'Tigers are Our Brothers': Understanding Human-Nature Relations in the Mishmi Hills, Northeast India

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Abstract

Human-nature relations are diverse, multifaceted and often contradictory, especially the relationships with animals. Mishmi people living on the Sino-India border claim tigers to be their brothers and take credit for tiger protection as they observe taboos against hunting tigers. Drawing on this notion of relatedness with tigers, local residents of the Dibang Valley question the governments' recent plans to declare the Dibang Wildlife Sanctuary into Dibang Tiger Reserve and its scientific surveys of tigers and habitat mapping. This paper highlights how Mishmi people relate to tigers and how their understanding of tigers is in contest with versions of state and science, as national property or endangered species. Using in-depth interviews and participant observations in the Dibang Valley, I provide an ethnographic analysis of how different ideas of nature are played out by different actors in Arunachal Pradesh, Northeast India. Tiger conservation projects bring these conflicting versions of nature together, creating unexpected encounters between Mishmi, state and scientists. This paper aims to contribute to the understanding of changing notions of nature in the age of globalisation and an increasingly interconnected world.

Keywords: Tigers, Mishmi, nature, hunting, science, state, biodiversity, conservation

INTRODUCTION

In the winter of 2012, two tiger cubs were rescued in Angrim Valley village, one of the last villages on the Indo-China border in Dibang Valley of Arunachal Pradesh, India. The mother of the cubs had died [1] and the cubs came to the village in search of food. The villagers informed the forest department, which resulted in a rescue operation, carried out by a Delhi-based Non-Governmental Organisation. Since the rescue, the Dibang Valley district has been witnessing a series of conservation interventions by state and non-state actors. This newfound interest in tigers in the valley has made the Dibang Valley a site for high profile visits by wildlife biologists and other members of the conservation community to map the tiger habitat and count tigers. The recommendations from these visits have led to a proposal suggesting a reconstitution of the existing Dibang Wildlife Sanctuary as the Dibang Tiger Reserve. Local residents have mixed responses to this new development and question the intervention by state and non-state actors.

Before the departure of the tiger rescue team, a Mishmi shaman (traditional healer and village priest) performed a ritual for the safety of the tiger cubs that were taken away. Mishmi consider tigers as their elder brothers and killing a tiger is seen as a grave crime, unless human lives or their property become threatened. A few months later, the union government's plans to release these cubs back into the 'wild[2]' was opposed by the Mishmi, fearing that the tigers may return to the village and start attacking cattle and people. The plan to reintroduce the tiger cubs into the forests did not materialise and the cubs were shifted to Itanagar zoo, 900 kms from the capture site. A group of Mishmi students objected to the idea of moving the tiger cubs out of the Dibang Valley, referring to the tigers as 'theirs'. There was growing suspicion among villagers about the events that followed the tiger cub rescue. Villagers were disappointed with the forest department for their apparent

indifference to the loss of their cattle and for not providing compensation when brought to the department's notice. While the tiger cubs ended up in the zoo, sealing their fate in eternal captivity, their habitat, hundreds of kilometres away in the Dibang Valley, is being rapidly converted to a Tiger Reserve, without any discussions with the local Mishmi.

This paper highlights how the Mishmi's relationship with nature contradicts with the state and science versions. When the state demands more land for wildlife protection, how do the Mishmi people react to such demands, and when NGOs meet villagers to discuss wildlife conservation, how do human and non-human interactions play out?

Among the many scholars[3] who have explored this topic, the insights provided by Brian Morris add valuable nuance to understanding how humans relate to their environment (Morris 1991, 2000). Morris highlights that social attitudes to, and relationships with, animals are never monolithic and all human societies have complex, diverse, multifaceted ideas about animals (Morris 1998). He highlights attitudes towards animals that are intuitive, psychological and imaginary, but he also shows how people's attitudes towards some animals may be pragmatic at the same time as framing the relationship in terms of close kin relationships (Morris 2000). Some animals may be conceived to be under the control of guardian or forest spirits, who are themselves interconnected with 'natural' phenomena. He calls this 'inter-related totality' in a cosmological sense (Morris 1991). He is also critical of studies that place indigenous communities and 'western' communities in opposition to each other. This depiction, says Morris, is misleading and highly simplistic (1998). He argues instead, that no human culture can be represented in a homogenous way: people's relationship to nature (specifically animals) in all societies, is complex, diverse and multifaceted, and even contradictory, embracing many different perspectives on the world (Morris 1998: 168–9). The relationship of humans with nature changed drastically in many areas of the world with the socio-economic changes marking the rise in mechanistic science and the capitalist economy, when nature came to be seen as a commodity (Morris 1991). The position of humans shifted from being participants to controllers of nature and its resources. A 'mechanistic' attitude towards nature, held alongside other attitudes of the era, influenced the perceptions of colonists and explorers who sought new frontiers. This increased during industrialization and continued into the present age, in the form of science and 'development' (Morris 1991: 12).

There are different kinds of nature and different kinds of narratives in nature conservation depending on who provides the definition. Conservationists, sociologists, corporations, philosophers, animal and human rights activists, have different approaches to what nature is and why nature should be conserved. According to Tsing et al. (2005), all conservation programs are necessarily projects in politics and governance. Key questions have always been what kinds of politics and what forms of governances should legitimately prevail (Pp: 31). Whatever the narratives, nature conservation is seldom without disagreements. In the present day, there is a conflict between groups who aim to protect natural resources and those who suffer from their protection. The former tend towards consideration of nature as a vast landscape of wilderness, filled with endangered species and charismatic animals. Such understandings, promoted by the urban middle class in India, often fuel what has been called 'bourgeois environmentalism' (Baviskar 2011). For this group, causes of disaster are attributed to the poor, but for many nature is a source of livelihood. It may also be viewed culturally through the notions of the sacred (Gadgil and Vartak 1985; Knight 2004). Some imagine nature as a commodity to be traded, as a religion to be believed and as a 'dying' entity that needs to be saved (Luke 1997). Through the lens of space and place, West (2006) explains that local communities know their environment through hunting, working, living, singing and telling stories, whereas conservationists know space through investigation, questioning and production of written texts, which reveals a serious mismatch in the way nature is perceived and utilised.

Contestations have become more acute as new actors and new claims on nature are made by corporates, in addition to state and scientific communities (Brockington and Duffy 2011; West et al. 2006). New participants in the domain of conservation belong to the neoliberal lobby who claim to fix environmental problems through market mechanisms. This lobby sees nature as a commodity to be traded, putting a price tag on biodiversity for capital creation, and is constructed as a 'global currency' and the corporate mantra continues to be promoted: we need to 'sell nature to save it' (McAfee 1999b). To view the multifaceted kinds of nature simplistically as a binary debate between conservationists and local communities is problematic. This complex and symbolic dimension of how 'nature' comes to be imagined, appropriated and contested is what I intend to elucidate here.

Nature conservation involving local communities has been criticized for being top-down and non-inclusive. However, the significance of scale and place is now increasingly acknowledged in conservation (Stewart et al. 2013). A growing literature highlights the importance of multi-scaled understanding of socio-ecological approach and polycentric governance of natural resources (Wessells 2010, Young et al. 2007). The narrative of the Mishmi in the Dibang Valley reflects a place-based conservation emphasising the role of local communities and bottom-up local decision-making processes. The Mishmi claim that their culture protects tigers and it is only because of their culture that tigers still exist in the Dibang Valley. The assertion of their rights over the tigers and the mountains and their open challenge to the biologists and the forest department is a reflection of something Stewart et al. (2013) describe as a shift to a 'multi-scaled approach to understanding complex socio-ecological dynamics'.

The borderlands of the Dibang Valley witness the intertwining of humans and animals and of encounters between humans and non-humans. Places like Dibang Valley merge the social and natural worlds to create more contact zones (Pratt 1992), and interspecies encounters (Kirksey and

Helmreich 2010). In such meeting spaces, cultural meanings of nature are created and recreated resulting in multispecies ethnography. Earlier works looked at the impact of humans on nature and how natural process influence human societies where humans were only treated as agents in these process (Peet et al. 2011). Multispecies ethnography differs from earlier studies in the way it focuses on mutual dependencies of humans and non-humans (Faier and Rofel 2014). The interface between humans and non-humans allows hybrid ontologies to emerge, enables deeper exploration of how human life arises out of encounters and entanglement with other species, and reframes human identity through interspecies relationships (Faier and Rofel 2014; Tsing 2012).

In 2004, the extinction of tigers in the Sariska Tiger Reserve (Rajasthan, India) shocked the nation and the conservation community. It came as a wake-up call to the Government of India. In response, the National Tiger Conservation Authority[4] and Wildlife Crime Control Bureau were set up (MoEF 2005), who initiated country-level tiger population estimation every four years. Young researchers and biologists from across India were recruited and trained by the prestigious Wildlife Institute of India to survey tiger habitats and to estimate the population of the tigers, assess their prey and habitats. According to the latest figure (2014), there are 2226 tigers in India and there has been a 30% increase from the previous census in 2010 and 2006 when the count was at 1706 and 1411 respectively (Jhala et al. 2015). In the Dibang Valley there has been no census of wildlife undertaken yet, but surveys on tigers have begun, including preliminary camera traps exercise, scat collection, status of prey and its habitats (Gopi et al. 2014). The enthusiasm to rescue the two tiger cubs in the Dibang Valley and subsequent plans to reconstitute Dibang Wildlife Sanctuary as Dibang Tiger Reserve has to be seen in this light.

METHODS

This work was undertaken as part of my Ph. D fieldwork (2013-2014) in the Dibang Valley district of Arunachal Pradesh, India. My approach was anthropological and my key methods were in-depth interviews and participant observations. I stayed with an Idu Mishmi family in Kongo village, near Anini, headquarter of Dibang Valley district. Living with a family provided me with insights into their lifestyle and customary practices. Casual conversations beyond questionnaires during informal meetings were more valuable for understanding the Mishmi's perceptions of nature, which otherwise is not possible in the structural rigidity of questionnaires. I recorded discussions using an audio recorder, after asking for permissions. Attending funerals and healing rituals gave me time to interact with shamans (*igu*) and other villagers. I interviewed hunters, shopkeepers, local village leaders, students, teachers, women and priests. When researchers and NGOs visited the Dibang Valley, I joined them in their meetings with the villagers and in their surveys inside the Dibang Wildlife Sanctuary for camera-trap sessions and mapping exercises.

The Dibang Valley district is located between 95° 17' and 96° 38'E longitudes and 28° 38' and 29° 27'N latitudes. It has mixed vegetation ranging from bamboo forests and temperate broad-leaved forest to temperate conifer forests. These forests are home to rich faunal species such as Tiger *Panthera tigris tigris*, Clouded leopard *Neofelis nebulosa*, Common leopard *Panthera pardus*, Asiatic golden cat *Catopuma temminckii*, Snow leopard *Panthera uncia*, Marbled cat *Pardofelis marmorata*, Fishing cat *Prionailurus viverrinus*, Wild dog *Cuon alpinus*, Takin *Budorcas taxicolor*, Goral *Naemorhedus goral*, Himalayan Musk deer *Moschus chryogaster*, Indian muntjac *Muntiacus muntjak* (Gopi et al. 2014). 'Eastern Himalayas' is one among the 34 globally recognised 'Biodiversity Hotspots', and Arunachal falls within this Biodiversity Hotspot (CI 2015; Myers et al. 2000). This region is also recognised as an 'Ecoregion' known as the 'Indo-Malayan Eastern Himalayan Broadleaf and Conifer Forests' (WWF 2015). Arunachal, particularly places such as the Dibang Valley, is largely understudied.

My fieldwork was spread over a period of one year with visits to Itanagar, Roing and Anini. Hindi was the medium of communication. My capacity to learn the local language was limited to names of animals, birds, food items, greetings and kinship relations among the Mishmi. For this paper, I prefer to write 'Mishmi', instead of Idu Mishmi for the convenience of the readers.

ARGUMENT

Mishmi and the Dibang Valley

The Mishmi are one of 26 indigenous groups inhabiting Arunachal Pradesh. Three clans of Mishmi reside on the Indian side of the international border and one on the Chinese side (Table 1).

Largely dependent on land for swidden farming, Mishmi have a difficult life because of limited agriculture and a lack of productive land, which limits year-round farming. Most parts of this district are uninhabitable making the Dibang Valley district with the least human density in the country (1 person per sq.km), compared to India's population density of 421 persons per sq. km. Lately, the Government of India has

Table 1
Details of the four clans of Mishmi

Clans	Sites	Country	Other names	Population (approx)
Idu	Dibang valley and Lower Dibang Valley	India	Midu	50,000
Miju	Lohit and Anjaw	India	Kaman	
Digaru	Lohit and Anjaw	India	Taraon	
Deng	Zayu valley	South Tibet China	Deng, Dengba, Darang, Geman	1,300

been investing in 'development', which is rapidly shaping the region. The Government of India has plans to build a 2,000 km all-weather road along the border with China (Kumar 2014). Arunachal's first passenger railway service was started in 2014 (Singh 2014). A special Mountain Strike Corps was set up along the border by the Indian Army (Pandit 2014). The region is currently witnessing the construction of several hydroelectric projects (Dutta 2008). Ideas of development are even reflected through creation of national parks and biosphere reserves with the framework of green development. With more militarisation and development of these border regions, there will be changes, including resistance from the local people. There are concerns of unplanned development in this region geo-politically, ecologically and culturally sensitive region (Rahman 2014). While the Dibang Valley is one of the remotest parts of Arunachal Pradesh, I do not want to paint a picture of the Mishmi people as an 'untouched remote tribe', because they are not. The Mishmi are active politically active and on digital platforms, such as Facebook where news reports and articles of common interest to the Mishmi community are fiercely debated.

In 2013, the Government of Arunachal Pradesh issued a circular (Memo no. ASFD/DWLS/ESZ/167-196 dated February 19,2013) to the village councils of the Dibang Valley to initiate the constitution of an eco-sensitive zone[5] around the Dibang Wildlife Sanctuary, which means, an area surrounding the Sanctuary will be acquired for wildlife conservation. Other than this circular, no other formal communication took place between forest officials and local residents of the Dibang Valley, triggering concerns especially among those living close to the border of the sanctuary. Whilst there is no habitation inside the sanctuary, here the Mishmi have hunting and fishing grounds, and ancestral lands where they collect forest produce. While information at the local level was far from clear, online newspapers and NGO websites carried the news of the tiger cubs rescue, highlighting the importance of this region as a potential tiger reserve. Websites carried pictures and stories of the successful rescue of the cubs (Figure 1). All the while, the villagers continued to face economic loss from the wildlife attacks on their cattle with no relief or support from the forest department. As researchers and NGOs continued to arrive for research on tigers, villagers were perplexed by the sudden interest in the tigers in the region. The news of the tiger reserve had not reached the region yet, but the possibility of changing the nomenclature from 'Dibang Wildlife Sanctuary' to 'Dibang Tiger Reserve' was all over the internet and newspapers, marking this as an important site for conservation.

However, much needed discussions with people on the ground was yet to occur.

When the state needs more land for tiger conservation and when NGOs meet villagers to tell them about mapping tiger habitats, how do Mishmis react to these initiatives? How do interactions play out? Such encounters have the 'messy and surprising feature' of global interactions. The awkward, unequal, unstable and creative qualities of interconnection across difference produce 'friction' (Tsing 2005:4). The tense,

Figure 1
Online news of the tiger cubs rescue
(Source: The Indian Express 13th October 2013)

contradictory claims and counterclaims over tigers create spaces of 'discomfort' and in some contexts 'resistance to green development' (McAfee 1999a). This valley has seen people's movements against dams, but current discussions and debates turn on the issue of tigers.

'Tigers are our brothers'

Angeche[6], a 45-year-old Mishmi man was very vocal about the forest government's role in Dibang Valley. His question was straight:

> 'Why a tiger reserve here? We don't hunt tigers, they are our brothers! Tigers and humans were born to the same mother. We kill tigers only as a last option, when they become a human threat or when they are killed in traps accidentally. We are protecting them anyway.'

Anyone visiting the Mishmi hills and interested in wildlife and conservation cannot fail to encounter the mythological story of Mishmi and tigers as brothers. Such narratives of tigers as siblings are popular in other parts of Arunachal Pradesh (Aisher 2005; Aiyadurai 2007). According to the Mishmi mythology, Mishmi and tigers were born to the same mother and were siblings (tiger, the elder brother and human, the younger brother). The younger brother hunted a deer and left the deer with the elder brother to collect firewood. On his return, he was terrified to see his brother eating the meat raw. He told his mother, 'my younger brother is a tiger. If he can eat raw meat, then one day he will eat me too'. The mother came up with a plan: she would hold a competition between the two brothers. The one who crossed the river and was first to reach the bank would kill the other. The tiger decided to swim across the river, whereas the Mishmi took the bridge. The tiger was the first to reach the bank, but as the tiger emerged from the water, the mother threw an antnest on his body to prevent him from winning. The tiger dived back into the water and scratched his body against a rock. The Mishmi, meanwhile, reached and

climbed up the bank and shot the tiger with an arrow. Thus, the tiger died and its body floated in the river and was swept away to a faraway place. Several years later, a bird saw the bones of the tiger scattered on the riverside. The bones were white and shone bright in the sunlight. Thinking these were eggs, the bird sat upon them. From these bones came the tiger, and from the smaller bones came the leopard, the leopard cat, the clouded leopard and the civet cat. This is a story of a tiger being born again. This story is also why the Mishmi refrain from killing tigers. For Mishmi[7], the tiger (*Aamra*) is their elder brother *(Apiya)*. It is the most revered and feared animal, and killing tigers is prohibited. In fact, it is viewed as 'homicide'.

According to Morris (2004), treating animals as persons sets up a relational epistemology towards other animals and other 'natural' beings. In the case of the Mishmi, there is a kinship relation that Mishmis have with the tigers. Morris also argues that we need to distinguish carefully between social practices and cultural representations. If killed or trapped accidentally, a senior *igu* will be invited to carry out the required ritual *(Taamaamran)*, which involves a huge expenditure because the ritual is equivalent to a funerary ritual conducted for humans. During this elaborate ritual carried out over five days, strict taboos (*angein*) are observed not only by the person who killed the tiger but also by the entire village. Every *igu* owns a belt (*Amrala*) made of linearly arranged tiger canines, through which he receives power. This belt is a necessary ritual item for *igus* while performing a funeral or any other important rituals like *Amrase*[8] or *Reh*[9]. To prevent attacks by spirits, *kheenu,* the *igu* wear tiger tooth belts to awaken the spirit of the tiger.

In addition to Tigers, Hoolock gibbons (*Hylobates hoolock*, *Amepon* in the local language) are also considered sacred among the Mishmi. Like tigers, gibbons also enjoy the status of religious protection[10]. Due to a sibling relationship with them (Sarma et al. 2014), the Mishmi are careful not to harm these animals in any way. While killing animals like tigers and gibbons are conceived as equivalent to homicide, other animals like Takin *Budorcas taxicolor taxicolor*, musk deer *Moschus chryogaster*, Asiatic black bear *Ursus thibetanus*, Wild pig *Sus scrofa,* Serow *Naemorhedus sumatrensis*, Malayan giant squirrel *Ratufa bicolor*, Temminck's tragopan *Tragopan temminckii,* Kalij pheasant *Lophura leucomelanos,* and Blyth's tragopan *Tragopan blythii* are no less frequently hunted. The use of these animals is diverse and widespread: meat as food, skins as bags and mats. Animals skulls are used as sacred objects to be mounted on skull boards, *Amuneenddon*[11]. However, as Morris suggests across his works, relationships to animals are never monolithic. In the Mishmi case, attitudes to animals are complex, ranging from complete protection (e.g. tigers and hoolock gibbons) to restricted hunting (ungulates and bears). Morris' discussion of types of 'person' is useful here. Different kinds of animals are treated differently depending on the degrees of personhood. Some animals are completely protected as other human beings, while others are seen as non-human animals with moral agency and consciousness. On the same lines, Tsing (2013) argues for a 'more-than-human-sociality' through which she advises scholars to explore 'multispecies landscapes' and the dynamic relations between different species; webs of relations that extend well beyond 'individual enrollment for human tools' (2013).

There is a sense of moral responsibility attached to hunted animals, and taboos *(aangi)* observed during hunting and trapping makes hunting *(aambe)* a serious activity. Before setting out to hunt a ritual *(aamboo)* is carried out either by an *igu* or by the hunter himself to ask for safety and success in hunting. Hunters follow a 'moral code' of conduct during hunting trips. For instance, getting angry, abusing or cursing someone, making jokes, ridiculing someone, swearing is strictly avoided. There are unique code words which are only used during hunting, especially in the high mountains. For example, *Aala* (musk deer) will be called *Tambe aaroku-chi,* which means meat of the high mountains. These code names for animals also indicate the kind of habitat and forest types the animals are found which reflects hunter's knowledge of the landscape (Table 2).

It is important that hunters have knowledge of these code names. Uttering the wrong names, is believed to have a negative effect in the form of sudden illness, accidents or losing their way during hunting. When the hunt is successful, the hunter performs a ritual *(aanphun aangi)* in which the hunter makes a 'symbolic payment' in the form of meat and metal[12]. A small chunk from the ear of the dead animal is cut with a machete *(dao/ eyenchen)* and followed by a prayer. The 'symbolic payment' is made to Golon*,* the most feared and respected spirit (for hunters, a kind of master-spirit)[13], who is believed to live on the high mountains and is the guardian spirit and spirit carer of all wild animals. Golon supplies animals

Table 2
Code words for animals used during hunting

English names	Idu Mishmi names	Hunter's codes
Goral	*Aamee*	*azo chi* (the one on rocky slopes)
Takin	*Aakrun*	*ambeka chi* (*tambe*-meat, *kachi*-big). The one with big meat
Musk Deer	*Aalaa*	*tambe aaroku chi* (*tambe*-meat, *aaro*-high mountain, *ku*-place). Meat of the high mountains
Wild Boar	*Aamme*	*enabolon* (*enambo*-nose, *lo*-long). The one with a long nose
Barking Deer	*Maanjo*	*tambre-shu* (*shu*-small). The one with small meat
Serow	*Maaren*	*aazo-chi/ama-dro* (*ama*-tree name, *dro*-two horns)
Monkey	Aame	*aadichi* (*aadi*-above). The one who lives on the trees
Satyr Tragopan	*Peba*	*apipa-chi* (*apipa*-leaves). The one who lives near leaves
Sclater's Monal	*Pidi*	*aaron chi pra-a* (*aaron*-mountain). Bird of the mountains
Blood Pheasant	*Cheekhoo*	*brunshu* (*brun*-leg, *shu*-red). The one with red legs
Tiger	*Amra*	*ketrebo*-stripes. The one with stripes
Elephant	*Enonohoya imina gila/ chunlaa*	*Enonohoya*-both sides, *imina*-tail, *gila-chunlaa* (having). The one having a tail on both sides

to hunters. Therefore, when hunting is successful an offering is made to Golon.

Mishmi believe in the presence of several spirits (*kheenu*), in farms, houses, forests and mountains. These spirits help in providing farm products, wild animals, safety, health and wealth to the Mishmi. To achieve this, people follow a code of conduct and behaviour in order to receive blessings from these spirits and success in farming and hunting. If people fail to satisfy these spirits, harvests may fail and hunts can be unsuccessful. In some societies, forests are seen as ancestors who unconditionally provide food in a 'giving environment' (Bird-David 1990). Among the *Nayaka*, a foraging people living in Southern India, Bird-David (1990) describes that forests are viewed as parents, in relation to whom the Nayaka themselves are children of the forests. The spirits that inhabit hills, rivers and forests are referred to as the 'big father' and the 'big mother'. This 'giving environment' contrasts with the 'reciprocating environment' where provision of food is conditional upon proper conduct. Morris (2014), though, feels that it is misleading to interpret the forest only as a parent or 'giving environment' (pp. 227), reducing the complexity of human relations with the environment to a single metaphor. Among the Mishmi, there is a reciprocal relation with spirits during hunting, farming or slaughtering of domestic cattle, and the relationship between humans and the natural world is acknowledged through rules and regulations, often underpinned by feelings of fear and respect, and through exchanges permeated by feelings of gratitude and regret (Morris 2000: 21). Whilst hunting is viewed as a religious activity, it is also an important empirical and pragmatic activity for subsistence, trade and the protection of humans and their property (crops and cattle).

Tiger as a national animal

The 1970s in India was an important period in the conservation of tigers when the Government of India created a number of tiger reserves across the country, which still continues. The tiger was made the National Animal of India in 1973, the same year Project Tiger was implemented. The Dibang Tiger Reserve could be the latest to join the list. Starting from nine tiger reserves in 1973, the number of tiger reserves has gone up to 47 in 2014 (MoEF 2015). Once considered a 'devilish brute' and then a 'large hearted gentleman' during the colonial era (Rangarajan 2012), the rise in the status of tigers to the National Animal of India is remarkable. This makeover of the image of the tiger points to the transition in the relationship of humans to nature in India, especially with large carnivores.

In the early 1970s, European biologists affirmed that wild tigers were only in sufficient numbers in the forests of India and Bangladesh to save them (Greenough 2003). This made India focus on its tigers as a national project and to boost its national prestige, by formulating conservation laws, especially, the passing of the Wildlife (Protection) Act in 1972. The act was made possible by the Former Prime Minister, Indira Gandhi, who took personal interest in wildlife conservation

(Rangarajan 2009; Wright 2010). This project was also a window to exhibit India's scientific expertise and ecological responsibility to save tigers from extinction. She believed that nationalistic politics and environmental concerns strengthen each other and generated an attachment to terrain, and therefore an 'attachment to nation' (Greenough 2003: 222). India's fast degrading environment and its concerns overlapped with concerns for global institutions, which saw India as a suitable 'receptor site[14]' (Frank et al. 2000). These sites were 'symbolic markers' (Schwartz 2006:116) that reflected India's self-determination and commitment. Since then, there has been a global rise in protected areas and proliferation of treaties that led to India's commitment to the global wildlife conservation. In 1969, the International Union for Conservation of Nature and Natural Resources (IUCN) conference was held in New Delhi that raised global awareness of the plight of the Indian tiger and helped establish an Indian chapter of the WWF (Lewis 2003).

Lewis (2003) has argued that wildlife conservation is a US export which 'reinvented' itself and was replicated in India's ecosystems. Indeed, from an ecological point of view, creating Tiger Reserves was seen as a solution. The national park[15] model was replicated in various habitats and ecosystems across the country. The ecological rationale behind this was that saving tigers would maintain the ecological balance. When the top predator is conserved, the argument went, the resources within the entire ecosystem would be secured. From this point of view, the tiger is viewed as an umbrella species[16]. As a key stone species[17], tigers are crucial because their removal can trigger the collapse of the entire ecosystem. Similar views were echoed by 'pioneer ecologists'[18] who supported 'wilderness' as biodiversity preserves and argued for the need to develop an 'ecological sensibility' to respect other life forms (Morris 2014: 97). Their ideas of wilderness did not mean pristine landscapes but landscapes inhabited and altered by humans, 'humanised or cultured' landscapes (Ibid: 100) with embedded meanings and significance. Walter and Hamilton (2014), suggest that these cultural landscapes should be adopted as the ethical and foundational philosophy of conservation programmes, where indigenous perceptions of landscapes, cultural and spiritual meanings are infused into the model of conservation. These views depart from the ideas of untouched wild landscapes promoted by the scientific conservation dogma.

Dibang tigers: Indian or Chinese?

The researchers who visited the Dibang valley before 2012 blatantly discarded Mishmi reports on the tigers, asserting that the tigers were unlikely to survive in this terrain with low prey population. With sudden focus on tigers by the state, scientists and NGOs, local people were bewildered at the lack of such interest earlier and questioned this sudden excitement. Concrete evidence of the existence of tigers (live animals and blood samples) from the tiger rescue operation in 2012 changed everything. 'Scientific' evidence with camera traps,

scats and pugmarks was needed to start research formally. In addition to tigers, scientists were motivated to visit the Dibang Valley to carry out further research to see what other species existed there.

The geo-political location of the Dibang Wildlife Sanctuary makes it crucial and fascinating for wildlife science and conservation. After rescuing the tiger cubs, one of the concerns of the scientific community was to confirm the identity of the captured tiger cubs. The question was whether they belong to *Panthera tigris tigris* (Bengal tiger found in Indian subcontinent) or *Panthera tigris corbetti* (Indochinese tiger found in continental southeast Asia). Were these Chinese tigers or Indian tigers? Tigers are free ranging and this is a transnational landscape, therefore the probability of 'Chinese' tigers crossing over the Indian border was highly probable. One of the visiting scientists, Kumar (*this name is anonymized) said, 'hypothetically if these cubs were Chinese subspecies, it indicates the biological wealth of the area; and the overlapping of two subspecies is an indication of biological uniqueness'. The DNA testing of the blood samples confirmed that these were indeed Indian tigers *(Panthera tigris tigris)*.

Compared to the perspectives of the Indian state and science, perceived through their window of their own disciplinary professions (Pimbert and Pretty 1997), relations between the Mishmi and nature appear complex and multifaceted. The disciplinary specialisations underpinning wildlife conservation lead them to focus often on particular elements of the ecosystem in which they specialise, such as tigers, orchids, and hornbills. As a result, the relationships of species with other landscapes (villages, farms, roads) often get ignored. The concept of nature is unitary in science (Greenough 2003) where every organism is governed by DNA and by the same evolutionary concepts. DNA studies are increasingly becoming crucial in defining 'species'. The state also adopts this approach and provides logistical support and official protection to save species. Classification of the natural world is inherently both a practical activity and a social process (Morris 2004).

DISCUSSION

The Dibang Wildlife Sanctuary can be seen as a typical 'paper park' that exists in an administrative vacuum (del Valle 2002:150), without proper maps or boundary demarcation and with insufficient field staff. There is a real concern that when the state takes interest in tiger conservation there will be more, and stricter, regulation of people's access to wild animals. There is a feeling among many villagers that resources are better conserved if customary laws are in place. Many express concerns that increased government regulation will result in a diminished sense of ownership and care for local resources, and end up with local people over-exploiting such resources. As Angeche said,

> 'See this jungle is my clan's. We save the animals here. We can go whenever we want, without permission, but for hunting, we have to take permission from the clan member.

> If as a clan member, I do not permit, then he cannot hunt. If this becomes government property, then any one can hunt, it's free will.'

These anxieties manifest also in disagreements during encounters between the Dibang residents and the visiting research teams or NGOs. In January 2014, a survey team from a research institute of the Government of India, to study tiger presence was not permitted to enter the forests. The team was there to plant camera traps, to collect evidence of tigers and its prey. After hours of pleading and persuasion, the team was unsuccessful in convincing the villagers and the team left to survey another part of the Dibang Valley. Incidents like these are rare but the sudden increased state interest in tigers, without any discussions with the village headmen and local council members about the nature of the visit, are leading to such situations. People fear the government will seize more of their land without asking, as was the case in the Dibang Wildlife Sanctuary in the 1990s. 'We are not opposing them (forest department). We have already given 4914 sq. km to wildlife[19]. If we give all to wildlife, where will we sit, where will we have developmental activities', said one village council member.

In 1998, the Dibang Wildlife Sanctuary was established without any public discussions. This has become a sensitive issue among the Mishmi. Words like 'tigers', 'wildlife' and 'forest department' and even 'NGOs' can spark instant arguments and debates. Now the plans of a Tiger Reserve have only added to the existing discontent among the Mishmis. Any individual or group visiting the Dibang Valley for tiger or forest research have become easy targets for such frustrations. There are incidences of intimidation and acts of 'non-cooperation' with visiting research teams. At the official level, there is a public interest litigation (PIL)[20] and Right To Information (RTI)[21] filed by the local residents to know the basis for declaring 4914 sq. km as the sanctuary.

Using their belief of having sibling relations to tigers, the Mishmi question the logic of protecting tigers by the state. The Mishmi people make claims on their ancestral lands and forests through notions of 'relatedness' in the form of kinship with tigers and sentiments of 'fear-cum-respect' in relation to the forest guardian, Golon.

> 'There are many taboos… Social taboos are there. We are preserving wildlife because of these taboos. If we had hunted without restrictions, wildlife would have finished by now', said the village council member.

The discussions invariably get focused on local taboos and how they care about tigers. Through Mishmi claims on local wildlife, their indigenous taboos relating to conservation of wildlife are framed as a sort of 'cultural capital' (Bourdieu 1986).

In addition to Morris, scholars across the social sciences have found human-relatedness to be central to many notions of 'nature' (Descola 2013; Ingold 1996; Mullin 1999; Kohn 2013). Relatedness through kinship varies, for example in

parent-child relations, sexual relatedness, procreation, or just simply 'name-sake' relatedness (Bird-David 1990; Ingold 1996). Kinship with other life forms are part of the identity of many indigenous groups. Such genealogical ties and sense of belonging bind individuals to groups, to places and to their own past (Jamieson 2001). People in Bangladesh and Nepal have similar kinship ties with tigers. In Nepal, tigers, humans and bamboo are seen as brothers. A story dealing with the conception and birth of the first man also marks the birth of several other species, underlining their brotherhood (kinship) and relatedness (Hardman 2000). The Sundarbans forest dwellers conceive of themselves as tied in a web of relatedness with tigers (Jalais 2010: 10). In Malawi, relations between people and animals evoke 'kinship' (Morris 2000: 167). Killing an animal is like killing a kin-person, and therefore may have consequences, a risk ameliorated through precautionary rituals.

While discussing wildlife conservation, the Mishmi rebut, 'we are also conservationists!' They take credit for tiger conservation locally because of the taboo on tiger killing. They place themselves not only as local or 'indigenous conservators' of tigers only, but also of other wildlife. The presence of a viable population of gibbons in the foothills of lower Dibang valley offers evidence of the conservation value of such indigenous restrictions (Sarma et al. 2014). These local restrictions, according to Mishmi, indirectly lead to less hunting trips and fewer animals caught. Due to the fear of Golon, hunting activities are regulated, they assert, and this conservation ethos makes their indigenous culture one that assists in wildlife conservation. Taboos and ritual practices performed during and after hunting force Mishmi hunters to delay the next hunting trip. Strict taboos, in addition to the sparse population of the Mishmi, the extremely rugged mountainous terrain with difficult road access, the immense knowledge of the landscape and the extraordinary skills required to hunt, all restrict the number of active hunters in the region.

The Mishmi version of caring for tigers is different from the state-cum-science's vision of tigers as state property, the tiger as national animal, as endangered species and as a keystone species.[22] Species that are valuable to communities often have an ecological keystone value and contribute as such to the integrity of local ecosystems. These close similarities between ecologically valuable species (keystone) and socially valued species often trigger people's participation (Ramakrishnan 1998).

These different 'avatars' of tigers, as brothers to indigenous people, as a national animal for the nation-state and its citizens, and as an endangered species for biologists, lead to different and mutually conflicting understandings of 'nature' (Cronon 1995). The middle ground sought in other contexts in Arunachal, as in Namdapha in the recent past, simply does not seem to exist (Datta 2007). While these groups each in their own way articulate ways and means to protect tigers, their approaches vary enormously. Taboos and law enforcement protect tigers in very different ways, and this is at the heart of conflict between people and the Forest Department.

CONCLUSION

In this paper, I have outlined some critical threads of how the Mishmis of Arunachal Pradesh relate to tigers, how their relation with animals ranges from protecting some animals (for example, tigers and hoolock gibbon), utilising animals for meat (takin, serow, barking deer), trading animal parts (pods of musk deer and gall bladders of bears), and if required killing carnivores that attack their cattle (wild dogs, tigers) or animals that raid their crops (bears, ungulates, wild pigs). These multifaceted meanings conflict with the state view of 'wild' animals as 'scheduled animals'[23] (GOI 1994), or species catalogued as 'endangered', 'critically endangered', 'vulnerable' or 'least concern' (IUCN 2014). State institutions view animals through the lens of population numbers and levels of threat they face. Tigers and their conservation evoke emotions both at the local level (as kin), for the state (as a national symbol), and for science (as a species under threat of becoming extinct).

In the context of management, Gissibl et al. (2012) argues that keystone species can sometimes marginalise alternative readings of the landscape. National and scientific avatars of tigers are similar to 'cosmopolitan tigers', an imagery created by the urban class that has the capacity to erase the local meanings attached to the tigers (Jalais 2008). Here in the Eastern Himalayas, we see how hegemonic western and scientific narratives of tigers marginalise alternative ways of understanding these and other animals. Further, these views have been naturalized and absorbed into an ecological nationalist frame and have acquired considerable power in state agencies, among experts and key conservation lobbies—a sort of statist takeover assuming new forms in other key regions, such as South Africa (Bonner 1994).

If there is a single Mishmi approach, it tends to be pragmatic. When a tiger becomes dangerous, as a last resort, they kill or trap their 'problematic' brother. Killing tigers (a schedule I species) is illegal according to the Indian wildlife protection laws (GOI 1994). This brings the Mishmi into direct conflict with the law. As a national animal, the tiger's image has been building from 1970s. It boosted nationalistic feeling for this species, helped make sovereign claims on tigers, and now has become the icon of wildlife conservation in India. This way of placing nature at the centre of a project for the nation state has been identified as 'ecological patriotism' (Rangarajan 2009: 304). But this can also be a way of disempowering some for the empowerment of others, in the Mishmi case empowering foresters and others who champion exclusivist conservation. Ironically this runs in the opposite direction to the approach outlined in the Tiger Task Force Report of 2005 (TTF 2005). The state pushes its agenda at the local level because of its global partnerships in the international platform for the commitment to tiger conservation. Using the tiger story and their hunting rituals and taboos, the Mishmi project themselves as wildlife guardians and stewards of the forest. To invoke the story of tigers as siblings is 'to recite a genealogy, to recall affiliational ties and to affirm a reciprocal bonding' (Whitt

et al. 2001). Such new forms of 'political performatives' (Cederlof and Sivaramakrishnan 2007) include two very different versions of nature: cosmopolitan/metropolitan and native/indigenous. The Mishmi view is grounded in notions of cultural value, physical attachment to place, and oral history. From the state's point of view, specific places have more conservation value than others. In some sense, the Mishmi and other stakeholders' claims to place and species are aligned, but their understandings of nature are not.

Nature conservation projects that engage local communities produce different outcomes. The story of the Mishmi hills is not over. What I witnessed was just the beginning of a long struggle over contested claims on nature, which is likely to become more complex in the future. The geopolitical location and the rich forest-based resources of the Dibang Valley makes this landscape, like others across this internationally contested state, crucial as the spotlight of national security, nature conservation and development where the military, dams and corporates play an active role. They promise opportunities of employment and 'development' to the local communities. Amid this cacophony, the Mishmi views may get drowned out, or they may get stronger. Within the Mishmi community, there are groups who feel tiger reserves will bring jobs for the local young men. The promise of employment of local youth as forest guards and tour guides is creating interest among the public. There are young men in Anini who are skilled entrepreneurs and work as guides for tourists, trekkers and naturalists who come in small numbers. According to them, the tiger reserve is a good initiative and they feel that by having a tiger reserve, the Dibang Valley will appear as an important tourist location in the global map. Mixed feelings among the Mishmi is understandable, but seeing the Mishmi people as naïve would be a mistake. In a meeting with Dibang residents, an NGO official explained the importance of tigers as top predators and how tigers keep the prey population under control. The official explained in detail the role of tigers: 'If tigers are killed, deer population will increase and destroy the forests'. This textbook-based food chain concept was demolished when the village council member replied patiently, 'If the deer population increases, we will control it, by shooting the deer. Because we don't kill tigers, the deer population is controlled by us'. This reveals a critical difference in the views of the local people and the official authorities. For the local residents, people hunt animals and see themselves embedded in the ecosystem, not absent or radically separate from it, unlike forest officials and scientists who see the ecosystem as 'natural', thus the need to promote preservation and delimit human interference in the ecosystem. The Mishmi view tiger and deer populations as a more-than-human flourishing, and not just a purified 'nature' that needs to be protected from humans. These officials preach to the Mishmi not to kill tigers, often not knowing that killing tigers among the Mishmi amounts to a taboo.

Why is the story of the Mishmis relevant to 'nature' conservation in the present day? The intersecting aims and mutual misunderstandings of the Mishmi, biologists and the Forest Department tells us a lot about the idea and practice of nature conservation in the present day, and highlight the value of a continuing shift towards community and place-based approaches to conservation. The case itself shows how dominant narratives of nature conservation, which continue to emphasise top-down protection can erase or devalue cultural, historical and symbolic meanings (Walter and Hamilton 2014), even those which uphold tiger conservation practices. The place-based views Mishmi have of their environment, and associated complex multispecies realities, highlight precisely why place-based perceptions must be acknowledged by the state and wildlife biologists in order to make way for the emergence of new forms of conservation research and practice (Adger et al. 2011; Williams et al. 2013).

We must be careful not to romanticise indigenous groups like the Mishmi as nature protectors or 'ecologically noble savages' (Redford 1991; Baviskar 2003; Li 2000). Mishmi's biocultural knowledge is articulated in response to the state's intervention to protect tigers and the forest department's indifference to local people's needs. State and NGO officials need to be sensitised towards local ways of perceiving wildlife and nature. This might trigger a breakthrough in the conservation of tigers in Dibang. In the absence of consultations with the local people, it is likely that conservation will lead either to coercion and/or marginalization of local communities, making long term conservation difficult; something which has already occurred in places like Sariska Tiger Reserve (Shahabuddin 2010). Dibang provides a good opportunity to rethink conservation and make a fresh start by involving people in positive and innovative ways. Morris reminds us that relations between humans and animals are often complex, intimate, reciprocal, personal, and, crucially, ambivalent. In the Dibang valley we find the multiple views of the local community standing against the 'monolithic' view of the modern state. Here, as elsewhere, the Mishmi ways of relating to nature cannot be reduced to a singular metaphor.

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NOTES

1. Some say the tiger was accidentally killed in traps laid for other animals, while others suspected that the trap was deliberately laid to kill the tiger. People were upset that this tiger killed several

mithuns. Mithun (*Bos frontalis*) is semi-domesticated cattle which is culturally and economically valuable for the Mishmi.

2. 'Wild' here indicates the 'natural' home of these tigers in the Dibang mountains. According to conservation beliefs, releasing and rehabilitation of tiger cubs back to the wild is crucial for long-term conservation of wildlife.

3. See Abram 1996; Ingold 2000; Milton 2002.

4. NTCA is a statutory authority under the Ministry of Environment and Forests and Climate Change, Government of India. One of the objectives of NTCA is to conduct research and monitoring of tigers, co-predators, their prey and habitats.

5. Eco-Sensitive Zone are delineated areas around existing protected areas declared as 'buffers and corridors' to check the impact of industrialisation and unplanned development in and around protected areas.

6. Name changed to maintain anonymity of the respondent.

7. There are five clans (*meme, umpo, mena, mischi and misiwo*) of Idu Mishmis who are exempted from performing this ritual. Members of these clans are believed to be the descendants of the first priest of Mishmi, *Sineru*, therefore they do not have to perform this ritual but killing of tigers is still a taboo for them.

8. Healing ritual usually carried out for a day.

9. *Reh* is one of the most important festivals of the Mishmi for propitiation of the supreme creator, the '*Nanyi Inyitaya*'. Many believe that *Nani Inyitaya* is part of the new form of institutionalized religion among the Idu Mishmi.

10. Adi community who also inhabit the Lower Dibang Valley do not have a taboo against hunting Hoolock gibbons.

11. Sacred board where skulls of hunting animals are displayed.

12. Hunters always carry a metal piece, usually a brass or even use a cartridge to perform this ritual.

13. See Kohn 2013; Ingold 2000.

14. Social structures such as scientific institutions act as receptor sites, which can receive, decode and transmit signals from international organisations to national or region actors. These sites also act as implementers of global blue prints for national environment protection.

15. Yellowstone National Park, the first National Park that became a prototype and the model was replicated all over the world.

16. Umbrella species are those selected for making conservation-related decisions. Protection of these species indirectly protects other species that are part of the habitat and gives refuge to a whole range of other smaller species dependent on each other in the food chain.

17. Species that has a disproportionately large effect on its environment and plays a critical role in maintaining the structure of an ecological community.

18. Brian Morris pay tributes to three pioneer ecologists (Lewis Mumford, Rene Dubos, Murray Bookchin).

19. Wildlife is a term, that the Mishmi use to refer to the forest department and the wildlife sanctuary. Sometimes the term is also used for NGOs and wildlife biologists as '*wildlife-wale*' (wildlife-people).

20. Public Interest Litigation (PIL) is the power given to the public by courts. Any person can file a petition in the court in the interest of public. A Mishmi man has filed a PIL in 2013.

21. A young graduate from the Dibang Valley filed RTI in November 2012, but there has been no reply from the government yet. The Right to Information Act is to empower the citizens of the country and promote transparency and accountability in the working of the Government.

22. Keystone species have a disproportionately large effect on its environment and plays a critical role in maintaining the structure of an ecological community.

23. The Wildlife Protection Act provides a list of protected plant and animal species. Hunting or harvesting these species was largely outlawed. Schedule I & II: absolute protection, Schedule III & IV: are also protected, but penalties are much lower. Schedule V: may be hunted if declared as pest and dangerous by the officials, Plants in schedule VI: prohibited from cultivating and planting.

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