

1 **Short Communication CAT NEWS**

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3 **Lions roaming the Mbam and Kim division in the forest-savannah**
4 **mosaic, Centre Region of Cameroon.**

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20 **Abstract** This study confirms the presence of two lions in a forest-savannah mosaic in the
21 Centre Region of Cameroon, more than 300 km south of their known range.

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23 The lion (*Panthera leo*) is a savannah species with a broad habitat tolerance leading to a wide
24 distribution across Africa (IUCN 2018). In Cameroon, its historical distribution extended into
25 the forest biome, down to approximately 3°3' latitude, but for decades lions have been
26 restricted to the savanna biome, north of 7°7' latitude (IUCN 2006a). Claims of lion
27 depredation by local herdsman 350 km south of this latitude were therefore met with disbelief
28 in 2017 and 2018, and since no lions were ever observed these claims were dismissed. In
29 March 2019, we had the first pictures of putative lion spoor, so a field trip was organised to
30 confirm the presence of lion. After a ten-day mission, we had definite proof of the presence
31 of two male lions, with direct observation during a calling station (Bauer et al. 2019). In
32 addition, fresh scat and spoor were identified; from which hair and scat samples were
33 collected to determine the source population of these two lions.

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39 *Figure 1a & b: Lion scat and track (white ruler of 15cm for scale) (credits: I Kirsten and S Kamgang)*

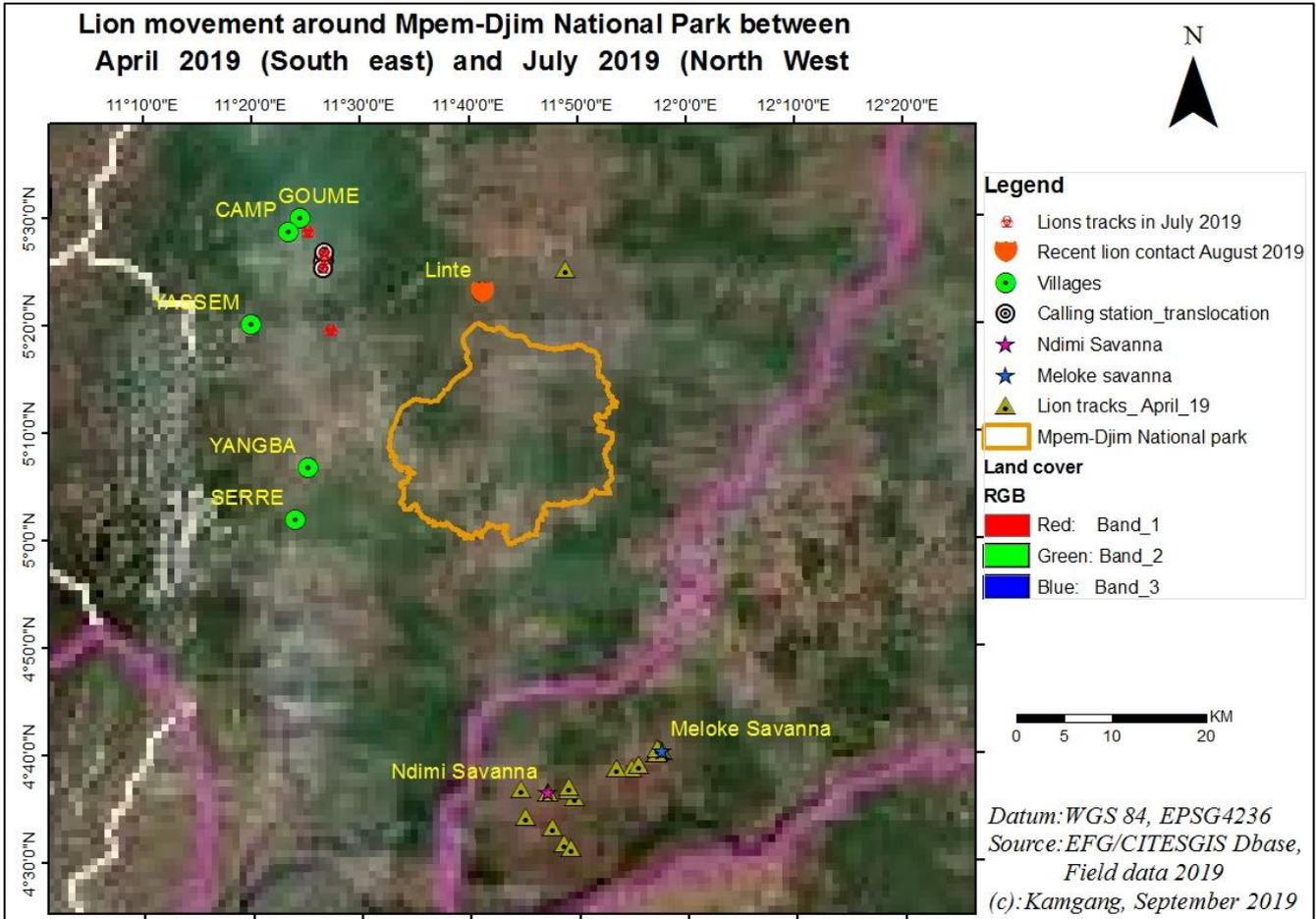
40 After decades of absence, it seemed unlikely that lions could disperse across the human
41 dominated landscapes of the savanna-forest transition zone. Even less likely was the idea of
42 having lions in this mosaic landscape with large savannah areas but dominated by dense
43 forest, which include a National Park and various production and communal forests that serve
44 as buffer zones around this park. There are many pockets of forest habitat and extensive
45 rangeland with natural prey that is not often observed but that does feed a substantial

46 bushmeat trade. However, little research has been carried out on the biodiversity in this
47 region, but opportunistic sightings do include the full assemblages of both savanna and forest
48 species, such as chimpanzee (*Pan troglodytes*) giant ground pangolin (*Smutsia gigantea*),
49 African forest elephant (*Loxodonta africana cyclotis*), African golden cat (*Caracal aurata*),
50 African forest buffalo (*Syncerus caffer nanus*), sitatunga (*Tragelaphus spekii*), bushbuck
51 (*Tragelaphus scriptus*) and several duiker species. Human settlements (between 100 and
52 6000 persons), consisting of farmers and residing herders are located in the savanna and in
53 the peripheral zone of the different management units (Kirsten et al. 2019). Transhumance
54 pastoralists move from the Northern region towards the Centre Region and vice versa.

55 After the identification, the ministry decided that these lions need to be translocated, as the
56 two male lions were mostly feeding on livestock, causing fear among the local population
57 and a loss of income for the herders. Due to the absence of lions and other large carnivores
58 from this landscape, the local population is not used the presence of these predators, causing
59 a lot of misinformation and misconceptions, instigating even more fear. A group of experts
60 (including the authors of the present text) developed a plan for translocation with hard release
61 to the Benoue Complex after options for slow release within the region became unfeasible
62 due to logistical, financial and time constraints.

63 **Tracking by depredation**

64 These lions are very cryptic; we only observed them twice and they have never been
 65 observed by anyone else. The only way to track them was to follow the trail of depredation
 66 incidents; 88 livestock and 1 dog were killed over the past 4 months. In the months following
 67 the identification, the lions moved at least 105 km from the savannah area (south-east of the
 68 Mpem-Djim national park) where they were first identified to a logging concession site at the



69 north-west of the Mpem- *Figure 2: Lion Movement pattern around Mpem-Djim National Park*
 70 *between April 2019 (South East) and July (North West)*

71 Djim National Park. It was impossible to track the lions on foot, due to the inaccessibility of
 72 the terrain but we were able to reconstruct their journey based on information from villagers
 73 and herders who never saw them but who lost cows, goats and even a dog (Fig. 2).

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75 **Attempt to translocation**

76 In July 2019, an operation was launched to translocate the two lions. In 10 days of callups at
77 locations around fresh tracks, we only saw them once for a few seconds and were unable to
78 capture them. Following the field mission, an appeal was launched to MINFOF to put in
79 place a monitoring and surveillance team that would provide accurate information on the
80 locations of these carnivores while waiting for the next funding opportunity to perform the
81 translocation of these lions again.

82 **Is there any future for lions in Centre region of Cameroon?**

83 The two lions have not been captured and are for now still roaming around the Centre region
84 of Cameroon. The minister for Forestry and Wildlife would like to try another translocation
85 of the lions, if they are still there in the next dry season. The translocation of these two lions
86 is possibly only a temporarily solution as on many occasions male lions will track back to
87 their site of capture. In addition, we hypothesize that more lions will be settling/roaming in
88 the future and more often to the Centre region, when following the transhumance from the
89 Northern region of Cameroon. Therefore, a well-adapted sensitization and educational plan
90 for the local communities should be developed and adopted by MINFOF and partners to
91 mitigate human-carnivore conflict and stimulate pacific coexistence (taking the example of
92 Kenya or Namibia). All interventions must be part of a broader management plan that looks
93 at issues like land use, consolation payments, mitigation of depredation, enforcement of
94 regulations inside National Parks and effectiveness of and alternatives to translocation. The
95 surprising dispersal of these lions from presumably the North region of Cameroon
96 demonstrates how unpredictable wildlife is and illustrates that they can adapt to different and
97 changing circumstances.

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