

Figure S1. Total number of independent photos obtained of A) mammal (including humans; *see footnotes for Figure S1) and B) bird species in a National Park, Indigenous Territories, and Forest Reserve adjacent to each other in the northern Talamanca Mountains of Costa Rica.

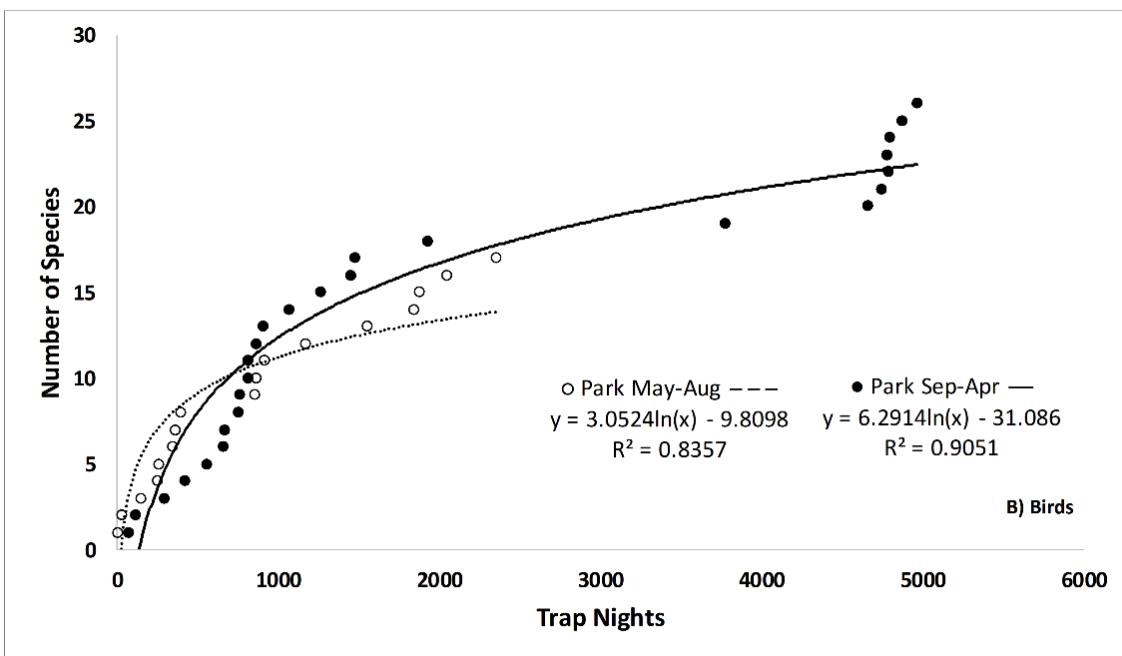
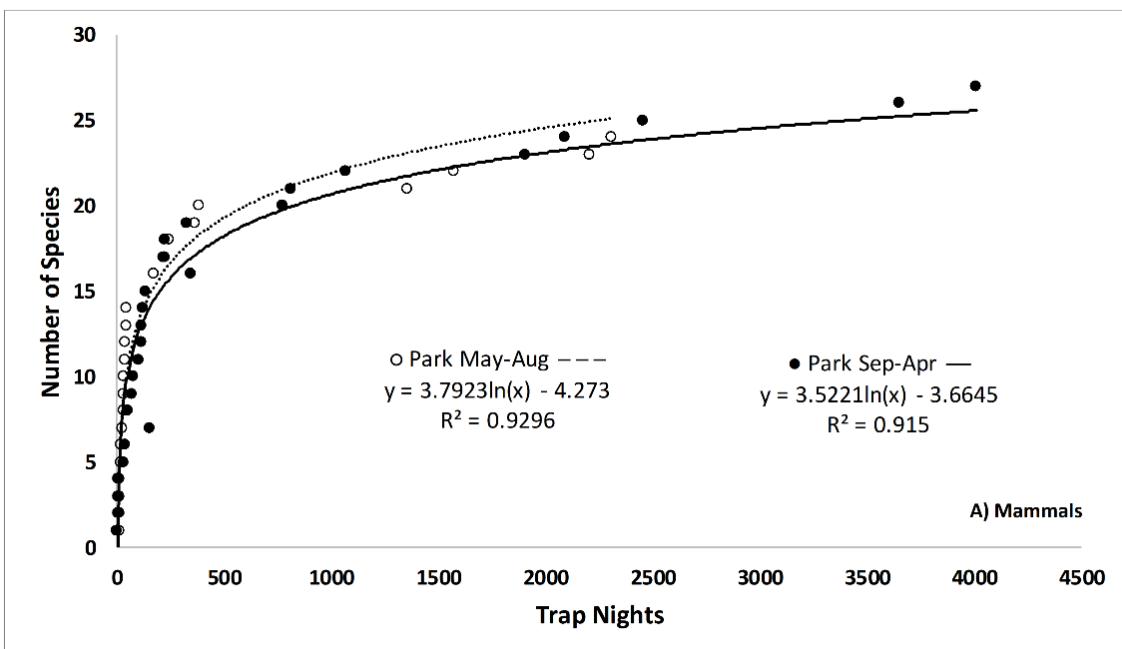


Figure S2. Trend lines and correlations for the number of camera trap nights (effort) versus total cumulative number of A) mammal and B) bird species photographed (diversity) in the National Park during September-April (solid line, solid circle), and May-August (dash line, open circle) in the northern Talamanca Mountains of Costa Rica.

Table S1. Photo rates (no. of independent photos/100 trap nights) of mammal species, including humans, detected by camera-trapping efforts during 2009-2016 in three adjacent protected areas in the northern Talamanca Mountains of Costa Rica. Significant differences ($P<0.001$) between seasons for the National Park are indicated in italics; differences among the three protected areas during September-April are identified in bold.

| Common English name | Scientific name | May-Aug | | Sep-Apr | |
|-------------------------|----------------------------------|--|-----------------------------|----------------------------|------------------------------------|
| | | National Park (19/2,630) ^a | National Park (21/5,820) | Forest Reserve (17/796) | Indigenous Territories (17/874) |
| Common Opossum | <i>Didelphis marsupialis</i> | 1.06 | 1.43 | 2.76 | 1.37 |
| Gray Four-eyed Opossum | <i>Philander opossum</i> | 0 | 0 | 0 | 0.80 |
| Brown Four-eyed Opossum | <i>Metachirus nudicaudatus</i> | 1.14 | 1.27 | 0 | 0.34 |
| Nine-banded Armadillo | <i>Dasypus novemcinctus</i> | 2.28 | 1.27 | 4.90 | 3.09 |
| Naked-tailed Armadillo | <i>Cabassous centralis</i> | 0.08 | 0.07 | 0.13 | 0.23 |
| Tamandua | <i>Tamandua mexicana</i> | 0.08 | 0.15 | 1.13 | 0.57 |
| Three-toed Sloth | <i>Bradypus variegatus</i> | 0.04 | 0 | 0 | 0 |
| Unknown bat | | 0 | 0.03 | 0.25 | 0.34 |
| Forest Rabbit | <i>Sylvilagus brasiliensis</i> | 0 | 0.02 | 0 | 0.11 |
| Red-tailed Squirrel | <i>Sciurus granatensis</i> | 1.41 | 1.75 | 0.63 | 3.78 |
| Agouti | <i>Dasyprocta punctata</i> | 37.98 | 21.94 | 13.19 | 19.11 |
| Paca | <i>Agouti paca</i> | 1.44 | 3.21 | 0.25 | 1.03 |
| Tome's Rspiny Rat | <i>Proechimys semispinosus</i> | 0 | 0.03 | 0 | 0 |
| Unknown rat | | 1.48 | 1.53 | 4.65 | 5.95 |
| Unknown mouse | | 0.15 | 0.17 | 0.13 | 0.46 |
| Ocelot | <i>Leopardus pardalis</i> | 3.95 | 4.35 | 2.01 | 2.29 |
| Oncilla | <i>Leopardus tigrinus</i> | 0 | 0.07 | 0 | 0 |
| Margay | <i>Leopardus wiedii</i> | 0.04 | 0.36 | 0 | 0.23 |
| Puma | <i>Puma concolor</i> | 1.14 | 1.53 | 0 | 0 |
| Yaguarundi | <i>Hepailurus yagouaroundi</i> | 0.91 | 0.74 | 0.13 | 0.34 |
| Jaguar | <i>Panthera onca</i> | 1.06 | 1.29 | 0 | 0.11 |
| Coyote | <i>Canis latrans</i> | 0.15 | 0 | 0 | 0 |
| Domestic dog | <i>Canis lupus familiaris</i> | 1.48 | 0.84 | 1.01 | 2.40 |
| Striped Hog-nosed skunk | <i>Conepatus semistriatus</i> | 0.57 | 0.36 | 0 | 0 |
| Tayra | <i>Eira barbara</i> | 0.42 | 0.77 | 0.38 | 0.46 |
| Greater Grison | <i>Galictis vittata</i> | 0 | 0 | 0 | 0.11 |
| Long-tailed Weasel | <i>Mustela frenata</i> | 0 | 0.02 | 0 | 0 |
| White-nosed Coati | <i>Nasua narica</i> | 0.57 | 0.43 | 2.26 | 0.34 |
| Northern Raccoon | <i>Procyon lotor</i> | 0 | 0.03 | 0.38 | 0 |
| Collared Peccary | <i>Pecari tajacu</i> | 1.14 | 1.00 | 0.13 | 0.46 |
| White-lipped Peccary | <i>Tayassu pecari</i> | 0.08 | 0 | 0 | 0 |
| Domestic pig | <i>Sus scrofa</i> | 0.34 | 0.15 | 0.13 | 5.26 |
| Red Brocket Deer | <i>Mazama temama</i> | 0.84 | 1.07 | 0.25 | 0.34 |
| Tapir | <i>Tapirus bairdii</i> | 0.49 | 0.36 | 0 | 0 |
| Human | Research-Protection ^b | 3.35 | 2.94 | 3.64 | 3.78 |
| | Local ^c | 1.98 | 1.61 | 0.50 | 5.61 |
| | Poacher ^d | 2.51 | 2.41 | 0 | 0 |
| | Tourist ^e | 0 | 0.10 | 0.13 | 0 |
| | Unclassified people ^f | 0.38 | 0.09 | 0.13 | 0 |

^a Total number of camera stations/total number of trap-nights in each area. ^b Persons in ranger uniform or known researchers in the area. ^c Persons not carrying hunting/fishing equipment, or wild animal. ^d Persons with hunting/fishing equipment (e.g., rifle, blowgun, harpoon), or carrying killed wild animals. ^e Hikers or persons with photo equipment. ^f Persons that could not be classified as one of the above.

Table S2. Photo rates (no. of independent photos/100 trap nights) of bird species detected by camera-trapping efforts during 2009-2016 in three adjacent protected areas in the northern Talamanca Mountains of Costa Rica. Significant differences ($P<0.001$) between seasons for the National Park are indicated in italics; differences among the three protected areas during September-April are identified in bold.

| Common English name | Scientific name | May-Aug | | Sep-Apr | |
|-----------------------------|----------------------------------|--|-----------------------------|----------------------------|------------------------------------|
| | | National Park (19/2,630) ^a | National Park (21/5,820) | Forest Reserve (17/796) | Indigenous Territories (17/874) |
| Great Tinamou | <i>Tinamus major</i> | 7.15 | 9.54 | 1.38 | 2.75 |
| Slaty-breasted Tinamou | <i>Crypturellus boucardi</i> | 0.15 | 0.15 | 0 | 0 |
| Crested Guan | <i>Penelope purpurascens</i> | 0.27 | 0.14 | 0 | 0 |
| Black Guan | <i>Chamaepetes unicolor</i> | 0 | 0.10 | 0 | 0 |
| Great Curassow | <i>Crax rubra</i> | 0.08 | 0.02 | 0 | 0 |
| Black-eared Wood-Quail | <i>Odontophorus melanotis</i> | 0 | 0 | 0 | 0.23 |
| Black-breasted Wood-Quail | <i>Odontophorus leucolaemus</i> | 0 | 0.03 | 0 | 0 |
| Spotted Wood-Quail | <i>Odontophorus guttatus</i> | 0.04 | 0.05 | 0 | 0 |
| White-winged Dove | <i>Zenaida asiatica</i> | 0.04 | 0.03 | 0 | 0 |
| Ruddy Quail-Dove | <i>Geotrygon montana</i> | 0.27 | 0.15 | 0 | 0.23 |
| Chiriquí Quail-Dove | <i>Zentrygon chiriquensis</i> | 0.23 | 0.43 | 0 | 0 |
| Olive-backed Quail-Dove | <i>Leptotrygon veraguensis</i> | 0.61 | 0.57 | 0.13 | 1.72 |
| Purplish-backed Quail-Dove | <i>Zentrygon lawrencii</i> | 0.30 | 0.32 | 0 | 0 |
| Buff-fronted Quail-Dove | <i>Zentrygon costaricensis</i> | 0 | 0.09 | 0 | 0 |
| Rufous-vented ground-cuckoo | <i>Neomorphus geoffroyi</i> | 0.08 | 0.03 | 0.13 | 0 |
| Nightjar | | 0 | 0 | 0 | 0.11 |
| Hummingbird | <i>Phaetornis</i> sp. | 0 | 0.02 | 0 | 0 |
| Unknown hummingbird | | 0.04 | 0 | 0 | 0 |
| Great Black-hawk | <i>Buteogallus urubitinga</i> | 0 | 0.02 | 0 | 0 |
| Barred Hawk | <i>Morphnarchus princeps</i> | 0.04 | 0 | 0 | 0 |
| White Hawk | <i>Pseudastur albicollis</i> | 0.04 | 0 | 0 | 0 |
| Rufous Motmot | <i>Baryphthengus martii</i> | 0 | 0.02 | 0 | 0 |
| Chestnut-backed Antbird | <i>Poliocrania exsul</i> | 0 | 0 | 0.25 | 0 |
| Spotted Antbird | <i>Hylophylax naevioides</i> | 0 | 0.02 | 0 | 0.34 |
| Bicolored Antbird | <i>Gymnopithys bicolor</i> | 0 | 0.02 | 0 | 0 |
| Ocellated Antbird | <i>Phaeostictus mcleannani</i> | 0 | 0.02 | 0 | 0 |
| Black-crowned Antpitta | <i>Pittasoma michleri</i> | 0 | 0.03 | 0 | 0 |
| Streak-chested Antpitta | <i>Hylopezus perspicillatus</i> | 0 | 0 | 0 | 0.23 |
| Black-faced Anthrush | <i>Formicarius analis</i> | 0.23 | 0.10 | 0 | 0 |
| Black-headed Anthrush | <i>Formicarius nigricapillus</i> | 0 | 0.19 | 0 | 0 |
| *Wood Thrush | <i>Hylocichla mustelina</i> | 0 | 0.07 | 0.13 | 2.97 |
| Sooty Thrush | <i>Turdus nigrescens</i> | 0.08 | 0.03 | 0 | 0 |
| Passerini's tanager | <i>Ramphocelus passerinii</i> | 0.04 | 0 | 0 | 0 |
| Chestnut-capped Brush-Finch | <i>Arremon brunneinucha</i> | 0 | 0.02 | 0 | 0 |

^aTotal number of camera stations/total number of trap-nights in each area. * only not resident breeding species