



The AfriCat Foundation



Cheetahs and Leopards on Farmland

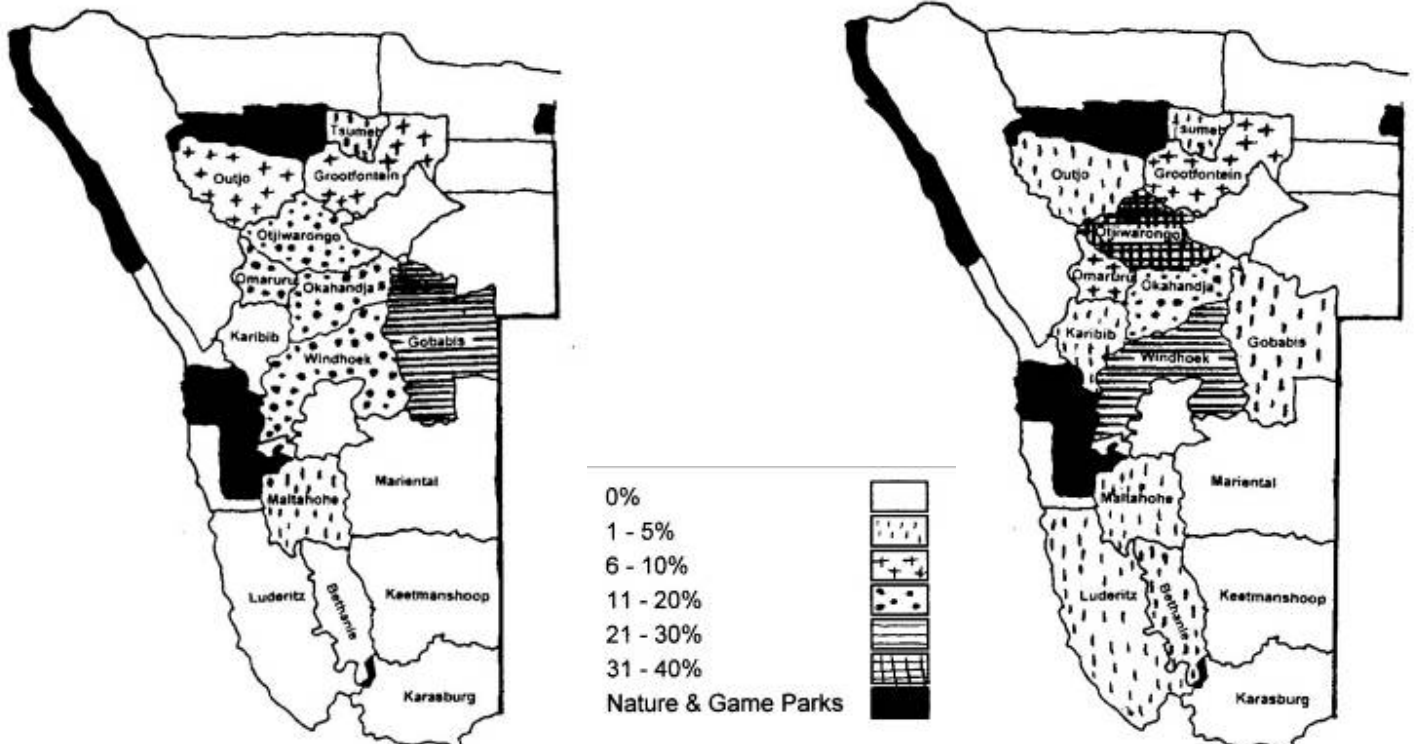
The data from the captured cheetahs and leopards, i.e. where each animal was captured, its characteristics, such as gender, age, etc., gives us some idea as to the geographical distribution and demographics of the wild cheetah and leopard populations living on Namibian farmland.

Geographical distribution of captured cheetahs and leopards

Namibia is a large country with an area of 824 300 km² (321 500 sq. miles) and a population of only 2.3 million people. Although all regions of the country still have wildlife, including carnivores, the population numbers are often unknown and vary dramatically. Namibia is home to approximately 25% of the world's cheetah population, of which 90% live on commercial and communal farmland.

Distribution of captured cheetahs

Distribution of captured leopards



Although there may be some correlation between the number of cheetahs and leopards captured in the various farming districts and the distribution and density of the wild population of these large carnivores in Namibia, the data doesn't prove this in any way. The information does however highlight those areas where there are varying degrees of conflict between predators and livestock and game farmers.

Cheetahs - Social Organisation

The categories that have been used to group the captured and recorded cheetahs in the analyses to follow are based on their social organisation:



- Solitary - adult male or female captured alone.



- Female with cubs – adult female and one or more male and/or female cubs captured simultaneously or within a short time span at the same capture point.



- Coalition – two or more males (2 years and older) captured simultaneously or within a short time span at the same capture point.



- Sibling groups – two or more sibling males and/or females (between 18 and 24 months old) captured simultaneously or within a short time span at the same capture point. The sibling group indicates those cheetah groups which are at the stage where they have recently become independent from their mothers, and therefore includes the younger brother groups (between 18 and 24 months) not included in the coalition group. These littermates are known to spend a short time together before the females move off on their own and the males form coalitions or become solitary.



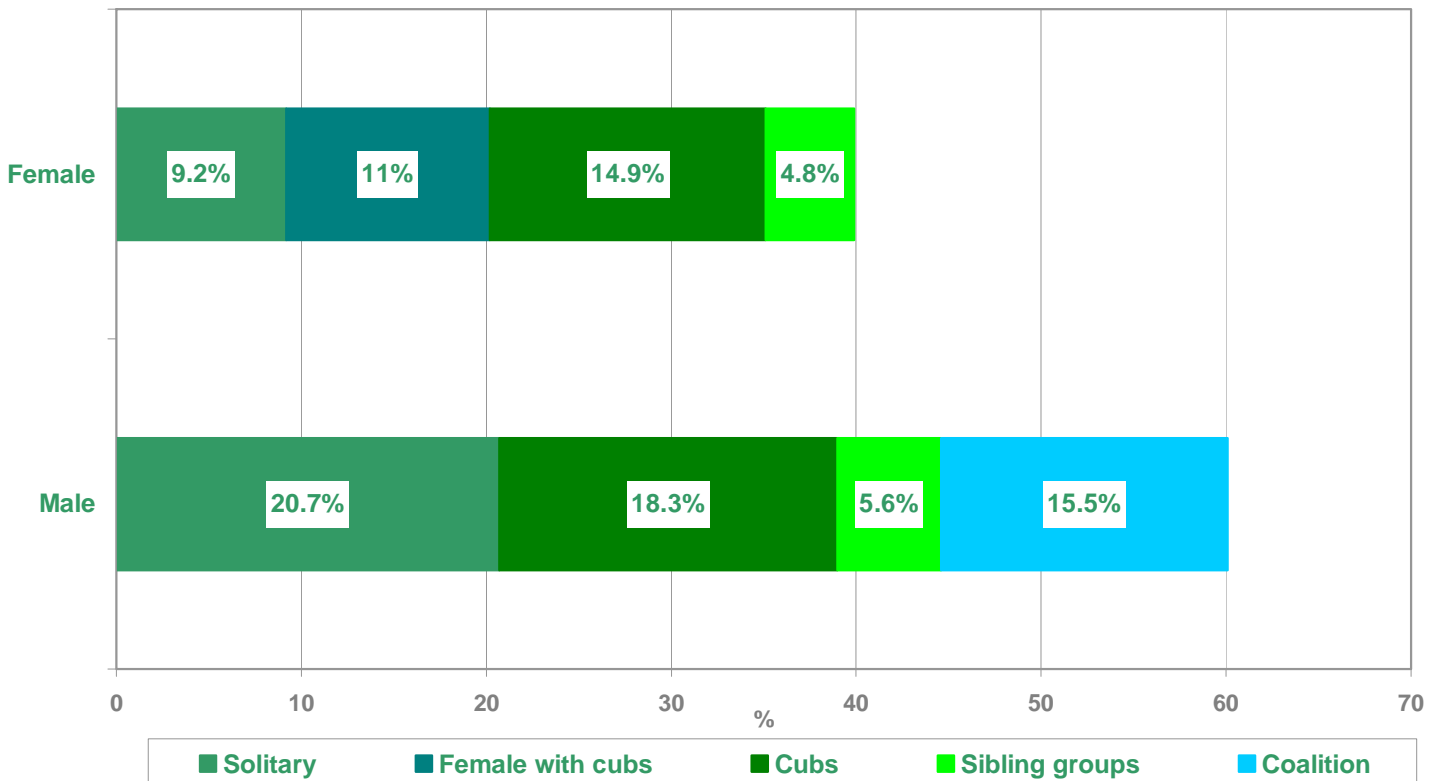
- Cubs - young males and/or females that have been captured simultaneously or within a short time span of an adult female.

Once a cheetah or leopard has been caught in a trap, the surrounding area is checked for any signs indicating that the animal might not have been alone before being caught, e.g. spoor around the trap. Capture situations differ but every effort is made to keep social groups together - coalitions, siblings and especially a mother and her cubs. If required, attempts are made to either capture those that have not yet been caught or release those that have been caught to reunite with the other members of the group.

Demographics of captured cheetahs and leopards

*The figures used in the demographic analyses exclude all orphaned cubs as well as those animals that have been in captivity elsewhere before coming to *AfriCat*.*

SEX RATIO AND SOCIAL STRUCTURE OF CAPTURED CHEETAHS 1993 - 2008



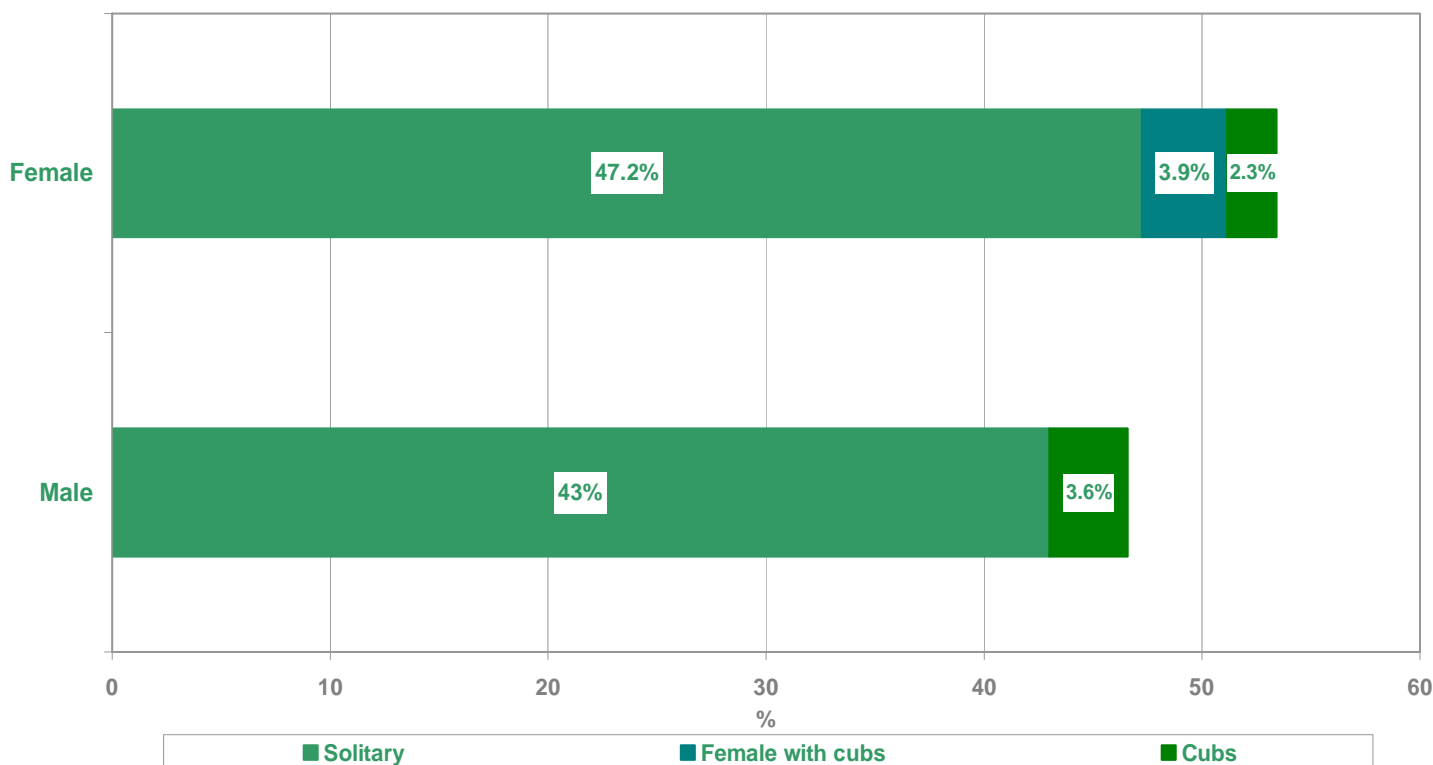
The total ratio of male to female cheetahs caught (adults and cubs) is 1.5:1. Excluding cubs, the ratio of males to females is 1.7:1. This poses the question as to whether the male cheetah population is larger than the female population - or are adult males easier to capture? With the ratio of cubs captured with their mothers being almost equal at 1.2 males to every female, is it a possibility that females are more vulnerable from the time they reach independence? Could this be explained by the fact that male siblings often stay in groups forming coalitions, giving them the advantage of strength in numbers - as opposed to the solitary female, that not only has to hunt on her own, but also has to provide food and protection for her offspring?



The social structure of leopards differs from that of cheetahs, with the only "group" observed being that of a female with her cubs. Once cubs reach independence both the males and females become solitary.

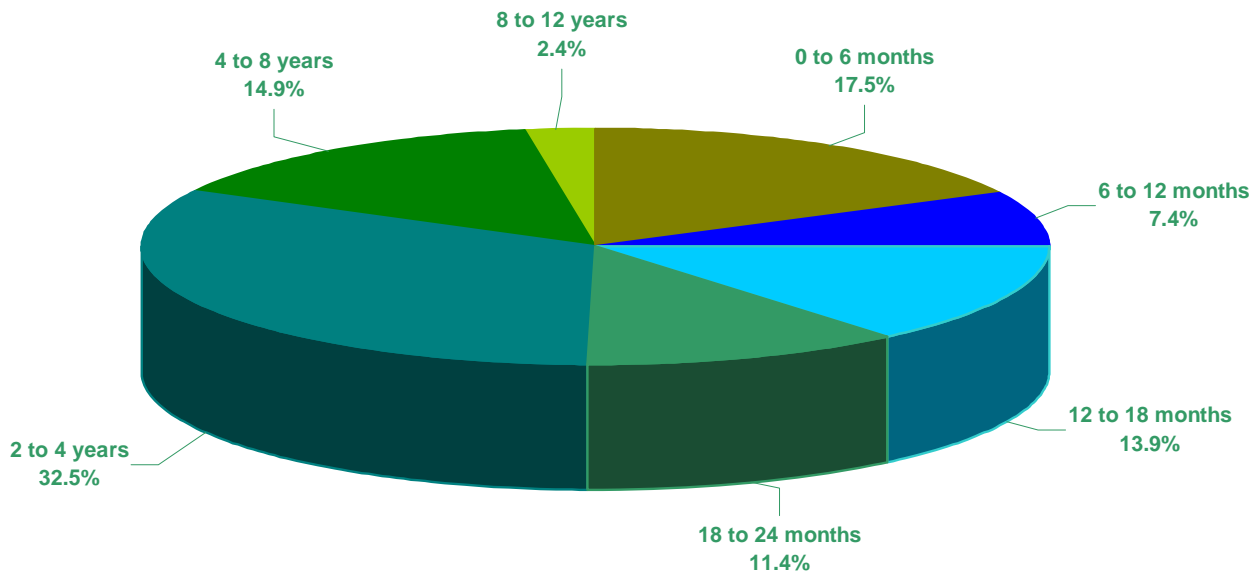
SEX RATIO OF CAPTURED LEOPARDS

1993 - 2008



The ratio between adult males and females captured is relatively equal at 1:1.2. The number of females with cubs as a percentage of total adult leopards captured is 4.2%, which is significantly lower in comparison to the same group in cheetahs (16.4%). Although the number of cubs captured with their mothers only represents 5.9% of the total, the ratio of male to female cubs is 1:0.6.

AGE GROUPS OF CAPTURED CHEETAHS 1993 - 2008



Just over half the cheetahs captured are under the age of two years (50.2%), with the largest majority of adults being captured between the ages of two and four years (32.5%).

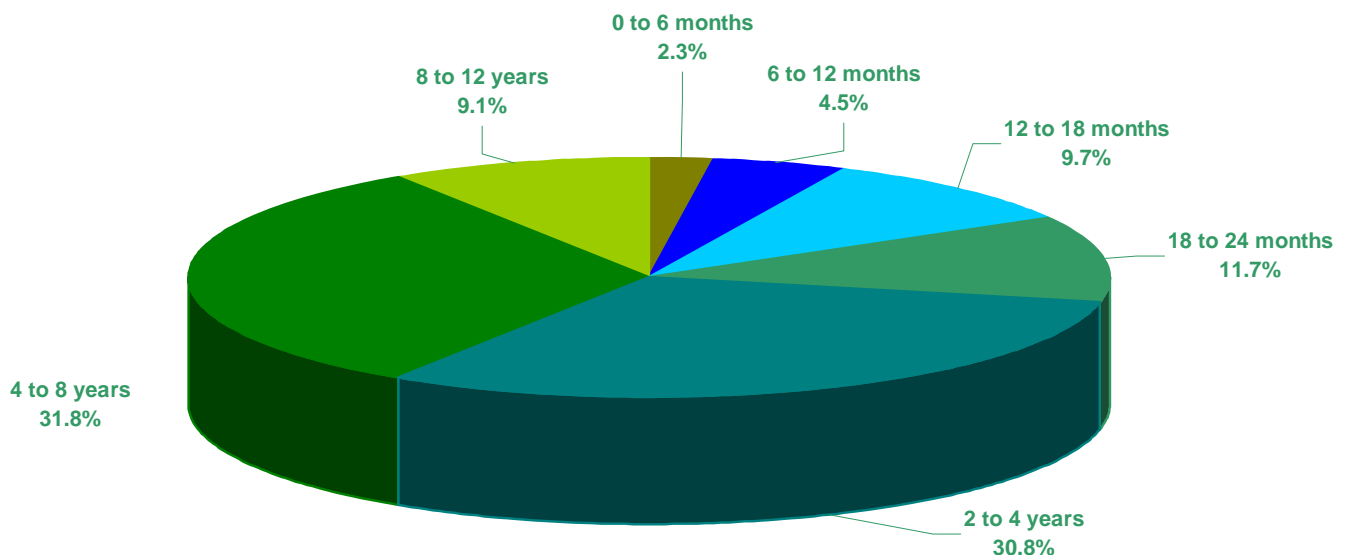
Does the phenomenal decrease from the number of cheetahs in this segment to the number of cheetahs that are captured between the ages of four and eight years (14.9%), give any indication as to the average age of the cheetah population in Namibia?

Of the cheetah cubs captured together with an adult female, 52.7% fall into the age group of 6 months and under, 24.4% are between the ages of 6 and 12 months and 22.9% are over a year old.

Can these decreasing numbers merely be explained by the fact that younger cubs are more vulnerable to being caught and are then followed by their mothers into the traps?

Or does the decrease in average litter size from 3.8 (where cubs are 6 months or younger) to 2.6 (between 6 and 12 months) to 2.5 (over 1 year) provide an alternative explanation by way of a high cub mortality rate?

AGE GROUPS OF CAPTURED LEOPARDS 1993 - 2008



The majority of leopards captured are over two years of age (71.8%), indicating that the average age of leopards captured is significantly higher than that of cheetahs.

This figure could however be influenced by the fact that the number of leopard cubs captured with their mothers is substantially lower in comparison to cheetahs, with smaller litter sizes also having an impact. The average litter size for leopard females caught with cubs is 1.5, whereas with cheetahs the average litter size (including all cubs from birth to 18 months) is 3.

Although the data gathered over a fifteen-year period gives us some idea as to the demographics of the cheetahs and leopards living on farmland, it also raises numerous questions. In order to determine the demographics, population size and density of the wild cheetah and leopard populations, a national census is required.

As Namibia is a large country, studies of this nature would take a number of years to complete and involve and require the co-operation and expertise of many people and organisations. *AfriCat* hopes to collaborate with other large carnivore conservation organisations in Namibia to conduct a cheetah population census in the future.



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