

Cheetah Census Technique Development Workshop

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Cheetahs once used to be widespread across Africa and Asia. Today, cheetahs are extinct in much of their former Asian range and the vast majority of surviving populations are concentrated in sub-Saharan Africa. It is thought that there may be only some 10,000 cheetahs left in the wild, but there are no reliable estimates of the global population. Namibia is believed to hold the largest population, while Tanzania, Kenya, Zimbabwe, Botswana and South Africa also have significant populations.

Cheetahs are difficult to monitor because they occur at low densities, range over large distances, are generally difficult to see, and are often shy. Tanzania's Serengeti National Park is one of the few places in the world for which we have accurate information on the wild cheetah population as a result of an on-going, long-term field study of the plains population. Such information on other populations is becoming increasingly essential if we are to identify and address threats to their long-term survival, but it is difficult to replicate long-term field studies, such as the Serengeti study, in other regions for both logistical and financial reasons.

Developing appropriate, cost-effective techniques for monitoring cheetahs in a variety of habitats has been identified as a key priority for cheetah conservation by the Global Cheetah Forum (GCF). This issue was addressed recently at an international workshop held at the Ndutu Safari Lodge in the Ngorongoro Conservation Area in Tanzania. The workshop was organised by the Serengeti Cheetah Project, the Conservation Breeding Specialist Group (CBSG – SSC/IUCN) Southern Africa and the Endangered Wildlife Trust (South Africa) through the GCF and was hosted by the Tanzania Carnivore Project within TAWIRI (the Tanzania Wildlife Research Institute). The workshop was generously sponsored by the American Zoo & Aquarium Associations (AZA)'s Conservation Endowment Fund, St Louis Zoo, the AZA's Cheetah Species Sur-

vival Plan (SSP), TAWIRI, Ngorongoro Conservation Area Authority (NCAA) and Regional Air. Ndutu Safari Lodge very kindly subsidized board and lodging costs and provided logistical support.

The three-day workshop brought together a range of stakeholders including conservation managers and scientists with experience in developing and using monitoring techniques for cheetah and other big cats. Altogether, 32 people from nine countries attended the workshop, which was opened by Mr Victor Runyoro on behalf of the Chief Conservator of the NCAA, and closed by Mr Justin Hando, Chief Park Warden of Serengeti National Park. Participants discussed the advantages and disadvantages of a range of direct and indirect monitoring techniques, including: direct visual counts as used in the Serengeti; tourist photographic surveys, which are used effectively in both Tanzania and South Africa; spoor count surveys, used successfully for lions and leopards in southern Africa and which are being tested for cheetah in Serengeti; camera trapping, used extensively for species, such as tigers and now being tested for cheetah in South Africa; interview methods; and perhaps the most interesting of all techniques, the use of sniffer dogs to locate cheetah scat with the possibility of associated DNA analysis of the scat for individual identification within the population. This last method has been used successfully in the US for several other carnivore (and non-carnivore) species, including mountain lion. Working Dogs for Conservation, a non-profit organisation based in the US, is currently trialling this approach in East Africa for the Tanzania Cheetah Conservation Programme and the Laikipia Wild Dog Project with funding from the Frankfurt Zoological Society and St Louis Zoo.

Workshop participants assessed the suitability of each potential monitoring technique against criteria such as cost, accuracy, human capacity and effectiveness. The potential for calibrating each technique against alternative techniques and practical logistical issues were also

considered and documented. Finally, participants identified gaps in our knowledge about the status of different cheetah populations and priority areas to be surveyed within the next two years. These included areas in Chad and Zambia amongst others.

A major workshop output will be the development of a "Best Practices" manual on the censusing and monitoring techniques reviewed during the workshop. The manual will provide guidelines on the pros and cons of different techniques and hopefully help users to select the most appropriate techniques or suite of techniques to apply under different types of ecological and logistical circumstances. In the shorter term a report of the workshop will be produced.

More generally, the workshop allowed participants to compare ideas, share knowledge and explore a range of options for monitoring cheetahs. It also enabled cheetah conservationists from different range states to work together to develop a framework for monitoring cheetahs internationally. We are grateful to the numerous sponsors and participating organisations who made this workshop possible.

Further information about the workshop or any of the other work mentioned here can be obtained from Yolán Friedman (cbsgsa@wol.co.za), Maurus Msuha (carnivores@habari.co.tz), and/or Sarah Durant and Sultana Bashir (cheetah@habari.co.tz).

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The Global Cheetah Forum (GCF) is a network of individuals and organisations, who aim to promote the interests of cheetah conservation globally through a variety of strategies. The GCF currently has more than 70 members in 14 countries and is affiliated to the CBSG (IUCN /SSC) as well as the Cat Specialist Group (IUCN/SSC) and the Endangered Wildlife Trust, South Africa.