Working for the Forest: The Ambivalent Intimacies of Human–Elephant Collaboration in South Indian Wildlife Conservation

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ABSTRACT *This paper explores the collaboration of humans and elephants in South Indian wildlife conservation. Drawing on ethnography within the Indian forest department and among elephant handlers in Wayanad, Kerala, it highlights the largely invisible work relationship between indigenous forest labourers and captive elephants, and their essential contribution to wildlife management. Extending ethnographic attention beyond an exclusively human realm, I show that human and elephant relations have been co-constituted while working together for the forest department. Their working partnership, situated in the historical nature-cultures of logging, teak extraction, and conservation, has created ambivalent intimacies between humans and elephants, containing both mutual violence and affect. By highlighting the importance of work relationships, history, and questions of power for multi-species studies, this article argues that human–animal relations are not only shaped by individual intimacies, but also by danger, risk, and aggression, situated within a region's larger political ecology.*

KEYWORDS *Interspecies collaboration, wildlife conservation, human–elephant relations, forest labour, multi-species ethnography*

Introduction

The 'age of human disturbance' (Tsing 2012a) is not only characterized by rapid biodiversity loss and environmental catastrophe, but is also a time of unexpected collaborations between humans and other-than-human species. As Anna Tsing writes, multi-species collaborations in the age of the Anthropocene emerge: '... as the detritus of environmental destruction,

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imperial conquest, profit making, racism, and authoritarian rule – as well as creative becoming' (2012a: 95). This article draws attention to more-than-human work collaborations and its ambivalent intimacies in a zone of wildlife conservation. I explore how the work alliance between the Indian forest department, subaltern forest labourers, and trained elephants enables the management of a contested conservation zone in South India where globally endangered megafauna might survive in times of rapid species extinction. At the Wayanad Wildlife Sanctuary (WWS) in Kerala, low-paid indigenous adivasi[1] workers and elephant handlers (*mahouts*) and captured elephants (*kumkhis*) work together for the future of India's 'national animals', the tiger and the elephant. Their collaboration is pivotal for mitigating the increasing human–animal conflicts at a densely populated forest frontier, and they provide the necessary infrastructure in an inaccessible conservation landscape, making possible the elite penetration of the forest by wildlife experts, biologists, veterinarians, and forest officials.

My paper has two aims. First, I want to highlight the importance of human and non-human work in producing an anthropogenic conservation landscape. Labour is not an exclusively human domain, central in metabolic relations between human and other-than-human natures (Foster 2000), but, as this article argues, it may include human and non-human entanglements. By focusing on human–elephant collaboration in wildlife management, the article shows that elephants are, like Donna Haraway's working dogs, both 'tools', as part of the forest department's infrastructure, and 'labourers', who get bypassed in the production of surplus value (2008: 55, 56). Human–elephant teams are part of the invisible work that goes into 'enhancing the global value of endangered biodiversity', as Sodikoff (2012: 9) has put it. To date, little anthropological attention has been paid to the labour that is necessary to maintain the world's conservation zones. Protected areas have mostly been conceptualized as the 'antithesis of production' (Sodikoff 2012: 445), which are to be preserved in their supposedly 'pristine' state in opposition to agricultural or industrial production landscapes. In South India's history of conservation, beneath a well-known history of dispossession of adivasis and forced human labour (Gadgil & Guha 1992; Bijoy 1999) lies a silent history of more-than-human environmental labour stretching back to colonial times. My ethnography makes visible the subaltern work of humans and captured elephants that goes into creating and managing a forest which urban tourists and wildlife lovers today consume as one of India's last 'jungles' and harbours of wilderness. I show that in Wayanad's political ecologies of forestry and conservation,

ambivalent human–elephant relations have emerged that contain violence, coercion, and human domination, but also affective interspecies connections of closeness, collaboration, and companionship.

The second aim of this paper is to draw ethnographic attention to the importance of work relations in what Donna Haraway calls 'naturalcultural contact zones' (2008: 244). Such zones are spaces of 'becoming with' (Haraway 2008: 3), in which the binary distinction between a human and a non-human world gets blurred. In natural-cultural contact zones, human and non-human subjectivity is shaped by interaction with other species in a shared biophysical environment, which in turn is affected by multi-species presences. As Agustin Fuentes puts it, humans and animals are 'simultaneously actors and participants in sharing and shaping mutual ecologies' (2010: 600). Conservation work in Wayanad entails not only the meeting of a variety of human actors, such as policymakers, forest officials, politicians, subaltern workers, wildlife activists, tourists, and their competing notions of conservation, nature and environmental governance, but a number of non-human agents are also part of the assemblage. This paper shows how more-than-human environmental work creates what recent approaches in geography have called a 'hybrid' (Whatmore 2002), 'multinatural' (Lorimer 2012), or 'more-than-human' (Philo & Wilbert 2000) landscape.

In the history of South Indian forestry and conservation, elephants have played an important role. Just like human dwellers of the landscape, elephants have been subjected to authoritarian rule, expropriation, and violence. Yet, elephants have also acted upon, and in relation to, human presence in the region and left their own biophysical imprints. As Piers Locke notes, humans and elephants are 'coevolving companion species sharing intertwined lives in overlapping spaces' (2013: 94). In Wayanad, elephants share 'lively biogeographies' (Lorimer 2010) with their human cohabitants. Their migratory routes, feeding behaviour, group dynamics, and social organization have shaped the region's ecological – as well as its economic, political, and discursive – social space. As Hathaway (2013) argues in his study of China's wild elephants, their cumulative actions have agency-like consequences on the physical and social landscape, regardless of elephants' intentionality. The megaherbivores and other forest species are part of what geographer Barua (2014) has called a 'political ecology of relations', in which elephants and humans meet, mutually change, and 'become' together through the tasks and actions they perform while working for conservation.

More-than-Human Ethnography

By engaging the shared laborious lifeworlds of humans and their working elephants, this article extends ethnographic analysis beyond an exclusively human realm. It is inspired by a growing corpus of research that shows us that 'human nature is an interspecies relationship' (Tsing 2012b: 141) and calls for a 'multispecies turn' (Kirksey & Helmreich 2010) in ethnography. Drawing largely on posthumanist theory (Deleuze & Guattari 1988; Haraway 2003) and science and technology studies (Latour 2005), recent efforts in what Eduard Kohn describes as a new 'anthropology of life' (Kohn 2007) have explored the multifarious human intersections with other species, such as marine microbes (Helmreich 2009), insects (Raffles 2010), endangered birds (Van Dooren 2014), Norwegian salmon (Lien & Law 2011), Kalahari meerkats (Candea 2010), Balinese macaques (Fuentes 2010), Amazonian dogs (Kohn 2007), Malaysian orangutans (Parrenas 2012), or the globalized worlds of Matsutake mushrooms (Choy *et al.* 2009). Especially in present times of anthropogenic environmental crisis, when numerous life forms are rapidly disappearing from the earth, I argue that multi-species ethnography offers new ways of imagining conviviality with other species. As Thom Van Dooren notes, it might spawn processes of 'relearning our place in a *shared world*' (Van Dooren 2014: 144), by committing ourselves to what Tsing understands as 'passionate immersion in the lives of nonhuman beings' (Tsing 2010: 203).

For introducing animals as 'subjects' (Knight 2005: 1), and coming closer to a non-human perspective in ethnography, multi-species ethnography needs to experiment with new methodologies. Some scholars have incorporated methods from behavioural ecology (Fuentes 2010), others have learned new ways of multisensory and non-verbal communication (Locke n.d.), through which feeling and touching become 'crucial forms of transspecific connection' (Parrenas 2012: 675), and some have collaborated with natural scientists in order to better understand non-human practices (Van Dooren 2014), or to bring 'parliamentary democracy to nature' (Latour 2004: 67), by giving a voice to non-human species (Kirksey 2013). Apart from methodology, extending notions of social theory, such as agency, personhood, resistance, or kinship, which are predicated exclusively on human qualities like self-consciousness, intentionality, or strategic planning, to non-human beings, implies the theoretical challenge of moving beyond a humanist ontology that has been foundational to the discipline of anthropology.

Multi-species ethnography aims to move beyond humanism and human exceptionalism, by exploring how humans and non-humans co-create their shared worlds and environments. This article, however, does not claim to represent an animal's point of view. My own efforts of engaging humans and elephants with equal ethnographic thoroughness during more than eight months of fieldwork, between 2008 and 2013, were structured by the bureaucratic mechanisms of the Indian Forest Department and the exclusionary legal regime around conservation in India. Forest officials frequently denied me access to the WWS and to direct contact with trained elephants at their elephant camp. They considered it too dangerous for me to interact with the large pachyderms closely; in previous years, they claimed, many accidents had happened involving captured elephants, making my presence at the camp a risky one. In fact, several mahouts had been injured by their elephants, and in February 2014, Surya, a captive elephant bull, killed his experienced handler.

My perspective on human–elephant interactions thus draws on my observations from the 'safe' distance of adivasi colonies and forest department offices. My understandings of their interspecies relationships is based, on the one hand, on the standard (human-centred) ethnographic tool-box of interpreting life stories, narratives, memories, and oral histories of adivasi workers, forest officials, biologists, and wildlife veterinarians, which I recorded while following my interlocutors on their daily duties, during formal interviews, or simply by 'hanging out' with them at their respective workplaces. My attempt at understanding animals' behaviours, practices, and personalities required me to learn from, and 'take seriously', the expertise and situated knowledge of my human informants. In this learning process, however, I did also get the opportunity to directly observe, and better become acquainted with one particular non-human animal, Sundari, a young and exceptionally friendly elephant calf. It is mainly through her that I learned about the multisensory ways of communicating with these intelligent and sensitive animals.

In the following sections of this paper, I first give an account of the historical and contemporary entanglements between forest labourers, working elephants, and the Indian Forest Department. I thereby outline how forest work creates particular interspecies relations – ambivalent intimacies between humans and elephants, which are simultaneously dangerous, violent, and confiding. Second, I elaborate on the routines of more-than-human work in conservation, to show how human–elephant teams are employed for enabling the survival of endangered species in an anthropogenic landscape. I will conclude by reflecting

on the importance of bringing labour relations, history, and questions of power into a multi-species ethnography of an anthropogenic forest landscape.

Ambivalent Intimacies: Workers, Elephants and the Indian Forest Department

'The forest people [*forest-mar*[2]] could not work without us', explained Kalan,[3] the adivasi handler and trainer of Sundari, an orphaned elephant calf, while he was pointing towards a group of forest officials entering the WWS in their jeep. Kalan, a man in his late 60s, has been working as a daily wage worker (*kooli panikkar*) for the Indian Forest Department since his youth. I first met Kalan in 2012, when he was sitting side by side with the infant elephant in front of his bamboo hut at the so-called 'elephant colony', an adivasi hamlet at the sanctuary's entrance. Kalan had almost no time to talk, as he was busy performing his daily routine of feeding, bathing, and training Sundari, whom he had 'adopted' into his family and, together with his wife, took care of around the clock.

'Working for the forest' (*kattu pani*), as Kalan and his fellow labourers refer to their occupation and their contribution to the sanctuary's management, is a more-than-human occupation. Kalan spoke of himself as *ana-mar*, 'elephant-person'. He has learned the skills and practice of an elephant mahout (called *paapan* in Malayalam), which entails the tasks of capturing, taming, and training 'wild' elephants, from his grandfather and father. During his lifetime, he has cared for six different captive elephants: three tuskers, two elephant cows, and even one so-called *makhna* – the name given to larger bulls, born without tusks, whose character makes them difficult to handle.

As an elephant handler at a former elephant camp, Kalan explained that he is working for a declining institution: 'The government [*sarkarmar*] does not care much about elephants nowadays', he observed. While the mahout lamented the government's ebbing interest in the sanctuary's trained elephants, and the forest workers' low and irregular wages[4] for their strenuous work, he nevertheless showed great affection for Sundari. Kalan tenderly referred to the young elephant as *ponne*, his 'girl'. Sundari received his full attention: Kalan constantly interrupted our conversation in order to softly talk to the animal, feed her pieces of sugar cane, and gently feel her abdomen, as she had been suffering from indigestion for the past few days. The animal, in turn, followed Kalan wherever he went. To my great pleasure, Sudari also took her time to examine the ethnographer, carefully, incessantly smelling and touching the visitor with her soft trunk.

Nurturing Sundari demanded that Kalan and his wife Sita adjust their daily routine according to the bodily and social needs of an infant elephant. Performing 'custodial labor' (Parrenas 2012: 673) for the animal meant replacing her elephant mother, who had abandoned the calf in the forest, with human caretakers. Providing the conditions for the intelligent animal to grow, learn, and flourish meant extending to her the close social bonds of Kalan's family. During the night, Kalan and his wife slept close to Sundari on the mud floor in front of their hut, where she was tied. As the elephant's surrogate parents, they took turns waking up to feed her at night. During the day, Kalan bathed her at regular times in the nearby river, and the couple accompanied her into the forest to collect fodder. Proudly, Kalan and Sita presented us with the commands that Sundari had already learned to obey: to sit on her hind legs, lie down, walk backwards, and place a flower garland (*mala*) around a person's neck. Even though only Kalan was officially responsible for the young elephant, both husband and wife were equally involved in securing Sundari's wellbeing and survival, and both entered into intimate, personalized working relationships with their trained elephants.

Most of the elephant handlers at the camp belong to the community of the Kattunaika, former forest dwellers who are alternatively known as Nayaka, Kurumba,[5] Jenu Kurumba, or Beta Kuruma in neighbouring regions and by different authors. In anthropology, their community has become well known through debates on animism and hunter-gatherers' ontologies (Bird-David 1990; Demmer 2013). Nurit Bird-David has ascribed to the Nayaka a perception of animals as 'persons' and 'co-dwellers' in a shared forest environment (Naveh & Bird-David 2014: 75), as part of their 'animistic' or 'relational epistemology' as hunters and gatherers (Bird-David 1999). From a more materialist, political-ecology perspective, I would argue that the lives of mahouts are entangled with their elephants primarily because these animals are their co-workers in forestry and conservation. Forest labour has shaped human–elephant connections at the sanctuary. As John Knight points out, continuous everyday interaction with an animal turns humans and (domestic) animals into intimate companions (Knight 2012: 343–344). In the case presented here, the intimate everyday interaction between mahout and elephant is a collaboration that was originally initiated to serve the colonial extraction economy, and that, even until now, has been enacted at the bottom of the Indian forest department's hierarchy.

Being a mahout was once a well-regarded occupation amongst Wayanad's adivasis. Indeed, the word *mahout*, which is derived from the Hindi word *mahāut*,[6] literally means 'a man of high rank'. Kalan vividly remembered that

until the late 1970s, his adivasi colony used to be one of the largest elephant camps in South India, where skilled and widely renowned mahouts took care of more than 80 trained elephants, called *kumkhis*, or *thappanas* in Malayalam. Kumkhis were employed for logging and timber work on the department's teak and silver oak plantations. 'Those were the good times [*nalla kalan*]', Kalan commented as he recalled his life at the elephant camp before the wildlife sanctuary had been formed, when hunting forest animals was still tolerated and work for the forest department was readily available for Kattunaika men.

Mahouts used to achieve respect and a high rank in the forest department's working system mainly through their handling skills and the tasks they accomplished during work with elephants. A division of labour dating back to British colonial times has produced a hierarchical structure among elephant workers. On top of the hierarchy is the first *paapan*, called *mothan*. Like Kalan, he is the elephant's principal mahout and trainer. He rides the elephant during timber operations and handles the kumkhi when chasing wild elephants. Another mahout, the second *paapan,* or *kavaadi*, supports him. The *kavaadi* usually walks behind the elephant, ties together the logs that the elephant pulls, takes the elephant grazing, prepares his food, and bathes the animal twice a day. This hierarchy and division of labour has been in place amongst the workers until the present day: now, the job of a mahout has lost its appeal amongst the young Kattunaika. Few of the young men at the camp are interested in doing elephant work. Yet even the young men enjoyed discussing which of the former mahouts worked as first *paapan* and who was 'only' *kavaadi*.

Captured elephants have long been deeply intertwined in the labour ties between adivasis and the Indian Forest Department. In pre-British times, South Indian rulers had already captured and tamed elephants for use in their armies and temples (Sukumar 2003: 347). The large-scale capture of wild elephants, however, was introduced to South India by the British, who in Wayanad used trapping pits as the exclusive technique for elephant capture. In order to catch elephants in these pits, the colonial administrators depended on the expertise and low-paid labour of the Kattunaika, who were familiar with the forest environment and its animals, and largely resistant to malaria. The forests of Wayanad, then a part of Malabar district, had the potential to provide the British Empire with abundant timber, which the colonial government needed for warfare, shipbuilding and railway construction (Grove 1995: 391). In Wayanad's interior forest areas 'tribals' and working elephants were not only the cheapest, but also the only source of labour available (Premachandran Nair 1987: 205). Together, forest-dwell-

ing adivasis and elephants transformed the unruly and malarial forest into a governable and profitable timber landscape: they logged valuable timber from the forest, and dragged the logs many kilometres to the nearby rivers that carried them downstream towards the Malabar coast. After clearing the forest of its native trees, Kattunaika planted and nurtured the tree seedlings of valuable timer species: the wide-stretching plantations (*coupes*) of teak, rosewood, and silver oak that cover large parts of the present-day sanctuary are the environmental legacy of their work and have widely replaced the local tree diversity.

Kattunaika took on the dangerous custodial labour of captive elephant management in the context of British colonial forestry. For both, mahouts and elephants, this work collaboration was a risky endeavour. Acts of physical violence and appropriation are inscribed in human–elephant collaborations in forest labour. Both historically and on the individual level of each encounter, human–elephant companionships are initiated through forcefully submitting the elephant to human control. In the nineteenth century, the colonial officer William Logan expressed his concern about the cruelty and 'tortures' that captive elephants had to endure when they were captured and 'brutally' used for timber extraction in South India's forests:

> ... elephants are captured [...] and broken in for timber dragging, which is done entirely by the teeth; [...] In wet and slippery weather, when going downhill, a log often gets such way on the elephant's jaw that it is either dislocated by the sudden jerk or a molar is pulled out. All the elephants which are forced to drag timber in this brutal and irrational manner have their jaws very much disfigured by abscesses and suffer cruelly from toothache, often being laid up for months at a time. (Logan 1887: 58, 59)

In my fieldwork encounter with Kalan and the other Kattunaika elders, they recalled the potential risks (*budhimuttu*) for both elephants and humans during the forest departments' capturing and training processes. Many of them remember the times when they were hired to catch elephants in pits. The Kattunaika had to dig pits on the forest pathways frequently used by elephant herds and to cover them with branches and leaves. Many large mammals did not survive the fall into the large pits; others broke their legs or tusks during the fall (see also Kurt 2014: 156). Occasionally, two or three animals fell into the same pit at once. Besides being risky for the animals, the capture procedure also entailed life-threatening moments for the mahouts. My interlocutors described how dangerous it was for them to tie ropes around the necks and hind legs of

the panic-fuelled elephants and pull them out of the pits with the help of two kumkhis. Many mahouts were injured during the procedure.

After the capture, the Kattunaika mahouts have to 'break' each elephant. Thereby, the elephants stay in wooden cages, so-called *kraals* (*aana panthi* in Malayalam), which are built out of thick bamboo canes. From the outside of the *kraal*, the mahout uses a long wooden stick and tickles the elephant so that the sensitive pachyderm slowly loses his sensitivity to human touch. The training of the elephant novices has to be done with great caution and care, as the mahouts consider a smooth training process the key to a lifelong special connection between mahout and animal. 'Initially', one of the handlers told me, 'you have to approach the elephant very gently and slowly', so that handler and elephant gradually become acquainted with each other. Handling the elephant was not possible without occasionally beating and disciplining it, the mahouts explained. Nevertheless, Wayanad's mahouts never used the *ankus*, or spiked hook, to control their elephants, as is practiced in other areas of South Asia (see Kurt 2005).

Inside the Kerala Forest Department, foresters, not mahouts, had many discussions about the importance of keeping elephants at the forest camp. Some strongly are opposed to keeping elephants in captivity. Since the early 2000s, animal rights activists in India have paid heightened attention to the lives of elephants. Their campaigns have primarily focused on the inappropriate keeping of elephants at Hindu temples, festivals, and zoos, where they are kept continuously chained, except for ceremonies where they walk during a procession.[7] Unlike South Indian temple elephants, the forest's department's kumkhis can usually freely roam the forest at night and even mate with a 'wild' partner. When let loose in the evening, the animals pull a long metal chain attached to their hind legs so that the mahouts can follow the chain's drag mark on the forest floor, collect their kumkhis in the morning, and take them for a bath in the river. Even though most foresters considered their mode of keeping elephants more appropriate to the behaviours and inclinations elephants display in their free-ranging state, some of the forest officials were in favour of abolishing this tradition. These foresters paralleled arguments of animal behavioural and cognitive scientists who question the ethics of submitting such intelligent and social animals to human control and exploitation (Wemmer & Christen 2008).

Although many people regard trained elephants as domesticated, a number of biologists suggest that they have never been domesticated, but in fact remain 'wild' in captivity (Kurt 2014). Domestication, in the sense of biologically alter-

ing or genetically modifying an animal species and changing its behaviour in order to better suit human purposes (Russell 2002), has not happened with elephants. While humans have tamed, trained, and kept elephants in captivity, they have never transformed them through selective breeding. Elephants' slow growth rate and long birth spacing have made it unprofitable for humans to breed them in captivity; the efforts and costs of raising an elephant calf by human nurturing far exceed the strains of catching adult animals that are ready to work in a couple of months.

Anthropologists have questioned the dichotomy of domestication and wildness (Cassidy & Mullin 2007; Ingold 1980), arguing that domestication is better understood as the mutual adjustment of humans and non-humans to a shared built environment (Leach 2003). As Haraway reminds us, human and animal beings are enmeshed in practices of 'becoming with' (Haraway 2008: 23). This notion of domestication, which places emphasis on mutuality and accommodation, can largely be extended to elephants. Despite having never been domesticated in a biological sense, tamed elephants are close human companions and cohabitants in shared spaces; they enter into very intimate bonds with humans. In fact, ethologists consider the interspecies connection between mahouts and their trained elephants as one of the strongest possible human–animal bonds (Hart & Sundar 2000). Ethnoelephantologist Locke vividly describes how Sitasma Kali, a female elephant at an elephant stable in Nepal, 'elephantized' him through their close affective and bodily relationship. He argues that humans and animals submit themselves to a relationship of mutual trust, dependence, and learning, which is a prerequisite for their successful labour collaboration (Locke n.d.).

Forest work creates a contact zone in which mahout and elephant enter into this 'co-constitutive relationship' (Haraway 2008: 42). When I asked Kalan about the secret of a human's close bond to an elephant, he responded that 'love' (*sneham*) was what mattered in their relationship:

> We should love [*snehikkanam*] them. Then they will return that love [*sneham*] to us. We should always keep close to the elephant. You should not keep a distance and should not fear the animal. Then it will love you. If you fear them, they will keep a distance from you.

This proximity of individual elephants to humans, however, is an ambivalent intimacy. What Kalan interpreted as an elephant's 'love' for a human is an acquired trait – acquired, most of the time, through 'breaking' the animal,

taming it, and entering into an often life-long relationship with the animal. Yet, despite their subordination and tameness, these elephants have retained their inherently 'wild' nature: they remain unpredictable, and the mahouts know that their non-human companions could kill them at any time. A high risk of injury and even death remains inherent to their intimate encounters.

From a mahout's perspective, in addition to feelings of love and fear, 'respect' (*marinade*) is an important dimension of the intimate relation to the non-human working partner. At no moment should the mahout lose his respect for the animal, explained Sabu, a young *kaavedi* (second mahout). Sometimes the elephants only permit the touch and proximity of their own mahout, allowing no other person to come close to them. Especially during the period of *musth*, when elephant bulls have heightened levels of testosterone and display very aggressive behaviour, the mahout has to handle them with great care. Musth typically occurs once a year in adult bulls and, on average, lasts for one to three months. During this time, the elephant's temporal glands, located behind the eyes, swell and secrete the musth fluid, which has a pungent smell. For elephants, who have a sensitive chemosensory system, this smell is an olfactory signal of the bull's dominance and his urge to procreate (Sukumar 2003: 114). The mahouts have learned to recognize the smell of musth even when it occurs amongst wild bulls in the forest, and at this time they avoid walking near the wild bulls during their forest patrols. Raju, a former mahout, compared musth to a state of inebriation: 'Elephant bulls are like a drunkard during that time. They don't even recognize their own mahout; they become irritated'.

Most accidents at the elephant camp have happened either when male animals were in the 'drunken' state of musth or when male humans were intoxicated after the consumption of alcohol. Even though elephants are known to be great lovers of alcohol (Shah 2010; Barua 2014), the mahouts explained that their kumkhis hate the smell of alcohol, mainly because they can sense and remember how a handler's behaviour changes after its consumption. If a mahout has mistreated his kumkhi while being intoxicated, the elephant will reciprocate the maltreatment with aggression against his handler the next time he smells alcohol. While some mahouts frowned upon the frequent consumption of alcohol amongst the forest workers, and the unnecessary exposure to risk therein, they had great respect for their fellow mahouts who were able to handle and interact with an elephant bull during musth.

Presently, three captured adult elephant bulls remain in custody of the forest department at the WWS, besides the female calf Sundari: the capricious Surja,

the large-tusked Kunju, and the old and 'retired' Dinesh. The tradition of mahoutship is waning in Kerala and other parts of India (Lair 1997; Hart & Sundar 2000; Radhakrishnan *et al.* 2011), and some scholars predict the approaching disappearance of this skill and practice altogether (Varma *et al.* 2010) due to changing paradigms in forest management. In Wayanad, the sanctuary's management shifted, belatedly, from extraction to conservation in the early 1980s. Even though the WWS had already been declared in 1973, the Indian Wild Life (Protection) Act was strictly implemented only in the early 1980s, more than a decade later. Since then, commercial timber extraction and elephant capture[8] was no longer permitted in the sanctuary. Consequently, the forest department gradually sold most of their 80–90 working elephants by auction to temples, zoos, and private owners, and the majority of mahouts lost their jobs, as they were rarely able to follow their elephants to become their keepers in their new mode of captivity. Nevertheless, despite being few in number, the forest department re-deployed trained elephants to take over pivotal conservation tasks. Today, the remaining mahout–elephant teams play an important role in the management of the wildlife sanctuary, especially for mediating the increasing human–wildlife conflicts.

More-than-Human Work: Managing an Anthropogenic Wildlife Zone

For India's wildlife lovers, the WWS is a landscape of hope in an anthropogenic age of biodiversity loss and environmental crises. The sanctuary and its adjacent forests provide a last harbour for highly endangered species that have gained 'totemic status' (Guha 1997: 16) amongst wildlife lovers and that are given special protection as 'Schedule I Species' of the Indian Wildlife Protection Act (1972): the tiger (*Panthera tigris*), India's 'national animal', and the elephant (*Elephas maximus*), listed as a 'national heritage animal' by the government since 2010. The WWS, adjoining the Tiger Reserves and National Parks (NPs) of Mudumalai, Bandipur, and Nagarhole, is part of the Nilgiri Biosphere Reserve (NBR), which was established in 1986 as India's first biosphere reserve under UNESCO's Man and the Biosphere programme (MAB). The largest contiguous part of the NBR's total area of 5520 km² is located in the states of Karnataka and Tamil Nadu, where ambitious regimes of wildlife protection have intensified over the years (Taghioff & Menon 2010). In Kerala, the reserve's area is comparatively small and dispatched: the WWS has only 344 km² and is located in a fragmented landscape of settler cultivation in which cash crop production (Münster 2012) and tourism (Münster & Münster 2012a) are the backbone of the economy.

Despite the sanctuary's long history of logging, deforestation, and violent conflicts between humans and wildlife, biologists nonetheless consider the sanctuary to be one of the most important tiger and elephant landscapes on the planet. Wayanad's tigers were recently photographed by trip-wire cameras set up with the World Wildlife Fund's financial support (Narasimen *et al.* 2013), and local forest officials were excited to learn that the sanctuary hosts more than 75 tigers out of India's remaining tiger population, which is estimated at 1706 individuals altogether.[9] Additionally, as part of the NBR's contiguous protected areas, the sanctuary supports the world's largest remaining free-ranging population of Asian elephants, estimated at around 8000–9000 of 26,000–28,000 of India's remaining elephants (Rangarajan *et al.* 2010). Especially during the dry months between the monsoon rains, Wayanad's considerably damper forests are important refuges for elephant herds migrating from the lowlands of Karnataka and Tamil Nadu's NPs in search of water and food. Managing these endangered and potentially dangerous animals at a conservation borderland, in close proximity to human settlements, is a challenging task for the responsible forest officials.

The everyday work for the survival of these large mammals, however, is borne not by forest officials, but largely by subaltern human labourers and trained elephants. Mahout–kumkhi teams provide the infrastructure for the elite forest staff to access the sanctuary. During monsoon season especially, elephants are the best means of transport to carry foresters, biologists, and the wildlife veterinarian through the muddy landscape to remote forest areas where a jeep is unable to go. 'Without the work of kumkhis and forest watchers, we could not do our job', Gauresh, a retired wildlife warden freely admitted to me. To be an official in the forest department, the wildlife warden explained, means to work mainly as 'state bureaucrat', rather than as 'fieldworker' or 'conservationist'. Kerala's forest officials are overburdened with the department's administrative work and thus have few opportunities, and little inclination, to leave their offices and roam the forest. As they are regularly transferred to different forest divisions in the state, the wildlife sanctuary's administrators are usually unacquainted with the local environment.

The higher forest officers thus depend on the conservation labourers – the Kattunaika trackers, mahouts, and their elephants – to guide them safely through the wildlife sanctuary. The forest department employs approximately 50 Adivasi labourers (out of a total of 163 forest department employees) to perform all strenuous 'ground-level' works of conservation. Adivasis work as anti-poaching watchers, count elephant herds and tigers, and report cases of

'criminal offenses' against the Indian forest laws. During the hot summer months (March to June), additionally, 20 Kattunaika men work as firefighters, clearing fire lines and extinguishing the frequent forest fires. Sometimes, they are charged with the most dirty and dangerous tasks in the sanctuary.

Conserving large and rare species like the elephant and the tiger means that the survival of each individual animal counts, explained Dr Anshan, the wildlife veterinarian. It is important to keep the gene pool large enough for the animal population to remain healthy, he told me. Therefore, if a tiger suffers an injury after a fight, or an elephant has a tumour or a severe wound, the doctor treats the animal, operates on it if needed, and medicates it in the forest. The mahouts, who work closely with Dr Anshan on many jobs, help him to locate and approach the injured animal on their kumki elephants, and treat it, which is a risky operation. When a large endangered mammal dies in the forest, the mahouts are responsible for dissecting the carcass during the legally obligatory post-mortem. To take tissue samples from the elephant, which the doctor examines in his forensic laboratory, they have to cut open and enter the elephant's carcass. Kalan described this process with disgust: 'I can't even eat for a whole week afterwards because of the smell. I have to drink a lot of alcohol each time after such an operation in order to eat'. After the post-mortem, the remains of the animal corpse must be burnt, a further unenviable duty of the forest labourers.

The main responsibility for forest workers, mahouts and, their trained elephants, however, is literally multi-species work: managing frictions at the contact zone between wildlife and humans. The forest department is obliged, as the 'owner' and custodian of India's forest land, to mitigate the region's increasing human–animal conflicts that occur frequently at the sanctuary's inhabited fringes (Münster & Münster 2012b). The foresters need mahouts and kumkhis to scare away wild elephants that transgress the forest' contested boundaries, destroy crops, and cause violent conflicts with humans. In many regions of India, conflicts with wildlife, especially with elephants, have increased in recent years, mainly due to the ongoing loss of their habitat through agricultural expansion, deforestation, and large-scale developmental activities (Sukumar 1994; Rangarajan *et al.* 2010).

Elephants are unpredictable actors in wildlife conservation due to their intelligence (*budhi*), adaptability, and fast learning abilities. These characteristics pose enormous challenges for solving interspecies conflicts at the forest frontier. The forest department has built elephant trenches and electric fences for human protection; yet, they are not of much use in keeping the megaherbivores from

entering agricultural land. 'The elephants observe us humans and quickly learn from us how to overcome all barriers that we have set up towards them off', said Joshi, a young farmer who had just lost a large part of his paddy harvest after a nighttime raid by an elephant herd. The wildlife warden, explained, 'Each year the elephants jump over walls that are higher and trenches that are deeper'. Most crop raids happen at night, and farmers call the forest department's emergency number when their own elephant-scaring methods, such as shouting, beating drums, lighting firecrackers, and throwing burning torches at the animals, fail. To drive the crop-raiders from their banana and paddy fields or coconut plantations at night, the forest officials, in turn, send out the mahouts and their kumkhis.

The most troublesome animals are sexually mature 'wild' elephant bulls whose dominance rank is determined by body size (see also Sukumar 2003: 105, 371). They require a great deal of 'high-energy food' and thus exhibit high risk-taking behaviour in search of tasty calories. These adult bulls often display heightened aggression towards humans and other elephants, especially during their period of musth. When all methods fail in driving away these 'rogue raiders' from the fields, Raju, a young mahout, and his colleagues often have to travel long distances with the kumkhi bull Dinesh to start their nightly operation. Raju, who is the first mahout, sits on top of Dinesh and drives him close to the crop raiders in the field, accompanied by a team of adivasi forest watchers. Sometimes moments of intra-species conflicts occur, the mahouts explained, when the trained bulls start fights with their free-ranging counterparts with the intention of defending their human handlers. One particular incident illustrates the unity of the mahout–kumkhi assemblage during elephant-scaring operations. Once, Dinesh unexpectedly picked up the metal chain that he carried around his head and grabbed it with his trunk. Without even waiting for the mahout's command, he started to use the chain to beat the crop-raiding bull. Dinesh's display of dominance, the mahouts explained, clearly impressed the rogue bull and drove him back into the forest.

A particularly risky mission for workers, kumkhis, and their handlers is the translocation of so-called problem bulls, animals that have a long history of crop-raiding and violent behaviour towards humans, to more remote areas of the wildlife sanctuary. Capturing and relocating trouble-making elephants is an important management strategy in a legal regime that assigns elephants the uppermost protection status. Such an 'elephant hunt' is dangerous and demands the support of a large team of Kattunaika workers and mahout–kumkhi teams. In tracking, and approaching a wild elephant, they provide

backup for the veterinarian, who needs to come close to shoot the troublesome bull with a tranquilizer dart. Mahouts and trackers tie ropes around the sedated animal's legs; when the animal awakens, after injecting the antidote, two kumkhi elephants take the wild elephant between them and, pulling it with ropes on either side, guide it to a truck that carries it to a more remote area of the sanctuary or elsewhere in the state.

Multi-species collaboration in conservation does not only entail risk and danger for all beings involved, but also human discrimination and misrecognition. When talking about dangerous tasks like sedating and relocating 'problem bulls', many Kattunaika workers emphasized that their contribution to conservation remained unacknowledged. As Locke also notes in the case of Nepal, a class of privileged, salaried workers with minimal local environmental knowledge depend on a class of skilled but poorly paid workers who endure insecure working conditions as part of a risk-laden job (Locke 2011). For Kattunaika, the lack of respect for their work primarily manifests as a delay in wage payments and a lack of representation in workers' unions. Sometimes the workers had to wait for up to eight months to receive their daily salary from the forest department. They also complained that their skills and knowledge remained unrecognized in public statements by forest officials and in media representations. For example, in local newspaper reports about successful elephant relocations, resolved crop conflicts, or conservation successes such as the increasing number of tigers in the sanctuary, the contribution of mahout–kumkhi teams hardly ever gets mentioned and remains unseen. As a form of silent resistance to their subordinate position, the mahouts liked to gossip about the forest officials' ignorance regarding animal behaviour or the forest's flora. Behind their backs, the workers indulged in jokes about officers who counted the same elephant thrice during an animal census, or, who could not differentiate between an elephant's mock charge and a real charge, or officers who were unable to distinguish one tiger's fur pattern from that of another one.

The more-than-human work, mostly invisible and unacknowledged, that goes into conserving Wayanad's fragile wildlife zone, is performed in a precarious situation. Humans and elephants are entangled in their work, they manage and create the wildlife sanctuary together, and they are also entangled in their suffering. The mahouts at the elephant camp are left alone in dealing with the dangers of their job, which they strongly correlate with their overall employment insecurity. Kalan and others attributed the accidents that happened while dealing with elephants to the decrease of a permanent mahout workforce, the frequent job turnover fluctuation between mahouts, and the resulting lack of

lasting long-term relationships. The exploitative and increasingly insecure work conditions endanger the delicate human–elephant bonds on which their successful interspecies collaboration rests.

Conclusion

Tim Ingold reminds us that 'the production of life involves the unfolding of a field of relations that *crosscuts* the boundary between human and non-human' (Ingold 2005: 504). This exploration of human–elephant work teams in a naturalcultural conservation landscape points towards an unexpected collaboration in the Anthropocene. To enable the possible survival of charismatic species threatened by extinction and their cohabitation with adjacent farming communities, it is necessary for humans and trained elephants to work together. Their interspecies teams scare away crop-raiding animals, transport foresters, and veterinarians into the forest, and help in treating injured animals and translocating problematic ones. Mahout-and-kumkhi work teams are the most effective means for creating and managing this anthropogenic landscape where human–animal conflicts abound.

Workers and elephants 'become together' while working for conservation in the midst of complex and hierarchical power relations, where risk and vulnerability are unequally distributed. As Ingold notes, human and non-human lives 'are lived collectively within fields of power' (Ingold 2005: 503). Yet, it is while working together that humans and animals become close companions, which – from the perspective of my human interlocutors – involves notions such as knowledge, love, respect, and fear. My findings suggest that this working relationship has produced ambivalent intimacies between humans and elephants. The history of elephant capturing, logging, and colonial capitalism has taught us that the intimacy between mahout and kumkhi is the product of violence – breaking and taming the animal and submitting it to human control. As the loving relationship of Kalan with his elephant 'girl' Sundari demonstrates, very close human–elephant companionships have emerged even within the historical conditions of human and non-human exploitation. Mutual trust, affective relations, and codependence are essential for their successful interspecies labour collaboration.

In highlighting the importance of work relations in creating interspecies intimacies, this article counters approaches that seek to explain affect and relatedness between humans and wildlife, and notions of non-human personhood, with reference to animist spiritual ecologies (Sponsel 2012) or culturalist notions of hunter-gatherer ontology (Bird-David & Naveh 2008). As this

paper has shown, human–elephant entanglements in Wayanad are not primordial relationships of interspecies intimacies, nor is the art of training and handling elephants a 'tribal tradition', as authors have sometimes described it (Krishnamurthy & Wemmer 1995; Lair 1997). Instead, their working union has evolved within the 'situated nature-cultures' (Haraway 2008: 25) of colonial capitalism, the enclosure of forest commons, timber extraction, and technocratic environmental governance.

The more-than-human work collaboration presented here makes a case for analysing multi-species intersections in general, and human–animal relationships in particular, as situated in regional environmental history and political ecology, as well as in the ethnography of everyday encounters of working and living together. The kumkhi–mahout relationships that I have described provide a vivid illustration of human–animal relations that are both intimate and political. Their ambivalent intimacies are the outcome of the human and non-human capacity for affection, love, and care, but they are also the result of the structural forces of colonialism and capitalism in anthropogenic times.

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Notes

1. *Adivasi* is a Hindi word meaning 'original inhabitant'. I prefer using the expression 'adivasi', rather than 'tribal', as it points towards the movement of India's indigenous groups to attain political self-determination. However, Wayanad's heterogeneous indigenous communities usually refer to themselves as 'tribals', which in scholarly contexts evokes discriminatory connotations. In official contexts (census data, government institutions, etc.), India's indigenous groups are termed 'Scheduled Tribes', as declared in the country's constitution for purposes of positive discrimination (see http://ncst.nic.in). In this paper, I use the three terms interchangeably.
2. *Mar* is the Malayalam word for 'men'. The workers usually refer to Forest Department officials as '*forest mar*' (forest people).
3. All names are pseudonyms.
4. In 2012, mahouts received a daily wage of 334 INR. However, though they worked all days of a month, their wage was only calculated for 20 days. Non-permanent fire

watchers earned 290 INR a day, which is more risky, but better paid than agricultural labour, where the average wage for men is around 150–200 INR.

5. *Kurumba* is a generic expression that is used in the census reports, manuals, and working plans of the Indian Forest Department (Innes & Evans 1908) and covers all of Wayanad's heterogeneous tribal groups.
6. The Hindi word *mahāut* comes from the Sanskrit *mahā*tmya, meaning 'great in measure'. http://dsal.uchicago.edu/dictionaries/macdonell/ (Accessed 10 March 2013).
7. See, for example, the People for Animals India homepage: http://www.petaindia.com/ (Accessed 9 June 2014).
8. Until 1977, elephants were listed under Schedule II (Part I) of the Wildlife Protection Act, which meant that they were 'special game' and could be killed, captured, or traded commercially by the forest department and individuals with a license. In 1977, elephants were brought under Schedule I of the Act, which made their capture illegal.
9. Numbers according to Ministry of Environment and Forests (2011), Status of Tigers in India, National Tiger Conservation Authority, New Delhi.

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