# The evolution of hunting among the Idu, a people of Arunachal Pradesh

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### ABSTRACT

The Idu people of Arunachal Pradesh still inhabit a rich and biodiverse environment which has been preserved from the major threats to SE Asian forests, by a fortunate combination of circumstances. Hunting remains a significant element in subsistence, especially in the more mountainous regions. The killing of animals is not simply an economic activity but has a significant spiritual component, including the concept of  $mis\bar{u}$ , of tabooed species. Even species which do not fall under the  $mis\bar{u}$  interdiction, such as the takin, require the hunter to be ritually purified. However, the introduction of the gun has increased the mortality of large species so that populations are declining, and if government plans to introduce large dams are implemented, the ecology of the region will be catastrophically affected. The Idu, and neighbouring peoples such as the Tawra and Kman, preserve the structures of social interactions with the forest which must once have been widespread throughout the region.

Keywords; Idu; hunting; Arunachal Pradesh

### 1. Introduction: hunting, forests and biodiversity in SE Asia

Until recent times, the tropical forests of SE Asia were characterised by a highly biodiverse fauna. The reports in recent years of unknown species being described (for example the saola antelope in Vietnam [1995] or the Laotian rock rat, *Laonastes* [2005]) suggests that even now they are only partially known. However, modern economic pressures have meant that forests are under attack almost everywhere. Industrial logging companies have accessed the forests of Cambodia and Laos by barely legal means, feeding the desire of the developed world for tropical hardwood. The indirect impact of this has been the decline of many animal species, especially large mammals, which are most easily hunted. A parallel issue has been the spread of the gun. Until the 1950s, most hunters sought their prey with traditional means, typically bows, traps, spears, crossbows and arrows, often poisoned. The shotgun now predominates in many areas and more sophisticated rifles are also spreading.

Unfortunately, while conservation areas have been declared in the various countries throughout the region, enforcement remains weak. This has combined with the growing economic power of China and the increased disposable income of the new middle classes. The desire for prestigious medicines made from animal parts (tiger-bone, rhino-horn, beer bile) has encouraged traders to seek new sources of supply. This has impacted heavily on African wildlife, and also on adjacent countries in SE Asia. Laos, with its undisturbed forests and low population density, has been particularly affected.

A region which remains well-preserved is the tropical forests of Arunachal Pradesh. There are several reasons for this, the most important of which is the highly dissected terrain. The region is cut through with deep river valleys, and mountain slopes which descend rapidly leaving very few areas of flat land to establish homesteads and settlements. At the same time, the region is subject to earthquakes, landslides and other types of geomorphological instability, leading to periodic floods. This has acted as a major deterrent to the buildup of high population densities, despite the potentially rich fauna and flora. Indigenous populations remain small and highly scattered, responding to the potential risks.

At the same time, entirely by chance, political friction between India and China and the fractious situation in Tibet has meant that the border has long been closed. A supposed Indo-China 'war' in 1960, in reality more like a border skirmish, has meant that normal commercial traffic between the two countries does not operate, although many ethnic groups have cross-border distributions. Prior to this, local populations were intermediaries in a trade connecting Tibet and the valley of the Brahmaputra in Assam. Irritating as the closure of the border must be, especially to divided peoples, it has had one beneficial effect, the preservation of wildlife from the demands of Chinese animal parts traders.

As a consequence, populations in this region live with wildlife in a fashion which has long disappeared through much of SE Asia. The elusive animals in the typical field guides, often a frustration to the ethnozoologist, are known to hunters, who can describe their habits and distribution. At the same time, hunting is far from being simply an economic activity, as it is surrounded by a complex network of ritual prohibitions and placatory ceremonies. Given that these are still 'live' to hunters in this part of Arunachal Pradesh, it seems worthwhile describing these before they give way entirely to a culture of packaged foods which seems to be rapidly enveloping other parts of India. This paper<sup>1</sup> describes the traditional hunting culture of the Idu, a people of the Dibang River Valley in Arunachal Pradesh, together with an account of how it is adapting to the present situation.

For comparative data on hunting practice, researchers are often required to refer to papers on Central Africa and Amazonia, because the descriptive material in SE Asia is so weak. The literature on Arunachal Pradesh is essentially that of a single author, Ambika Aiyadurai (2007, 2009, 2011), Aiyadurai et al. (2010). This approach has valuable insights, but it is ultimately oriented towards conservation. This is no bad goal in

<sup>&</sup>lt;sup>1</sup> The fieldwork on which this paper is based was undertaken in Arunachal Pradesh in February-March 2015, December-January 2015-2016 and January-February 2017. I am most grateful for Dr. Mite Linggi and the Idu Language Development Committee for working with me on transcriptions and interviews. I would like to thank all the individuals for their views and information.

itself, but hunting is part of a nexus that includes attitudes to the environment and the deities which abound in it.

### 2. Physical environment

### 2.1 Vegetation

The forests in the Mishmi area are classified as Northern Tropical semi-evergreen forest and Assam subtropical pine forest and in the higher altitudes, East Himalayan sub-alpine birch/fir forest (Champion & Seth 1968). Table 1 shows the main named zones graded by approximate altitude and characteristic species.

Nomenclature Altitude		Characteristic species		
Tropical Semi Ever	Alluvial Plains	Amoora wallichii, Pterospermum acerifolium, Stereospermum		
Green		chelonoides, Altingia excelsa.		
Tropical Ever Green	<610 m.	Kayea assamica, Mesua ferrea, Dysoxylum procerum, Echnocarpus sp		
Tropical Wet Ever	Up to 900 m.	Phoeba paniculata, Actinodaphne obovata, Alnus nepalansis,		
Green		Phoebe attenuata.		
Sub Tropical broad	Up to 900-	Bombax ceiba, Lagerstroemia parviflora, Terminalia bellirica,		
leaved	1900 m.	Sterculia villosa.		
Sub Tropical Pine	1000-1800 m.	Pinus Roxburghii, Pinus wallichiana and Pinus merkusii.		
Wet Temperate	1800-2750 m.	Quercus lamellosa, Quercus sp. Castanopsis indica, Acer		
Forests		hookeri.		
Mixed Coniferous	2300-3350 m.	Abies sp. Tsuga dumosa.		
Forests				
Alpine	3000-5500 m.	Rhododendron, Primula, Saussaurea, Saxifraga		
Bamboo and cane	Various	Bambusa pallida, Schizostachyum polymorphum, Bambusa		
brakes		tulda, Dendrocalamus hamiltonii		

### Table 1. Vegetation zones by altitude

Source: Adapted from data supplied by Arunachal Forest Department

Arunachal Pradesh represents a major region of *Musa* diversity, apart from domestic species, a large variety of wild species are used by local populations. The steep descent from the Tibetan Plateau and the forceful floods following the snowmelt in spring create seasonal watercourses and significant erosion, apart from human activity.

### 2.2 Fauna

The fauna of northeast Arunachal Pradesh is typical of the region between Bhutan and Yunnan, and like the forests, highly diverse. However, as a variety of species bear the name 'Mishmi' (flying squirrel, macaque, takin) this area may well be a focus of endemic species, due to its inaccessibility. The main accounts. of the mammals are Choudhury (2013) and Menon (2014). Grewal *et al.* (2017) is a photographic field guide to Indian birds with recent high quality images. Ahmed et al. (2009) and Purkayastha (2013) are field guides to reptiles and amphibians. Insects are poorly covered and the nearest approach is the survey of the Kantha Tiger reserve (). The abundant species of freshwater fish are described in xx.

Notable in the Mishmi area are four major cats speceis, tiger, leopard, clouded leopard and snow leopard and also rare lesser feline species like the Golden Cat and marbled cat. Seven species of primates i.e. Hoolock Gibbon, Slow Loris, Assamese Macaque, stump-tailed macaque and Capped Langur also occur. All three goat antelopes, the serow, goral and takin are found. Over 500 bird species inhabit Arunachal Pradesh including some endangered and endemic ones like, white winged wood duck, Sclater's Monal, Temmincks Tragopan, black necked crane, Mishmi wren and Bengal florican.

### 2.3 Geomorphology

Arunachal Pradesh is shaped like a hook, curling around the valley of the Brahmaputra, and it is marked throughout by sharply dissected terrain, falling rapidly from the Tibetan Plateau to the river basin (Error! Reference source not found.). The snowmelt from the Plateau has carved a series of deep river valleys,

which are dry and filled with rocks for most of the year. Floods tend to come very suddenly, often carrying away even quite strongly built bridges.

The dissection of the terrain is reflected in its geomorphological instability, since the Himalayas, caused by the friction of two continental plates are continuing to form. Earthquakes are a regular occurrence throughout this region. Records of highly destructive earthquakes go back at least to 1548 (Reddy & Nagabhushanam 2009) and the Idu area was struck by an 8.6 magnitude in 1950, known as the Assam-Tibet or Medog earthquake when thousands were killed. A combination of this earthquake, the subsequent flood and the creation of the Dibang Wildlife Sanctuary has caused a shift of the population to the plains and lower levels. Evidence of landslides marks the Map 1. Idu territory in India and Tibet

lower levels. Evidence of landslides marks the steep cliffs everywhere and these are not caused by deforestation as elsewhere.

### 3. Idu society

### 3.1 Ethnography

The earliest discussion of Idu social life is the brief section in Dalton (1872) which covers their social organisation, religion and 'warlike propensities'. Two short monographs describe the social and material life of the Idu, Baruah (1960) and Bhattarcharjee (1983) both of which reflect long residence in the Dibang area. Baruah is of particular interest, since although it was researched in the period after the earthquake of 1950, it reflects a period when the Idu still had very little interaction with the outside world. Both describe the Idu relation to the world of the spirits in some detail, although there are a number of errors. It may be assumed that this paper has cross-checked with both these sources and represents the findings of recent fieldwork.

Needless to say, things have moved along since these descriptions; Baruah in particular reflects the situation more than sixty years ago. Idu have increasingly moved to the plains, and have



encountered other lifestyles. The proximity of the administrative centres and more recently the Border Roads Organisation workcamps have brought a mixture of Bengalis, Assamese and others to the area. Roing was also chosen for Nepali resettlement and many Idu now speak some Nepali. Idu lifestyle has been much affected by these experiences. The longhouses are gradually disappearing in favour of modern cement-block houses, and modern dress has displaced traditional dress except for festivals. Only the older generation are seen with the straight fringe haircut seen in earlier monographs, a distinctive style responsible for one of the earlier names for the Idu, Chulikata. Despite this, there is a strong argument that Idu have remained quite conservative in terms of social culture and religious adherence.

The Idu are subsistence farmers, and depend on vegetative crops such as taro, bananas and yams, as well as cereals including foxtail and finger millets, sorghum and Job's tears. Rice is now an important part of the diet but this is relatively recent. The richness of the wild environment ensures that a significant proportion of protein still comes from wild resources and large and small mammals and fish are regularly consumed.

A social anthropologist writing in the 1930s would certainly have characterised Idu as a segmentary lineage society. Strongly acephalous, they are divided into paired clans, and these were the basis for residence and warfare, far into the colonial era. Marital partners were formerly from preferred clans, although these rules have largely broken down in favour of free choice. Polygyny was strongly preferred in the past, and was

realised in a longhouse system, where wives were provided with individual hearths and family space strung along communal corridors. Cooper (1873: 189-190) described this system quite accurately and it has not changed markedly in the past century and a half. These structures remain widespread in rural areas.

The aspect of Idu culture which persists and could accurately be described as the social glue which keeps their society coherent, is a strong respect for the practice of shamanistic religion. World religions<sup>2</sup>, typically Christianity and Buddhism, still have few adherents in this area. Both for healing and the performance of the complex rituals involved propitiating  $kh\bar{a}ny\bar{u}$  spirits, easing the passage of the soul after death and healing the sick, requires the ministrations of the *igu*, ritual specialists. There is no evidence that the importance of these is dimnishing, or that new individuals are not continuing the tradition.

### 3.2 Language

The Idu language is poorly known. The earliest reference is in Brown (1837). The only significant publications on Idu from the Indian side are the pre-linguistic Talukdar (1962), Jaten Pulu (1978) and Jimi Pulu (2002a,b). Idu has also been described from the Chinese side [under the name Lhoba], notably in Ouyang (1985), Sun et al. (1991), Sun (1999). A new phonology has been prepared in consultation with the Idu language committee project for a practical orthography<sup>3</sup>. In the transcriptions in this paper, phonetic characters have their IPA values, except;

j	is written as	у
h	following any consonant	aspiration
/ə/	is retracted schwa	<u>ə</u>
long vowels	are written as	doubled vowel

Idu has three level tones, marked as follows;

High-	'
Mid	-
Low	`

A macron  $(\bar{\})$  over a vowel is thus mid-tone and not length. Nasalisation is common in Idu and marked over the vowel in combination with tone.

### 4. Hunting technologies

### 4.1 Traps and snares

The Idu have a wide range of traps and snares. Some these have now disappeared, such as the large pit traps, but others are in regular use. Aiyadurai (2007) illustrates a number of these traps. Table 2 lists the main traps used by hunters with the species they are intended to catch.

<sup>&</sup>lt;sup>2</sup> Hinduism has a strong presence among migrants and also government support since the centrally-funded Border Roads Organisation (BRO) has constructed Hindu shrines in many places. But Idu converts are few.

<sup>&</sup>lt;sup>3</sup> This was presented in Roing on the 7th Janaury, 2018, and was followed by lengthy discussion. Several documents outlining details of the phonology are available on my academia.edu pages.

Table 2. Ic	lu animal traps	
Idu	Description	Comment
àtốkrè	baited sprung snare	smaller animals
àpà <u>mbrá</u>	small loop trap (Hills)	birds, porcupine, civet, jungle cat, marten
mbō	spiked pit trap	any large species. No longer in use
ākrē <u>mbrá</u>	large loop trap (Plains)	slightly larger animals
kò <u>mbrá</u>	sprung trap	dangerous to passersby
llā	spear trap	out of use
gàrī	bowed, baited trap	rats and mice
ndēprā	deadfall trap	any size animals
àdràpō	made from two half bamboos, sprung trap	hung in trees, birds, squirrels

Photo 1 shows a typical Idu loop-trap or sprung snare, used to catch small animals. Bird-liming is known

among the Tani and east of Idu, but not apparently used here. Aiyadurai (2011) describes and illustrates some very similar **Photo 1. Idu loop trap** traps for birds and small animals among the Meyor, west of the Idu. She notes the use of feathers for fans and other decorative purposes; this does not seem to be of great importance among the Idu.

### 4.2 Poisoned arrows and guns

Prior to the spread of the gun, the bow and arrow was the key technology of Idu hunters. Photo 2 shows a typical Idu quiver with the small arrows, poisoned with aconite, Aconitum ferox, mràmbo, which grows above the snowline, and its collection was partly ritualised. Older hunters can still hunt with the bow and arrow but few do so today. The appearance of the gun is remembered, rightly or wrongly as following the Indo-Chinese war in 1962. Most hunters today have shotguns and ammunition is sold in shops on the high street in larger centres such as Itanagar, which seems to contradict the hunting ban supposedly in place.

### 5. Commercial and therapeutic aspects of hunting

Hunters among the Idu are self-selected, and do not form a hereditary profession or a closed group. Hunting among the Idu was primarily for subsistence, and presumably it was also a certain amount of fun. The complex restrictions on hunting were a reflection of Idu relations with the unseen world. However, the Idu have always been enthusiastic traders, and a few products were and are hunted for sale.



Source: Author photo

Photo 2. Idu quiver with arrows



Source: Author photo

The most important of these is the musk deer, hunted for the musk which remains much in demand in China and Tibet. The musk deer lives in the high mountains and hunters would spend as much as a month every year seeking it. Although hunters went in groups and established a collective camp, they would hunt individually, and keep their own kills. Formerly these expeditions were inter-related with the collection of aconite, mràmbo, which was an essential arrow-poison. However, the spread of the gun has caused aconite collection to tail off. Brideprice in smoked meat is not practised in Idu, in contrast to their neighbours to the west, the Tani groups, who place a high value on smoked flying squirrel. However, smoked wild meat, especially fowls, is presented during the Re festival. The guests (relatives of the host) present, money, dgdte, and in return the host presents smoked fish,  $\partial \eta \bar{a} k \dot{u}$ , or fowl, along with  $\dot{e} m \dot{e} t \dot{a}$ , money in return (which goes only to the relatives of mother and wife; i.e. affinal relatives).

The other significant species with a commercial value was the bear, principally the Asiatic bear,  $\bar{a}h\bar{u} r\bar{a}$ . The bile from the gall bladder,  $im\dot{u}$ , was and is much sought as a medicine in China, and hunters sold the fur and the gall to traders. This trade is in theory now forbidden. Bear fat was a common ingredient in medicines for fever and stomachache and was also applied to fresh wounds. In general, however, the Idu did not place much emphasis on animal parts for medical use, preferring herbs or the ministrations of the  $\bar{r}g\dot{u}$ . Aiyadurai (2007) in a survey of market prices for wild meat in the mid 2000s, shows that it was then cheaper than domestic animals. This is no longer the case, as more species become rarer and production of meat for the urban market more effective.

### 6. Hunters and the world of the spirits

### 6.1 Altitude and control by deities

A striking aspect of the environment as experienced by the Idu is the diversity of ecozones it encompasses. Idu territory stretches from tropical rainforest to snowy peaks and the way between them is steep, quite literally a narrow road to the deep north. The different altitudes reflect both vegetation and faunal biotas and each has a responsible deity, as shown in Table 3;

Table 3. Ecozonal deities among the l
---------------------------------------

Deity	Responsibility
Ŋgōlō	Highlands, usually above the snowline
Ēsē ēpā	Middle levels, broadleaf forest
Brùù	Rivers and lakes, effectively plains, although also lakes in other zones

Figure 1 represents this information as a graphic, showing the importance of vertical hierarchy.

### Figure 1. The vertical domains of the Idu ecozonal deities



Each zone has its particular characteristics in terms of perils which may cause fatalities, but the high mountain zone, controlled by  $Dg\bar{o}l\bar{o}$ , also determines a class of animals, *misū*, which it is dangerous to kill.

### 6.2 The concept of *mísū*

 $Dg\bar{o}l\bar{o}$ , the deity of the upper altitudes, is said to 'look after' certain species, which therefore must not be killed. This concept of forbidden species is known as *mísū*. Not all *mísū* species are owned by a deity; the king cobra is owned by Brùù and the other snakes are outside the system. At least three animals in the list have semi-mythical characteristics, the snakes *bwèká* and *mànù* and the bird *āmrā kūtūlūū*. An oddity of this is that the animals are not necessarily characteristic of the region of permanent snow. They include the following species shown in Table 4;

Table 4. Forbidden, *mísū*, species recognised by Idu

English	Latin	Ídū	Comment
Mammals			

English	Latin	Ídū	Comment
marble cat	Pardofelis marmorata	ācāŋgú	
Bengal slow loris	Loris lydekkerianus	álíkòpā	
hoolock	Hoolock leuconedys	àmē ló	
hoolock	Hoolock leuconedys	àmē pá	
tiger	Panthera tigris	āmrā	
civet, Himalayan palm	Paguma larvata	èphá mìtsī	
? common palm	Paradoxurus	èphá	
civet	hermaphroditus	nōgōrō	
Snakes			
king cobra	Ophiophagus hannah	bwèká	This snake exceptionally belongs to Brùù unlike other snakes and is equally a spirit which can drag you to your death.
monocled cobra	Naja kaouthia	àjū	
Indian cobra	Naja naja	èkấyĩ	
McLelland's coral snake	Sinomicrurus maclellandi	àprū àlá	
banded krait snake sp.	<i>Bungarus fasciatus</i> Not identifiable	àprū krú mànù	possibly includes other kraits A snake with semi-mythical status living in plains areas, said to have two tails. 'It has not been seen for a long time.'

English	Latin	Ídū	Comment
Birds			
Himalayan wood owl	Strix nivicolum	āmrā kūtūlū	lit. tiger + rounded.
bearded vulture	Gypaetus barbatus	prā lí	
spot-bellied eagle owl	Bubo nipalensis	īcītú	

Roger Blench Hunting among the Idu Circulated for comment

Roger Blench Hunting among the Idu Circulated for comment



Mammal identifications from Choudhury (2013) and Menon (2014). Snake identifications from Purkayastha (2013). Idu bird identifications from Grewal et al. (2017) and Choudhury (2006).

Anyone killing a  $mis\bar{u}$  species brings not only himself but his household and possibly his entire clan into danger. The ritual  $mis\bar{u} ay\hat{u}$  must be performed by the  $\bar{\imath}g\dot{u}$ . Curiously, however, not all species are equally threatening. In the case of the accidental killing of the snakes  $bw\dot{e}k\dot{a}$ ,  $\dot{a}j\bar{u}$  and  $man\dot{u}$  a ritual called  $y\dot{u}r\dot{o}b\dot{a}$  is performed, which involves the scattering of  $b\dot{a}$ , the yeast used in fermentation of local beer. However, if one of the  $apr\bar{u}$  species is killed, it is enough to throw it in the jungle. Killing  $mis\bar{u}$  birds is not regarded as equally serious, although it can bring bad luck to the household, and the carcass must be thrown into the jungle.

A curious aspect of  $mis\bar{u}$  prohibitions is that they are public acts. If you are known to have transgressed, then performance of the purifying ceremonies is essential. However, it seems that you can 'get away' with ignoring these obligations if no-one else knows you have killed the animal. For example, a hunter who kills a tiger by accident<sup>4</sup>, has to undergo the time-consuming and expensive  $t\bar{a}m\bar{a}m\dot{a}$  ceremony. However, if no-one else knows about it, he can spend five days in the forest and if it remains a secret, the dangers inherent in its  $mis\bar{u}$  status will be eliminated.

### 6.3 Killing animals which are not misū

Some animals are not  $mis\bar{u}$ , but are still dangerous if hunted and require subsequent purification. The most important of these is the takin (*Budorcas taxicolor*). The meat of this animal is appreciated but the hunter must call the  $\bar{r}g\dot{u}$  and perform  $\dot{a}ph\dot{u}$ . This requires the following six steps of prayer and sacrifice (Table 5);

<sup>&</sup>lt;sup>4</sup> It might be asked how you could kill a tiger 'by accident', but until recently, Idu hunters set spiked pit-traps to catch large animals such as the takin. This has largely stopped because of the danger to people, but such devices could also trap tigers.

Table 5. Steps of the àphù ritual Idu Gloss ācīnyī ākóná àphù īyīpá nālī ātālū ēmbrònà āmúnyì chù

A set of birds which are not  $mis\bar{u}$ , are nonetheless believed to belong to Dgolo and it is a dangerous act to kill them. These are:

Table 6. Birds which belong to Dgolo

Idu	English	Latin
pwēdé	peacock	Pavo cristatus
pwétà	grey nightjar	Caprimulgus indicus
pōkỗ	hill partridge	Arborophila torqueola
cèndá	Himalayan monal	Lophophorus impejanus

If these are killed, the hunter must undergo purification, *ènā*, which involves;

- a) Not eating certain vegetables, onions and mushrooms
- b) Not having sexual contact with women
- c) Not washing your clothes

### Photo 3. Tibetan partridge, pokó,



For the Tibetan partridge, pokó, Perdrix hodgsoniae (Photo 3), this is only observed in the Itu valley and only for 24 hours. However, for the other species, it is more complicated. If the event happended in the Dri valley, i.e. high up, the prohibitions must be observed for a month, in the broadleaf mid-level forests for five days, and in the plain for just 24 hours. As elsewhere, altitude constitutes the psychic geography of sacredness; the closer to the

Photo 5. *pwīshù*, the snowline, the more potentially dangerous the transgressive act.



Photo 6. *pwēkà*, the grey treepie



A slightly more folkloric prohibition attaches to two birds, *pwēkà*, the grey treepie, Dendrocitta formosae (Photo 6) and prātú, Ward's trogon, Harpactes wardi, which cannot be eaten by women, as they are the wives of the culture-



Photo



Another bird which should not be killed is pwishù, the long-tailed minivet (Photo 5), Pericrocrotus ethologus, as it belongs to the khānyū.

hero, Anó, in stories.

### 6.4 Going on a hunt

A hunt is not undertaken lightly, because it is a potentially dangerous activity. The night before a hunter goes out, the  $\bar{i}g\dot{u}$  performs a ceremony known as  $\dot{a}b\dot{u}$   $tr\bar{u}$ , which involves the sacrifice of a chicken and the use of the  $\dot{e}k\bar{a}$  leaf. The hunter must not eat mushrooms or onions, must not have sex with his wife and must not tell outsiders he is going hunting. If the hunting expedition is in the high altitude zone, hunting for musk deer, then further restrictions are imposed. Hunters must accept any food that is offered to them, and not wash their face. Most importantly, however, they must not speak in ordinary Idu, but use a special language, described in §7.

### 6.5 The trophy wall

An aspect of Idu, and indeed Mishmi domestic space which has struck visitors since the earliest period is the trophy wall, the long

### Photo 8. Trophy wall in Ithili



Source: Author photo

remembered. Present-day hunters usually hang their own skulls in a section apart, to underline their individual prowess. The wall contains not only skulls, but also hunting gear, including traps, bows and arrows, and the bamboo tubes full of dried blood prepared as part of sacrifices. The Idu are very attached to these skulls and they are often moved to semi-modernised houses, cleaned of the soot and cobwebs and hung on rather antiseptic walls.

### 7. Hunters' speech register

A feature of hunting among all three Mishmi groups is the use of a special language or register, during hunting. Sun (1999) first drew attention to this among the Daruang [i.e. the Tawra] but it is used in all three groups and also the neighbouring Meyor in the Walong area. The underlying idea is that animals will be warned by the use of everyday speech  $(\partial \eta \dot{a}' l \bar{l} y \bar{a})$  and so circumlocutions are used. Among the Tawra and Kman, the terms for many everyday lexical items are replaced by special forms. This seems to be less common among the Idu, where the names of animals are the main substitutions. The following names have been recorded (Table 7);

## Photo 7. Hunter dressed for hunting expedition, Ithili



Source: Author photo

corridor which connects the hearths of individual wives and which is hung with the skulls of hunted and sacrificed animals (Photo 8). These include mithuns and pigs, which are domestic, but nonetheless, a wide array of species are found there. Cooper (1873:) suggests that the skulls of tigers are hung on these walls, but this must be a mistake, since tigers are  $mis\bar{u}$ , and this would be prohibited. The skulls themselves may go back several centuries and the names of ancestors who hunted the animals are

Table 7. Tullinar names in numers register			
English	Idu	Comment	
marble cat	ācāŋgú	<i>ηu apwə</i> (also applied to <i>ākōkó</i> )	
bear, generic āhū		àmbrè njòótò wild huge and awkward (walks from side to	
		side). Plains term	
		damba hũ (Hill term)	
yellow-throated marten	ākōkó	<i>ŋu apwə</i> (also applied to ācāŋgú)	
takin, Mishmi	ākrū	<i>àmbrè kàcì</i> animal + big	
deer, Alpine musk	àlà	ámbéshù 'small animal'	
monkey, generic but usually macaque	āmē	tambre i.e. 'meat'	
red goral	āmí	<i>àjùshù</i> deep and high gorge small (Plains)	
		<i>tambre mra aci, aju tambre</i> (Hills)	
tiger	āmrā	ángócì 'from the highlands' ángó montane region.	
		(Plains)	
		aŋgo kūyi (Hill)	
wild pig	āmwé	enàmbòn dì nose + sharp (Plains)	
		asopra (Hills)	
serow	mā <u>à</u> y	$\partial m \partial dr \partial$ + split in two (because it has a divided hoof).	
deer, generic but refers usually to the	mānjō	àphù ácì from the field (deer come and eat crops in the	
barking deer		night) (Plains)	
		manjo pi ami mweya (Hills)	

### Table 7. Animal names in hunters' register

### 8. Conclusions

The Idu people of Arunachal Pradesh still inhabit a rich and biodiverse environment which has been preserved from the major threats to SE Asian forests, by a fortunate combination of circumstances. Hunting remains a significant element in subsistence, especially in the more mountainous regions. The killing of animals is not simply an economic activity but has a significant spiritual component, including the concept of  $mis\bar{u}$ , of tabooed species. Even species which do not fall under the  $mis\bar{u}$  interdiction, such as the takin, require the hunter to be ritually purified. However, the introduction of the gun has increased the mortality of large species so that populations are declining, and if government plans to introduce large dams are implemented, the ecology of the region will be catastrophically affected. The Idu, and neighbouring peoples such as the Tawra and Kman, preserve structures of social and spiritual interactions with the forest which must once have been widespread throughout the region.

### Appendix 1. Idu names of mammals

The following list of identifications is based on Choudhury (2013) and Menon (2014). The entries shaded red are  $mis\bar{u}$  species. Identifications are of course provisional.

H. Hunters' name P. Priests' name

Idu	English	Latin	Comment
ācāŋgú	marble cat	Pardofelis marmorata	H. ŋu apwə (also applied to ākōkó)
			P. apungu apolo any wild cat that
			climbs trees
			Also has the epithet $\bar{a}c\bar{a}p\bar{i}$ 'thief' a
			metaphorical name because it steals
			chickens
àdà	squirrel, general		
àdàkà	squirrel, Himalayan	Tamiops maclellandi	
	striped		
àdàmà	squirrel, Pallas'	Callioscurus	

Idu	English	Latin	Comment
		erythraeus	
àdàŋgò	squirrel, Himalayan	Callioscurus	
\	hoary-bellied	pygerythrus	
āgrīprà	flying squirrel, Gray's giant	Petaurista nobilis	
àgūnū	rat sp.		small, white chest, stays around house
àhōŋgō	pencil-tailed tree mouse [?]	Chiropodomys gliroides	white chest, long tail, found in jungle
āhũ	bear, generic		<ul> <li>H. àmbrè njòźtò wild huge and awkward (walks from side to side).</li> <li>Plains term</li> <li>H. damba hũ (Hill term)</li> <li>P. hulu do lo covi</li> </ul>
āhū lū	binturong, bearcat	Arctictis binturong	
āhū̃ kolo	sloth bear		The name comes because it mainly eats the <i>kolo</i> plant Also <i>āhū̃ aŗoka</i>
āhữ rā	Asiatic black bear	Ursus thibetanus	
āhū trò	sun-bear	Helarctos malayanus	
àkēŋgō	rat sp.		small, white chest
àkhờ	squirrel, black giant	Ratufa bicolor	/
ākōkó	yellow-throated marten	Martis flavigula	H. <i>ŋu apwə</i> (also applied to ācāŋgu)
akru	takin, Mishmi	Budorcas taxicolor taxicolor	H. <i>ambre kaci</i> animal + big P. <i>lemu dole mayi</i>
àkùsōrō	pangolin, Chinese	Manis pentadactyla	TT / 1/1×/ 11 1 15
$a_{1}a_{1}a_{2}a_{3}a_{4}a_{5}a_{4}a_{5}a_{5}a_{5}a_{5}a_{5}a_{5}a_{5}a_{5$	deer, Alpine musk	Moschus chrysogaster	H. <i>ambeshu</i> 'small animal'
alaci	nying squirrel,	Hylopetes alboniger	
ālī	porcupine brush-tailed	Atherurus macrourus	
alikopa	Bengal slow loris	Loris lydekkerianus	Also kalikopa
àmbrē àthà	animal, generic		
āmē	monkey, generic but usually macaque		H. tambre i.e. 'meat'
āmē krù	monkey, small	Macaca assamensis subsp. ?	et. 'monkey + female' ?
āmē lè	? the Arunachal	Macaca munzala ?	? the Arunachal macaque
	macaque		
àmē ló	hoolock	Hoolock leuconedys	
àmē pá	hoolock	Hoolock leuconedys	
āmí	red goral	Naemorbedus baileyi	<ul> <li>H. <i>àjùshù</i> deep and high gorge small (Plains)</li> <li>H. <i>tambre mra aci, aju tambre</i> (Hills)</li> </ul>
āmrā	tiger	Panthera tigris	<ul> <li>H. áŋgócì 'from the highlands' áŋgó montane region. (Plains)</li> <li>H. aŋgo kūyi (Hill)</li> <li>P. drũũ do kəci covers tigers plus leopards</li> </ul>
āmrā	felid sp.		in the early morning makes the noise
àphùŋgō àphólō	1		phólōlō
āmrā ārūlī	leopard cat	Prionailurus	
1		bengalensis	
Kalo	civel, small indian	v iverricula indica	at $ti a = \pm v v^2$
annia Kəci	leopard	13	

Idu	English	Latin	Comment
āmwé	wild pig	Sus scrofa	H. enàmbòn dì nose + sharp (Plains)
			H. asopra (Hills) P. ati da avavi
āmwé ālīprù	wild nig, boar, ash-	Sus scrofa	r. ati do ayayi
unitité unipru	coloured	Sub ser oju	
āmwé	wild pig, smaller	Sus scrofa	
ēkhōlō		·	
āmwé gōrō	wild pig, smaller	Sus scrofa	
ànūcé	squirrel, small, red	?	
āpī túrúmbú	mole, white-tailed	Parascaptor leucura	Also āpīmbú
apici	shrew, Hodgson's	Soriculus caudatus	
ลิทาบิทาน์	dhole wild dog	Cuon alninus	
àpùngō	marble cat, golden cat	Catopuma temminckii.	
āŗ`ŗõ	otter, Asian small-	Aonyx cinerea	small, comes in pairs
	clawed	2	
āŗ`ţō gā	otter, Eurasian	Lutra lutra	comes in groups, bigger
āŗū	hoary bamboo rat, poss.	Rhizomys pruinosus,	also the name of a bamboo sp.
、、	bay bamboo rat	Cannomys badius	
àsa emasú	rat, Indian long-tailed	Vandeleuria oleracea	tin of tail is white lives in innals
aso	rat sp.	Hustrix brachmura	up of tall is white, lives in jungle
ātā	elenhant	Elenhas maximus	P Invi ambrume $aka \ la \ baci = name \ of$
utu	erephant	Elephus maximus	clan granary fall down
ātālá	elephant, large male,	Elephas maximus	8
	tusker	•	
àyí mīnjīnī	red panda	Ailurus fulgens	
àyókò	rat sp.	<i>a</i> .	largest rat, lives in rocky area
bāmbū	golden jackal	Canis aureus	also <i>māmbū</i> cf. Kman <i>mámbów</i> 'tox'
ciru d <sup>¶</sup> rà	hare, Indian	Lepus nigricollis	
èphá mìtsī	civet. Himalayan palm	Paguma larvata	
èphá nōgōrō	? common palm civet	Paradoxurus	
1 0	1	hermaphroditus	
ètōphá	flying squirrel, red giant	Petaurista petaurista	
ībīcí	mountain weasel	Mustela altaica	
ībījù	pika, large-eared	Ochotona macrotis	
iringo	yellow-bellied weasel	Mustela kathiah	
jami kācīngā	yak house mouse	Bos gruniens Mus musculus	
kàhỗ	long-tailed field mouse	Anodemus sylvaticus	
kāmwē	flying squirrel. Mishmi	Petaurista mishmiensis	
kāp <sup>h</sup> ū	bat, any		
kàp <sup>h</sup> ū àndrố	flying fox, generic		
kātõ	civet, Indian	Viverra zibetha	
kàcì mànū	leopard, clouded	Neofelis nebulosa	et. 'leopard + xx'
māġy	serow	Capricornis thar	H. amadro + split in two (because it has
			a divided nool). P. and do ekayi serow
māàv àdású	serow brownish	Capricornis sp	probably just a local colour type
muy uddou	smaller	Сарноонны эр.	producty just a focul colour type
mācō	deer, sambar	Rusa unicolor	
mācō dùmsú	deer, spotted	Axis axis	also <i>ràgúnā</i> < Assamese
màjì kràá	buffalo, wild	Bubalus arnee	

Idu	English	Latin	Comment
mālē̃yā	rhino, greater one-	Rhinoceros unicornis	
	horned		
mānjō	deer, generic but refers		H. àphù ácì from the field (deer come
	usually to the barking		and eat crops in the night) (Plains)
	deer		H. manjo pi ami mweya (Hills)
mānjō	deer, barking, black	Muntiacus putaoensis	This is a probable resident of Arunachal
ākūmà	-	-	Pradesh
mānjō	deer, barking red	Muntiacus muntjak	
èmàsù	-		
mānjō īmbù	deer, half-black, half red	Muntiacus	This is a probable resident of Arunachal
U		gongshanensis	Pradesh
sāpūú	yak	Bos gruniens	'mithun + lama' i.e. Tibetan mithun

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