

Full Length Research Paper

The one-humped camel in Southern Africa: Unusual and new records for seven countries in the Southern African Development Community

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The one-humped camel (*Camelus dromedarius*) was introduced to colonial southern Africa in the late 19th and early 20th centuries for military and police work to maintain law and order, for use in the postal services and for experiments in connection with rinderpest. Remnants of these (originally very small) populations survive in Botswana, Namibia and the Republic of South Africa but there are no surviving camels in Zimbabwe where they were also introduced. This paper documents unusual and new records of camels in seven southern African countries. In several countries these are the first national introductions and they arrived as result of gifts to Heads of State by the then President of Libya.

Key words: Livestock introductions, exotic livestock, *Camelus dromedarius*.

INTRODUCTION

The total world population of the one-humped camel (*Camelus dromedarius*) in 2011 has been estimated at about 20.2 million (FAOStat, 2012). This species is native to the Near East, South Asia and North Africa including the Horn of Africa. There have been, however, many introductions and attempted introductions to areas outside its native range, including Europe, North and South America, the Caribbean and Australia.

The concept of using camels in southern Africa originated as early as 1861 when a memorandum of 27 May from Robert Moffat Jr., a trader on the southeastern border of the Khalagare Wilderness, was sent to Richard Southey, the Colonial Secretary (Cape Town Archives Repository, Source CO, Volume 4120, Reference M46). It was, however, to be almost 30 years before the first one-humped camels arrived in the region. These arrived at Walvis Bay in German South West Africa (Namibia) from the Canary Islands in 1889 for use by the Schutztruppe (Protection Force) in a military role (Grunow,

1961; Wilson, 2012a). The next imports were to the Cape of Good Hope (Republic of South Africa) where 10 camels arrived at Cape Town from Tenerife (Canary Islands) on 27 March, 1897 for "experimental purposes in connection with the rinderpest epidemic" that swept through eastern and southern Africa in 1895/1896 and killed up to 90% of all cattle (Wilson, 2009). A total of 34 camels having sailed from Karachi (now in Pakistan) to Beira in Portuguese East Africa (Mozambique) and from there by train - in coal trucks covered with tarpaulin - arrived in Salisbury (Harare) in Rhodesia (Zimbabwe) on 9 May, 1903 (Flint, 1903; Wilson, 2007). These last were subsequently used for general transport and by the police and postal services and it was from these that the only record of foot and mouth disease in camels arises (Anon, 1904; Wilson, 2008)). There were no direct imports to British Bechuanaland (Botswana) which was administered by the Cape of Good Hope Government in Cape Town but camels were used there as part of the



Figure 1. Camels at Tete in Portuguese East Africa (Mozambique) (Source: Clay, 1962).

Cape Postal Services and for police work (Wilson, 2013). Descendants of the early imports survive in the 21st century in small numbers in the Republic of South Africa and Namibia. None of the original population is known in Zimbabwe where those that did not die in service were turned out to fend for themselves, at least one of these was shot by professional hunters near Masvingo close to the Great Zimbabwe ruins (Louw Hoffman, personal communication) and it seems likely that others also suffered this fate. Ironically, the last original camels in official service were in Botswana, where they were in police use until the early 1980s and where 200 plus animals have recently been transferred to village groups for use in ecotourism.

MATERIALS AND METHODS

This paper documents unusual and new records from Mozambique, Zambia, Malawi, Swaziland, Lesotho, Zimbabwe and Tanzania. Information was gathered from a search of the literature and from internet searches. This was complemented by personal correspondence and intercourse with relevant people in the various countries and from the author's own studies and experience.

RESULTS

A small number of unusual records date from the late 19th and the early 20th centuries. In the first years of the 21st century camels have arrived by various routes in several southern African countries. By far, the most bizarre of these were the animals that arrived in at least

four countries by air as gifts from the late Brother Leader and Guide of the Revolution of the former Great Socialist People's Libyan Arab Jamahiriya (or more simply the President of Libya). At least four countries - Lesotho Swaziland, Zimbabwe and Mozambique, received camels in such a way. Botswana, Madagascar and Namibia were also to receive camels from Libya but there is no evidence that they did so.

Portuguese East Africa/Mozambique

David Livingstone, the missionary-explorer, was the first to fail to introduce camels to Portuguese East Africa when he sailed into what would now be considered territorial waters at the mouth of the Ruvuma River on 22 March, 1866. Tide and wind were against him however, and after two days he sailed back north and landed six camels at Mikindani in what is now Tanzania (Waller, 1874; Wilson, 2012b). The so far undisputed first camels in Mozambique were thus the 34 brought by Colonel Flint from Karachi that arrived at Beira towards the end of April, 1903 (Flint, 1903). This group was loaded onto a train immediately on arrival at Beira and transported directly to Salisbury (Harare) where they arrived on 9 May, 1903. None of the group was lost or died on the long journey from South Asia to Southern Africa. The presence of camels at Tete in northern Portuguese East Africa (located at 16° 17' S, 33° 58' E) on the banks of the Zambezi in 1904 has been established by a photograph taken there at the time (Figure 1) but nothing further is known about these animals.

President Guebuza of Mozambique received a present of an adult male camel, two adult females and two calves from President Gaddafi, in 2009. The animals arrived by air after a week of travel (suggesting they were the last of one of Gaddafi's camel deliveries to southern Africa), tightly restrained by ropes and in a totally exhausted state (Samuel Bila, personal communication). It was 24 h before the animals were able to stand when they were then transferred to a private wildlife sanctuary at Matola 30 miles north of Maputo where they proved extremely difficult to handle. Heavy infestations by ticks resulted in severe disease problems and in spite of treatment with tetracycline and penicillin four of the animals died (Antonio Rocha, personal communication). At about the same time as the arrival of Gaddafi's camels a private shipment of five camels arrived at Beira port from Kenya (apparently with a legal import certificate) whence they were transferred to various tourist establishments at Vilanculos Bay, on the coast between Beira and Maputo (Figure 3) (Cuniffe, 2011). In mid 2012, the number of camels had been reduced to three of which one was apparently owned by the President of Mozambique (the sole survivor of the Gaddafi lot) and two by the Anchor tourist establishment (Dale Fraser, personal communication).

Northern Rhodesia/Zambia

The first of only two references to camels in Northern Rhodesia (Zambia) dates from 1896. At that time, Hugh Marshall, the first Magistrate and Postmaster at Abercorn (now Mbala), wrote to his brother in England "Fancy a Traction Engine for the Lakes Coy. For the Katunga-Blantyre Road! Another white elephant! Oh, yes - some talk of camels as well" (Clay, 1962). The other record is of an imprecise location but somewhere along the northern bank of the Zambezi. This was in 1915 when eight Germans and one rebel Dutchman with five camels and one horse were captured by a mobile unit of the Northern Rhodesia Rifles. It is believed the group was escaping from Southwest Africa (Namibia) in an attempt to join the forces of Colonel von Lettow-Vorbeck in German East Africa (Tanzania). They were prevented from escaping by the single guard in charge of them by the simple expedient of confiscating their trousers every night because "it is impossible to ride a camel without trousers" (Brelsford, 1954).

Southern Rhodesia/Zimbabwe

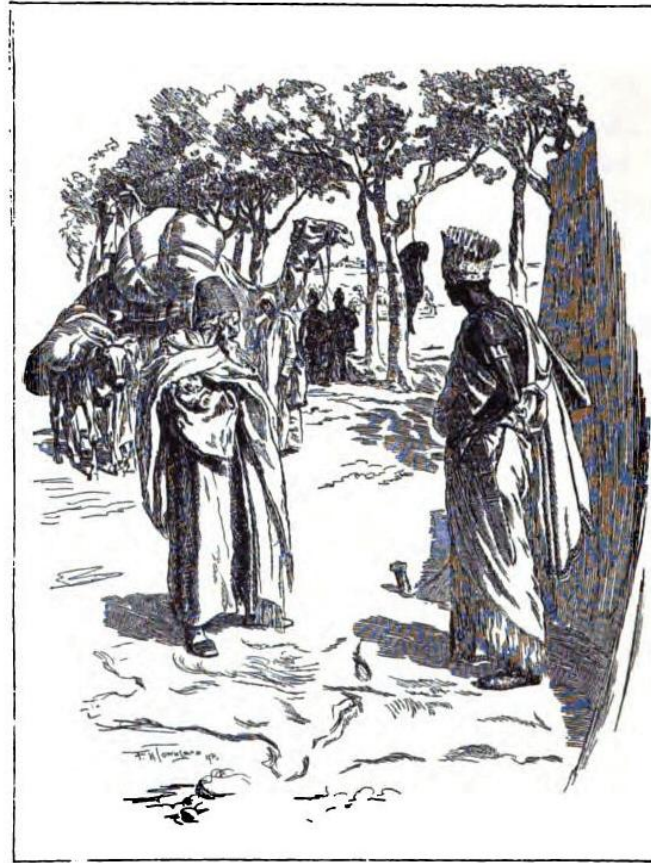
The most singular reference to camels in "South Central Africa" is in a work of fiction rather than it being a fact

(Haggard, 1900). The ancient ruins of Zimbabwe provide the setting for the novel in which camels are used as both pack and riding animals. The considerate author even provides an illustration of a camel that is a very good likeness (Figure 2).

At the ZANU-PF conference held in Bulawayo on 8 December, 2011, the Zimbabwe president took time off from imperialist bashing to lambast his ex-bosom friend the late Libyan leader Muammar Gaddafi as ignorant and as someone who failed to invest in Africa but splashed his money in Europe to please the West, who killed him at the end. Gaddafi had made an undertaking to invest in Africa but "we saw him dishing out camels and we got four which are at the farm" (that is Mugabe's farm) (ZimEye, 2011). As for Lesotho, however, "many people now wonder when the camels will be returned to the NTC (that is, the National Transitional Council of Libya) (Mashiri, 2011).

Lesotho

On 10 January, 2008, Lesotho's foreign minister and another top government official were at the airport to meet a huge Libyan transport aircraft and receive two adult camels and two calves which were a gift from Gaddafi to the Lesotho Prime Minister. On arrival, the animals were whisked away to a secret destination to be kept under the supervision of the Ministry of Agriculture and Food Security (Thakalekoala, 2008). According to another source, the Kingdom of Lesotho received "a precious gift of five camels - two females, one male and two babies - from the leader of the Libyan revolution, Colonel Muammar Kadhafi" (NetNews Publisher, 2008). Not everyone, however, was overjoyed at the arrival of the camels. Questions were asked by a local agricultural newspaper about the procedure of the Government of Lesotho in importing live animals and in particular with respect to the control of dangerous diseases that might be transmitted by imported animals. The Lesotho animal health authorities claimed to have conducted all necessary test measures before permitting the import of the camels and had also put them in quarantine on arrival. By 2011, nonetheless, one camel had died from pneumonia and two from ingestion of foreign bodies. Libya apparently supplied a further three camels to replace those which had died but one of these also died. By mid 2011, three camels were still on the premises of the Ministry of Agriculture and Food Security and were being maintained at public expense. The livestock services claimed that this was legitimate as their staff had benefited in acquiring more skills in the welfare, animal health, and feeding of camels. According to the newspaper questions were asked in parliament about the



Metem noted that there hung the body of a black dwarf

Figure 2. Camel on the beach at Vilanculos bay, Mozambique (note double Indian saddle) (Source: Teagan Cunliffe).

costs related to the camels and what use they were. The Minister of Agriculture replied that the owners (presumably the Prime Minister) regularly visit them as they recognize and acknowledge that such fragile animals with their soft feet need love and to be well taken care of and that it was also to be noted that since the camels had arrived many schools and parents visited the department of live stock and concluded that the more they stay, the more the department would learn more about the welfare of this species. The newspaper remained sceptical and asked when they would go home (Anon., 2011).

Swaziland

In a situation analogous to that of Lesotho, King Mswati III of Swaziland was given a present of six camels by Libyan president Muammar al Gaddafi as a token of

friendship on 1 July, 2009 (Royal Forums, 2009; Ndlovu, 2009). The two females, one male and three calves (two female and one male) arrived on board a cargo aircraft and were met by the royal veterinarians and the King's private secretary. The camels were to stay in quarantine for 30 days before being moved to a game reserve with the King having the final say in their location.

The Principal Secretary in the Ministry of Agriculture said that "it is a great pleasure for the country to be blessed with these rare beasts, especially because most people here are not familiar with these animals". Prior to Gaddafi's gift, there had been serious suggestions that dairy camels should be introduced to the dry southeast lowlands of Swaziland as these animals had done well in Kenya and Israel (Fayolle, 2008).

This proposal has yet to be given further consideration. A camel breeding association of Swaziland has a site on Facebook but there is no information other than the name.



Figure 3. Illustration of a camel in the fictional work “Elissa” by Rider Haggard.

Malawi

Malawi has at least two lots of camels. One is at the Kuti Community Wildlife Park (at the southern end of Lake Malawi) where there are three camels whose names are Mphatso, Nguva and Diesel. These were brought into the park in May 2009 (but again the provenance is unknown) to provide visitors with a unique safari opportunity (Figure 4) but this was later stopped in the interests of the camels as it proved stressful to them (Kuti Project, 2012). The other site is in the low-lying hot and humid Shire lowlands in southeast of Malawi. The area is cultivated to sugar and is patrolled by security personnel mounted on camels. Although the sharp sugar roots cut the camels’ feet they wear specially designed shoes when on patrol. The camels are said to be thriving and three calves have been born since their arrival in Malawi “a few years ago”. The provenance of these animals is given as Tanzania (Bemyguest, 2012).

Tanzania

Irrespective of whether or not the Malawi camels arrived from Tanzania there are some unusual records for this latter country which is not within the normal range of the species. (Tanzania has always been considered to be an

East African country but as a member of the Southern African Development Community it is legitimate to include it in this paper.) Historical records relating to Livingstone (Wilson, 2012b) and current records for northern Tanzania (Wilson, 2011) have already been published. There are now two camels at Kigamboni, 10 km south of Dar es Salaam city centre, that were imported from Somalia by a private individual travelling through Kenya by lorry in 2009 (Figure 5). Some 25 km farther south west at Dar es Salaam Zoo there are 48 camels that have increased from a small group imported from Ethiopia in 2006: these are typical Afar camels and much smaller physically than the Somali camels. The provenance of three female camels at the Sokoine University of Agriculture about 160 km southwest of Dar es Salaam in a hot subhumid climate is not exactly known but anecdotal evidence puts them in the same group as those presented by Gadaffi to the several Presidents of SADC countries to which reference has already been made.

DISCUSSION

There have been many attempts, over many hundreds of years, to introduce the one-humped camel to areas outside its normal range. Few of these have been successful. In the high period of the Roman empire some



Figure 4. Camel with local handler at Kuti Community Safari Park, Malawi (Source: Kuti Project).



Figure 5. A camel south of Dar es Salaam, Tanzania imported from Somalia by a private individual (Photograph by Trevor Wilson).

2000 years ago camels were used for transport in many of the northern provinces including what are now Belgium, Germany and France as well as in Italy itself (de Grosso-Mazzorin, 2006; Pigière and Henrotay, 2012) but these never became naturalized or truly domestic animals. There were many introductions to Italy (mainly from nearby Libya and Tunisia) over the centuries but these were always limited, the toys of the rich families (Cochi, 1858) and again never became common farm animals although one herd of about 200 head survived through to the 1940s when they were slaughtered by troops fighting the Second World War who used them as food.

The Moors took camels to Spain and there was a royal stud at Aranjuez during the eighteenth century and there were later imports at least until the 1830s (Graells, 1854) but, as in Italy, the animals failed to naturalize. There were imports to the USA in the 1850s for use by the military in the southwestern deserts but these efforts were terminated by the Civil War (Lesley, 1929) although a few camels are still used as tourist animals in parts of Texas (Doug Baum, personal communication). Several attempts have been made to introduce camels to South and Central America, including Peru, Bolivia and Brazil (Legge, 1936), Venezuela (Dareste, 1857), Barbados and Jamaica (Legge, 1936) and Cuba (Dareste, 1857). In all these cases, numbers were small and the camels failed to survive for a number of reasons including disease, climate and inability or incompetence on the part of the owners and handlers.

Australia provides the only example of successful long term introduction of camels outside their natural range. For many years they were the principal means of transport in the interior, being largely instrumental in the completion of a railway and then of transporting wool to the railhead (McKnight, 1969).

The history of introductions to the Republic of South Africa (Cape Colony), Namibia (German South West Africa), Botswana (British Bechuanaland) and Zimbabwe (Southern Rhodesia) has been briefly touched upon in this paper. In none of these countries was the introduction "successful" beyond a short period although a few camels remain in each country where they are regarded as curiosities and find limited use for tourism. Most recent introductions to the SADC countries have been political ploys by an eccentric and now defunct Arab dictator. Each of these introductions has proved to be biologically unsuccessful and has usually resulted in internal problems and ridicule for the recipient government.

The one-humped camel is supremely adapted to hot dry environments with limited feed resources. As such it has some potential, if introduced, for mitigating some effects of climate change in the arid and marginal areas

of southern Africa. Before serious attempts at large scale introduction are made, however, there should be serious longer term studies on the biological, economic, environmental and social aspects of such an action.

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My interest in camels in southern Africa was aroused when Anna Mupawaenda introduced me to an academic at the University of Zimbabwe. His office had a photograph of cattle that had died of rinderpest. Looking for this photograph in the Zimbabwe national archives, I accidentally came across photographs of "Colonel Flint's camels" and I carried on from there. With the exception of the section on camels in Tanzania (the two camels south of Dar es Salaam were brought to my attention by Jeffrey Lewis) of the information in this paper on camels in the 21st century has been gleaned from social networking, newspaper and (semi)official sites on the world wide web. This does not invalidate what has been learned but usually leaves it incomplete. No thanks are due to the many e-mail addresses connected to these sites, including several whose owners are nationally and internationally responsible for the collection and dissemination of data relevant to their own domesticated animal genetic resources. The number of e-mail addresses and telephone contacts of many officials in the various countries that do not exist when attempts are made to contact them is astonishing. I am extremely grateful to three referees whose comments assisted greatly in improving the original draft of the paper.

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