of

the regime in a new wolf competence centre.⁵² Many shepherds have stabilised their responses to wolf presences by investing in new fences and, in at least one case, in livestock guardian dogs. Hunters—as far as I can tell—have not changed their hunting practices. Nor have the local people made any significant changes to their daily practices in response to the wolves' presence.

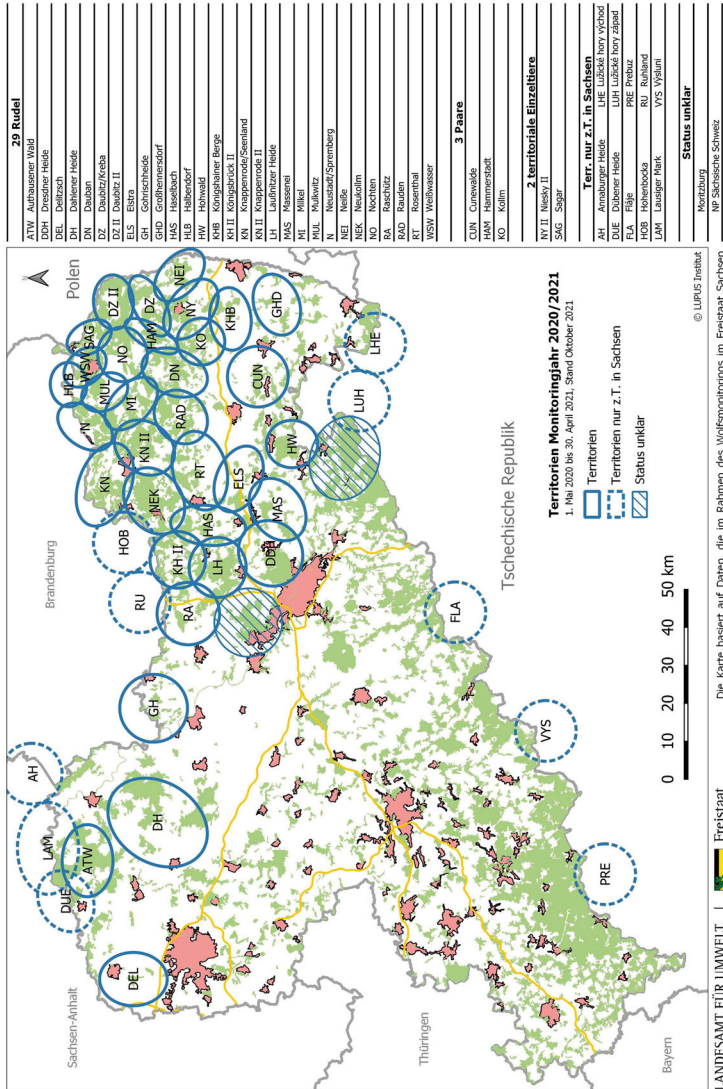
The dynamic instability of the affective arrangement here goes hand in hand with a sense of uncertainty related to a lack of knowledge about the past, present, and possible future of one's region as wolf territory. What the American nature writer Barry Lopez wrote in the introduction to his classic book *Of Wolves and Men* still holds true today: "The truth is we know little about the wolf. What we know a good deal more about is what we imagine the wolf to be".⁵³ Even with wolf research projects and wolf monitoring regimes, wolves in Germany remain largely phantoms, 'haunting' their territories and only occasionally touching human lifeworlds, becoming visible and thus allowing their affective power to be felt, causing ripples through the affective arrangement.

The question is: Does this precarious state of affective arrangement ever stabilise? Will the feeling of insecurity ever fade? Will we ever know more about the lives of wolves once they have established themselves as long-term neighbours? And does their affective presence eventually give their territory an affective tone, something we might call a wolf atmosphere?

52 The new *Koordinationszentrum Luchs und Wolf*, founded in 2021.

53 Lopez, Barry H.: *Of Wolves and Men*, New York: Simon & Schuster 1995, p. 3.

Figure 15: Wolf territories in Saxony in the monitoring year 2020–21, including the protagonists of Chapter 4, the Rosenthal pack (RT).



Source: LUPUS Institute for Wolf Monitoring and Research