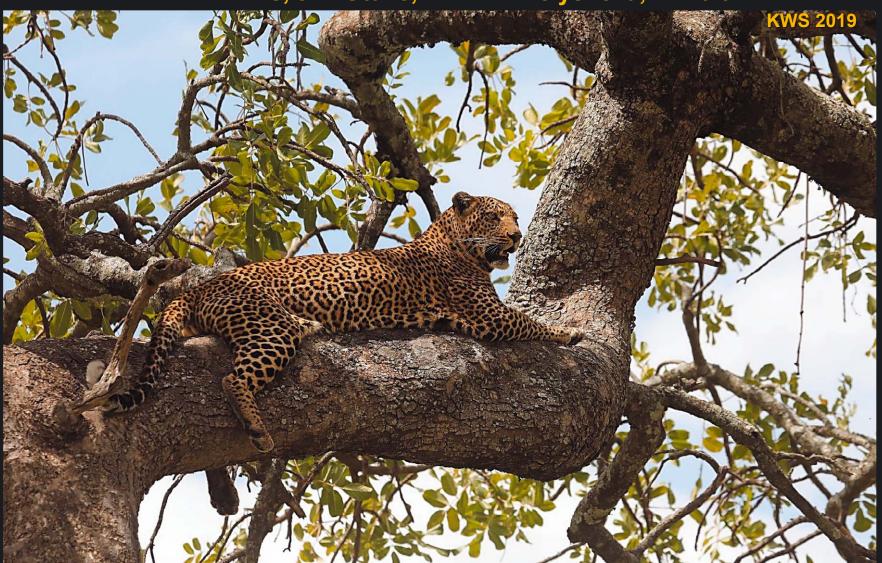


LEOPARD SURVEY Maasai Mara

E.M. Hills, J.M.Otuke, Dr. E.V.Chelysheva, R. Baláž





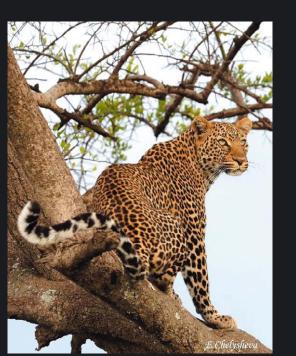
Objectives of the study:

1. Determine whether there is a correlation between habitat type and leopard occurrence

2. Determine whether species richness is related to leopard occurrence.

3. Determine whether sympatric carnivore occurrence is related to leopard occurrence







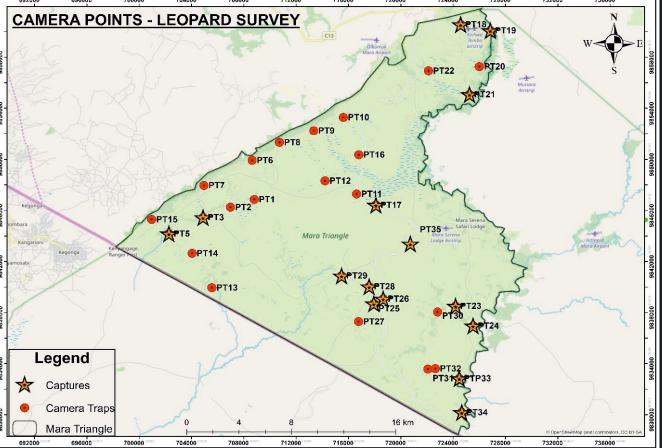


Study conducted by Eve M. Hills (Brighton University, UK) with assistance of Jackson M. Otuke (MMCP Research assistant), using non-invasive methods: camera trap study and Facebook photo survey

Camera trap survey in the Mara Triangle (April-June 2019): 70 camera traps, 725 leopard images Total of 13 photo-captured individuals:

Total number of males = 6 (<u>3 unknown</u> – not on current database)

Total number of females = 7 (4 unknown – not on current database)



Red circles indicate camera trapping locations and gold stars indicate where leopards were photo-captured.

Map produced by Jackson Otuke Map source: ArcMap 10.6.1



Images captured from one of the camera trap locations: one of 7(3.4) unknown leopards





Female with a juvenile female cub is relaxed in the presence of the camera. Some tall vegetation in front of the camera have been cleared unwittingly providing her with a resting area



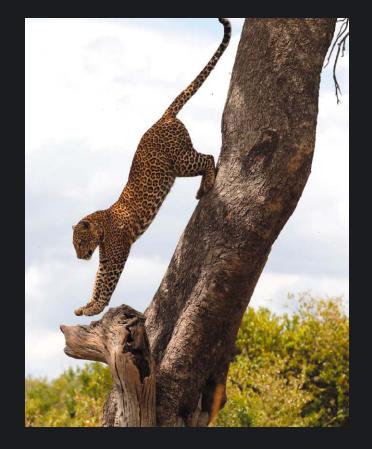
The Facebook/photo Survey yielded total of 97 (42.55) individuals:

Combined survey (Camera trap and FB) results for individuals identified:

Reserve = 45 (21.24)

Triangle = 32 (16.16)

Conservancies (Facebook photos of sightings in Naboisho, OMC, MNC, Ol Chorro, Lemek, Ol Kinyei) =21 (7.14)



Chirstena

Three males are presumed to have died, 1 male is definitely deceased (based on public knowledge or age of individual at the date of last photo).

Two males are known to have dispersed from the Reserve to the Triangle (1 possibly now deceased), 3 males are known to have dispersed from the Reserve to other conservancies, while 1 conservancy male was observed challenging a male for territory inside the Reserve.

Five females are presumed to have died, 5 females are definitely deceased.

1 female is regularly sighted inside the Reserve but is also seen in the Triangle, while 1 Triangle female has been sighted inside the Reserve.

Only individuals known to have died have been removed from the final totals (n = 6).



Preliminary results of the study:

There was no correlation between prey species and the presence of leopards.
There was no correlation between the presence of lions and the presence of leopards.



3. Leopard occurrence was most strongly influenced by the presence of spotted hyenas4. Site selection by leopards was not influenced by habitat type.



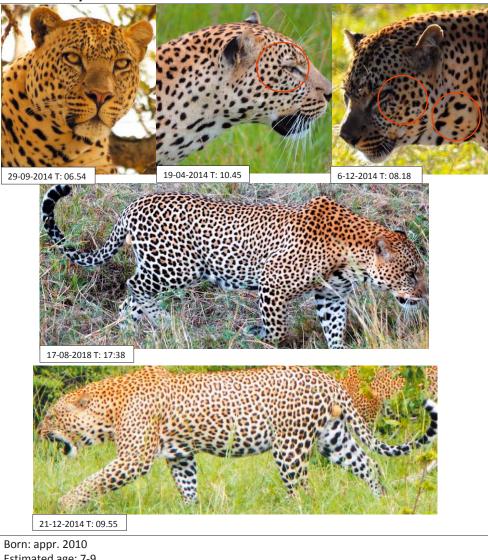


LEOPARD DATABASE



Example of the Database page: Leopard male with known name M001R, where R-Maasai Mara National Reserve

ID: M001R/Name Keekorok male



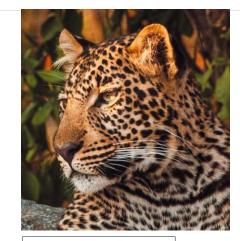
Born: appr. 2010 Estimated age: 7-9 Mother: Unknown Area: Keekorok

LEOPARD DATABASE



Example of the Database page: Leopard male with known name M012T, where T - Triangle

ID: M012T/name: Carlos/Shujaa



August 2012, Frederico Veronesi



August 2012, Frederico Veronesi





September 2016, Merkel Erasmus

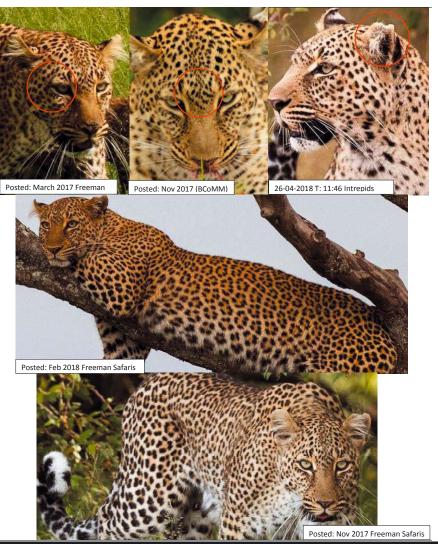
October 2016, Mike Kowalski

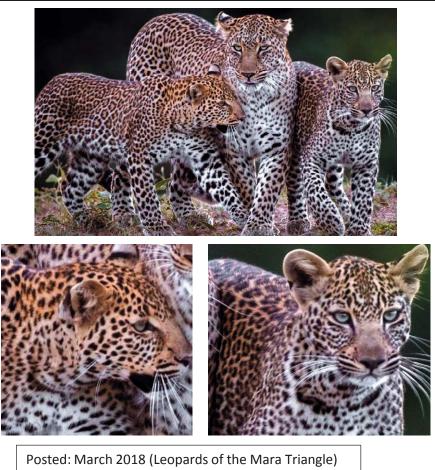
Born: October 2011 Estimated age: 7 yrs Mother: F014/Siri Area: Triangle – Mara Serena to BBC crossing.

LEOPARD DATABASE



ID: F008R/name: Bahati





,

Born:

Estimated age: 8 yrs Mother: Olive Siblings: Saba

Area: Talek river, Rekero crossing,

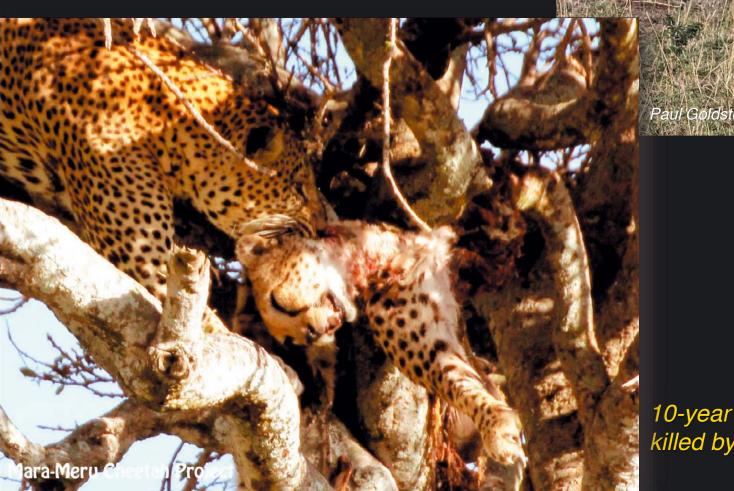
Comments: seen with 2 cubs in 2015, pictured with 3 small cubs March 2017, and 1 year later with two juveniles (pictured). Shares distinctive pattern above right eye with sibling Saba.

Leopard female with known name F008R from the Maasai Mara National Reserve



CHEETAHS and LEOPARDS

Leopard-cheetah interactions



7-year old female Amani attacked by a female leopard

10-year old female Sidai killed by a male leopard



PERCEPTION about CHEETAH and LEOPARD



Interviewing local communities around MMNR

89% respondents confused cheetah for a leopard

Research assistant S. Mandere and Community liaison officer J.Masek interviewing Mara pastoralists

60% out of all respondents who blamed cheetahs for their livestock loses, confused cheetah for a leopard



Project founder Dr. E.Chelysheva interviewing a pastoralist in the Mara



WORKING with MARA COMMUNITY

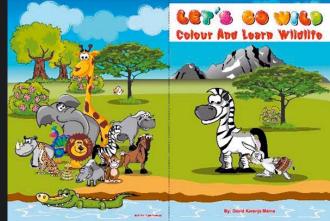


Conservation lessons at local schools

What we do:

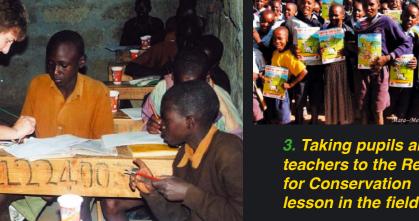
1. Donating text books and colouring **books** (designed by our project team together with The Laikipians) to schools







Community liaison officer J.Masek





3. Taking pupils and teachers to the Reserve lesson in the field







ACKOWLEDGEMENTS:

We express our deep gratitude to the Kenya Wildlife Service (KWS), the National Commission for Science, Technology and Innovation (NACOSTI) and Mr. Brian Heath (the Mara Conservancy CEO) for granting permission to undertake the research; Alfred Kiprotich Bett (Mara Conservancy Warden), William Nailenya (senior ranger) for their invaluable assistance and support; Dr. Bryony Tolhurst for the guidance, support and encouragement.

This study was sponsored by the Speed Group the University of Brighton the Roman Wildlife Foundation.

