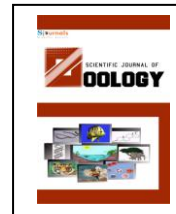


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Original article

Ethnozoological survey of traditional medicinal uses of tortoises in Lentsweletau and Botlhapatlou villages in Kweneng district of Botswana

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ABSTRACT

A study was carried out to document the traditional medicinal uses of tortoises at Ramankhung, Lekgalung and Dikateng fields near Lentsweletau village and at Mmaphoroka and Moleleme fields near Botlhapatlou village in Kweneng district of Botswana. A formal questionnaire was administered to 47 respondents (nearly 10 respondents per study site). The respondents were 46.81% farmers, 36.17% cattle herders, 14.89% farm labourers and 2.13% unemployed. The study showed that different parts of tortoises are used in traditional medicine to treat various human ailments in Lentsweletau and Botlhapatlou villages in Kweneng district of Botswana.

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1. Introduction

Animals are vital to man's existence in that they provide him with various materials such as food, clothes, transport and others (Jaroli et al., 2010). Some animals are known to have medicinal value and to be used by man in traditional medicine (Kim and Song, 2013). Many of today's drugs have been derived from animal resources. Among such animals are chelonians. Tortoises are sought after for traditional medicine and other various uses like food, trade and as pets (Yang, 1998; Boycott and Bourquin, 2000). They are food for man and other animals like mongooses and birds of prey (Schmidt, 2006). They are also of ecological importance since they are agents of seed dispersal of some plant species (Hnatiuk, 1978; Cobo and Andreu, 1988; Guzman and Stevensen, 2008).

Botswana is blessed with a great diversity of animals. However, information on the utilisation of some animals like tortoises in traditional medicine in the country is scarce. This study investigates the traditional medicinal uses of tortoises in Lentsweletau and Botlhapatlou villages in Kweneng district of Botswana.

2. Materials and methods

The study was conducted in January and February 2013 at Ramankhung, Lekgalung and Dikateng fields near Lentsweletau village and at Mmaphoroka and Moleleme fields near Botlhapatlou village in Kweneng district of Botswana. The areas were selected because they are mainly farming areas where one can usually encounter wild animals especially reptiles while walking in the bush herding livestock or working in the field. Data were collected using questionnaire. The questionnaire was administered to a total of 47 respondents from all the study areas. The data were analysed using Microsoft Excel. Tables were used to present summary statistics.

3. Results and discussion

3.1. Demographic characteristics

Majority of the respondents in this study were males (89.36%) compared to 10.64% for females (Table 1). The respondents were farmers, cattle herders and farm labourers. This is in accordance with the findings of Moreki et al. (2012, pp. 305), that the care of livestock in Botswana, especially cattle is largely in the hands of men than women, and that the ratio of male to female ownership of cattle holdings is 3 to 1 (Oladele and Monkhei, 2008, pp 1).

Table 1

Demographic characteristics of the respondents from all the study areas.

Variable n=47	Category	Number of respondents					Overall %
		Ramankhung	Lekgalung	Dikateng	Mmaphoroka	Moleleme	
Gender	Male	13	6	12	8	3	89.36
	Female	1	1	0	2	1	10.64
Occupation	Farmer	5	6	3	6	2	46.81
	Cattle herder	7	1	4	3	2	36.17
	Farm labourer	2	0	5	0	0	14.89
	Unemployed	0	0	0	1	0	2.13

3.2. Medicinal uses of tortoises

In this study, utilisation of tortoises in traditional medicine was mentioned in all the study areas. Low percentages in the use of tortoises in traditional medicine were recorded at Dikateng and Moleleme (Table 2). The low percentage recorded at Moleleme may be due to the small number of respondents at the study area.

Table 2

The respondents' views on whether tortoises are used in traditional medicine or not in their area.

Tortoises used in Traditional medicine	Frequency (%)				
	Ramankhung	Lekgalung	Dikateng	Mmaphoroka	Moleleme
Yes	57.14	57.14	16.67	50.00	25.00
No	42.86	42.86	83.33	50.00	75.00
No: of responses	14	7	12	10	4

The study revealed that different parts of tortoises were used to treat various human ailments in Lentsweletau and Botlhapatlou villages in Kweneng district of Botswana (Table 3). At Mmaphoroka fields, it was mentioned that dried blood of tortoises was mixed with other medicines and taken orally by the patient for the

treatment of high blood pressure. At Ramankhung it was said that blood drawn from the ventral surface of a tortoise was mixed with other medicines to treat fontanel and umbilicus in babies. Blood of tortoises was also said to treat epigastric pains in human beings at Lekgalung.

The use of plastron in the treatment of cough was recorded in all the study areas except Moleleme. This may be attributed to the small sample size at Moleleme fields. It was said that the powder scraped from the inside of the plastron was mixed with other medicines and taken orally by the patient. On being asked how many tortoises were killed per month to obtain the plastron, all the respondents said one plastron was enough to be used for up to a period of ten years.

The carapace, which is the top shell of a tortoise, was said to be used in advertising the residence of a traditional doctor. It was also used as a storage container for traditional medicine by traditional doctors. In Tanzania, scutes were used for treating various ailments such as muscular pains, boils, cardiac and splenic diseases and for witchcraft (Kabigumila, 1998). The consumption of tortoise meat was said to treat bedwetting in children at Ramankhung.

The use of tortoises in traditional medicine is practised in other African countries for example in South Africa tortoises are used in traditional medicine for the treatment of epilepsy and for the treatment of sexual problems. In Swaziland the ash from burnt tortoises are used to treat burns and scalds (Boycott and Bourquin, 2000).

The study had indicated that some parts of tortoises were used in traditional medicine for things other than the treatment of human ailments (Table 3). The head of a tortoise is used in traditional medicine to cause fights and disputes within families. The head and the heart of a tortoise are separately used in love potions to keep a partner for a long time or to make someone shy. The head and the eggs are also used separately in cattle kraals to ensure cattle do not graze too far from their kraal and get lost.

Table 3

Medicinal uses of tortoises cited by respondents from different study areas.

Part used	Ailment treated	Frequency				
		Ramankhung	Lekgalung	Dikateng	Mmaphoroka	Moleleme
Blood	High blood pressure				2	
	Epigastric pains		1			
	Fontanel le	1				
	Umbilicus	1				
Plastron	Cough	1	3	1	2	
Carapace	Traditional medicine storage container	1	1			
	Advert for traditional doctors	1				
	Flesh Bedwetting		1			
Head	Others	1	1		1	
Eggs	Others					1
Heart	Others	2	1			

4. Conclusion

The study had shown that in Lentsweletau and Botlhapatlou villages in Kweneng district of Botswana, tortoises are used in traditional medicine to cure several human ailments. The study had also revealed that certain parts of tortoises are used in other things like protecting livestock and in causing disputes in families. Some people are still dependent on local traditional medicinal system for their health care and that of their livestock. The conservation of tortoises needs to be considered by the relevant authorities to preserve the local medicinal knowledge. The empirical information obtained from this study can lead to the discovery of new sources of medicine.

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