

# SPOTTING CHEETAHS *on the* SERENGETI PLAINS

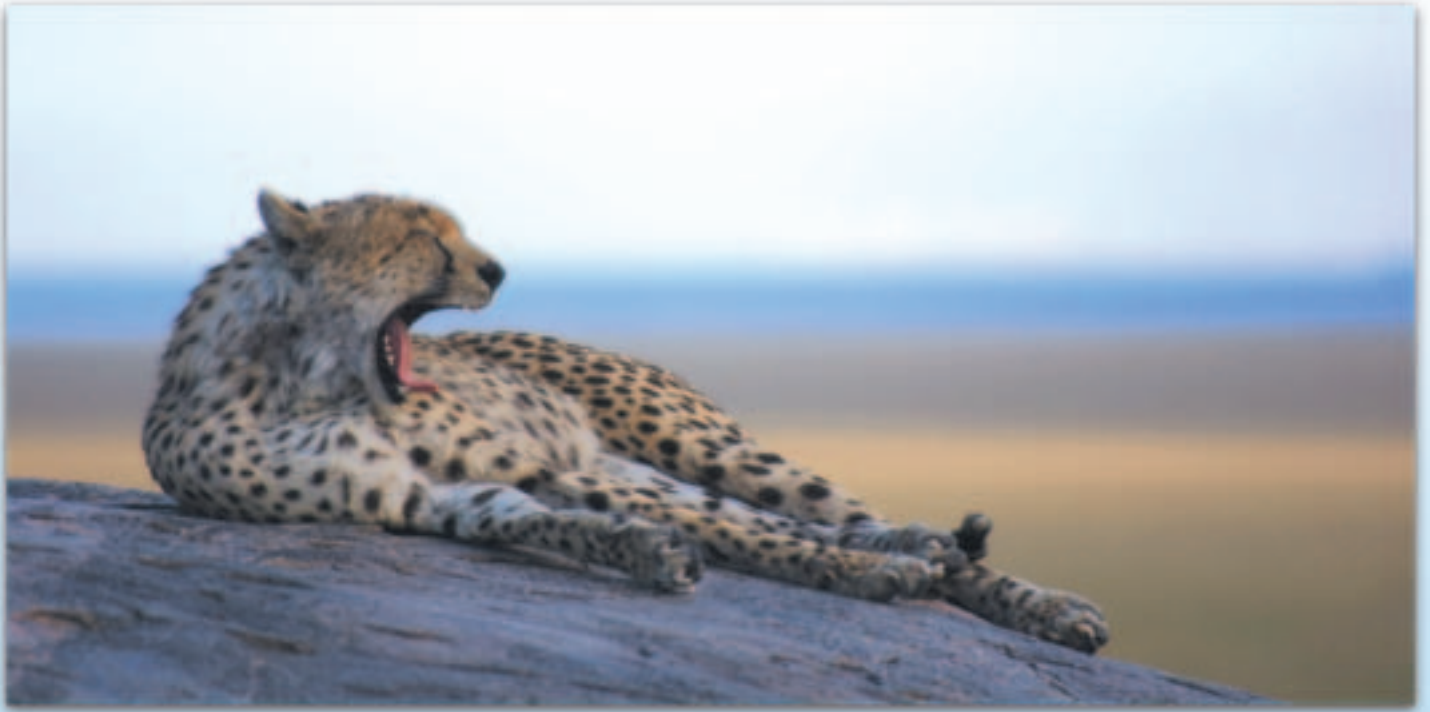
There is probably no better place to see cheetahs than on the southern Serengeti plains in Tanzania. Once widespread across Africa and Asia, cheetahs have disappeared from much of their former range. There are no accurate estimates of the global population, but it is thought that there may be only 10,000 cheetahs left in the wild, mainly in sub-Saharan Africa.

In many places cheetahs are extremely shy and difficult to see either because of severe persecution by humans or because they naturally rarely encounter people. But in Serengeti, cheetahs have been protected for decades and many have become used to people and cars and so can be observed with relative ease, particularly on the open short- and long-grass plains, which cover more than 2,000 km<sup>2</sup>. Here, cheetahs may be seen singly, or in groups - either mothers with cubs, or coalitions of two or three

territorial males, often brothers from the same litter, or bands of littermates who have just recently left their mother and who will roam around together for six months or so before the females and males go their separate ways.

Cheetahs naturally occur at very low density, and for me there are few things quite so thrilling as spotting these elegant and elusive creatures in the wild. One may be silhouetted against the horizon as it strides along a ridge top; or perched on a termite mound or stone kopje (hillock), scanning the surrounding rolling plains for prey; or snoozing under the shade of a bush during the heat of the day, its presence given away by a pair of twitching ears and the occasional flick of a black and white stripy tail. If you are patient or very lucky you may even see a hunt, and witness the cheetah's legendary speed and grace as it brings down its prey in a few breathtaking moments. >





The Serengeti plains also happen to be the study area of the Serengeti Cheetah Project (SCP), the world's longest-running field project for wild cheetahs. Since 1991, the project has been run by Sarah Durant of ZSL, while I joined ZSL as Field Project Manager of the SCP in 2001. Much of what we know about wild cheetah ecology and behaviour comes from work done on the Serengeti over the past 30 years. During this period the SCP has built up a database on the study population based on individual recognition, which is possible because, just like fingerprints in humans, every cheetah has a unique pattern of spots. Over the last

12 years the plains' study population has fluctuated between less than 50 to 90 adults, of which two-thirds are generally female and the rest male. We estimate that altogether there are only 250 adults in the entire Serengeti National Park, which covers approximately 14,000km<sup>2</sup>. This is comparable to known cheetah densities elsewhere in Africa. Cubs are generally not included in our population figures because only 1 in 20 cubs born makes it to independence from its mother due to various natural causes.

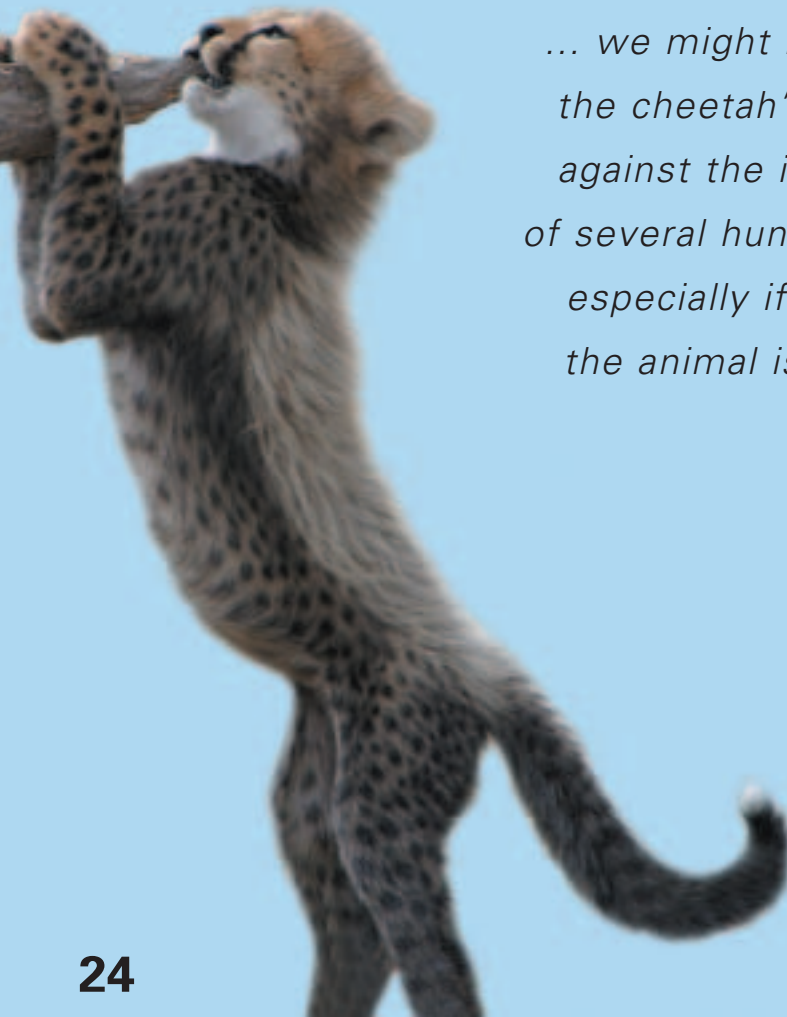
Serengeti is one of the very few places in the world for which we have reliable estimates of the cheetah population and an

understanding of the factors affecting population change over the years. We urgently need such information for other cheetah populations if we are to ensure their survival. As it is difficult to repeat a long-term, intensive field project like the SCP for reasons of cost and time, we are currently trying to develop new, cost-effective ways of monitoring cheetah populations. Serengeti is ideal for

testing the effectiveness of new censusing methods, as we already have a reliable field-based estimate of the study population against which to compare the findings of a new method of counting cheetahs.

As part of this work, we have been trialling the use of tourist photos of cheetahs to monitor cheetah populations. This method was used successfully in Kruger National Park in South Africa and was launched by the SCP in Serengeti in late 2000 as the Cheetah Watch Campaign. Cheetah Watch brochures were produced with some general information about wild cheetahs and a request to visitors to help us monitor cheetahs by sending us photographs of any cheetahs seen while on safari with some basic information about their sightings, such as date, location and the number, age and sex of the individuals seen. Brochures were distributed at the main park entrance gate, the Visitor Centre and through selected lodges and tour operators.

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Additionally, we commissioned the development of 'spot matching' software to help us identify cheetahs more quickly as it can be extremely time consuming to match cheetahs, particularly individuals that are rarely seen or are new to the project. For example, to be completely sure that a particular cheetah is unknown to us, we might have to check its photographs against the identity cards of several hundred cheetahs, especially if the sex of the animal is not known. This is because most cheetahs are non-territorial and can range over huge distances in a year, on average about 800km<sup>2</sup>. So just because a particular individual has not been seen by us for a year or two, we cannot automatically assume it has died. A potentially 'new' cheetah might also have been recorded by us as a cub, and which then left the study area after becoming independent. With the help of the matching programme, we can now identify cheetahs much more quickly by simply checking digitised photos against our photographic database of known individuals.

To date, we have received hundreds of photographs from visitors to the Serengeti representing some 350 cheetah sightings. We have been overwhelmed and touched by the public's response to our pilot Cheetah Watch Campaign. As well as photographs, some visitors have sent us detailed notes about each sighting and even maps to help us pinpoint the location of their sighting. Tourists cover a much larger area than we do and so we are also receiving sightings from outside our study area such as from western and northern Serengeti, which are especially invaluable. Testing the effectiveness of this method as a means of monitoring the population forms part of the Masters' research being undertaken by John Shemkunde, a Chief Park Warden from Tanzania National Park, who worked with us between 2000 and 2003 and is currently writing up his thesis. We are also developing websites to provide information to contributors about their sightings and about the work we do. Ultimately, we hope to make our websites more interactive, allowing people to post their sightings directly and have them matched on-line, but this ambitious plan is still a little way off!

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Meanwhile, the Cheetah Watch Campaign has been expanded to cover all of Tanzania under the new Tanzania Carnivore Project, which has been set up within the Tanzania Wildlife Research Institute through a grant from the UK Government's Darwin Initiative, along with support from the Zoological Society of London and the Wildlife Conservation Society.

We hope that as a result of the national Cheetah Watch Campaign and other work we are doing, we will eventually develop a clearer picture of

the distribution and status of cheetahs across Tanzania, which will help us target our efforts to conserve cheetahs in the wild more effectively.

DR SULTANA BASHIR  
FIELD PROJECT MANAGER



**For more information about the Serengeti Cheetah Project and the Tanzania Carnivore Project visit:**

**[www.wcs.org/sw-around\\_the\\_globe/africa/cheetahs](http://www.wcs.org/sw-around_the_globe/africa/cheetahs)**

**and [www.habari.co.tz/carnivores](http://www.habari.co.tz/carnivores)**

**The project is currently funded by the Zoological Society of London, the Darwin Initiative, Wildlife Conservation Society, the Howard G Buffett Foundation, Frankfurt Zoological Society and St Louis Zoo.**

