



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD



South African
NATIONAL PARKS



Urban Baboon Programme

Annual Population Census

2023/2024

1 INTRODUCTION

NCC Environmental Services was awarded the tender to carry out the Urban Baboon Programme for the City of Cape Town (CCT) in October 2020. As part of the programme, an annual census of the baboon population is a requirement of the CCT contract. This population census provides a detailed breakdown of the changes in the baboon population between July 2023 and June 2024.

2 METHODOLOGY

A count for each troop was conducted by a specialist with experience in ageing and sexing baboons in the field using a standardized method to enable census comparison between years. The specialist was positioned in a fixed spot, in the line of movement, ahead of the baboon troop. Binoculars were used to ensure accuracy in identifying individual sex and age class. Counts were conducted when the troop was crossing a road or other barrier or in an open area with low vegetation so as not to obscure any troop members. Once the troop moved past the specialist, the process was repeated in a similar position, when suitable. When conditions were favourable, several counts were conducted on the same day, provided the specialist was confident that the whole troop was present. Troops were counted at least three times to ensure accuracy. If the three counts did not align, additional counts were made until the specialist was confident in the count.

The annual count is a total count in which each individual is recorded. Within each baboon troop, the troop structure is broken down into different age and sex classes. The following categories are used to determine the different classes:

- Adult male (AM): Muscular nose ridges fully developed, canines fully descended, shoulder mantle present, testicles fully descended. Physical bulk and neck thickness increase (>8 years).
- Adult female (AF): Sexual skin swells/deflates with menstrual cycle. Nipples obvious and elongated in mature females; may show dappled colour in older females. Has had at least one offspring (> 6 years).
- Subadult male (SAM): Larger than AF; canine/s project beyond the tooth row but not fully descended (often uneven length); testicles not fully descended, appear flat/slightly rounded from behind; the body is angular in shape and lacks bulk (5 - 8 years).
- Subadult female (SAF): First sexual cycle begins; small oestrous swelling may be present; small button-like nipples present; has not had offspring; smaller and slighter than AF (5 – 6 years).
- Immatures: Includes juveniles (1 - 5 years) and infants (0 – 1 years)

Large juvenile male: same size/smaller than AF; canines do not extend beyond the tooth row.

Large juvenile female: nipples not obvious; smaller than SAF.

Infants: includes two categories, brown: Hair grey/ brown; skin dark; eyebrows change colour to brown; clings to mother ventrum but also rides on dorsum (6 – 12 months), and black: Hair black (natal coat); skin, ears, nose, and scrotum (males) pink; clings to mother’s ventrum (0 – 6 months).

3 RESULTS

Population trends

As of 30 June 2024, the total count for the baboon troops on the Cape Peninsula outside of the Cape Point section of Table Mountain National Park is 518 individuals. With the exception of the Plateau Road troop, these troops border on urban areas. This year the population, excluding Plateau Road troop increased by 6.1% (**Fig. 1**). Since 2012, the population has experienced a 38.1% increase in size overall, with an average annual increase of 2.8%.

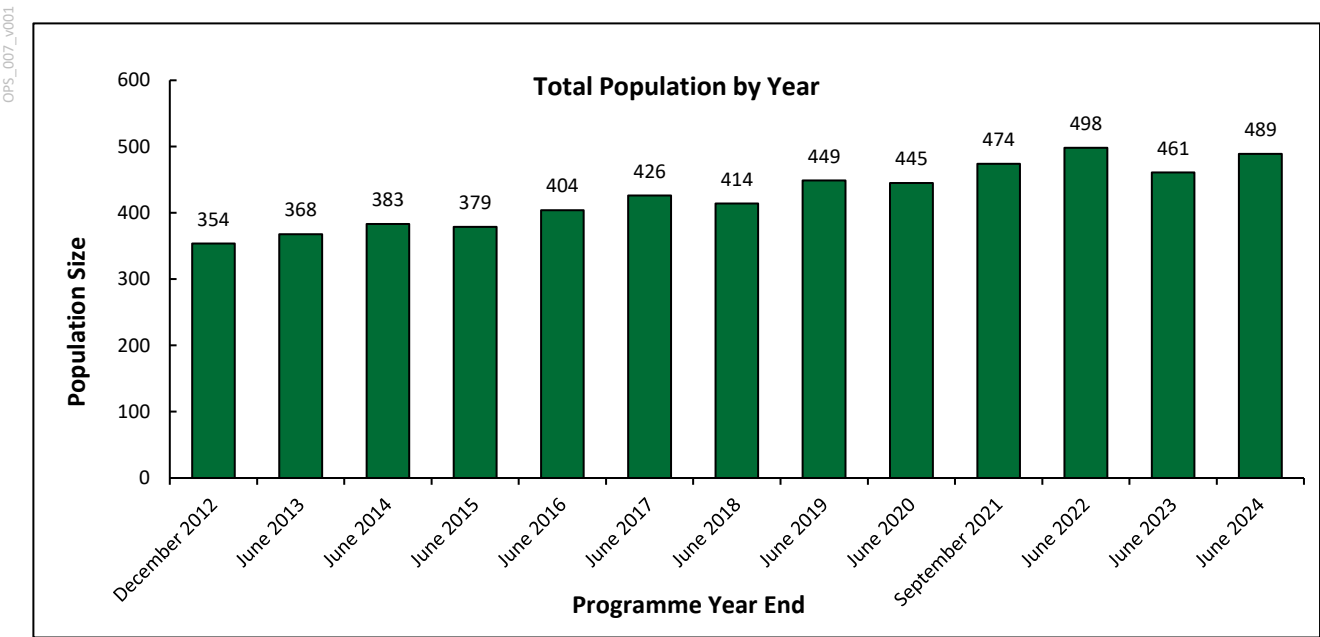


Figure 1. Total annual population counts for the baboon population that borders on urban areas. This excludes baboon troops inside of the Cape of Good Hope section of Table Mountain National Park and the Plateau Road Troop.

Subpopulation trends & troop sizes

Figure 2 illustrates the changes in subpopulation sizes between December 2012 and June 2024, where growth is seen to be consistently stronger in the north than the south. Since 2012, the northern subpopulation has increased by 64.8% overall (116 baboons) and the southern subpopulation has increased by 10.6% overall (19 baboons) (**Table 1**).

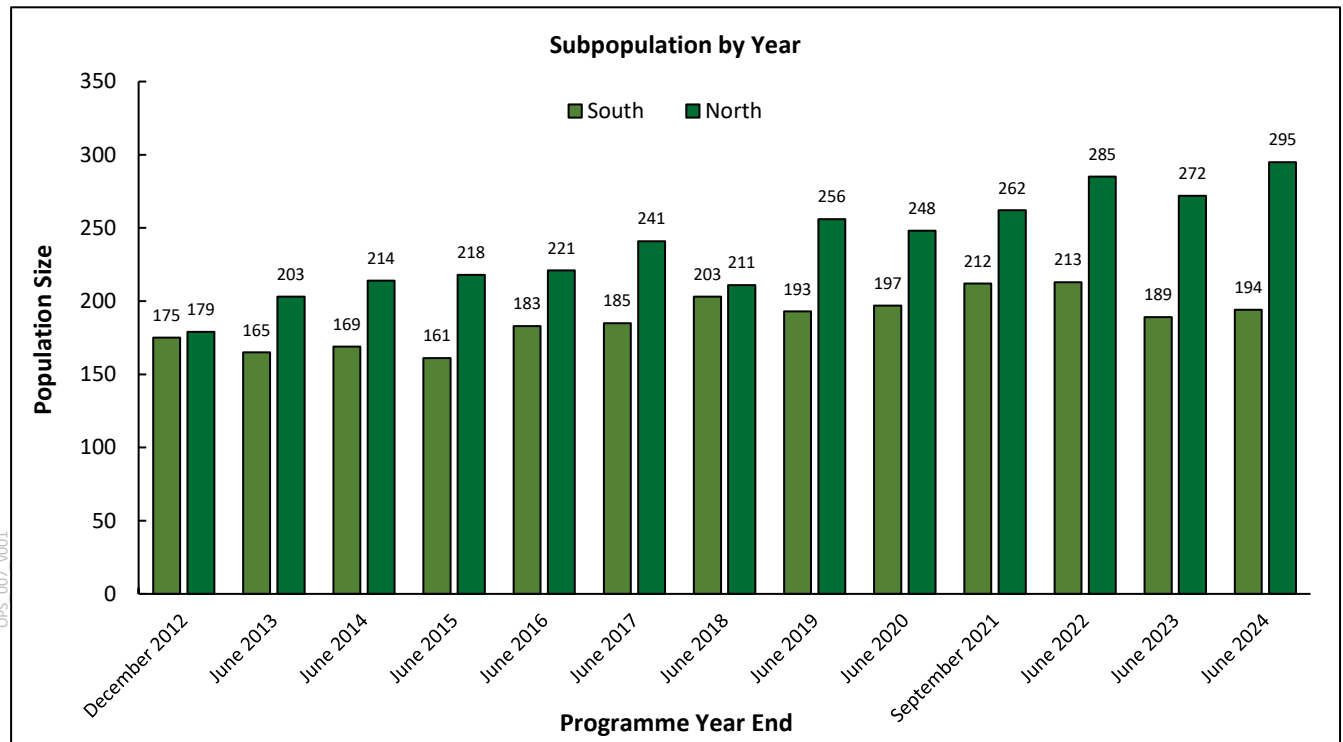


Figure 2. Total annual subpopulation counts for the baboon population that borders on urban areas. This excludes baboon troops inside the Cape of Good Hope section of Table Mountain National Park and the Plateau Road Troop.

This year, the northern subpopulation increased by 8.5% (23 baboons). This growth is attributed to an increase in the number of baboons in the Constantia 1, Tokai and Zwaanswyk troops. The southern subpopulation increased by 2.6% (5 baboons). Growth in this area is attributed to an increase in the size of the Groot Olifantsbos Troop (GOB), and a small increase in the number of baboons in the Seaforth and Smitswinkel Bay troops. The continued decrease in the size of the Da Gama troop is notable again this year.

Table 1. Population, subpopulation, and troop size changes since 2012.

SOUTH TROOPS	Dec. 2012	June 2013	June 2014	June 2015	June 2016	June 2017	June 2018	June 2019	June 2020	Sept. 2021	June 2022	June 2023	June 2024	# Change since 2012	% Change since 2012
Da Gama ¹	54	42	43	46	52	52	55	48	48	55	49	36	20	-34	-63%
Groot Olifantsbos	19	20	19	16	17	23	29	23	25	29	33	35	46	27	142.1%
Misty Cliffs	18	17	16	9	11										
Slangkop	33	37	40	35	41	40	44	43	42	34	40	36	43	10	30.3%
Smitswinkel Bay	23	21	22	24	29	33	35	31	35	42	40	24	27	20	87%
Seaforth ²												14	16		
Waterfall	28	28	29	31	33	37	40	48	47	52	51	44	42	14	50%
SUBTOTAL	175	165	169	161	183	185	203	193	197	212	213	189	194	19	10.6%
NORTH TROOPS	Dec. 2012	June 2013	June 2014	June 2015	June 2016	June 2017	June 2018	June 2019	June 2020	Sept.2021	June 2022	June 2023	June 2024	# Change since 2012	% Change since 2012
Constantia 1	60	70	69	77	81	63	46	64	68	40	39	34	43	1	1.7%
Constantia 2 ³						22	10	8	7	17	18	20	18		
Mountain 1	33	41	47	49	47	57	60	73	63	51	55	56	54	54	163.6%
Mountain 2 ⁴										24	32	31	33		
Tokai	61	64	70	62	65	69	75	91	92	110	126	108 ⁵	115 ⁶	54	88.5%
Zwaanswyk	25	28	28	30	28	30	20	20	18	20	15	23	32	7	28%
SUBTOTAL	179	203	214	218	221	241	211	256	248	262	285	272	295	116	64.8%
TOTAL	354	368	383	379	404⁶	426⁶	414	449	445	474	498	461	489	135	38.1%

¹Individuals from this troop have been moving independently of the main troop since early 2024. ²The Seaforth Troop is a splinter from the Smitswinkel Bay Troop which formed in 2022.

³The Constantia 2 Troop is a splinter from the Constantia 1 Troop, which moved over Constantia Nek in 2020. ⁴The Mountain 2 Troop is a splinter from the Mountain 1 Troop, which formed in 2021. ⁵The two dispersing males from this count have now been included in the count of their natal troop (Tokai) for ease of reporting. ⁶The present dispersing male from this troop is included in the count of his natal troop (Tokai) for ease of reporting. ⁷These totals are estimates based on rolling counts, not official census counts.

Troop structure

There has been an increase in the number of immatures (from 233 to 257), the number of adult males (from 33 to 39), subadult males (from 29 to 31) and subadult females (from 14 to 15) in the population **Table 2**. The number of adult females has decreased (from 152 to 147). See the [2022/2023 Annual Count](#) for further details.

Table 2. Age and sex class structure of the baboon troops in June 2024.

Troop	Adult Male	Adult Female	Subadult Male	Subadult Female	Immatures	Total
Da Gama ¹	2	4	1	1	12	20
Groot Olifantsbos	1	11	2	2	30	46
Slangkop	4	14	3	0	22	43
Smitswinkel Bay	2	9	2	1	13	27
Seaforth ²	1	6	1	1	7	16
Waterfall	4	18	2	1	17	42
South Subtotal	14	62	11	6	101	194
Constantia 1	5	12	3	1	22	43
Constantia 2 ³	1	6	2	1	8	18
Mountain 1	4	19	2	2	27	54
Mountain 2 ⁴	3	9	3	1	17	33
Tokai ⁵	7	33	8	4	63	115
Zwaanswyk ⁶	5	6	2	0	19	32
North Subtotal	25	85	20	9	156	295
TOTAL	39	147	31	15	257	489
<i>Plateau Road⁷</i>	<i>2</i>	<i>9</i>	<i>2</i>	<i>0</i>	<i>16</i>	<i>29</i>

¹Individuals from this troop have been moving independently of the main troop since early 2024. ²The Seaforth Troop is a splinter from the Smitswinkel Bay Troop which formed in 2022. ³The Constantia 2 Troop is a splinter from the Constantia 1 Troop, which moved over Constantia Nek in 2020. ⁴The Mountain 2 Troop is a splinter from the Mountain 1 Troop, which formed in 2021. ⁵The present dispersing male from this troop is included in the count of the troop. ⁶The Tokai & Zwaanswyk troops are sister troops who overlap throughout their range. These troops forage immediately adjacent to each other, with individuals regularly moving between the two. As such, the exact number of baboons belonging to the Zwaanswyk Troop as opposed to the Tokai Troop, and vice versa, is subject to change. ⁷Plateau Road Troop is excluded from the total count as it does not border on urban areas.

Mortalities

The highest number of mortalities (33 baboons) this year were attributed to urban causes, 29 of which were the result of direct human activities such as pellet gun shootings, motor vehicle collisions, and dog attacks. The second highest number of mortalities were due to natural causes (25 baboons), followed by unknown causes (8 baboons) (**Table 3**). The number of known mortalities for this reporting period (67 baboons) was the highest number recorded since 2013 and considerably higher than the average since 2013 (approx. 47 baboons). There were fewer than average mortalities related to management this year (1 baboon vs. approx. 6 baboons annually since 2013), but considerably more than the average number of human-induced deaths since 2013 (33 baboons vs. approx. 13 baboons annually since 2013).

Table 3. Annual causes of known baboon mortality since June 2013.

CAUSE OF MORTALITY	END JUNE TOTALS												Total Deaths since 2013	% Cause of Death out of Total Deaths in 2024	% Average Annual Cause of Death Since 2013
	2013	2014	2015*	2016	2017*	2018	2019	2020	2021	2022	2023	2024			
Management ¹	17	10	8	4	11	8	4	5	1	1	0	1	70	1.5%	13.2%
Human-Induced	5	3	11	13	4	8	17	11	14	19	26	33	177	49.3%	28.7%
<i>Direct</i> ²	5	3	4	8	2	7	8	10	11	15	24	29	126	87.9%	72.2%
<i>Indirect</i> ³	0	0	7	5	2	1	9	1	3	4	2	4	51	12.1%	27.8%
Natural ⁴	19	21	34	8	28	28	18	30	18	12	23	25	251	37.3%	42.8%
PLOHP ⁵	0	0	0	0	0	7	0	0	0	0	1	0	8	0%	1%
Unknown ⁶	5	9	5	8	7	13	6	6	3	3	9	8	82	11.9%	14.2%
Total Deaths	46	43	58	33	50	64	45	52	36	35	59	67			
Total Population	368	383	379	404	426	414	449	445	474	498	461	489			

¹ **Management:** baboons euthanised following the BTT [guidelines](#). **Human-induced:** ² *Direct* – baboons killed by shooting, poisoning, dog attacks, motor vehicle collisions, etc. ³ *Indirect* – electrocutions, fires within the urban space, and baboons seriously injured from these causes and subsequently euthanised. ⁴ **Natural:** baboon-on-baboon altercations, infanticide, fires within the natural space, etc., and baboons seriously injured from these causes and subsequently euthanised. ⁵ **PLOHP:** Private landowner hunting permit. ⁶ **Unknown:** occasionally a baboon carcass is found, and the cause of death cannot be determined. This category also includes baboons euthanised for serious injuries which resulted from an unknown cause. *To align with the clarified definitions above, indirect human-induced deaths resulting from fires in the natural space have been re-classified as natural deaths. **NB:** This table includes only known mortalities and is unlikely to account for all possible mortalities in a given year.

4 EXPERIENCE OF CONTRACTED SPECIALIST

This census was conducted by an independent contractor with a Postgraduate Diploma in Nature Conservation and over five years of experience working with and researching baboons and other primate species in wild populations.