

## Utilization of waterholes by globally threatened species in deciduous dipterocarp forest of the Eastern Plains Landscape of Cambodia

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SUPPLEMENTARY TABLE 1 Red List status (IUCN, 2016), number of notionally independent photos (in decreasing order), and number of waterholes (of 54) at which a species was recorded, for all mammals and large birds camera-trapped at waterholes in Srepok Wildlife Sanctuary (Fig. 1) during December 2015–June 2016.

Species	Scientific name	Red List status <sup>1</sup>	No. of photos	No. of recorded waterholes
Wild pig	<i>Sus scrofa</i>	LC	2,151	45
Red muntjac	<i>Muntiacus muntjac</i>	LC	660	44
Banteng	<i>Bos javanicus</i>	EN	313 6.8 (0–29) <sup>2</sup>	42
Siamese Hare	<i>Lepus peguensis</i>	LC	126	16
Eld's deer	<i>Rucervus eldii</i>	EN	71 1.54 (0–48) <sup>2</sup>	6
Small Indian civet	<i>Viverricula indica</i>	LC	29	11
Asian Elephant	<i>Elephas maximus</i>	EN	25	2
East Asian porcupine	<i>Hystrix brachyuran</i>	LC	25	10
Golden jackal	<i>Canis aureus</i>	LC	16	5
Small Asian mongoose	<i>Herpestes javanicus</i>	LC	15	6
Gaur	<i>Bos gaurus</i>	VU	8	4
Long-tailed macaque	<i>Macaca fascicularis</i>	LC	6	3
Large-spotted civet	<i>Viverra megaspila</i>	EN	5	4
Jungle cat	<i>Felis chaus</i>	LC	5	4
Common palm civet	<i>Paradoxurus hermaphroditus</i>	LC	4	2
Large Indian civet	<i>Viverra zibetha</i>	LC	3	3
Leopard cat	<i>Prionailurus bengalensis</i>	LC	2	1
Sambar	<i>Cervus unicolor</i>	VU	1	1
Leopard	<i>Panthera pardus</i>	NT	1	1
Indochinese silvered langur	<i>Trachypithecus germaini</i>	EN	1	1
Lesser adjutant	<i>Leptoptilos javanicus</i>	VU	616 13.39 (0–52) <sup>2</sup>	40

Species	Scientific name	Red List status <sup>1</sup>	No. of photos	No. of recorded waterholes
Asian woolly-necked stork	<i>Ciconia episcopus</i>	VU	163 3.54 (0–47) <sup>2</sup>	35
Giant ibis	<i>Thaumatibis gigantean</i>	CR	120 2.60 (0–23) <sup>2</sup>	21
Green peafowl	<i>Pavo muticus</i>	EN	76 1.65 (0–34)	15
White-shouldered ibis	<i>Pseudibis davisoni</i>	CR	47	4
Red junglefowl	<i>Gallus gallus</i>	LC	39	7
Sarus crane	<i>Antigone Antigone</i>	VU	12	3
Red-headed vulture	<i>Sarcogyps calvus</i>	CR	4	3
White-rumped vulture	<i>Gyps bengalensis</i>	CR	1	1

<sup>1</sup>LC, Least Concern; NT, Near Threatened; VU, Vulnerable; EN, Endangered; CR, Critically Endangered.

<sup>2</sup>Mean (range) of notionally independent photos per station for the six target species.

SUPPLEMENTARY TABLE 2 All models tested for explaining the number of notionally independent photo detections of six target species in relation to waterhole characteristics and human disturbance at waterholes. Definitions of variables are in Table 1.

Model	K <sup>1</sup>	AIC <sup>2</sup>	ΔAIC	w <sub>i</sub> <sup>3</sup>
<b>Banteng <i>Bos javanicus</i><sup>4</sup></b>				
Water volume + Tree height	5	676.64	0.00	0.51
Water volume + Tree height + Distance to village	6	677.49	0.85	0.34
Tree height	4	681.18	4.54	0.05
Water volume	4	682.15	5.51	0.03
Distance to village	4	682.83	6.19	0.02
Pool size	4	684.07	7.43	0.01
Water depth	4	685.35	8.71	0.01
Number of illegal activities	4	685.41	8.77	0.01
Waterholes 1-km	4	685.83	9.19	0.00
Distance to road	4	686.24	9.60	0.00
Max waterhole area	4	687.00	10.36	0.00
Null model	3	691.02	14.38	0.00
<b>Eld's deer <i>Rucervus eldi</i><sup>4</sup></b>				
Water depth + Max waterhole area + Distance to village	5	208.72	0.00	0.91
Water depth + Distance to village	4	213.39	4.67	0.09
Water depth + Max waterhole area	4	224.06	15.34	0.00
Water depth	3	229.39	20.67	0.00
Distance to village	3	234.30	25.58	0.00
Max waterhole area	3	250.03	41.32	0.00
Tree height	3	252.06	43.34	0.00
Waterholes 1-km	3	254.07	45.35	0.00
Distance to road	3	255.37	46.65	0.00
Number of illegal activities	3	255.37	46.65	0.00
Pool size	3	256.64	47.92	0.00
Water volume	3	256.69	47.97	0.00
Null model	2	259.04	50.32	0.00

Model	K <sup>1</sup>	AIC <sup>2</sup>	ΔAIC	w <sub>i</sub> <sup>3</sup>
<b>Lesser adjutant <i>Leptoptilos javanicus</i><sup>4</sup></b>				
Water depth + *Water depth <sup>2</sup> + Max waterhole area + Distance to village	7	655.84	0.00	0.39
Water depth + *Water depth <sup>2</sup> + Max waterhole area	6	657.03	1.19	0.22
Water depth + *Water depth <sup>2</sup>	5	657.16	1.32	0.20
Water depth + *Water depth <sup>2</sup> + Waterhole 1-km	6	658.45	2.61	0.11
Water depth + *Water depth <sup>2</sup> + Tree height	6	659.15	3.31	0.07
Water depth	4	673.64	17.80	0.00
Distance to village	4	693.72	37.88	0.00
Distance to road	4	694.75	38.91	0.00
Pool size	4	695.16	39.32	0.00
Max waterhole area	4	695.83	39.99	0.00
Waterhole 1-km	4	695.85	40.01	0.00
Tree height	4	696.01	40.17	0.00
Number of illegal activities	4	696.18	40.34	0.00
Water volume	4	696.45	40.61	0.00
Null model	3	700.41	44.57	0.00
<b>Asian woolly-necked stork <i>Ciconia episcopus</i><sup>4</sup></b>				
Water depth + *Water depth <sup>2</sup> + Distance to village	6	339.17	0.00	0.67
Water depth + *Water depth <sup>2</sup>	5	340.60	1.43	0.33
Distance to village	4	353.80	14.63	0.00
Water depth	4	356.44	17.26	0.00
Null model	3	359.12	19.96	0.00
Tree height	4	359.51	20.34	0.00
Number of illegal activities	4	359.53	20.36	0.00
Waterholes 1-km	4	359.57	20.40	0.00
Max waterhole area	4	359.77	20.60	0.00
Distance to road	4	359.88	20.70	0.00
Water volume	4	359.94	20.77	0.00
Pool size	4	360.05	20.87	0.00

Model	K <sup>1</sup>	AIC <sup>2</sup>	ΔAIC	w <sub>i</sub> <sup>3</sup>
<b>Giant ibis <i>Thaumatibis gigantea</i><sup>4</sup></b>				
Depth water + Waterholes 1-km + Distance to village	4	126.71	0.00	0.39
Depth water + Distance to village	3	127.81	1.10	0.23
Depth water + Waterholes 1-km	3	128.65	1.95	0.15
Depth water + Max waterhole area + Distance to village	4	128.67	1.96	0.14
Depth water	2	131.03	4.32	0.04
Depth water + Max waterhole area	3	131.29	4.58	0.04
Water volume	2	140.77	14.06	0.00
Distance to village	2	144.00	17.29	0.00
Pool size	2	144.08	17.37	0.00
Max waterhole area	2	146.02	19.31	0.00
Waterholes 1-km	2	146.92	20.21	0.00
Number of illegal activities	2	147.86	21.15	0.00
Tree height	2	148.48	21.17	0.00
Distance to road	2	150.14	23.43	0.00
Null model	1	155.90	29.19	0.00
<b>Green peafowl <i>Pavo muticus</i><sup>5</sup></b>				
Pool size   Max waterhole area	4	75.49	0.00	0.85
Water depth   Max waterhole area	4	80.15	4.66	0.08
Tree height   Max waterhole area	4	83.42	7.92	0.02
Distance to road   Max waterhole area	4	83.80	8.31	0.01
Max waterhole area   Max waterhole area	4	83.93	8.43	0.01
Distance to village   Max waterhole area	4	85.04	9.54	0.00
Number of illegal activities   Max waterhole area	4	85.08	9.58	0.00
Waterholes 1-km   Max waterhole area	4	85.09	9.59	0.00
Null model	2	94.21	18.72	0.00

<sup>1</sup>Number of parameters.

<sup>2</sup>Akaike Information Criterion.

<sup>3</sup>AIC weights.

<sup>4</sup>Generalized linear mixed models.

<sup>5</sup>Zero-inflated regression models.

\*Quadratic polynomial of water depth.