

PRESS RELEASE

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PERMANENT SECRETARY

MINISTRY OF NATURAL RESOURCES AND TOURISM

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RUAHA-RUNGWA ECOSYSTEM ELEPHANT CENSUS RESULTS, 2015

The Ministry of Natural Resources and Tourism wishes to announce results of elephant census verification exercise that was conducted in the Ruaha-Rungwa Ecosystem during the dry season from 16th September to 13th November 2015. The main objective of the survey was to verify the unprecedented low estimate of elephant population estimated in 2014 compared to the previous estimate of 2013. Results of the 2014 census indicated a decline from 20,090 (± 3.282 Standard Error) to 8,272 ($\pm 1,652$ Standard Error) over a period of one year, while the estimated number of carcasses did not change.

The Ministry, in collaboration with experts from within and outside the country, conducted the verification surveys which included aerial census, camera traps and questionnaire surveys.

Results of the 2015 aerial census provided an estimate of 15,836 ($\pm 4,759$ Standard Error) elephants in the Ruaha-Rungwa Ecosystem. This means the true elephant population size is between 11,077 and 20,595 within one standard error. This estimate encompasses both the 2013 and 2014 estimates because of its relatively wide standard error.

The estimated number of elephant carcasses in the Ruaha-Rungwa census zone was 2,863 (± 318 SE), which is statistically similar to the two censuses conducted in 2013 and 2014. The carcass ratio in the ecosystem was high (15.3%) indicating a population that is still suffering from unnatural mortality (carcass ratio of about 7 to 8% is considered to represent natural mortality). However, no fresh carcasses were recorded and only 9% were assessed to have died between 2 and 12 months ago. The remaining 91% of the carcasses spans over a long period from over one year up to 10 years ago. Lack of fresh carcasses and few recent elephant deaths are most likely due to effective protection measures taken by management authorities.

In conclusion.

Although there were signs of unnatural elephant mortality after the 2013 census (estimated less than 500), large numbers died before that time. The apparent on-going long term decline of elephants in the ecosystem is not as severe as was concluded in 2014 census. The low estimate of elephant population size in 2014 was an artefact of three possible sources of bias.

(i) *Elephant movements beyond census zone* as supported by results of the questionnaire survey. There is evidence of several active corridors used by elephants to move back and forth into the census zone. However, the number of animals involved is yet to be determined.

(ii) *Possible change of behaviour*; results of camera traps have shown that elephants were active from dusk to mid night. This behaviour could cause animals to be missed during census hours (06:00 a.m. -10:00 a.m.).

(iii) *Clustered distribution* could cause undercount if a few large groups are missed by chance in the sampled area. The reverse is true where a few large groups happen to fall within transect lines.

Elephant population status in Tanzania

Elephant estimates from other protected areas are incorporated to provide a countrywide estimate assuming that there were no significant changes in their respective populations since they were counted. The ecosystems include Serengeti, Tarangire-Manyara, Selous-Mikumi, Katavi-Rukwa, Ruaha-Rungwa, Malagarasi-Muyovosi and Burigi-Biharamulo. Other protected areas are Mkomazi, Saadani, Rubondo Island, Kilimanjaro and Arusha National Parks. Elephant population sizes were also sought from Swagaswaga Game Reserve, and West Kilimanjaro and Natron Game Controlled Areas.

Substituting the 2014 results with those of 2015 for Ruaha-Rungwa the estimate of countrywide elephant population size is 50,894 ($\pm 5,430$ SE) (Table 1). However, these results do not change the previously described trend of a declining population when compared to the 2009 countrywide census estimate, which was 109,051 ($\pm 5,899$). This is a 53.3% decline of the Tanzania elephant population over a period of six years.

On-going efforts to enhance wildlife conservation efforts

- The Wildlife Division and Tanzania National Parks have intensified protection of wildlife resources by implementing the “National Antipoaching Strategy.” This includes employing more rangers, providing state-of-the-art field gears, arms and ammunitions, strengthening intelligence-led operations and being more intuitive. For example, formation of Rapid Response Units and deploying the use of sniffer dogs in tracing wildlife crimes.

- Formation of the Multi-Agency Task Team (MATT), an inter-ministerial squad to deal with antipoaching and environmental crimes. MATT is also linking-up with regional and international institutions in combating wildlife poaching.

- As you may be aware, the Tanzania Wildlife Authority (TAWA) was launched in October 2015 and is getting itself established. TAWA, an autonomous body, will further strengthen the protection of wildlife in collaboration with other stakeholders including defence and security

forces.

- In addition, the Wildlife Conservation Act (2009) is being reviewed in order to allow adoption of a paramilitary system among the employees of the wildlife sector and with stiffer penalties as a deterrent.

- To continue supporting research on elephant's ecology with emphasis on their movements, demography, causes of death and quality of their habitat.

- To promote education and adopt strategies that will involve the public in wildlife conservation efforts.

Finally, the Ministry would like to recognize and thank the Survey Team and institutions that made it possible. These include; the Tanzania Wildlife Research Institute (TAWIRI), Wildlife Division (WD), Tanzania National Parks (TANAPA), Ngorongoro Conservation Area Authority (NCAA), Coastal Aviation, United Nations Development Programme (UNDP), Wildlife Conservation Society (WCS), World Wide Fund for Nature-Tanzania Country Office (WWF-TCO) and Southern Tanzania Elephant Project (STEP).

Table 1: Tanzania elephant population estimate, 2015.

(PA = Protected area, SE = Standard error, SRF = systematic reconnaissance flight, TC = total count, EG = educated guess, NP = national park, GCA = game controlled area).

SN

Ecosystem/Pa

Estimate

SE

Area (Km)

Method

Census Year

1

Selous-Mikumi Ecosystem

15,217

1,800

105,730

SRF

2014

2

Ruaha-Rungwa Ecosystem

15,836

4,759

52,464

SRF

2015

3

Serengeti Ecosystem

6,087

33,185

TC

2014

4

Katavi-Rukwa Ecosystem

5,738

1,375

19,953

SRF

2014

5

Tarangire-Manyara Ecosystem

4,202

18,725

TC

2014

6

Malagarasi-Muyovosi Ecosystem

2,953

1,308

44,809

SRF

2014

7

Arusha National Park

200

316

EG

2014

8

West Kilimanjaro-Lake Natron GCA

200

10,060

TC

2013

9

Burigi-Biharamulo

110

4,713

SRF

2014

10

Rubondo Island National Park

102

237

EG

2013

11

Kilimanjaro National Park

100

1,652

EG

2014

12

Swagaswaga Game Reserve

60

871

EG

2014

13

Mkomazi National Park

59

3,107

TC

2014

14

Saadani National Park

30

1,154

SRF

2014

TOTAL

50,894

5,430

296,976