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Encountering/thinking mosquitoes

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**ABSTRACT**

The essay maps and reflects on some dimensions of human–mosquito interaction in the context of the Arctic and inspired by fieldwork in Finnish Lapland. Rather than developing any particular argument, we seek to document this thinking mosquito as a collection of glimpses, fragments and musings. This impressionistic approach was inspired by conversations among the authors and with environmental humanities scholarship about the roles non-humans play in human worlds, and about how one might engage with mosquitoes in thinking about scientific fieldwork, about everyday life in various environments, and about the Arctic more generally. The essay does not provide answers but rather questions, hoping as it does to offer some insights into the complexity of issues that connect mosquito worlds to human worlds. As a mirror to these reflections, we dialogue with excerpts from our own creative written thoughts from the field and from the diaries of German soldiers based in Lapland during the Second World War.

I still clearly remember the great guessing game that began when we were given the tightly meshed mosquito nets. Although we were heading north, the boldest and most imaginative interpreters of the future maintained: this would be the surest sign that after some mysterious detour we were going to the tropics after all. They just could not imagine meeting so many mosquitoes in the far north that they could only be fought off with a mosquito net. It was not until weeks later, when we were wandering through the primeval forests, swamps and moors of Lapland and an army of millions of mosquitoes danced around our heads, that we began to understand and appreciate the anticipatory distribution of the green veils . . . [excerpt from a German soldier’s field diary, Majewski et al. 1943, 47]

This short essay comprises a mosaic of impressions and thoughts about mosquitoes in Lapland sketched in relation to fieldwork and human–environment relations in the European high North. As the quote from a German diary which began this article suggests, the pervasive presence of mosquitoes in Lapland’s stretches may come as a surprise for those unfamiliar with the region. For those who are familiar with mosquito-infested northern summers, however, the presence and agency of

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Moshitos is so prominent that they are often taken for granted without any deeper reflection. Thus, for instance, one avidly aims to avoid doing fieldwork in Lapland at the height of the mosquito season. And yet: mosquitoes still remain as constant companions to fieldworkers at nearly every point in the summertime. The co-authors of this essay have previously spent quite some time in Lapland on various research and data-gathering initiatives, always having cursed the blood-sucking ballerinas. But it was not until our 2020 field course in Kilpisjärvi that we first came to think and reflect on what kind of a fieldwork partner – and indeed a natural and cultural being – the mosquito actually is.

This afternoon, they are ballerinas. The sun casts a shadow across their lithe little bodies, these fellow comrades dancing about the hazel seams canvas of someone’s waxed canvas jacket. One. Two. Three. Four. Five. There must be more but I can count five large razor thin and giddy beings. They hover. Even after they have landed they somehow seem to be still flying. Now appears a sixth, now a seventh. No, wait. There. Is that another leg? Or is it a snout for extracting lifeblood? Surely the jacket offers little blood. Perhaps they are merely resting, chatting, planning, preparing, reassembling before launching their next attack. [excerpt from authors’ field notes, 2021]

The essay has a very modest aim: we simply wish to map and reflect on some dimensions of human–mosquito interaction. Rather than developing any specific argument, we seek to document this thinking mosquito as a collection of glimpses and fragments in lieu of creating a coherent, analytical narrative. This impressionistic approach was inspired by conversations with each other and by emerging debates in environmental humanities scholarship about the roles which certain non-humans play in human worlds. It evolved as we began to think more about everyday pestilential beings, about how one might engage with them in
thinking about *in situ* fieldwork, about everyday life in and out of non-built and built environments, and about the changing Arctic more generally. We will unfortunately here *not* be providing the reader with answers to these questions. At this stage, we offer only some reflections and more questions, both of which we hope offer some insights into the complexity of issues that connect mosquito worlds to human worlds. As a mirror to these reflections, we dialogue with excerpts from our own creative written musings from the field and from the diaries of German soldiers based in Lapland during the Second World War. The latter provide insights into how ‘outsiders’ unfamiliar with the high North perceived mosquitoes in the setting of their ‘military fieldwork’, a fitting connection given that Kilpisjärvi’s rich World War Two heritage was one inspiration for us doing fieldwork in this part of the world in the first place.

When we planned our research field trip to Kilpisjärvi in Summer 2020, we were not thinking much about mosquitoes, and we certainly did not have plans to ruminate on or write about them. Rather, they found us. Each of us was heading to Lapland for different reasons: interviewing reindeer herders, foraging among objects left in the land by German soldiers during World War Two, taking various audio recordings of nature spaces. Of course, we knew that we would certainly encounter mosquitoes during at some point during our trip – few people would plan a summertime trip to Lapland without any awareness of the impact of mosquitoes on their stay. And yet it is exactly because mosquitoes are such a pervasive presence during Northern summers that they become simply a taken-for-granted aspect of the environment. Indeed, this is one key reason that, prior to getting stuck in with them during fieldwork, it had not occurred to us to think about the mosquito, its agency, or its social life.

*We continue walking. All of a sudden there are many. Out of nowhere. They do not so much descend en masse as simply appear – somehow they’re always already there in the air, you just assume you can’t see them. Until, of course, you do. The experience of mosquitoes in summertime Lapland brings new gravity and scale to the term ‘multi-species’ and the immediacy of sharing the world with non-humans so active in engaging with humans. Whichever of the 30 mosquito species in Lapland, they exist in such multitudes that counting how many are around you is not an option. Until time stops, there’s that miniscule itch on your neck that starts growing in its irritation, and you soon enough realise you have been impaled and fed on.* [excerpt from authors’ field notes, 2021]

Considering that human lives are oft intertwined with the lives of mosquitoes and that mosquitoes make possible all kinds of things in the world, it makes sense that our fieldwork planning and the anticipated timing of our visit to the field would be affected by mosquitoes. We wanted to *avoid* them. Why would you want mosquitoes bugging you while you are trying to collect data? Yet as we came to realize that whether we like it or not, mosquitoes are ever partners in Lapland fieldwork, their role and impact begged the question of whether mosquitoes make us more readily aware of the world that we document and study, or if they deter us from that world and prevent us from ‘appreciating’ it.
Or is it again a dualistic and ambiguous setting where one and the other exist at the same time? Whichever it is, what are then the implications for understanding human–mosquito relations more broadly?

Such questions began taking shape one day in August as a group of us were walking to Malla to explore a particular German World War Two site and a different site caught our eye along the way. The site was situated in the forest on a patch of lowland. It was full of mosquitoes, none of whom were given the memo that we had scheduled our trip at the tail end of mosquito season for a reason. One of us was attempting (in vain) to record the sound of mosquitoes with his dual-channel acoustic recorder, then (slightly more successfully) filming with his phone the dancing, hopping, swatting, flailing of fieldworkers against them. And for a moment we did that one thing that fieldworkers at some point all need to do: step back a pace from your object of focus and consider the bigger world around you. And so we did just that, paused for a few minutes, long enough to get bitten and tire out our arms from swatting. And as we continued walking on, we began a conversation about mosquitoes, fieldwork and the field, which marked the beginning of the thinking and writing that prompted this essay.

With the heat came the mosquitoes. Millions, billions, trillions. Clouds of mosquitoes. They poured out of the swamps, they swarmed out of the crevices, the cracks in the stone, the dirty snow puddles. It was bacteria, microbes, that fled the cracked, sun-fevered earth. A buzzing, stinging, visible army of bacteria, microbes. It flew here, it flew there, it was everywhere. There were mosquitoes everywhere. On our hands, on our faces, in our breath. But on the greenish shimmering bellies of the horse carcasses they hung like grapes, black, fermenting, full of uncanny life. Bunches of mosquitoes on corpses in reindeer moss. [excerpt from a German soldier’s field diary, Giese 1942, 119]

Animals have been central to human life in the Arctic since prehistory. Where does the mosquito fit into these constellations? Human–animal relations in the Arctic have been much studied, for animals have always played an important role in northern
lifeways and cosmologies; reindeer, elk and bear are perhaps the best-known examples. The socio-cultural significance and agency of pests, microbes and other smaller beings, however, has only recently become of interest to scholars in various disciplines (Rose and van Dooren 2011), building both on the interest in connections between human and non-human species (Kirksey and Helmreich 2010) and in the growing concerns of addressing pressing public health issues (Bonnefoy, Kampen, and Sweeney 2008). But despite emerging work on humans/non-human relations and despite the mosquito being a presence in the lives of many people – and not just in the North – there has been little scholarship that speaks to the mosquito from a cultural perspective (two important exceptions are Valtonen, Salmela, and Rantala 2020, and Hall and Tamir 2021). What we found equally intriguing is that while the mosquito is talked about a lot in Finland today, it appears to have little presence in folklore and many historical sources. This is particularly surprising in the context of Lapland, given that Lapland appears to be more closely linked to the mosquito than many other regions where mosquitoes do their business. Ask anyone who has visited what their least favourite thing is about Lapland in the summertime, and it is almost a guarantee what they will say.

We figured that there would at least be something to be found in historical writings. Mosquitoes are after all no recent arrival. We searched the digitized collection of the Folk Poems of the Finnish People for references to hyttyinen, sääski and itikka, common Finnish-language nominations for the mosquito. Out of thousands and thousands of fragments of various lengths of texts that have been an important source for reconstructing traditional cosmologic concepts and the perceptions of the environment of the Finnic people, we found barely a few dozen (passing and trivial) references to them. Some other texts, such as popular books addressing ‘traditional’ human–animal relations in Finland and drawing from folklore (e.g. Lehikoinen 2009), do not carry a single mention of mosquitoes. There is ample mention of mosquitoes in more recent historical accounts, however: German soldiers in the 1940s quite clearly disdained these creatures. Perhaps even more than the enemy.

[N]ot only the Russians, but also nature ensures that we cannot feel too comfortable on the summer tundra. From the first sunny days we have been accompanied by swarms of mosquitoes that rise like clouds from the swamps and plunge on us. [excerpt from a German soldier’s field diary, Kräutler and Springenschmid 1962, 229]

There is much talk about the mosquito year after year in the Finnish media, particularly in connection with tourism. And yet in Lapland, there seems to be little critical thought. How can the mosquito be so prominent and yet so overlooked at the same time? What does this lacuna in more nuanced discussions say about human–mosquito relations? How is this ambiguous status of the mosquito related to the broader ambiguous perceptions of Lapland, historically and in the present? Here, we would raise the question of specifically what kind of being the mosquito should be considered to be. It is recognized by many as
a nuisance, yes. It is taken for granted, yes. It does not provoke (or has not yet provoked) deeper critical reflection, yes. What does this all imply then about the mosquito as a particular kind of creature?

When the man in front of me stops to swat several away from his neck, I pause for five seconds and quickly count 20. Standing up and now facing slightly towards the late afternoon sun, which casts a large shadow across his jacket, I see that they appear two or three times bigger than they actually are. Yet while in motion, the sense of scale with which I perceive them – and the great sense of personal, physical dread – comes not so much from their actual size, but from the fact that they are so numerous. For a landscape that averages one person for every two km² it amazes one to think about how in the summer months there are just gajillions of these things. [excerpt from authors’ field notes, 2021]
The reindeer is perhaps the animal most readily associated with Lapland in the popular imagination, conceived as a magical animal since tales of it were recounted to European audiences about a millennium ago. But the mosquito is an equally prominent and evocative symbol of Lapland, and may well be the region’s other keystone species, imagined or real. It is perhaps the single most prominent malady of northernmost Europe to provoke animated (literally and figuratively) reactions and responses among those who enter into closer encounters. In biological terms, the mosquito is an insect comprising 42 distinct recognized species, of which one typically finds 13 buzzing about Lapland. As temperatures in the Arctic warm, mosquitoes are emerging earlier, growing faster, and surviving longer (Culler, Ayres, and Virginia 2015). This makes it more and more a foundational element of high-latitude environments and of the experience of these environments in the summertime. Yet as different as the reindeer and the mosquito are, their lives are entangled with one another, just as they are entangled with human lives in the North – and in ways that go far beyond mere geo-spatial associations or co-habitation of the environment.

Mammals and mosquitoes, and the lifeways of which they are all part, are closely connected. These connections have implications for understanding the planetary co-habitation of humans and nonhumans. Mosquitoes contribute to the pollination of plants and are food for some other species. In Lapland, the mosquito guides – often in fact dictates – the mobility of reindeer in various manner between highlands and lowlands. In the summer, they drive the reindeer onto the open higher grounds of the fjells, or into their summer corrals in the tundra from the forest, just as the winter cold itself drives the reindeer back to their pastures in forested lowlands. Mosquitoes also drive reindeer up onto roads, where there is more open space and fewer insects – but also possible death. Indeed, there are ungulates in some areas of the Arctic that die of asphyxiation from just breathing in the air, where the mosquito swarms numbering in the millions are heavily laden with larvae (Culler, Ayres, and Virginia 2015).

Long winter months brought the worst cold with incessant darkness; between a short spring and autumn stood the summer months with an everlasting light, moody weather, days of damp swamps, brooding heat, a painful plague of mosquitoes. [excerpt from a German soldier’s field diary, Schuler 1959, 5]

In a relational understanding, the world is constantly transforming and coming into being. While some have argued that this is how the world works in general terms (Ingold 2011), this mobile and shifting nature is especially clearly realized within northern cultures. The real or imagined boundary between people, or between organism and environment, has been an important point of consideration in the human sciences for some time. Could not mosquitoes provide a key angle for considering the (in)existence of that boundary? Thinking about this would bring more clarity to ‘what’ mosquitoes are, or at least with respect to the human
experiential environment. What is their relationship then to (the perception of) the environment? Do mosquitoes constitute a barrier between people and the Lapland environment or are they rather an integral element of that environment. Through them does this environment become a part of humans. Through them do humans become part of the environment. And through them, humans are connected to one another in perhaps the most fundamental, biological sense: through the penetration, extraction and dissemination of their blood. How might thinking holistically about such a violent nuisance – admittedly one that is killed readily, without second thought, by humans every day – lead to a greater understanding of how animal materiality and imagination mediate human relationships to land, space and others?

In writing about the presence of non-humans in certain human spaces, Ingold and Vergunst (2008) have observed that they are ‘normally sequestered in concealed or confined spaces where they do not significantly impinge on everyday human lives’. This may well be the case in an urban industrial landscape or a shopping mall, but try telling this to the academic fieldworker in Lapland. In the field and during fieldwork, mosquitoes are very good at distracting you from what you ‘really’ want to be doing: trying to take a focused photograph of this or that thing, trying to talk about non-mosquito-related things with this or that person. Fieldwork is said to be about dispassionate observation and recording, but add mosquitoes to the mix and you might feel otherwise. So, how do mosquitoes affect our fieldwork? How do mosquitoes compel you to really ‘be’ in Lapland to do fieldwork? Or how do they prevent us from doing what we want to do? Should we somehow embrace their presence? Might doing so help us see something that would otherwise go unnoticed – because, potentially, one has to focus that much more in their company – or do they merely blur the view of the world that we want to study? What do mosquitoes enable ‘seeing’, what do they compromise for us? How does one discuss topics of climate change, geopolitics, consumption practices and so on while thinking about mosquitoes? And how does one do the same in a field space filled with them? Science is ostensibly an
abstract business, but studying people, movement, histories, objects, things and imaginations often requires actually ‘being there’, sharing the world with people you want to study. And yet, it cannot or should not be a question of ‘you people’ and ‘us people’ encountering and engaging. It necessarily involves – because the world itself involves – other elements – some of them critical and some of them determinant. If we take the mosquito to be such an element, how does it affect the (dynamics of this) interaction?

Although Valtonen, Salmela, and Rantala (2020) suggest that we would do well to ‘recognize tourists and mosquitoes as fellow travellers,’ one could be forgiven for thinking of mosquitoes as the common enemy. Much like the weather or the football, talk of mosquitoes can be an easy ice breaker, a quick and friendly conversation topic, even cross-culturally. Among Finns, they can even take on the role of war stories: friends or colleagues went through so and so awful time together, surrounded by a common enemy, thereby creating a bond between people and providing shared points of conversation for years to come. Perhaps these are not war stories in the sense of D-Day or Winter War nostalgia, but war stories all the same.

This leads to an interesting consideration: how human–mosquito relations, in the very short or the very long term, might be perceived as a type of warfare. In Sodankylä in the mid-1990s, they tried to launch (and succeeded, for a few years) the ‘World Championships in Mosquito Killing’, one of a litany of quirky summertime festivals held across Finland. This provoked no small amount of attention from animal rights activists, who claimed that the event represented an unacceptable celebration of animal death.

We cannot always wear the protective mosquito veil. When we scout through the green wilderness, sweating and panting, the close-meshed lattice of the veil obstructs our view. We try to keep the nuisances at bay with neck scarves, fronds made of birch sprigs, ointments or mosquito oil; we rub our hands and face with the stinking mosquito oil, a brown sauce made from wood tar. But the more comrades use this repellent, the faster the mosquitoes get used to this smell and continue to torment us with undiminished persistence. At night, when we wrap ourselves in a canvas, the rising and falling siren concert of these little beasts accompanies us until we sleep. Very often this tireless pack does not allow us to rest, they torment us with their stings incessantly. You wake up furious, lash out wildly, catch one of the thousands here and there, desperately pour mosquito oil over the swollen parts of the body and try—mostly in vain—to fall asleep again. [Excerpt from a German soldier’s field diary, Majewski et al. 1943, 48]

If this death is not something to celebrate, procuring the means to enact it is at least relatively painless, and quite readily available off the shelf. Hardware, grocery and camping stores sell plenty of tinctures and equipment to kill and repel mosquitoes. There is Thai lemongrass oil, pine tree resin, beeswax, citronella, isopropyl alcohol, pinion wood, B1 vitamin, DEET, the Thermacell MR150 Portable Scent-Free and Mess-Free Mosquito
Repeller, the Enforcer Bug Zapper, and now even a gas-powered vacuum contraption that you can set down in the middle of your field and wait for the buggers to magically disappear. It is an industrial-scale, eviscerating-these-fuckers-at-any-cost campaign out there.

We have been hiking for several hours now and it will be several hours still back to our cabin. The only thing one can really hope for now is a gust of wind or maybe some rain – although ‘some rain’ might admittedly not be enough to make them disappear. I see one land on the man’s ear and I want to tell him he is to be feasted upon. But what will I say? “Hey, um, so there is a mosquito on your ear?” Or perhaps, “MMOSSQUUIITTTTOOOOOOOO!!!” And what will he do? He will flail about for a moment and swat it away. But we are in Lapland. They are not going anywhere with a bit of swatting. [excerpt from authors’ field notes, 2021]
One forgets this in Lapland, but death can of course very easily go the other way. More people die of mosquito-borne disease in the world than from any other single cause. Mosquito bites result in over one million human deaths every year. Anopheles and culex mosquitoes carry malaria, dengue, Zika, West Nile, Chikungunya, Rift Valley fever, Japanese encephalitis. Lapland has these mosquitoes too, but malaria (and other) parasites cannot survive so far North.

Red-haired Corporal Huber died this morning of a swelling of his head. The poison of rotting corpses and animal carcasses is transmitted by myriads of mosquitoes. Swelling of the head, neck, arms and hands is not uncommon. The hands are sore from mosquito bites and are red and sensitive from scratching, as if the skin had been corroded by lye. [excerpt from a German soldier’s field diary, Hübner 1985, 71]

‘If you don’t think about them then they don’t bother you,’ someone told us in one of Kilpisjärvi’s tourist offices when we asked about how people deal with mosquitoes here. She had a point: the more you focus on them, the crazier they drive you. The mosquito may be a cloud and a veil, but focusing on ignoring the mosquito also pushes you to focus on non-mosquito matter at hand. So does the mosquito somehow make it possible to concentrate and be distracted at the same time. This is Lapland dualism incarnate.

How does a country market something that literally sucks the blood of visitors? Transylvania has pulled it off with Dracula, but where does this leave Lapland? Blood is the stuff of life, mosquitoes suck blood, the North is about the circulation of life-force, again associated with everything connected to everything else in high-latitude life-worlds (see, e.g. Ingold 2019). Again, the mosquito is rather more prominently associated with Lapland than other parts of the North. One even finds here mock traffic signs: ‘Beware the mosquito’. Is there some modern mythological dimension to all of this?

When I fling my arm in your direction, do you think about death? Do you think about death, mosquito? We do. We think about death all the time. It is in part what makes us human. We live, we live in fear of death. But you, you are but a parasite who feeds on, feeds off others. You feed each other with others’ blood, feed us with blood of our own. You are swatted you are smashed you are flattened you are destroyed. When you pierce my skin, do you think about pain? What do you think about death? What do you know about life? Tell us. [excerpt from authors’ field notes, 2021]

Historically, Lapland has been regarded as a land of riches and treasures, and simultaneously a gloomy, barren and miserable land. Satan. Magic. Death. Hell. In the European imagination across time, the North has been a direction, a place where things are somehow abnormal, otherworldly. It is a land of otherness, of uncanny. Besides Christian (and related) imaginaries, similar ideas are related to the North in, for instance, the Kalevala. In the Finnish national epic derived of traditional Finnish folk poetry, the North is a cold and gloomy world, ruled by a female witch. In traditional Sámi cosmology, the North was a direction of the supernatural, otherworldly, evil. Could we expect that the North would also be the domain of the
tormenting, terrorising mosquito? If it is, what does this say of other ideas that frame the North as the home of the Sun, Apollon and happy people?

And if one day, when it comes to mosquitoes, even the last soldier is affected by that equanimity that our Finnish comrades show towards these creatures, then the time of the green veil is over again. Because: the hot summer is short in Lapland, and the mosquitoes are children of the sun. [excerpt from a German soldier’s field diary, Majewski et al. 1943, 48-49]

*We. Just. Live. With. Non-humans. We can’t get rid of mosquitoes, we cannot control them. Should we not just accept this? The mosquito is as good reminder as any that our lives unfold in relation to so much and so many things that exist beyond the human, whether we want it or not. They are ethereal, they are in the ether. Today, on my skin, they are very real.*

Mosquitoes crowd on every patch of free skin. One is constantly busy repelling them. Some of us are so confused by it that our ranting never ends and breaks out into new climaxes again and again. You ought to be grateful to the mosquitoes that they offer themselves as an opportunity for the harmless discharge of a completely different oppression. The kills of a battery boom in front of us. Seven o’clock in the morning. We have received green mosquito veils that protect our face and neck when we wear a hat or a steel helmet. A thunderstorm rumbles. [excerpt from a German soldier’s field diary, Hübner 1985, 67]
A face net and GORE-TEX provide a temporary respite from swarms (Photo: Mathilde van den Berg).

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No potential conflict of interest was reported by the authors.

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