Detecting tropical wildlife declines through camera-trap monitoring: an evaluation of the Tropical Ecology Assessment and Monitoring protocol—CORRIGENDUM

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An issue in the *PowerSensor!* code resulted in incorrect assessments of the number of years required to detect change for some parameter combinations (Beaudrot et al., 2019). After changing the number of years required to detect change to >10 for parameter combinations with erratic dynamics, the published results underestimated the time needed to detect change (Fig. 1, text on page 128, Supplementary Table 1). The abstract should read: 'We found the protocol is well suited to detect moderate ($\geq 5\%$) population changes within 8 years for common species (initial occupancy ≥ 0.5).' The corrected figure is provided here. Corrections to the main text are as follows.

When detection probability was 0.1, 7 years and 60 camera-trap points were sufficient to detect severe (15%) annual occupancy declines for populations with initial occupancy probabilities ≥ 0.2. Severe declines were detectable within 9 years using 90 camera-trap points for initial occupancy probabilities ≥ 0.1. To detect 10% annual occupancy declines, 8 years and 60 camera traps were sufficient for populations with initial occupancy probabilities ≥ 0.3. Generally, 5% annual declines were detectable within 8 years using 60 camera-trap points for populations with initial occupancy probabilities ≥ 0.5.

We were able to assess the per cent of detectable change for 129 of the 511 populations (Supplementary Table 1). Occupancy changes of 15% were detectable for all 129 populations within 8 years and of 10% within 10 years. Occupancy changes of 5% were detectable for 104 populations within 10 years but changes of 1% were not detectable for any populations. Of the 129 populations, 86% were mammals, 14% birds; 46.5% were herbivores, 44.2% omnivores, 7.8% carnivores, 1.5% insectivores. On the 2014 IUCN Red List, 73.6% were categorized as Least Concern, 5.4% Near Threatened, 9.3% Vulnerable, 5.4 Endangered (5.4%), 0.8% Critically Endangered and 5.4% Data Deficient (Supplementary Table 1).

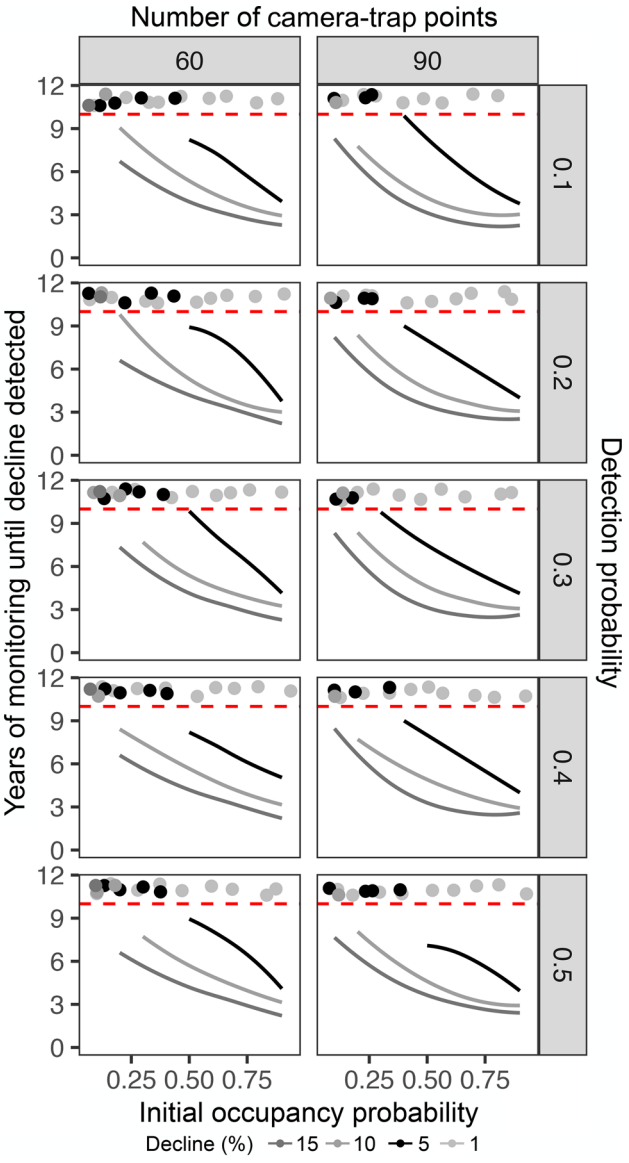

Fig. 1 Sensitivity of the TEAM camera-trap protocol, expressed as the number of years of sampling required to detect annual occupancy declines of 15, 10, 5 and 1%, given an effort of 60 or 90 camera traps sampling for 30 days annually, for species with initial occupancy probabilities of 0.1–0.9 and detection probabilities of 0.1–0.5. Declines that were not detectable within 10 years are shown with points above the dashed line, which demarcates the 10th year.

Reference

Beaudrot, L., Ahumada, J., O'Brien, T. & Jansen, P. (2019) Detecting tropical wildlife declines through camera-trap monitoring: an evaluation of the Tropical Ecology Assessment and Monitoring protocol. *Oryx*, 53, 126–129.