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

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SUPPLEMENTARY TABLE 1 Number of years required to detect annual declines of 15, 10, 5 and 1% using *PowerSensor*! (2018) for 150 populations monitored by the Tropical Ecology Assessment and Monitoring network.

						Number of years			
Species	Site[1]	Guild	Red List status (2014)[2]	Initial occupancy (ψ)	Detection (P)	15%	10%	5%	1%
Agelastes niger	KRP	Omnivore	LC	0.77	0.15	2	2	2	5
Agelastes niger	NNN	Omnivore	LC	0.44	0.04	4	6	NA	NA
Argusianus argus	BBS	Omnivore	NT	0.45	0.11	2	2	3	NA
Atherurus africanus	KRP	Omnivore	LC	0.77	0.25	2	2	3	7
Atherurus africanus	NNN	Omnivore	LC	0.33	0.08	2	2	4	NA
Atherurus macrourus	NAK	Omnivore	LC	0.47	0.09	2	2	3	NA
Atherurus macrourus	PSH	Omnivore	LC	0.22	0.04	4	6	NA	NA
Bdeogale crassicauda	UDZ	Carnivore	LC	0.80	0.48	2	2	2	6
Bdeogale nigripes	NNN	Carnivore	LC	0.22	0.04	4	6	NA	NA
Caracal aurata	BIF	Carnivore	NT	0.57	0.05	4	6	NA	NA
Cephalophus callipygus	NNN	Herbivore	LC	1.00	0.72	2	2	2	7
Cephalophus dorsalis	NNN	Omnivore	LC	0.91	0.38	2	2	2	5
Cephalophus harveyi	UDZ	Herbivore	LC	0.90	0.43	2	2	2	5
Cephalophus nigrifrons	BIF	Herbivore	LC	0.55	0.24	2	2	3	10
Cephalophus ogilbyi	KRP	Herbivore	LC	0.90	0.18	2	2	2	5
Cephalophus silvicultor	BIF	Herbivore	LC	0.68	0.26	2	2	3	8
Cephalophus silvicultor	NNN	Herbivore	LC	0.95	0.46	2	2	2	5
Cephalophus spadix	UDZ	Omnivore	EN	0.84	0.14	2	2	2	5
Cercocebus sanjei	UDZ	Omnivore	EN	0.69	0.30	2	2	3	8
Cercopithecus lhoesti	BIF	Omnivore	VU	0.65	0.18	2	2	2	9
Cercopithecus mitis	UDZ	Omnivore	LC	0.46	0.06	2	2	3	NA
Crax alector	CSN	Omnivore	VU	0.72	0.11	2	2	2	5
Cricetomys emini	KRP	Omnivore	LC	1.00	0.53	2	2	2	6
Cricetomys gambianus	NNN	Omnivore	LC	0.52	0.08	2	2	3	8
Cricetomys gambianus	UDZ	Omnivore	LC	0.52	0.44	2	2	3	9
Crossarchus obscurus	KRP	Omnivore	LC	0.62	0.07	2	2	2	NA
Cryptoprocta ferox	RNF	Carnivore	VU	0.33	0.06	2	2	3	9
Cuniculus paca	BCI	Herbivore	LC	0.68	0.31	2	2	3	8
Cuniculus paca	CAX	Herbivore	LC	0.45	0.11	2	2	3	NA
Cuniculus paca	COU	Herbivore	LC	0.50	0.21	2	2	4	NA
Cuniculus paca	CSN	Herbivore	LC	0.42	0.14	2	2	3	NA
Cuniculus paca	VB	Herbivore	LC	0.77	0.10	2	2	3	7
Cuniculus paca	YAN	Herbivore	LC	0.70	0.32	2	2	3	8
Cuniculus paca	YAS	Herbivore	LC	0.72	0.28	2	2	3	7
Dasyprocta fuliginosa	YAN	Herbivore	LC	0.70	0.21	2	2	3	8
Dasyprocta fuliginosa	YAS	Herbivore	LC	0.85	0.42	2	2	2	6
Dasyprocta leporina	CAX	Herbivore	LC	1.00	0.40	2	2	2	5
Dasyprocta leporina	CSN	Herbivore	LC	0.83	0.31	2	2	3	6
Dasyprocta punctata	BCI	Herbivore	LC	1.00	0.74	2	2	2	7
Dasyprocta punctata	COU	Herbivore	LC	0.63	0.25	2	2	3	8
Dasyprocta punctata	VB	Herbivore	LC	0.68	0.12	2	2	2	9
Dasypus kappleri	CAX	Herbivore	LC	0.37	0.11	2	3	4	NA
Dasypus kappleri	CSN	Herbivore	LC	0.70	0.04	4	6	NA	NA
Dasypus kappleri	YAS	Herbivore	LC	0.12	0.06	4	5	NA	NA
Dasypus novemcinctus	BCI	Herbivore	LC	0.67	0.15	2	2	2	9

Dasypus novemcinctus	CAX	Herbivore	LC	0.42	0.09	2	2	3	NA
Dasypus novemcinctus	CSN	Herbivore	LC	0.52	0.10	2	2	3	NA
Dasypus novemcinctus	VB	Herbivore	LC	0.75	0.10	2	2	2	5
Dasypus novemcinctus	YAN	Herbivore	LC	0.57	0.09	2	2	3	NA
Dasypus novemcinctus	YAS	Herbivore	LC	0.77	0.18	2	2	2	5
Didelphis marsupialis	BCI	Omnivore	LC	0.57	0.13	2	2	3	NA
Didelphis marsupialis	CAX	Omnivore	LC	0.43	0.07	2	2	3	NA
Didelphis marsupialis	COU	Omnivore	LC	0.88	0.08	2	2	2	6
Didelphis marsupialis	CSN	Omnivore	LC	0.27	0.08	3	3	5	NA
Fossa fossana	RNF	Carnivore	NT	0.67	0.22	2	2	3	8
Francolinus lathami	NNN	Herbivore	LC	0.34	0.05	4	6	NA	NA
Funisciurus anerythrus	KRP	Herbivore	LC	0.22	0.05	3	3	7	NA
Funisciurus leucogenys	KRP	Herbivore	LC	0.65	0.16	2	2	2	9
Galidia elegans	RNF	Carnivore	LC	0.70	0.04	4	6	NA	NA
Genetta servalina	KRP	Carnivore	LC	1.00	0.09	2	2	2	6
Genetta servalina	NNN	Carnivore	LC	0.31	0.06	2	2	3	8
Genetta servalina	UDZ	Carnivore	LC	0.77	0.13	2	2	2	5
Geotrygon montana	YAS	Omnivore	LC	0.37	0.05	4	6	NA	NA
Gorilla gorilla	NNN	Herbivore	CR	0.98	0.12	2	2	2	4
Guttera plumifera	NNN	Omnivore	LC	0.69	0.06	2	2	2	NA
Guttera pucherani	UDZ	Omnivore	LC	0.30	0.12	3	3	6	NA
Herpestes naso	KRP	Omnivore	LC	0.62	0.05	2	2	2	NA
Himantornis haematopus	KRP	Omnivore	LC	0.98	0.08	2	2	2	5
Hystrix brachyura	BBS	Omnivore	LC	0.33	0.09	2	2	4	NA
Leopardus pardalis	BCI	Carnivore	LC	0.88	0.08	2	2	3	8
Leopardus pardalis	COU	Carnivore	LC	0.53	0.11	2	2	3	NA
Leopardus pardalis	CSN	Carnivore	LC	0.72	0.06	2	2	2	NA
Leopardus pardalis	YAS	Carnivore	LC	0.97	0.08	2	2	2	5
Leopoldamys sabanus	PSH	Insectivore	LC	0.18	0.08	4	7	NA	NA
Leptotila cassini	BCI	Omnivore	LC	0.35	0.04	4	6	NA	NA
Loxodonta africana	NNN	Herbivore	VU	0.88	0.15	2	2	2	5
Macaca nemestrina	BBS	Omnivore	VU	1.00	0.14	2	2	2	4
Macaca nemestrina	PSH	Omnivore	VU	0.98	0.49	2	2	2	5
Mandrillus leucophaeus	KRP	Omnivore	EN	0.47	0.06	2	2	3	NA
Mazama americana	CAX	Herbivore	DD	0.85	0.16	2	2	2	5
Mazama americana	COU	Herbivore	DD	0.78	0.21	2	2	3	7
Mazama americana	CSN	Herbivore	DD	0.72	0.25	2	2	3	7
Mazama americana	YAS	Herbivore	DD	0.93	0.32	2	2	2	5
Mazama nemorivaga	CAX	Herbivore	LC	0.60	0.12	2	2	3	NA
Mazama nemorivaga	CSN	Herbivore	LC	0.83	0.08	2	2	3	8
Mazama nemorivaga	YAS	Herbivore	LC	0.45	0.10	2	2	3	NA
Mazama temama	BCI	Herbivore	DD	0.58	0.15	2	2	3	NA
Mazama temama	VB	Herbivore	DD	0.23	0.08	3	3	5	NA
Metachirus nudicaudatus	CAX	Omnivore	LC	0.13	0.04	4	6	NA	NA
Metachirus nudicaudatus	CSN	Omnivore	LC	0.13	0.06	4	5	NA	NA
Mitu tuberosum	CAX	Omnivore	LC	0.58	0.06	2	2	2	NA
Mitu tuberosum	COU	Omnivore	LC	0.63	0.17	2	2	2	9
Mitu tuberosum	YAN	Omnivore	LC	0.57	0.16	2	2	3	NA
Muntiacus muntjak	BBS	Herbivore	LC	1.00	0.20	2	2	2	5
Muntiacus muntjak	NAK	Herbivore	LC	0.88	0.12	2	2	2	5
Muntiacus muntjak	PSH	Herbivore	LC	0.20	0.07	3	3	5	NA
Myoprocta acouchy	CSN	Herbivore	LC	0.68	0.20	2	2	2	9
Myoprocta pratti	COU	Herbivore	LC	0.27	0.13	3	3	6	NA
Myoprocta pratti	YAS	Herbivore	LC	0.93	0.38	2	2	2	5
Nasua narica	BCI	Omnivore	LC	0.90	0.23	2	2	2	6
Nasua nasua	YAN	Omnivore	LC	0.62	0.05	2	2	2	NA
Nesomys rufus	RNF	Herbivore	LC	0.77	0.15	2	2	2	5
Nesotragus moschatus	UDZ	Herbivore	LC	0.49	0.21	2	2	4	NA
Odocoileus virginianus	BCI	Herbivore	LC	0.40	0.08	2	2	4	NA
Pan troglodytes	BIF	Omnivore	EN	0.25	0.08	3	3	4	NA

Pan troglodytes	NNN	Omnivore	EN	0.77	0.13	2	2	2	5
Paraxerus vexillarius	UDZ	Herbivore	NT	0.48	0.12	2	2	3	NA
Pecari tajacu	BCI	Omnivore	LC	0.80	0.32	2	2	3	7
Pecari tajacu	CAX	Omnivore	LC	0.95	0.08	2	2	2	5
Pecari tajacu	COU	Omnivore	LC	0.47	0.10	2	2	3	NA
Pecari tajacu	CSN	Omnivore	LC	0.82	0.06	2	2	2	6
Pecari tajacu	VB	Omnivore	LC	0.53	0.26	2	2	3	10
Pecari tajacu	YAS	Omnivore	LC	0.83	0.31	2	2	3	6
Philander opossum	CSN	Omnivore	LC	0.32	0.05	4	6	NA	NA
Philantomba monticola	KRP	Herbivore	LC	0.78	0.40	2	2	3	7
Philantomba monticola	NNN	Herbivore	LC	1.00	0.76	2	2	2	7
Potamochoerus larvatus	UDZ	Omnivore	LC	0.34	0.07	2	2	4	NA
Potamochoerus porcus	KRP	Omnivore	LC	0.30	0.07	3	3	5	NA
Potamochoerus porcus	NNN	Omnivore	LC	0.53	0.11	2	2	3	NA
Proechimys guyannensis	CSN	Omnivore	LC	0.20	0.04	4	6	NA	NA
Proechimys semispinosus	BCI	Omnivore	LC	0.65	0.12	2	2	2	9
Protoxerus stangeri	NNN	Herbivore	LC	0.48	0.13	2	2	3	NA
Psophia crepitans	CSN	Omnivore	LC	0.75	0.21	2	2	3	7
Psophia crepitans	YAS	Omnivore	LC	0.78	0.28	2	2	3	7
Psophia leucoptera	COU	Omnivore	LC	0.63	0.22	2	2	3	8
Psophia viridis	CAX	Omnivore	EN	0.65	0.13	2	2	2	9
Rattus rattus	RNF	Omnivore	LC	0.05	0.04	4	6	NA	NA
Rhynchocyon udzungwensis	UDZ	Insectivore	VU	0.31	0.13	2	3	4	NA
Sciurus granatensis	BCI	Herbivore	LC	0.32	0.05	2	2	3	8
Sciurus ignitus	COU	Herbivore	DD	0.60	0.08	2	2	3	8
Sciurus igniventris	YAS	Herbivore	LC	0.82	0.12	2	2	2	5
Sus scrofa	BBS	Omnivore	LC	0.72	0.09	2	2	3	NA
Sus scrofa	NAK	Omnivore	LC	0.27	0.06	3	3	7	NA
Sus scrofa	PSH	Omnivore	LC	0.75	0.37	2	2	3	7
Tamandua mexicana	BCI	Insectivore	LC	0.74	0.05	2	2	2	NA
Tapirus bairdii	VB	Herbivore	EN	0.53	0.08	2	2	3	8
Tapirus indicus	PSH	Herbivore	EN	0.23	0.05	4	6	NA	NA
Tapirus terrestris	COU	Herbivore	VU	0.33	0.10	2	2	3	NA
Tapirus terrestris	CSN	Herbivore	VU	0.47	0.09	2	2	3	NA
Tapirus terrestris	YAN	Herbivore	VU	0.57	0.08	2	2	3	8
Tapirus terrestris	YAS	Herbivore	VU	0.67	0.10	2	2	2	9
Tayassu pecari	YAS	Omnivore	VU	0.92	0.09	2	2	2	6
Tinamus major	BCI	Omnivore	NT	0.70	0.10	2	2	2	9
Tinamus major	COU	Omnivore	NT	0.37	0.07	2	2	4	NA
Tinamus major	CSN	Omnivore	NT	0.43	0.09	2	2	3	NA
Tinamus major	YAS	Omnivore	NT	0.60	0.08	2	2	3	8
Tragulus kanchil	NAK	Herbivore	LC	0.15	0.07	5	7	NA	NA
Tragulus kanchil	PSH	Herbivore	LC	0.15	0.08	4	7	NA	NA
Tragulus napu	BBS	Herbivore	LC	0.18	0.05	4	6	NA	NA
Turtur brehmeri	KRP	Omnivore	LC	0.48	0.06	2	2	3	NA

[1]BBS, Bukit Barisan; BCI, Barro Colorado Nature Monument-Soberania National Park; BIF, Bwindi Impenetrable Forest; CAX, Caxiuana; COU, Cocha Cashu-Manu National Park; CSN, Central Suriname Nature Reserve; KRP, Korup National Park; NAK, Nam Kading; NNN, Nouabali Ndoki; PSH, Pasoh Forest Reserve; RNF, Ranomafana; UDZ, Udzungwa; VB, Volcan Barva; YAN, Yanachaga Chimillen National Park; YAS, Yasuni.

[2]DD, Data deficient; LC, Least Concern; NT, Near Threatened; VU, Vulnerable; EN, Endangered; CR, Critically Endangered.