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RESEARCH ARTICLE

Utilization of Fauna for Therapeutic Purposes by the Newar Community in Bhanu Municipality, Tanahun, Nepal

***Nishana Shrestha*[1]*, Sony Bajracharya*[1*]**
[1]*Department of Zoology, Amrit Campus, TU, Kathmandu, Nepal*
**E-mail: miss.sony.bajracharya@gmail.com*

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Highlights

- Zootherapeutic uses of both domestic and wild fauna by Newar community from ancient times
- Utilization of fauna and its parts to cure various ailment problems
- Ethnomedicinal practices of fauna do not have side effects rather than allopathic medicine
- Necessity of transferring the indigenous knowledge to future generation

Abstract

The project has interviewed 70 people of Newar community including 37 females and 33 males of different age groups and occupations. Due to major profession of people with farming and animal husbandry, it has provided beneficial knowledge on ethnomedicinal practices to cure different ailment problems like gastritis, asthma, dysentery, cold, cough, back pain, crack heels, anxiety, menstrual cycle problem, burnings, eye cyst etc. 35 species of faunas are used for 9 different ailment categories. Out of 35 fauna species, 29 were vertebrates (15 Mammals, 11 Aves, 2 Pisces and 1 Reptile) and 6 were invertebrates (Order: Hymenoptera, Neuroptera, Stylommatophora and Decapoda). Apis sp. (0.1) and Bos taurus (0.9) has the highest Use Value; Gallus gallus domesticus, Bubalus bubalis, Ovis aries, Columba sp. has 100% Fidelity Level. There was no significant correlation between the fidelity level in ailment categories and animal use value ($p<0.05$) indicating that the animals frequently used for a particular ailment category of local people are not necessarily those used commonly in the study area. Newar community considered animal and their products have tremendous zootherapeutic potential in curing heath related problems. This project aims to pass the therapeutic uses of faunas to the new generation that barely are aware about side effects and free practices followed by their ancestors.

Keywords: ailment category, therapeutic uses, faunas, fidelity level, use value

Introduction

Human beings have always been intimately connected to the biotic and abiotic components of their surroundings. They've been inspired by the diverse flora and fauna's uses and properties, and they've been applying their expertise and ideas for the advancement of a healthy living. The importance of the ethnobiology in human health, medicine and environmental conservation cannot be overstated [1]. Newar community is one of the major ethnic groups of Nepal. Newars are found in every part of the country including Bhanu Municipality of Tanahun district. They are the original inhabitants of Bhaktapur of Kathmandu Valley. According to the latest National census 2011, the population of Newar was 4,729 which forms 10.33 percent out of total population of 45,792 in Bhanu Municipality. Newars include people of both mongoloid and Caucasoid extractions and

**Corresponding author*

practice both Hinduism and Buddhism. They have a distinct way of life, customs, culture and traditions. They are very famous for the skills of woodcarving and agriculture. They have developed their own practice through their traditional knowledge system and consider various domestic and wild animals as ethnomedicine. Therefore, keeping the aspects in view, an urgent need to inventories and record all ethnozoological information among the different ethnic communities to maintenance of this cultural practice for strategies of conservation and management of faunistic resources [2]. They have been utilizing fauna for various therapeutic purposes from the ancient times. Zootherapy is the medical use of animals and animal-derived products, which has historically played a key role in indigenous and western societies' healing practices, magic rituals, and religions [3]. Ethnomedicine encompasses disease-related beliefs and practices that are the result of indigenous cultural development rather than being expressly taken from contemporary medicine's conceptual framework [4]. Because of its low cost and cultural acceptance, the world has been bent towards ethnomedicine practices and beliefs, even after the revolution brought by them. Medicinal animals are employed in almost all cultures as a source of medicine. This type of use is not limited to people, but also includes the treatment of cattle ailments. Nonetheless, animal-based medicine has been overlooked and poorly characterized in ethnoveterinary practices [5]. Wild plant and animal ingredients are increasingly being employed as raw materials in the creation of contemporary medicine and some herbal treatments, despite the fact that ethnozoology has received little attention [6].

Nepal endows a variety of ethnic groups that are rich in tradition, culture, and indigenous knowledge systems in addition to the various floral and faunal resources. Nepal possesses wonderful, rich, and diversified biological resources as a result of her distinct terrain and vast variety of altitudinal and climatic zones. Since the beginning of time, indigenous knowledge has helped people use biological resources sustainably for a variety of uses, including food, medicine, clothes, colors, building, etc. In Nepal's rural areas, where there is little access to medical care, using traditional knowledge to use plants and animals as medicine has been the sole means of preserving life [7]. Tanahun district of Nepal comprises not only domestic animals as well as many major mammal species found in community forests such as Common leopard *(Panthera pardus)*, Barking deer *(Muntiacus muntjac),* Wild boar *(Sus scrofa)*, Jungle cat *(Felis chaus)*, Jackal *(Canis aureus)*, Rhesus monkey *(Rhesus macaque)*, Hare *(Lepus nigricollis)*, Squirrel *(Funambulus pennati)*, Porcupine *(Hystria indica)* and Himalayan Black Bear (Ursus thibetanus) [8]. People of the area have been found practicing therapeutic uses of faunas from ancient time up to now as cultural and traditional belief. Thus, this study aims to assess the utilization of fauna and their products for therapeutic purposes in Newar community.

Materials and Methods

Study Area

Bhanu Municipality is located at the central part of the country, which is named after Nepali poet Bhanubhakta Acharya of Tanahun district, Gandaki province. It is surrounded by Gorkha and Lamjung districts on the East, Byas Municipality on the West, Lamjung district on the North and Bandipur Rural Municipality and Gorkha District on the South. The municipality lies 61km east of Pokhara. It lies at an altitude of 810m with latitude of 28°2’30 N and longitude of 84°21’10 E (Figure 1). With a total land area of 184 km^2 (71 sq mi) and elevation ranging from 228 meters to 8163 meters, this municipality no doubt holds so many faunas that can be related to the study. Considering all favorable conditions, the study was conducted between July to October 2022 in Basantapur village of Ward 7, Bhanu Municipality.

As Basantapur area is surrounded by forests, it is of course a home to different domestic and wild animals like Goat, Cattle, Sheep and Tiger, Northern Red Muntjac, Kaliz, Red Jungle Fowl, Jackal, Porcupine etc. respectively. This availability of wide ranges of faunas has made this study area a better option to choose among others. As most of the local people engaged in farming and petting domestic animals, Basantapur has been involved in so many ethnomedicinal practices using faunas found in this region since a long time. Though people from different castes like Newar, Gurung, Magar, Damai, Kami, Islam etc. resides in this region, Newar being the majority, is specifically considered for this project.

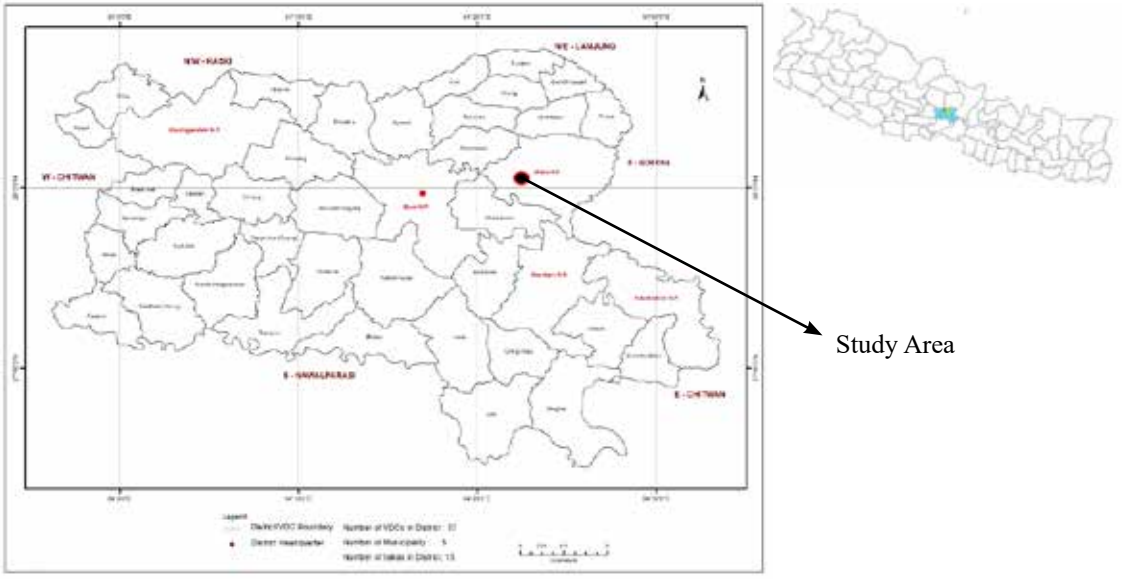

Fig 1. Map of Tanahun District showing Bhanu Municipality Ward 7.

Methods of data collection

The primary data collection was done by gathering the information about the perception, views and utilization of ethnomedicinally important fauna by the local people from household survey with simple informal questionnaire. For more specific queries, Key Information Interview (KII) was conducted. Direct Observation (DO) was conducted for self-realization of the situation in the field. It has helped to have a comparative analysis of the local people's views towards the faunas. Secondary information was also gathered from the local ward during a field visit. Similarly, published books, journals, and newspapers were also taken as secondary sources.

Data Analysis

The primary and secondary data collected through the field visit was analyzed using Species Use Value (UV)and Fidelity Level (FL). The relative importance of an animal species used as medicine in the study areas can be calculated with the help of the Use Value (UV) of the species. Use Value as proposed by [9], and adapted by Albuquerque is calculated as follows:

$$UV = \frac{\Sigma U}{n}$$

Where, UV is the use value of a species, *U* is the number of citations per species and, *n* is the number of informants interviewed.

Fidelity Level (FL) is used to determine the most frequently used animal species for treating a particular ailment category of the local people of the study area. The value of FL highlights the percentage of informants who declare the similar uses of some species [10]. It is calculated by: $FL = \frac{Ip}{Iu} x100\%$

Where, I_p is the number of informants who suggested the use of a species for the same major ailment and I_u is the total number of informants who mentioned the species for any other use.

The correlations between FL value in ailment categories and animal UV values were also tested using Spearman's Correlation coefficient at significance level of $p<0.05$.

Results and Discussion

Socio-economic Characteristics of the Study Area

Among 70 respondents from Bhanu-7, Tanahun, 37 were females and 33 were males. The survey shows that the majority 29 of the respondents of the study area was of the age group 26-50 years. Similarly, the number of respondents of the age group 51-75 years was 21, 75+ years was 11 and 18-25 years was 9 (Figure 2).

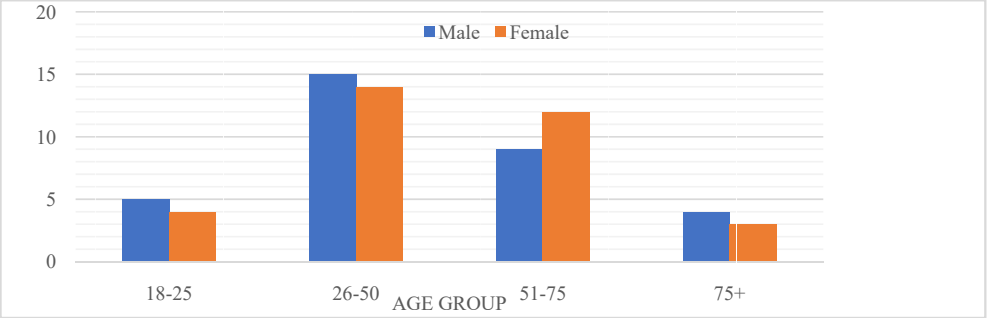

Fig 2. Demographic Information of Respondents (Sex and Age)

Regarding occupation of respondents, the survey showed that the majority of the respondents 37 out of 70 were farmers, 10 each were shopkeepers and traditional healers, 8 were students, and 5 of them were teachers (Figure 3).

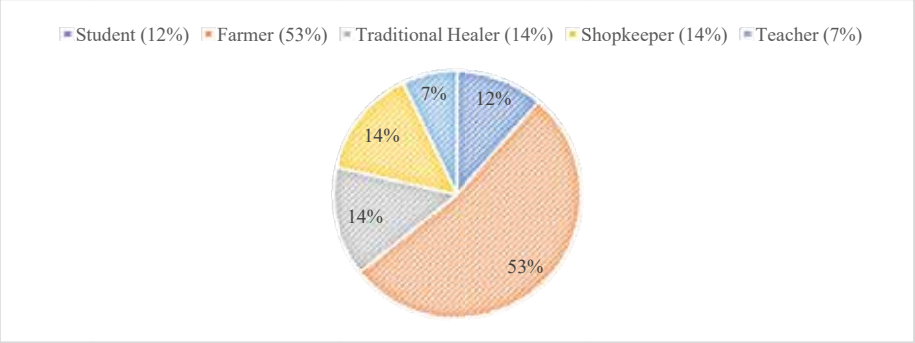

Fig 3. Demographic Information of Respondents (Occupation)

Faunas with Ethnomedicinal importance in the Study Area

In the survey at Basantapur village of Bhanu Municipality, Ward-07, a total of 70 people responded with valuable information regarding faunas with ethnomedicinal importance. The faunas with their parts used, their uses in medicinal purpose, ailment category and Use Value are shown below (Table1).

Table 1. List of faunas with their parts used and ailment category/problem

S.N.	Family	Scientific Name	English Name	Local Name	IUCN Category	Parts Used	Uses	Ailment Category/ Problem	UV	Similar references
Vertebrates; Class: Mammalia; Order: Cetartiodactyla										
1	Bovidae	*Bos taurus* (Linnaeus, 1758)	Cattle (D)	Gai		Urine; milk; ghee	-sprayed in house as a disinfectant, consumed for blood purification - generally given to children with common cold and fever; body massage during body and back pain	-insecticide control purification of blood -fever, common cold ; back and body pain	0.09	[24]
2	Bovidae	*Bos taurus* (Linnaeus, 1758)	Ox (D)	Goru		Flesh	-helps in speedy recovery from tuberculosis	Tuberculosis	0.01	[13]
3	Bovidae	*Bubalus bubalis* (Linnaeus, 1758)	Buffalo (D)	Bhaisi		Milk; Ghee and Flesh; bone marrow; fresh blood; curd	-taken to increase the strength; given to the newly mom to bounce back her strength fast; bone marrow applied to the crack heels on the 8th day of the Dashain (fresh blood) ; stamped by the female of the house in the main door to prevent the house from negative entry(evil);mixed with the hot rice and given to the person with diarrhea	-strength; energy booster; crack heels; magico-religious value; diarrhea	0.05	[11,18]

4	Bovidae	*Capra aegagrus hircus*	Goat (D)	Bakhra	LC	Milk; Flesh& bone	-given to children as immune booster, applied to a tattoo (which is made locally by using needle) for a better dark coloration; soup of flesh and bone cooked with spices for cold	- immune power, color corrector; cold	0. 04	[25]
5	Bovidae	*Ovis aries* (Linnaeus, 1758)	Sheep (D)	Bheda		Flesh; bone	- consumed to regulate the body temperature in winter season; soup of bone given to the asthma patient	-cold, regulating body temperature; Asthma	0.04	
6	Suidae	*Sus domesticus* (Erxleben, 1777)	Pig (D)	Sungur		fat	- applied to the skin to improve skin tone and to reduce pimples	-skin problem	0.01	[19,20]
7	Cervidae	*Muntiacus vaginalis* (Boddaert, 1785)	Northern red muntjac (W)	Ratuwa	LC	Horn & Bone; Flesh	-Paste of horn and bone is applied in wounds, taken orally for common cold; given to heart disease patient	-wound healing, Cold; heart disease	0.04	
Order: Carnivora										
8	Canidae	*Canis aureus* (Linnaeus, 1758)	Jackal (W)	Shyal	LC	Flesh	-cooked meat for tuberculosis; mixed with cereals to produce alcohol given to asthma, joint pain and arthritis patients	Tuberculosis; joint pain, arthritis, asthma	0.05	[13,16,17, 23]
9	Canidae	*Canis lupus familiaris* (Linnaeus, 1758)	Black dog (D)	Kalo kukur		Fecal matter	- works as an anti-poison	-anti-poisoning	0.01	[11]
10	Felidae	*Panthera tigris* (Linnaeus, 1758)	Tiger (W)	Baagh	EN	Skin; Teeth	-Grinded paste of dry skin given to the mental illness patient; paste given to the rabies and asthma patient.	-mental illness; Rabies, Asthma	0.04	[15,16,17]
Order: Primates										
11	Hominidae	*Homo sapiens sapiens*	Human	Manche		Milk; Urine	-used in minor cuts, milk of new mother reduces burning and stinging; used for eye pain and conjunctivitis	-burning, wound, stinging; Conjunctivitis	0.04	[15, 16, 18]
Order: Lagomorpha										
12	Leporidae	*Lepus nigricollis* (F Cuvier, 1823)	Rabbit (D)	Kharayo	LC	Fresh blood; Flesh, Fur	-taken orally by asthma patient; cooked meat consumed by females to regulate menstrual cycle; ash of fur applied in wounds	-asthma; menstrual problems, wound	0.04	[15, 16]
Order: Perissodactyla										
13	Rhinocerotidae	*Rhinoceros unicornis* (Linnaeus, 1758)	Rhino (W)	Gaida	VU	Skin; Horn	-mixed with cow's ghee applied to the skin; horn's paste used as aphrodisiac substances	Makhya (skin toner); aphrodisiac substance	0.02	[13]
Order: Chiroptera										
14	Rhinolophidae	*Rhinolophus spp.*	Bat (W)	Chamero		Fat; Flesh	-applied to head scalps; cooked meat given to asthma patient	-hair growth; asthma	0.03	[11, 13, [17]
Order: Rodentia										
15	Hystricidae	*Hystrix indica* (Kerr 1792)	Porcupine (W)	Dumsi	LC	Flesh; quills	-cooked flesh fed to children with stomachache and cold, soup for immunity power; wizard doctors use to protect the sickness from negative	-cold, stomachache, immunity power; sickness from negative energy	0.04	[15,23]
Class: Aves; Order: Galliformes										
16	Phasianidae	*Lophura leucomelanos* (Latham, 1790)	Kaliz Pheasant (W)	Kaliz	LC	Flesh; Egg	-cooked flesh consumption for protein; helps in speedy burning recovery	-food value; burning	0.02	[13]
17	Phasianidae	*Pavo Cristatus* (Linnaeus, 1758)	Pea cock (W)	Mayur	LC	Feather	-ash of the feather applied externally to the skin rashes (wound), considered as a good luck kept in the main door	-wound, rashes, good luck (magico-religious)	0.04	[5]

18	Phasianidae	*Gallus gallus domesticus*	Domestic Fowl (D)	Kukhura		Egg; Flesh & bone; fat	- as a protein source, for speedy recovery from burning, covering the egg with the soft cloths applied to surface of eye cyst; soup to new mothers for strength, to cure common cold; applied to burns	- protein value, burning, eye cyst; energy booster, common cold; burns	0.07	[7, 16,17, 23]
19	Phasianidae	*Gallus gallus* (Linnaeus, 1758)	Red Jungle Fowl (W)	Luiche	LC	Flesh; Egg; bone	-cooked flesh for strength, and body pain relief; consumed as a protein source; soup for asthma patient	-energy booster, body pain; protein; Asthma	0.05	
20	Phasianidae	*Francolinus francolinus* (Linnaeus, 1766)	Black Francolin	Titra	LC	Beak; Egg; Flesh	- used to feed rice in the rice feeding ceremony and is believed to provide a sharp mind and speaking quality -consumption for immunity power, anemia; cooked flesh for dysentery, asthma patient	-memory power; immunity power, anemia; dysentery and asthma	0.07	[22]
21	Phasianidae	*Coturnix coturnix* (Linnaeus, 1758)	Quail bird (W)	Battai chara		Head; Flesh& bone, egg	- cooked head consumed for memory power; soup for strength; boiled egg consumed to increase immunity power, and also for asthma	-memory power; strength, immune power, asthma	0.06	[13]
Order: Columbiformes										
22	Columbidae	*Columba* sp. (Gmelin, 1789)	Domestic pigeon (D)	Parewa	LC	Flesh; egg	-cooked flesh for cold, soup for asthma patient; consumed for source of protein	-cold, asthma; protein	0.02	
23	Columbidae	*Streptopelia orientalis* (Latham, 1790)	Dove bird (W)	Dhukur	LC	Flesh, egg	-cooked flesh and egg prescribed for protection from cold	-cold	0.01	[22,23]
Order: Anseriformes										
24	Anatidae	*Anas platyrhynchos domesticus*	Domestic duck (D)	Haas		Egg; Flesh	-essential ingredients to conduct Diwali puja, increase memory power; consumed to prevent from cold	- magico-religious, memory power; cold	0.04	
Order: Passeriformes										
25	Corvidae	*Corvus splendens* (Vieillot, 1817)	Crow (W)	Kaag	LC	Flesh	-cooked flesh consumed for the treatment of bleeding gum	-bleeding gum	0.02	
Order: Pelecaniformes										
26	Ardeidae	*Bubulcus ibis* (Linnaeus, 1758)	Cattle egret(W)	Bakulla	LC	Flesh	-cooked flesh for gum bleeding patients, prevention from hot climate	-gum bleeding, heat prevention	0.02	[11]
Vertebrates; Class: Pisces; Order: Cypriniformes										
27	Cyprinidae	*Schizothorax richardsonii* (Gray, 1832)	(Trout (W)	Asala	VU	Whole body; flesh	-soup for pregnant women; cooked flesh to increase memory power in children	-weakness; memory power	0.02	[16]
28	Cyprinidae	*Pethia conchonius* (Hamilton,1822)	Rosy barb (W)	Sidhre machha	LC	Whole body	-consumed as a pickle because of its great nutrient value	- nutrients	0.01	
Class: Reptiles; Order: Squamata										
29	Varanidae	*Varanus flavescens* (Gray, 1827)	Golden monitor lizard (W)	Sun gohoro	LC	Flesh	-cooked flesh consumed for the cure of dysentery and for protein value	-dysentery, protein value	0.01	
Invertebrates; Order: Hymenoptera										
30	Apidae	*Apis sp.*	Honeybee (D)	Mauri		Wax; Honey; honey comb	- applied to the crack skins; mixed with the lukewarm water and lemon juice in an empty stomach to reduce the obesity, given to infant suffering diarrhea and constipation, also mixed with the incinerated banana leaf for asthma and bronchitis; eaten to get relief from the back pain	-crack skin; obesity, diarrhea, constipation, asthma, bronchitis; back pain	0.1	[13, 15, 17]

31	Vespidae	*Vespa Sylvestris*	Wasps (W)	Barulo		Larva; Comb	-Fried consumed to reduce the anxiety; ash applied to the fowl suffering from fowl pox	-anxiety; fowl pox	0.02	[23]
32	Vespidae	*Vespa mandarinia* (Smith, 1852)	Asian Giant Hornet (W)	Aringal		Whole body, comb	-fried larva and adult eaten to reduce the back pain	-back pain	0.01	[23]
Order: Neuroptera										
33	Myrmelontidea	*Glenurus gratus*	Ant lion (W)	Kutuni budi		Whole body of larvae	- grinded and mixed with honey to cure dysentery	-dysentery	0.01	
Order: Stylommatophora										
34	Limacidae	*Limax seticus*	Slug (W)	Chiple kira		Whole body	- consumed for speedy recovery from fracture(uncooked), tuberculosis and gastritis; paste for fractured area	-fracture tuberculosis, gastritis	0.04	[7, 13, 16, 18, 23]
Order: Decapoda										
35	Portunidae	*Cancer spp.* (Linnaeus, 1758)	Crab	Gangato		Whole body	-consumed as a source of proteins, crushed powder (for wounds) mixed with water for dysentery, roasted given to asthma patient	-food value, Wound, dysentery, asthma	0.06	[13]

W = Wild, D = Domestic, EN = Endangered, NT = Near Threatened, LC = Least Concern, VU = Vulnerable, UV= Use Value

Quantitative Ethnofauna

Species use value and fidelity level

From the given data, *Bos taurus* (0.09) and *Apis* sp. (0.1) has the highest use value among all other species (Table1). The fidelity level (FL) of the *Gallus gallus domesticus* and *Bubalus bubalis* has the 100 for the Dermalological problem whereas, *Pavo cristatus* has 90. For the neurological *Hystrix indica* has 80 and *Vespa* sp. has 75 whereas, fidelity level of *Lepus nigricollis* and *Rhinocerus unicornis* for the reproductive problem is 80 and 75 respectively. Likewise, *Ovis aries*, *Apis* sp. and *Columba* sp has the 100 FL and *Limax seticus* has 90 for the respiratory problem whereas, *Vespa mandarinia and Coturnix coturnix* for the musckoskeleton problem has 90 and 70. For the dental problem, *Corvus splendens* has the fidelity level of 70 where *Francolinus francolinus* has 50 for the cardiovascular problem. *Glenurus gratus* has the fidelity level of 78 for the gastro-intestinal problem. Likewise, *Gallus gallus domesticus* for the ophthalmological problem has the 50 followed by *Homo sapiens sapiens* has 80 (Table 2).

Table 2. Fidelity Level of different faunas with ailment categories

S.N.	Ailment Categories	Scientific Name	Fidelity Level (FL)
1	Dermatological Problem	*Gallus gallus domesticus*	100
		Bubalus bubalis	100
		Pavo cristatus	90
2	Neurological Problem	*Hystrix indica*	80
		Vespa Sylvestris	75
3	Reproductive Problem	*Lepus nigricollis*	80
		Rhinocerus unicornis	55
4	Respiratory Problem	*Ovis aries*	100
		Apis spp.	100
		Columba spp.	100
5	Musculoskeletal Problem	*Limax seticus*	90
		Vespa mandarinia	90
		Coturnix coturnix	70
6	Dental Problem	*Corvus splendens*	70
7	Cardiovascular Problem	*Francolinus francolinus*	50
8	Gastro-intestinal Problem	*Glenurus gratus*	78
9	Ophthalmological Problem	*Gallus gallus domesticus*	50
		Homo sapiens sapiens	80

The correlation between the fidelity level (%) in ailment categories and animal use value was not significant (Spearman's correlation coefficient, $r_s = 0.078$, $p = 0.758$) indicating that the animals frequently used for a particular ailment category of local people are not necessarily those used commonly in the study area (Table 1 and 2). Adhikari et al. also detected the non-significance correlation test similar to the study [11].

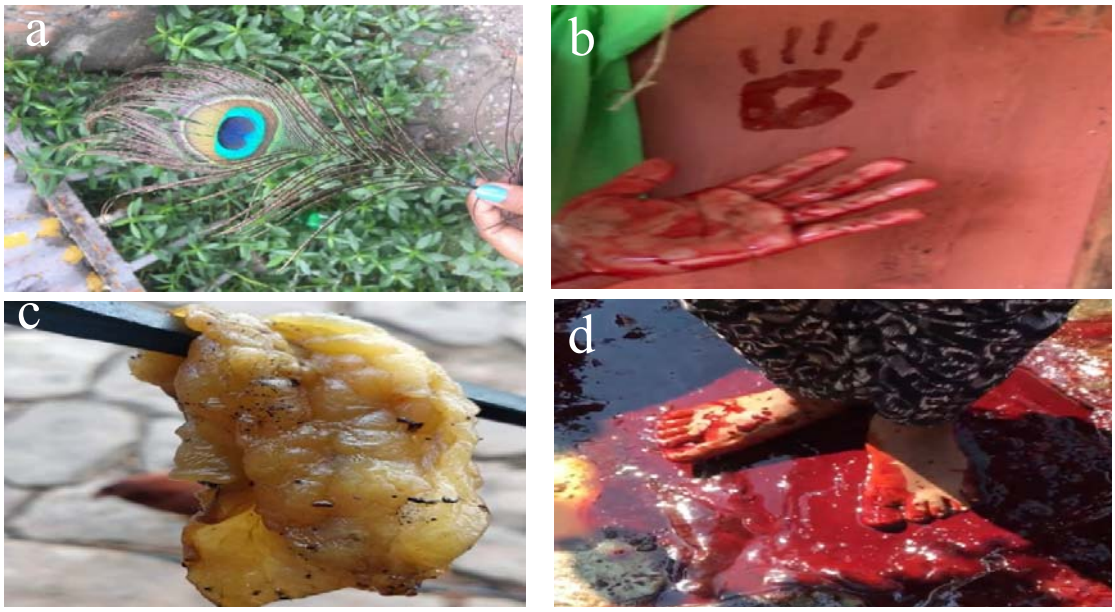

Fig 4. a- Feather of peacock; b- Applying fresh blood on crack heels; c-Fat of Gallus gallus; d-Stamping fresh blood of Bubalus bubalis at the front door on eighth day of Dashain festival

This ethnomedicinal study showed that 35 fauna which belong to 18 Order and 22 family were being used for different ailment categories. Out of 35 fauna species, 29 were vertebrates (15 Mammals, 11 Aves, 2 Pisces and 1 Reptile) and 6 were invertebrates (Order such as Hymenoptera, Neuroptera, Stylommatophora and Decapoda). It revealed that traditional medicine at the study site heavenly relies on animal-based treatments similar with the study done in papers [11-16].

The Newar people use animal products to cure diseases like headache, arthritis, asthma, dysentery, cough, mensuration problem, common cold, tuberculosis, joint pain, arthritis, regulating body temperature, back pain etc. The animal species used by Newar having medicinal utility are also supported by the findings of other researchers. For example, present study reveals that the cooked meat of *Canis aureus* is used for curing the tuberculosis disease which is also supported by Ghimire [17] but Timilsina and Singh [16] reported the use of same species for the headache and rheumatism whereas Lohani [13] reported the alcohol obtained from the same species is taken orally by asthma patient and this study also reveals the same species for the same purpose. The use of urine of *Homo sapiens sapiens* is used for the conjunctivitis which is also supported by Timilsina and Singh [16]. The milk of mother is applied on eye to clear the eye which is supported by Poudel and Singh [15] and Panta [18]. Cooked flesh of *Rhinolophus* sp. is beneficial for the asthma patient similar report was found by Ghimire [17] and Adhikari et al. [11]; fat of same species is applied on the scalps to prevent from the hair loss and fast growth of hair which was similar with Lohani [13]. Honey comb is consumed by the patient of backpain while honey of *Apis* sp. in present research is consumed for the treatment of the cough, back pain which was similar with the researched conducted by papers [13,15,17].

Present study reveals that at the whole body of *Limax seticus* is consumed for speedy recovery from bone fracture, tuberculosis and body pain [7,13,16,18], while Ghimire [17] documented the uses of same species for the cure of piles by the Munda Ethnic group of Jhapa. The fat of *Gallus gallus domesticus* is applied topically on the burnt area which is also supported by Ghimire [17]. Thapa [7] also reported the fat of same species to cure the burn by the Lapcha in Illam. The present study also explored egg of *Gallus gallus domesticus* is used to cure eye cyst and is also consumed as energy booster where Timilsina and Singh [16] documented the Balami ethnic group utilized the egg to cure dysentery. Flesh of the *Bubalus bubalis* is consumed for food value and to promote the energy [11], where Panta [18] documented the used of same species for abdominal pain and blood dysentery.

Newar people has very unique way using the fauna for the magico religious value also. In present study, the fresh blood of buffalo is applied on crack heels on the occasion of eighth day of the Dashain at the Bhimshen Than (Temple). On the same day, that fresh blood is also stamped on the front door of house as Prasad and also it will save from the evil energy. The feather of *Pavo cristatus* (Pea cock) is also kept in the house as a symbol of the good luck is in agreement with Alves [5]. The grinded larva of *Glenurus gratus* and the honey is taken orally to cure the dysentery which is new finding of this study.

Conclusions

The Newar Community from Basantapur village of Bhanu Municipality Ward No. 7, Tanahun district have been practicing ethnomedicinal applications of different faunas found in that area. A total of 35 different species are being used for 9 ailment categories (Respiratory, Neurological, Cardiovascular, Reproductive, Gastro-intestinal, Dental, Musculoskeletal, Ophthalmological and Dermatological). Among those species being used, *Apis spp.* and *Bos taurus* have the maximum Use Value and 100% Fidelity Level. The study documents the necessity of transferring the indigenous knowledge to the younger generation for the sustainable ethnomedicine uses and the conservation of the ethnomedicinally important fauna. Since ethnomedicines do not have any side-effects, more research should be carried out in this area rather than allopathic medicines with various side effects. This study will be a new finding for that study area and it will also help and encourage further more researches to be conducted in that area.

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