



2018 Annual Conservation Report

Status and distribution of the desert-adapted elephants in the Ugab and Huab River drainages in Namibia

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Note: The following data on the desert-adapted elephants of the Ugab and the Huab rivers are based on exact counts and known individuals from our photography ID database that is being updated on elephant patrols conducted twice every month since 2003.

1) The Ugab River population (Total: 26 resident elephants)

This river and its surroundings are inhabited by 3 breeding herds and 3 adult bulls.

a. MA - Mama Africa herd (12 elephants):

- . 4 adult females (all between 30-40 years of age)
- . 1 young male (15-17 years of age) – *starts to spend time away from the herd (in the Huab river).*
- . 2 immature males (both 10 years of age)
- . 1 immature female (8 years)
- . 2 female calves (4 and 6 years of age)
- . 2 male calves (5 and 6 years of age)

b. G6 - Guantagab 6 herd (5 elephants)

- . 1 adult female (30-45 years of age)
- . 1 young male (16-18 years of age) – *starts to spend time away from the herd.*
- . 1 immature female (8 years of age)
- . 1 immature male (8 years)
- . 1 female calf (6 years of age)

c. US - Ugab Small herd (6 elephants)

- . 3 adult females (35-50 years of age)
- . 1 immature female (9 years of age)
- . 2 female calves (both 6 years of age)

d. Bulls (3)

- . 2 prime breeding bulls (30-35 and 40-45 years of age)
- . 1 adult bull (20-25 years of age)

Summary:

7 out of 7 new born calves died from 2015-2018.

In 2018 specifically, two calves were born and died in February. *One old cow in G6 died recently, in February 2019, 5 days after she was GPS collared, the exact reasons are unknown.*

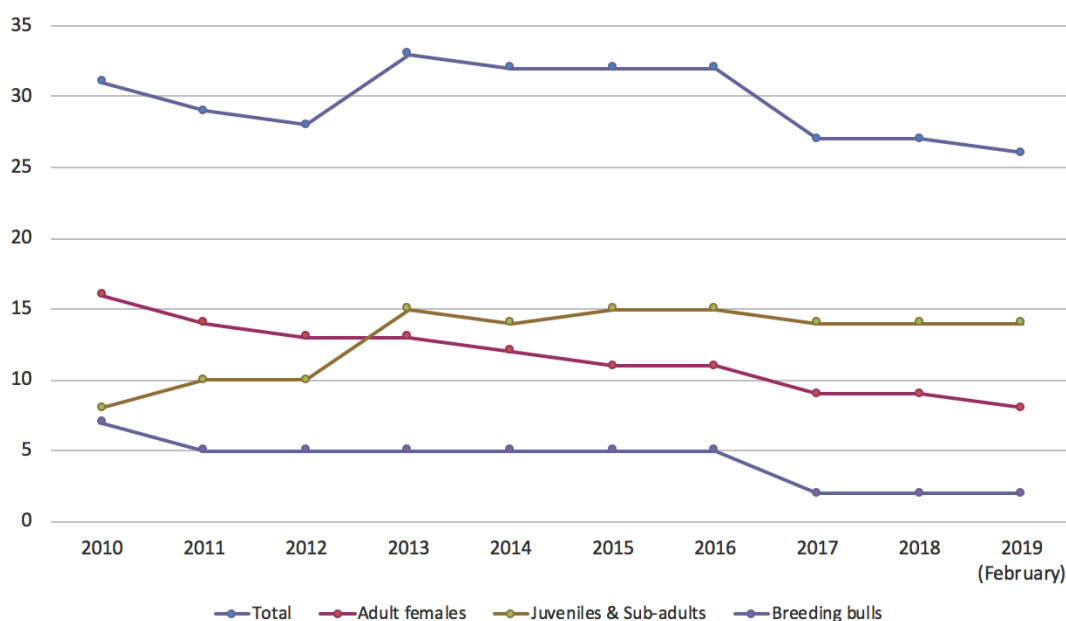
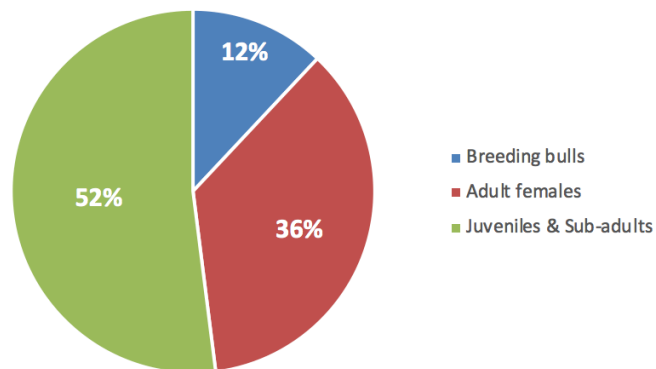


Figure 1. Ugab river desert-adapted elephant subpopulation trend from 2010 – Feb 2019.

Ugab river elephant population breakdown (total of 26 elephants):



2) The Huab River population (Total: 35 elephants)

This river and its surroundings are permanently inhabited by 2 breeding herds and 5 bulls.

a. H1 - Oscar's herd (12 elephants)

- . 3 adult females (30-35 and 40-50)
- . 1 young male (15-17 years of age)
- . 2 immature males (10-15 years of age)
- . 1 immature female (10-12 years)
- . 3 female calves (6, 4 and 3 years of age)
- . 2 male calves (one >2 years and one 3 years of age)

b. H2 - Rosy's herd (18 elephants)

- . 6 adult females (30-45 years of age)
- . 2 young males (18 and 17 years of age)
- . 2 immature males (13 and 14 years of age)
- . 2 immature females (8 and 9 years of age)
- . 3 male calves (6, 5 and 2 years of age)
- . 2 female calves (6 and 2 years of age)
- . 1 juvenile calf (born in May 2018)

c. Bulls (5)

- . 3 mature breeding males (30-35 years of age)
- . 2 sub-adult males (16-20 and 21-25 years of age). *Of which one (D6) has not been seen since August 2017. Possibly dead.*

d. Non-resident: H3 – Tuskless herd

Another herd known as “H3 - Tuskless herd” sometimes visits the Huab and Aba Huab River system. This herd is observed very infrequently and is assumed to live in and around the eastern part of the Huab River and might move north towards the Palmwag Concession. This herd consists of 4 adult cows and 4 juveniles. More information is yet to be collected.

Summary:

2 out of 7 newborn calves died of unknown reasons 2016-2018. The surviving 5 calves seem to thrive.

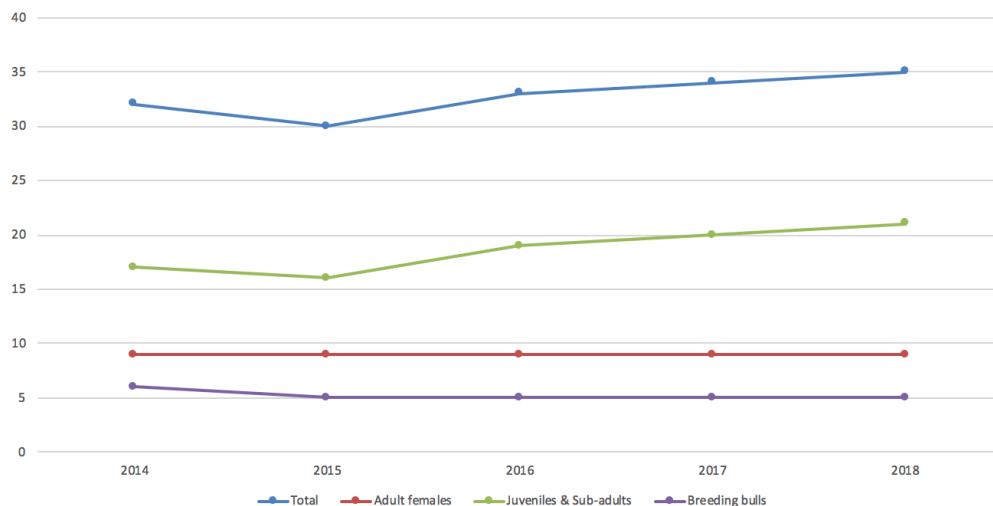
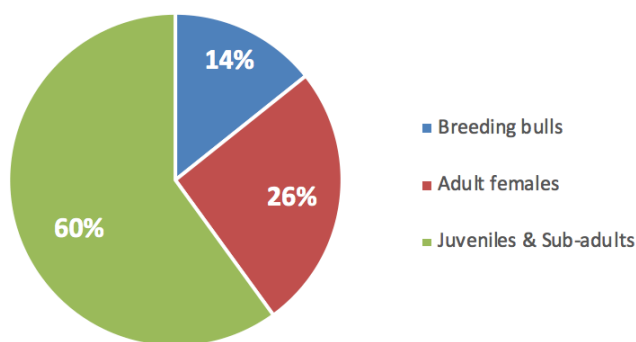


Figure 2. Huab River desert-adapted elephant subpopulation trend from 2014-2018. *Excluding H3 due to lack of sufficient data.*

Huab river elephant population breakdown (total of 35 elephants):



Conclusion:

The total number of resident desert-adapted elephants living in the Ugab und Huab rivers of the southern Kunene and northern Erongo regions of Namibia is **61 elephants**. Since 2016 the Ugab river elephant population has **decreased by 32%** partially due to natural and human-caused reasons.

→ Please see detailed mortality and birth record including exact herd breakdown attached (page 11).

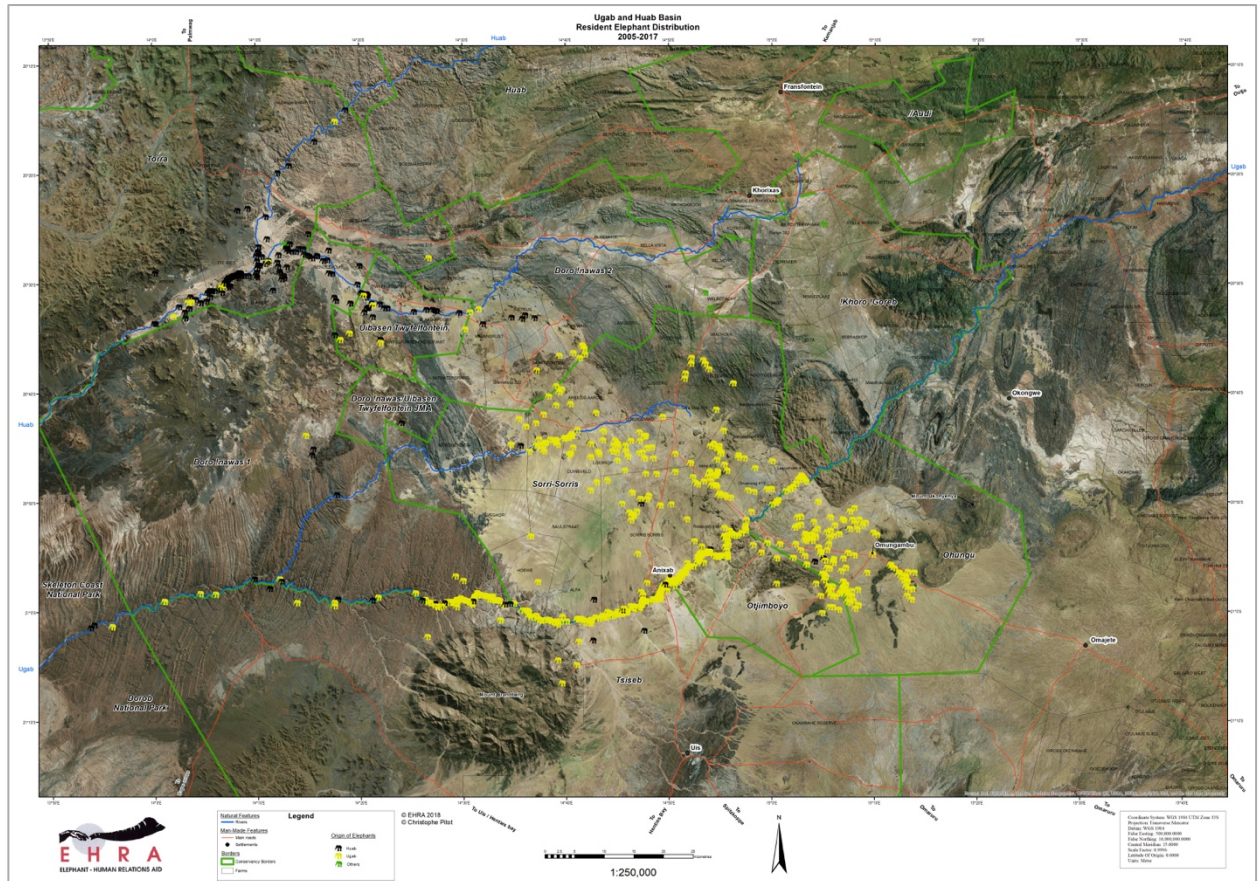
In general, the trend of the desert subpopulation in the Ugab/Huab river areas is not sustainable; besides a few newborn calves, the population has been declining. **Of specific concern is the loss of breeding females and breeding bulls.** It has been observed that young bulls <17 years developed full musth whilst being with their maternal herd (November 2017, individual K1-A1 from H1 herd in the Doros river). The development of musth would under normal circumstances in a healthy population of elephants be undermined by the presence of adult bulls and would only occur when they are more than 20 years old.

Only 5 adult breeding bulls are covering the area from the Ugab to the Huab river area, which may result in young bulls developing an early onset of musth and possible inbreeding. We strongly recommend the long-term protection of the remaining adult males, as they play an essential role within the elephant society, teaching young males manners, respect and how to control aggression during musth. The absence of adult males may result in young males becoming aggressive, which can increase the existing problem of human-elephant conflicts.

Of further concern is that 6 of the 17 remaining adult cows are old (>45 years). Immature elephants (<20 years of age) account for more than half of the population; their survival greatly depends on the knowledge and guidance of adult elephants, both male and female.

Elephant distribution map 2005 – 2017

- Yellow elephants: Ugab River resident elephants
- Black elephants: Huab River resident elephants



Summary and activities of EHRA

Elephant Human Relations Aid is a Namibian registered not-for-gain organization (registration number 21/2003/630), which was founded in 2001. It was launched as a result of the escalation in competition for and conflicts over water and other natural resources between the desert-dwelling elephants and human inhabitants of the communal lands in the northern Erongo and southern Kunene regions. EHRA aims to find long-term sustainable solutions to the ever-growing challenge of facilitating peaceful co-habitation between the subsistence farmers, other community members and the desert-adapted elephants. In 2018 we had 253 international volunteers.

List of completed walls built by EHRA since 2003 (total of **207 walls** completed):

- Tsiseb = 14
- Sorris Sorris = 99
- Huab = 36
- Ohungu = 40
- Uibasen = 1
- Doro Nawas = 4
- Commercial farms = 2
- No conservancy = 10

University Interns from UNAM and NUST

Since 2015 EHRA has been accepting up to 3 interns a year from UNAM and NUST. The students stay 3-6 months at EHRA to complete the practical part of their study. A total of **13 students** have completed their internship with us.

Elephant Patrols

EHRA is in the field every other week throughout the year for a 4-day patrol. This totals **88 patrol days** a year. The aim of the patrols is to visit farms, check on conflicts and assist if required, as well as to track the elephants' movements using a GPS, which allows us to produce movement maps, as above. We can then identify key areas and farms where elephants drink water that may need protective structures, alternative water points or be suitable candidates for replacement solar pumping systems. We have identification photos (left and right sides, tails and head photos) for each elephant in the Ugab and Huab Rivers. We also have identification of non-resident elephants that are occasionally in the area. We have also recorded the footprints of each bull to help identify 'problem' elephants in a timelier manner.

Education and Training - The PEACE Project

People and Elephants Amicably Co-Existing



As a Namibian registered not-for-gain organization, EHRA introduced the PEACE Project in 2009 as a response to requests from residents to help them deal with increased human-elephant conflicts in the Kunene Region of Namibia. PEACE aims to help community members and elephants co-exist more peacefully through education, exposure and elements of protection.

PEACE helps people (community members, school learners, MET (Ministry of Environment and Tourism) officers, tour guides and game guards) to understand elephant behavior, social structure and biology by conducting seminars and training courses about how to stay safe during elephant encounters. Further, the PEACE program for school learners and teachers increases knowledge about elephants and creates awareness and appreciation of the elephant's existence through educational weekends in the field. The entire focus is to harmonize the relationship between humans and elephants by developing a long-term education and safety program to help ensure the survival of the unique desert-adapted African elephant and to use their presence to generate income on a household level for the local communities.

PEACE Projects conducted in 2018

Our target groups are farmers and other community members who experience conflicts with elephants, students and school learners, conservancy game guards and MET officers. Our immediate priorities are to decrease conflicts through education and elephant training workshops and to protect the remaining subpopulation of desert-adapted elephants in Namibia's desert northwest. Since 2009, we have reached more than 1500 community members, changing the attitudes of many towards elephants from fear and intolerance to acceptance and even appreciation.

Khwe PEACE Project Initiative in Divundu

The EHRA PEACE Project Initiative at the Kyaramacan Mutc`icu Office 2018 was cooperatively funded by Futouris e. V., Gebeco GmbH & Co. KG and ATC Namibia. Local organization and logistics were covered by IRDNC and Kyaramacan Trust. The overall goal of this 7-day training was to promote peaceful co-existence between the humans and elephants living within the borders of Bwabwata National Park by laying some basic foundations for using indigenous knowledge to earn a living within the tourism industry. It was a fantastic course with very enthusiastic participants.

Detailed overview of PEACE Seminars 2018

Date	Project type	Region	Venue	Duration in days	# of participants
05.02.- 09.02.18	Community	Ruacana	Ruacana	4	10
12.03.- 16.03.18	Tour Guide Training	White Lady Lodge Twyfelfontein Country Lodge, Chameleon Safaris	EHRA base camp	5	19
17.03.- 19.03.18	Community	Otjimboyo	Otjimboyo	3	17
20.03.- 21.03.18	Community	Otjimboyo	Otjimboyo	3	17
23.03.- 24.03.18	Guide Training	Brandberg Heritage Site	Brandberg Heritage Site	3	7
13.04.- 15.04.18	School Project	Anixab School	EHRA base camp	3	23
15.04.- 20.04.18	Game Guard Training	Sorris Sorris	Sorris Sorris Conservancy Office	5	10
25.06.- 28.06.18	Community	Okongwe/ Otjiwaya	Okongwe/ Otjiwaya	4	17
02.09.- 07.09.18	Tour Guide Training	Matiti Safaris, MET	EHRA base camp	5	8
07.09.- 09.09.18	Community	Ohungu	EHRA top camp	2	5
12.10.- 14.10.18	School Project	Okongwe School	EHRA base camp	3	15
30.10.- 05.11.18	Divundu Project	Divundu	Kyaramacan Mutc`icu Office	6	26
TOTAL				46	175

Schools Development

1. A. Gariseb Primary School in Anixab, Ugab River

EHRA has been working with A. Gariseb Primary School for the past 14 years. We have provided a huge amount of assistance to the school in the renovation of buildings, ablutions and playgrounds; we have provided hundreds of mattresses, curtains, blankets, clothing even computers and a library. In 2018 we constructed a 130 meter wall around the exterior of the hostel, to keep elephants out of the area and to ensure that learners are safe when outside.



Elephant bull in the school yard in search for water.

Solution for a safer school environment:



130 meter wall around the exterior of the hostel, helping keep learners safe.

2. Okongue Primary School, Okongue (close to Ugab River East)

EHRA has renovated bathrooms, dormitory rooms, and classrooms. We have provided curtains, tiled all bathrooms and will deliver 80 covered mattresses in the coming two weeks. In 2019 we will continue our assistance at this school, through the development of a vegetable garden (elephant proof) and renovation of facilities.

Please see progress below:



Ablutions prior to renovation



EHRA tiled the showers.



Football kit donated by Arsenal Football Club.

Plans for 2019

School partnership and teacher training

We plan to partner with another 5 schools in our expanded project area and jointly with the Ministry of Education conduct teacher training initiatives. Our aim is to encourage the establishment of Eco-Clubs and provide enthusiastic teachers with the knowledge and skills they need to independently run fun-based learning activities focusing on elephants and other environmental issues. We will provide practical learning activities for students who participate in the Eco-Clubs. We hope this program will increase our area of impact and also promote local leadership initiatives.

Elephant Emergency Response Unit

In partnership with the 4 main conservancies in our project area (Sorris Sorris, Tsiseb, Otjimboyo and Ohungu), we plan to implement an Elephant Emergency Response Unit. This includes the installation of a VHF radio network across all 4 conservancies to enhance communication. It also includes elephant safety radio messages in all local languages that can be played on the local radio especially when the elephants are nearby.

Further, we plan to identify and train key individuals within our partner conservancies to become community elephant ambassadors (“**PEACE Guards**”) who will independently conduct elephant education courses with community members. A 33-day capacity-building HEC management course will provide in-depth training to a minimum of 8 chosen key community members. We aim to qualify 2 PEACE Guards in each of our 4 partner conservancies to independently conduct our PEACE Elephant Education courses in their communities, thus expanding our area of impact and promoting local leadership. The training includes all content of our regular HEC mitigation courses, practical experience in conflict-mitigation implementation, elephant tracking and identification skills, plus presenting and teaching techniques. We will monitor progress and activities and base PEACE Guard salaries on a simple but effective reporting back system.

Nation-wide elephant safety campaign

Simultaneously to the implementation of the Elephant Emergency Response Unit, we plan to launch a nation-wide elephant safety campaign that strongly points out individual responsibilities and care-taking techniques, to promotes awareness of potential dangers for people living in or visiting elephant country and how to avoid or minimize them. This, we hope, will contribute to a greater sense of responsibility among the human inhabitants as well as visitors. We hope to do this in partnership with an advertising agency that will contribute to this project as part of their social responsibility program.

Building of a PEACE Education Centre

We received funding for the building of our first PEACE Education Centre. The Centre will serve as our education and training base within EHRA’s Base Camp at the Ugab River. Planning and building of the centre began this year, and we hope to complete it by July 2019.

Protection walls and Omajete Area

In 2019 EHRA will continue with our water point protection programme, with particular emphasis on the farms in the Omajete area. In addition, we will conduct a survey of farms which use a diesel pump and also experience elephant visits. We aim to secure funding to start replacing diesel pumps with solar installations.

Identification and herd breakdown information for collared elephants

EHRA will track the recently collared elephants moving around the Okongue/Kamanjab/Khorixas area to provide MET with herd compositions and ID photos. EHRA will assist with finding solutions for the commercial farmers experiencing elephant visits which can include an ‘elephant corridor’ and use of strong solar lights to deter elephants. (such as ‘fox lights’, lights that turn on and off at random intervals throughout the night. They were specifically designed to deter predators such as foxes).

Elephant ID and Movement Database

Construction of an identification database. EHRA has a contact with Elephant Voices, a large NGO working in Kenya. They have shared with us their database which houses movements and identification photographs. EHRA will either modify this database or construct a new database.

End

Ugab River detailed population information 2010-2019

As at date: 01/01/2019

Herd	Herd Number	Individual Number	Individual Name	Born	Age	Sex	Death	NOTES
Mama Afrika	MA							
		MA-1	Mama Afrika		Late 40's	F	Dec 14	Natural cause
		MA-1/A1	Deliwe		26	F		
		MA-1/A1B1	Hanna	May 12	6	F		
		MA-1/A1B2	MA-1/A1B2	July 17			Aug 17	
		MA-1/A2	Ulysseb	June 08	10	M		
		MA-1/A3	Madiba	May 12	6	M		
		MA-2	Medusa		Early 40's	F	Jul 16	Natural cause
		MA-3	Roo		30	F		
		MA-3/A1	MA-3/A1	June 12	1		Apr 13	Died due to burn wounds from being caught in a fire started by locals to keep elephants away.
		MA-3/A2	MA-3/A2	May 15			May 15	Unknown reason
		MA-3/A3	MA-3/A3	July 17			July 17	Unknown reason
		MA-4	Mathilda		Late 40's	F		
		MA-4/A1	Kamonde		17	M	05.09.17	Shot by trophy hunter as problem animal with MET (8 bullets) by MET.
		MA-4/A2	Joy	June 14		F		
		MA-5	The Duchess		Late 30's	F		
		MA-5/A1	Ulysseses	Aug 08	10	M		
		MA-5/A2	Carissa	Oct 10	8	F		
		MA-5/A3	Otumwe	Oct 13	5	M		
		MA-6	Santasha		20	M		<i>In the Huab River since September 2017 and hasn't returned to the Ugab River since.</i>
		MA-7	Janis		Mid 30's	F	Apr 10	Shot by local resident
		MA-8	Ubva		13	M	Apr 10	Was shot by local resident in the knee, was left behind by the herd unable to walk; MET later destroyed him.

Herd	Herd Number	Individual Number	Individual Name	Born	Age	Sex	Death	NOTES
Ugab Small Herd	US							
		US-1	Doris		45	F		
		US-1/A1	Cynthia	Aug 09	9	F		
		US-1/A2	Kuru	June 12	6	F		
		US-1/A3	US-1/A3	July 17		F	Aug 17	Unknown reason.
		US-2	Betty		Late 30's	F		
		US-2/A1	Doreen	June 12	6	F		
		US-2/A2	US-2/A2	Feb 18			28 Feb 18	Unknown reason.
		US3	Tamla		23	F		
		US-4	Olive		Mid 30's	F	Feb 13	Fell into septic tank at White Lady Lodge, was later tusked by elephants in her herd and then shot by MET.
		US-5	The Dowager		Early 40's	F	Mar 11	Noted that she was missing from this date, never found carcass.
		US-6	US-6		50+	F	Aug 04	Had given birth a few weeks previous. MET vet investigated what looked like bullet wounds to us. But they were tusk wounds. She could not get up after anesthetic reversal and died.
		US-7	US-7		50+	F	Mar 06	Shot or had possible Anthrax.
		US-8	US-8		40	F	May 03	Shot by MET.
		US-9	US-9		15	F	Mar 03	Was shot and wounded by headman A. Gariseb. MET went to investigate. Ended up shooting the older elephant that was defending the younger. One of the 2 was pregnant.

	Herd Number	Individual Number	Individual Name	Born	Age	Sex	Death	NOTES
Guantagab 6	G6							
		G6-1	Bellatrix		Early 40's	F	Dec 16	Natural, old age
		G6-1/A1	Tatjana	Sep 10	8	F		
		G6-2	Daphne		Early 30's	F	23. Feb 17	Pregnant at death. Shot by Met next to Okahaori. Presumably killed a famer. Took 6 bullets to take her down
		G6-3	Claudia		Mid 30's	F		
		G6-3/A1	Sylvia	Jun 12	6	F		
		G6-3/A2	G6-3/A2	Jan 16			Feb 16	Unknown reason
		G6-3/A3	G6-3/A3	Feb 18			Feb 18	Unknown reason
		G6-4	Juno		Early 40's	F	21.02.19	Unknown. Died 5 days after collaring.
		G6-4/A1	Tremor	Aug 10	8	M		
		G6-5	Stellar		18	M		<i>Seen in the Huab River in 2016 and not again since.</i>
		G6-6	Buff		Early 30's	F	Jul 10	This cow had a stiff leg that she swung when she walked. She was found by locals, seemed to have fallen and was unable to get up. No gun shot wounds were found.

Herd	Herd Number	Individual Number	Individual Name	Born	Age	Sex	Death	NOTES
Bulls	Bulls							
		B1	Voortrekker		Mid 40's	M		Broke off more than half of right tusk in 2018.
		B2	Bennie		Mid 30's	M		
		B3	Cheeky		early 20	M		
		B4	Tsaurab		25	M	03 Sep 17	Shot by trophy hunter (Ricky Noltes). Several bullets required.
		B5	Tusky		30-35	M	Oct 17	Shot as problem animal by MET in Omaruru River Oct 2017.
			male			M	Apr 10	Could not identify as an elephant we know.
			male			M	Apr 10	Could not identify as an elephant we know.

Ex residents (bulls) we do not see, but also not found dead								
Sorris Sorris								
Had a very distinctive, very wrinkly footprint. Would be about 40 years now.								
Longshanks								
Had a broken tusk, very long legs; would be mid 30's by now. Seen in the Huab River in 2018.								

Note: Herds from the east sometimes move into the Ugab and Huab ephemeral river systems, specifically during the end of the dry season. These herds do not stay and move eastwards as soon as the rain season starts. We do not count those herds as Ugab River or Huab River resident elephants nor include them as what is commonly known as the desert-adapted elephants. More data of their movements are yet to be collected.

Huab Resident Elephants Past and Present

As of 01/01/2018 (do you mean 2019 as in others)

Herd	Herd reference	Individual Number	Individual Name	Born	Appoximate Age	Sex	Death	NOTES
Oscar's herd	H1							
		K1	Kinky		45	Female		Named for very kinky tail. Offspring also have kinky tails.
		K1-A1			15-16	Male		
		K1-A2			13	Male		
		K1-A3			5	Female		
		K1-A4	Onyofi	Mar 16	1	Female		
		K2			50	Female		
		K2-A1			10	Female		
		K2-A2			12	Male		
		K2-A3	Bruno	2014	3	Male		
		K2-A4		Oct 17		Male		
		K3			30 - 35	Female		
		K3-A1	Vreni	2014	3	Female		

Herd	Herd reference	Individual Number	Individual Name	Born	Appoximate Age	Sex	Death	NOTES
Rosy's herd	H2							
		O1			30	Female		
		O1-A1			13	Male		
		O1-A2	Monika	Mar 16	1	Female		
		O2			35 - 40	Female		
		O2-A1			7	Female		
		O2-A1_B1	Taffy	June 16	10 days	Male	11 June 16	Got separated from the herd at Witwatersrand and was taken to Okutala for veterinary care. Died a week later from pneumonia and stomach problems.
		O2-A2			8	Female		
		O2-A3			5	Female		
		O2-A4			18	Male		
		O2-A5	Hage	Feb 16	1	Male		
		O3			45	Female		

		O3-A1			14	Male		
		O4			40	Female		
		O4-A1		Dec 13	4	Male		
		O5			45	Female		Missing in July 2016. Seen alone in the Huab in Dec 2016. Seen with H1 in August 2017. Not seen since.
		O6			35	Female		
		O6-A1	Shabu		5	Male		
		O6-A2	Calf	Feb 16	1 month	Male	Feb 16	
		O6-A3		May 18				
		O7			17	Male		

Herd	Herd reference	Individual Number	Individual Name	Born	Approximate Age	Sex	Death	NOTES
Tuskless herd	H3							
Little data collected due to the extreme movements of this herd. This herd seems to move east up the Huab River and only visits the western part temporarily during the end of the dry season. More accurate data are yet to be collected.								

Herd	Herd reference	Individual Number	Individual Name	Born	Approximate Age	Sex	Death	NOTES
Bulls	Bulls							
		D1	Stompie		45	Male	June 15	Died in a fight with Bull 2.
		D2	Longshanks		35 - 38	Male		Originally from the Ugab River.
		D3	Bull1		33	Male		
		D4	Bull2		38	Male		
		D5	Bull3		23 - 25	Male		
		D6	Bull4		15-18	Male		Last seen Aug 2017. Possibly dead. Reason unknown.
			Unknown Bull		14	Male	July 15	Died in a fight.