Scat Detection Dogs

and their handlers are invaluable research allies

This **winning team** is versatile and effective in a range of locations and conditions; they are critical allies for collecting samples used in wildlife research.

Q. **Why** is finding scat important to Cheetah Conservation?

A. **Collecting scat samples** allows us to perform **genetic analysis**, **dietary studies**, **health assessments** and derive **demographic data** of wild cheetahs without actually interfering with the study animals. This helps us gather valuable information and make more informed conservation decisions.

Q. **What** is the best method for finding scat?

A.

- ☐ walking
- ☐ driving
- ☑ it depends!

Walking transects give diverse (complete) results effectively across **all study areas** (road network, cheetah density, habitat, etc....).

Driving transects are great for detecting marking sites and when conditions are right, driving is a super-efficient option.

Disruption Reduction

Non-invasive monitoring techniques like Scat Detection Dogs can significantly enhance the monitoring of elusive species like cheetahs.

These techniques are crucial for effective wildlife conservation, providing reliable data on animal demography faster and at a lower financial cost.

Key Benefits of Walking Transects for Scat Detection

Adaptability to Site Conditions

Walking transects are more adaptable to varying environmental conditions. Handlers can modify their search patterns based on immediate observations and the dog's behavior.

Focused and Detailed Searches

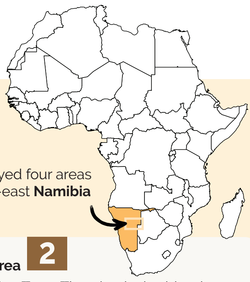
Walking transects allow for a detailed examination of the environment. Detection dogs have more time to pick up scents and investigate potential marking sites closely, which can lead to higher detection rates and accuracy in identifying actual cheetah scats.

Key Benefit of Driving Transects for Scat Detection

Efficient Searches

Vehicular searches are faster and more efficient because they cover larger areas in less time, allowing for quicker identification of marking sites when roads are available.

Study Area Overview & Biome Characteristics



We surveyed four areas in central-east **Namibia**

Study Area 1
Vegetation Type: Central Kalahari
Average Annual Rainfall: 350 – 450 mm
Land Use Type: Freehold farmland
Survey Period: May – Sep. 21
Survey Area: 4096 km²

Study Area 2
Vegetation Type: Thornbush shrubland
Average Annual Rainfall: 400 – 500 mm
Land Use Type: Freehold farmland
Survey Period: Jul. – Oct. 22
Survey Area: 2048 km²

Study Area 3
Vegetation Type: Northern Kalahari
Average Annual Rainfall: 350 – 400 mm
Land Use Type: Communal farmland
Survey Period: Jul. – Oct. 22
Survey Area: 2304 km²

Study Area 4
Vegetation Type: Central Kalahari
Average Annual Rainfall: 350 – 400 mm
Land Use Type: Communal farmland
Survey Period: Aug. 23
Survey Area: 2048 km²

> *With a Scat Detection Dog, walking transects for scat detection consistently yielded higher marking site frequencies, and detected cheetah presence in all areas. Walking transects also yielded samples away from marking sites that were randomly found on roads. Vehicular searches were more time-efficient when marking sites were readily available.* ***Cheetah Conservation Fund recommends using an adaptive scat detection strategy (both walking and driving) to optimize marking site searches*** *and walking transects to find scat away from marking sites.*

Cheetah CONSERVATION FUND

Source: Assessing two detection dog-based sampling strategies targeting cheetah scat in diverse environments of central-east Namibia, Authors Tim Hofmann, Stijn Verschueren, Niko Balkenhol, Hafeni Hamalwa, Stephan Neumann, Laurie Marker, Anne Schmidt-Küntzel, Journal Namibia Scientific Society / Volume 71 - 2024