

Morpho-Taxonomy of CUMULUS dromedaries tribes of family camelidae in Taluka Talhar district Badin, Sindh province– Pakistan

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Abstract

This study aimed to determine the morpho-taxonomic characters of different tribes of family Camelidae present in Taluka Talhar District Badin, Sindh, Pakistan. The sampling was carried out during the month of January 2018 to December 2018. This study aims to clearly morpho-taxonomy of different types of family camelidae. During studies measures 17 different camels and found the great difference in their morpho-taxonomic variations and divided the camels into five different tribes according to their shapes and sizes such as Laari, Tharryo, Dhathi, Sindhi, Sakri from Talhar District Badin.

All the studied tribes were having variabilities in great deal such as size and shape of ears, nostrils, foot, and snout. The variability in hump size could show intake of food amount. The change in dorsoventral body color could show the variability in tribes of the camel which helped in their identification.

Keywords: camel, tribes, morpho taxonomy

Introduction

The word camel has been driven from Sanskrit language where in it is called Asht, Persian Hast, Arabic samaniyah / Ible and English Eight. Camel belongs to kingdom Animalia, Phylum Chordata, Class Mammalia, Superparaxonia, Order Artiodactyla, Suborder Ruminantia, Superfamily Infera, family Camelidae.

Geographically camels are distributed in North Africa, Middle East, and Arabian countries. Morphologically the camels are two types which are found all over the world. Arabian one humped camels and the Bactrian's camels are two humped camels. Single humped camels mostly belong to North Africa, Pakistan having Arabian origin and double humped camels are Asian and are found in Black Sea beaches to Siberia, Thubety and China.

The one-humped camel domesticated in Yemen Oman about 3,000 to 4,000 years ago (Folwer, 1998). Camel is a multipurpose animal and used for milk, meat, hides and transport (Burgemseister, 1974).

Muhammad Nawaz Baloch (2001) [7] state in his thesis this breed derives its name from an area of Tharparkar called "Dhatt". The "Dhaitti" literally means desert area. In Tharparka, Dhathi is an area or part of the (Thar) where people speak Dhathi dialect of Thari-language. Dhathi also means Thar.

Wilson (1984) [6] also mentioned this camel breed as Thari. This breed is commonly as Dhathi in the other parts of the province.

Isani and Baloch (2000) [1] documented and characterized 20 breeds of camel in Pakistan. Out of which 7 breeds were in Balochistan viz. Brahvi, Kachhi, Kharani, Lassi, Makrani, Pishin and Rodbari; 4 breeds in NWFP namely, Gaddi, Ghulmani, Khader and Maya; 5 in Punjab e.g. Bagri, Brela or Thalocha, Campbelpuri, Kala-Chitta and Marecha, and 4 breeds in Sindh viz. Dhathi, Kharai, Larri of Sindhi and Sakrai. They observed Dhathi breed as a typical desert type with slim body, long legs and alert look. Dhathi camels

were lighter in weight and were not massive like Larri camels. Their faces were narrow and small ears. They found the necks of Dhathi camel were thinner as compared to Larri camels. The most frequent coat colour was light or dark fawn. Mean length and width of face, head, ear, neck and hump were 49.93 and 55.37; 20.44 and 17.04; 10.97 and 8.30; 156.46 and 35.0; 49.04; 44.06 cm, respectively. The mean girth, height, length, foreleg (length) and hind leg length were 204.74, 205.35, 201.42, 150.75 and 159.15 cm, respectively.

One humped camels have variety of morphological characters such as long eye lashes, long neck, long legs, feet are large pads with two anterior toe nails, whereas Bactrianus has longer, darker hair, shorter legs and a more massive body, color varies from deep brown to dusty grey. Dromedaries have a single hump, Bactrianus have two humps, dromedaries have short fine coat, Bactrianus has long, thickest hair on head, neck, hump, forelegs. The Dromedary camel was given its current binomial name *Cumulus dromedaries* by Carl Linnaeus a Swedish zoologist in his 1758 *Systema Nature*, in 1975 Richard Bulliet a professor of History at Columbia University observed that the dromedary exists in large number in those areas. In 1972 British veterinarian Arnold Lease had classified camels by their basic habitats. Camels were taken to South America in the 16th century by the Spanish conquistadors but these have died out. Double humped camels are found in Asia, Black Sea beaches of Siberia, Thubety, Tibet, China, north Kenya, eastern Ethiopia, Somalia, and Arabian Peninsula in Syria, Lebanon, Israel, and Jordan as well as in Turkey, Iran, Afghanistan, and Pakistan.

Material and Method

Study area: study was conducted in Taluka Talhar District Badin quadrangle latitude 24°53'50 N, longitude 68°49'12 E" shows the actual area of the Talhar.

Figure.1 showing the map of study area.



Fig 1: Map showing the location of study area

Study period: the study was conducted at Talhar during the months of June 2015 to September 2015 and February 2016.

Data collection procedure

The data on Dhatinesis dromedary camel (single humped) camel was collected from Talhar district Badin and the parameters were recorded for the taxonomical studied of male, female and juvenile camels in Dhathi camel of single humped (cumulus dromedaries) were studied during the research months and in which 2 females and 3 males of Dhathi tribe camels were found. Ten different parameters used for taxonomy of camels viz: length of

Head, Neck, Ear, Body, Tail, fore leg, Hind leg, width of fore foot, hind foot and Width of hump (thooho) (table1). All international parameters were measured in millimeters The climate is moderate and is tempered by the sea breeze which blows for eight months of the year from March to October making the hot weather. The average rainfall is 125mm normally during the monsoon period the sky remains with very little precipitation. The climate in the summer is generally moist and humid. The cold weather in Badin start from the beginning of November The maximum temperature in the hot weather is exceed up to 46°C and minimum temperature in the cold weather is fall below 8°C.

Table 1: Parameters of C. D. Dhathiensis camels (male)

	Head	Ear	Neck	Body Length	Hump	Fore leg	Hind leg	Fore foot	Hind foot	Tail
Camel 1	508	127	1270	3200.4	381	2184.4	2184.4	N.D	N.D	660.4
Camel 2	533.4	152.4	1244.6	1651	355.6	1981.2	2006.6	736.6	711.2	558.8
Camel 3	457.2	127	1193.8	2844.8	520.7	2032	1905	N.D	N.D	609.6

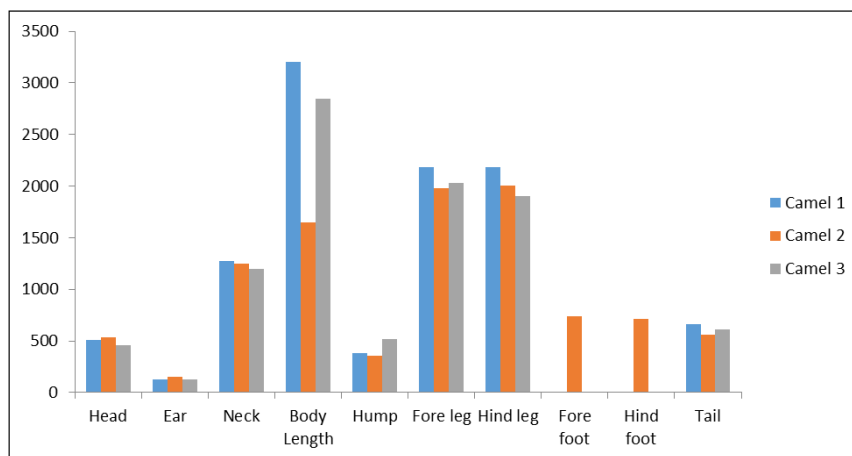


Fig 2: Parameters of Cumulus Dromedarins Dhathiensis camel (female)

Table 2

S.No:	Head	Ear	Neck	Body Length	Hump	Fore leg	Hind leg	Fore foot	Hind foot	Tail
Camel 1	533.4	152.4	1143	1803.4	1270	2057.4	2159	711.2	685.8	685.8
Camel	457.2	101.6	1219.2	2057.4	914.4	1828.8	1828.8	-	584.2	533.4

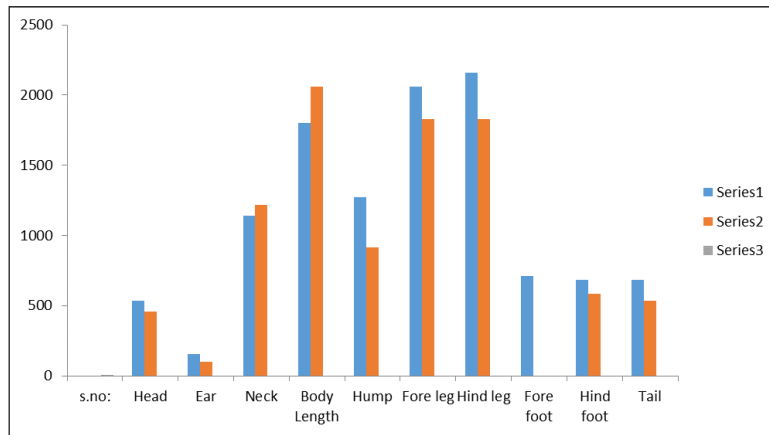


Fig 3

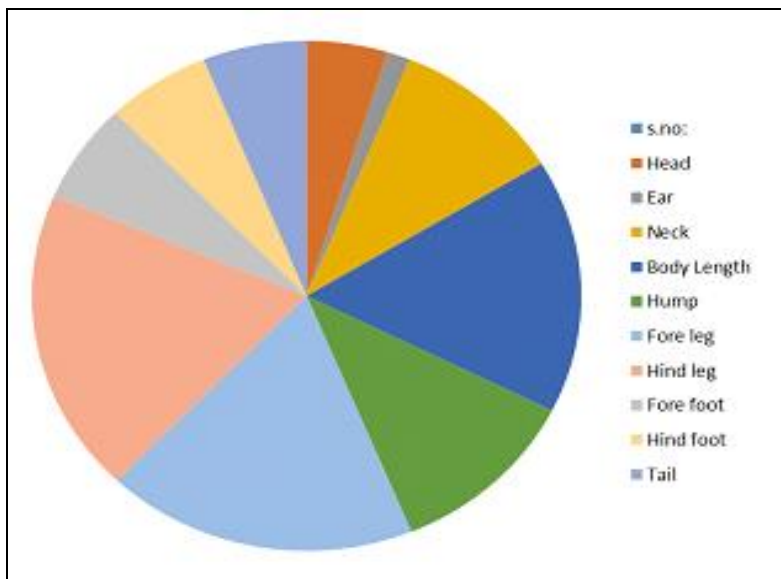


Fig 4

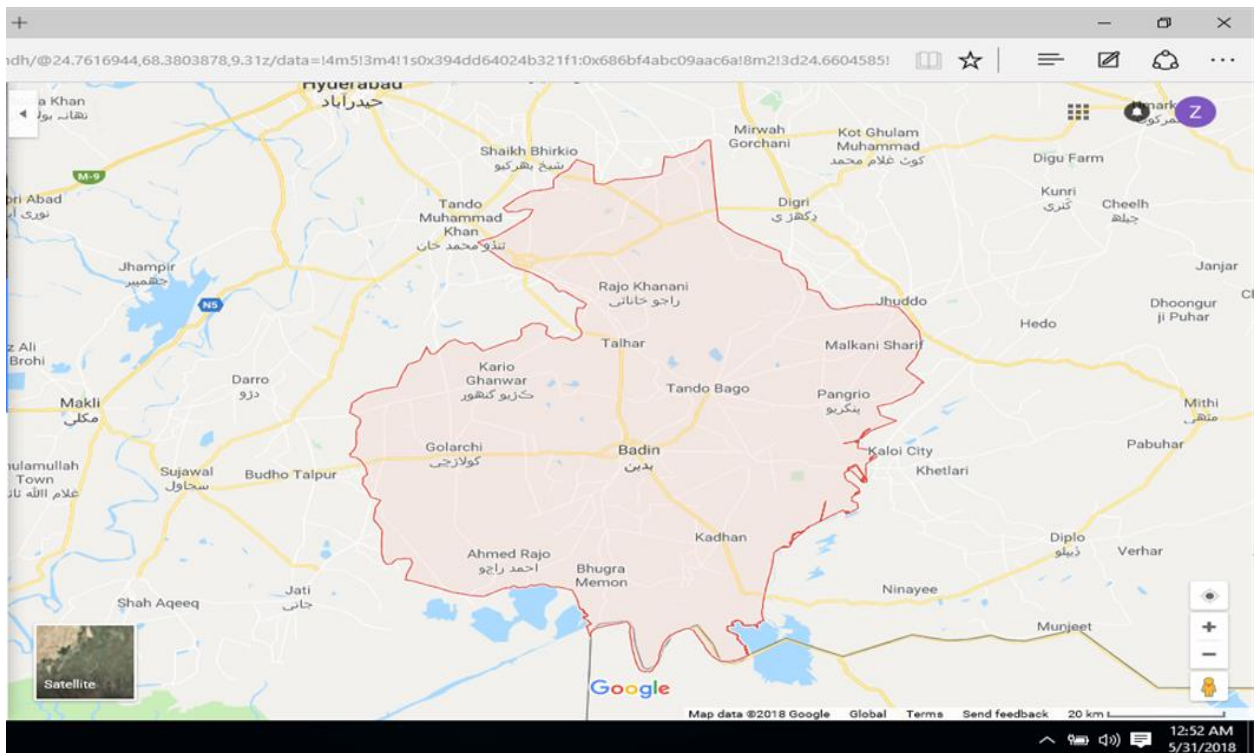


Fig 5: Map of District Badin. Where collection of *C. dhatiensis* were made

Discussion

Isani and Baloch (2000) ^[1] observed Dhatti breed as a typical desert type with slim body, long legs and alert look. Dhatti camels were lighter in weight. Their faces were narrow and small ears. They found the necks of Dhatti camel were thinner. The most frequent coat colour was light or dark fawn. Mean length and width of face, head, ear, neck and hump were 49.93 and 55.37; 20.44 and 17.04; 10.97 and 8.30; 156.46 and 35.0; 49.04; 44.06 cm, respectively. The mean girth, height, length, foreleg (length) and hind leg length were 204.74, 205.35, 201.42, 150.75 and 159.15cm, respectively.

During my present studies Dhatti breed have found variability in size and shape of ears, foot, hump were 127-152.4, 736.6, 355.6-520.7cm respectively. The mean length, foreleg (length) and hind leg length were 1981.2, 2184.4, 2032 and 2184.4, 2006.6 and 1905 cm respectively. This classification is corresponding partially to the typology of Blanc and Hennesser (1989) ^[2] which distinguish

1. The big size camel living in desert plain,
2. The medium size camel used for riding, and
3. The small size camel living in mountainous areas.

Camel body measurements identify great differences in their phenotypical characteristics (Hülsebusch and Kaufmann, 2002).

Conclusion

The present studied tribe was having variabilities in great deal such as size and shape of ears, nostrils, foot, and snout, the variability in hump size could show intake of food amount.

The change in dorsoventral body color could show the variability in tribe of the camel which helped in their identification

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