WINDS OF HOPE FOR SIBILOI NATIONAL PARK

In a recent number of SWARA, concerns have been raised regarding the threats affecting Sibiloi National Park in northern Kenya. These concerns are well-founded, going beyond projections for Lake Turkana and its associated fauna.

Overgrazing and defaunation expand over the terrestrial extent of the park and outside its borders. Notwithstanding, political and research agendas bring new winds of hope to the area.

Defaunation, or the disappearance of large fauna in a region, is a well-known problem of many tropical forest reserves and it is often attributed to over-hunting. This concerning phenomenon is rarely discussed in the context of savanna or semiarid ecosystems, despite the strong evidence of population declines for many species.

In this context, Sibiloi National Park has worryingly reached the boundary of defaunation, with the majority of large-bodied mammals and birds having vanished in the last 30 years.

While looking through the small window of a Cessna when overflying the area, the feeling of emptiness and degradation is devastating. Instead of seeing herds of mammals grazing, one sees nothing but barren land and groups of livestock struggling to find grasslands -- a powerful materialization of what is known as the 'Empty Park Syndrome'. The magnitude of

PHOTO BY: MAR CABEZA

Conditions in and around Sibiloi are challenging for wildlife and livestock.

the tragedy is heartbreaking, but surprisingly, the continued process of biodiversity loss is little known. Why are most animals gone? Which ones, and when? Where to? And, is it reversible?

In a recent expedition in the area, we found only a handful of oryxes, a dozen zebras, a few topis and two gerenuks, all restricted to the southern part of the park. Large birds such as ostrich were missing, though a few bustard species were observed (Crested, Heugling's). Vultures, expected to be abundant, were surprisingly rare.

Despite the outstanding paleontological research in the area, ecological studies have been scant and we lack scientific account for the recent faunal loss. Yet, paleontologists who worked in the area during the 1960's photographed a rich mammalian fauna, gone today

The locals, in particular pastoralists belonging to the Daasanach and Gabra ethnic groups, recall with nostalgia a time of greener pastures and great diversity of wildlife. If Peter Seeger wondered where had all the flowers gone in the 1950s, in the 21st century, the local Daasanach are more concerned about the whereabouts of the missing fauna.

A local resident said: "Before there were rhinos, zebras, lions, giraffes, leopards and cheetahs. I saw them all when I was a kid, now there are none of these."

"The older people say that long ago this area was fertile and green. Now there is no pasture or water available, that's why the animals have left. The animals have not died, they have gone far from here," said another one.

A lonely topi (*Damaliscus lunatus*) in Allia Bay, in the southern section of Sibiloi National Park.

Despite the current state, locals, young and old, officers, researchers and decision makers share a strong will to reverse the situation. But first and foremost, before attempting to rescue Sibiloi, we need a better understanding of what was there, and why was it lost, as well as a proper monitoring system to be developed through a joint collective effort.

The remoteness of the area, together with the harsh weather conditions, has precluded the frequentation of ecologists, and a lot is still to be discovered. The good news is that there is renewed interest in the region and an emerging number of projects and partnerships willing to listen to the often unheard voices of the Daasanach and Gabra pastoralists, taking into account their local knowledge to uncover the mysteries of Sibiloi's present and near past.

The interaction between pastoralists and nature has resulted in rich and detailed knowledge allowing them to adapt to changing environments. Such knowledge is widely referred to as Traditional Ecological Knowledge (TEK). TEK is increasingly recognized as a tool to access information on ecological changes, complementing conventional scientific monitoring. While day to day, year-round comprehensive observations are usually unmanageable in scientific ecological studies for logistical reasons, they are intrinsic to the nomadic pastoralist way of life, and thus, of irreplaceable value. Such knowledge is reflected in everyday conversations with some of the locals in the Sibiloi area, who rely on their place-based observations to plan their migratory routes and the herding of their livestock.

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In view of this, we anticipate that this knowledge could hold some of the keys to better understand past changes in Sibiloi's ecosystems, as well as to uptake future solutions to the current defaunation crisis.

Yet, if such aspirations are to be reflected in practice, there is an urgent need to formulate strategic plans to document TEK before it vanishes. Due to the many cultural changes brought by globalization, TEK is suffering worldwide decline at alarming rates.

PHOTO BY: ÁLVARO FERNÁNDEZ-LLAMAZARES & SARA FRAIXEDAS

Conversation with one of the local Daasanach communities.

Nonetheless, interviews carried out during our recent expedition to Sibiloi suggest that TEK is still very much at the basis of the subsistence practices of the Daasanach and the Gabra. Intergenerational oral transmission of knowledge continues to be at the core of the local livelihoods. For example, some young people reflect on the importance of the stories and accounts of the elders to maintain social memory of the ecological changes undergone.

"We have never seen an elephant, a rhino, a buffalo or a giraffe, but we learned from our parents about these animals," says a young pastoralist herding livestock on the edge of the national park. "We are worried that they are not here anymore."

TEK has the potential to expand the knowledge basis of a group at least to the lifespan of the oldest of its members, and potentially longer, as long as the knowledge held is transmitted from generation to generation.

Another youngster in Ileret notes the importance of the Daasanach stories and language to store, revive and transmit accounts of ecological change in the area. "The elders have memories about animals. We have not seen rhinos, giraffes or buffaloes, but we have a name for them in our language. We know about these animals through the stories."

There is great potential for appraising traditional knowledge. The views and expertise of traditional knowledge holders reflect a depth of embodied experience unlikely to be derived through formal scientific process, and provides invaluable information to plan and improve environmental monitoring schemes.

Moreover, by exploring the nature of recent ecological changes through the eyes of the local communities, we could hope to better understand the current state of the ecosystem. Not only does TEK inform us about the wildlife that there is or once was, but it also provides a more holistic view of the dynamics of the system, which are unlikely to be grasped through short-term conventional ecological studies.

In addition, to try to understand past ecological changes, the establishment of baselines remains paramount in order to monitor future developments and plan conservation management adaptively. We propose assessing such baseline by means of a joint collaborative effort, combining modern ecological surveying technologies -- camera traps, passive detectors, GPS locators, weather stations -- with participatory science approaches engaging local people.

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PHOTO BY: DANIEL BURGAS

PHOTOS BY: ADRIÀ LÓPEZ-BAUCELLS

TOP LEFT: Awosio Ajiko learning to do bird counts and enjoying his first experience handling binoculars.

TOP RIGHT: The future of Sibiloi lies in the hands of young generations.

Kenyan scholars have been long-time pioneers of the field of participatory science, showing that such collaborative approaches can yield substantial outcomes with implications going beyond the scope of the monitoring itself.

For instance, fieldwork activities can serve education and conservation outreach goals, helping to raise local awareness about the value of natural ecosystems. By participating actively in scientific monitoring, community members can increase their scientific literacy and help build social capital. Subsequently, local peoples can have a greater voice in conservation decision-making, particularly with regard to the natural resources being monitored. As Baba Dioum's much anthologized statement foresees: "We will conserve only what we love, we will love only what we understand, and we will understand only what we are taught."

Our pilot experiences working with local Daasanach in the region have been more positive than ever expected. We have learned a lot from our local collaborators, recognizing dimensions of the ecosystem lying beyond our own scientific understanding of the area. And likewise, the locals were extremely enthusiastic about possibilities of learning new things, or new ways of observing the wildlife around them. We foresee an immense potential in such a collaborative approach leading to the co-production of knowledge, involving cross-cultural dialogue and mutual learning. Local participation is essential for knowledge transfer and dialogue about conservation management.

The scientific community has known for decades that cultural and biological diversity are facing numerous, urgent and inter-related challenges. We have indeed observed that the bonds between the ecology and the pastoralist cultures of Sibiloi are loosening as a consequence of globalisation.

This biocultural loss is impinging negatively on people's ability to adapt to environmental changes, but also leading to further habitat degradation and pressure upon increasingly scarce resources. Yet, human-animal interactions have long been at the core of Daasanach and Gabra cultural identities.

As back as the oral records go, generations of local pastoralists have grazed their cattle, sheep, goats and camels alongside the wildlife of the African Rift Valley. Not surprisingly, representations of animals are deeply rooted in the history and culture of these groups, with numerous legends, rituals, folktales and beliefs emphasizing the importance of wildlife for them. Therefore, considering such cultural expressions are central to any efforts aimed at maintaining biocultural heritage in the face of the current trends of global homogenisation.

Several intergovernmental processes and policy instruments, including the World Heritage Convention of UNESCO, have proposed to

develop integrated strategies to build bridges between biological and cultural diversity agendas.

Considering that Sibiloi National Park was listed as a World Heritage Site in 1997, it seems reasonable to put effort into upholding Daasanach and Gabra cultures -- as manifested in their worldviews, languages and TEK -- in order to improve long-term conservation strategies.

A biocultural approach to conservation would contribute to bring more options to the table and increase the chances of long-term effectiveness of Sibiloi National Park. In particular, conservation approaches that support traditional knowledge revitalization can result in improved resource governance and a better understanding of the dynamics of the ecosystem.

WHAT FUTURE FOR SIBILOI?

Sibiloi National Park is increasingly confronted with a number of threats and pressures, including climate change and the creation of the largest dam complex in Africa in a nearby area. Yet, efforts from UNESCO to create a new Strategic Environmental Assessment, together with the boost of the visibility of the Park in the global media, have put Sibiloi National Park in the spotlight also internationally. This renewed attention opens hopeful avenues for the 'Cradle of Humankind', as it is often referred to.

The stakes could not be higher, but with continued political support, the application of an optimal integrated monitoring and the engagement of the local communities, Sibiloi National Park holds the opportunity of writing a new chapter of conservation success in African history.

Undeniable beauty of Sibiloi NP scenery persist on the memory of those who visit it.

Biocultural approaches to conservation can serve the purpose in translating conservation priorities into locally-supported actions, while addressing the erosion of both cultural and biological diversity.

As a Daasanach pastoralist perceptively stated while herding his cattle through the desert and silent plains of Sibiloi "We would like wildlife to graze alongside our cattle. We like animals. We would like to see them again."

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HOW TO GET TO SIBILOI

DISTANCE FROM NAIROBI: 800km north
BY AIR: Two all weather air strips
BY ROAD: All-terrain vehicles required (3-day drive from Nairobi via Marsabit and North Horr or Maralal)
ALTERNATIVE ROAD ROUTE: Nairobi to Kalokol via Kitale and Lodwar

PHOTO BY: DANIEL BURGAS