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Birds of Barra Honda National Park

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The results of the first year in the bird survey were successful; in total we found 111 species of birds in different places around of Barra Honda hill. To collect this data we used two different methodologies in the survey; counting points in to the forest and points count for species that move over the canopy. In the first methodology we chose five different trails (Pozo Hediondo-Terciopelo, Sendero principal, Laureles-Mirador, Ronda-Mantequilla and Palma Pozo), in those places we marked seven spots which are divided by 250m each. We recorded the counting points over a period of one year. The data was collected by staff members and volunteers.

With point counts for species that move over the canopy, we chose four high places (Mirador Nacaome, Piedra del rey, Frijoleras Santa Ana and Frijoleras Golfo), with open views (picture #xxx). With the other method we did one spot per week, collecting the data of the birds we saw during the census time. By combining the methodologies and different techniques, we achieve more effective results as we obtain the number of species quicker. In the following paragraph we will discuss the results of the survey from the first year.

Point counts for species that move over the canopy

With this technique we obtained a total of 49 species of 29 different groups of birds. In this case, the groups with more numbers of species were Pssitacidae (Parrots), Falconidae (falcons) and Tyrannidae (Flycatchers), the most common species being Black Vulture (41%, n=574), Turkey Vulture (24% n=344) (Vultures) and the Orange-fronted parrot (4,8%, n=67). Using this methodology we managed to see some species that only move through the air and are very difficult to see in to the forest, like the Plumbeos Kite which is a migratory species from North America to Argentina. Through this methodology it becomes possible to see these species which appear only for a short time in Costa Rica.

Points count in to the forest

We did 35 points in total in Barra Honda hill which were each evaluated once per month. The species richness with this method was greater, giving us a total of 82 species from 28 different groups of birds. The Flycatchers, Warblers and Hummingbirds were the groups with more species recorded. The Banded Wren (14, 36%, n=136), Long-tail Manakin (12, 46%, n=118), and Rufous-capped Warbler (12, 46%, n=118) were the more common species documented using this method.

We found 15 migratory species that use the park as a shelter during the winter in North America, however, if we continue evaluating the place we may possibly find even more. Currently, around 200 migratory species have been found in Costa Rica. The data that we are collecting is very important because Guanacaste is the south border of the dry forest in Central America, and the species that are living in this habitat are very difficult to find in other places in Costa Rica.

One of the aims of this survey was to obtain the species that are using the national park as a shelter during the migration time; some of them use Barra Honda for a few days, while others stay until the end of winter in North America. For example, the Broad-winged Hawk stays in Barra Honda from October until April and then migrates back to North America.

According to the investigation conducted, Barra Honda serves as an important habitat, as it provides shelter to 25 migratory species during the migration season, which will hopefully increase over the next few years. By continuing with the investigation, we can obtain more data and demonstrate to communities and schools, through environmental education, the importance of Barra Honda National Park in the protection of our natural resources.

Species data collected with the method of Point counts for species that move over the canopy.

Scientific name	English name	Abundance
<i>Aimophila ruficauda</i>	Stripe-headed Sparrow	0,43%
<i>Amazilia rutila</i>	Cinnamon Hummingbird	0,43%
<i>Amazona albifrons</i>	White fronted parrot	2,00%
<i>Ara macao</i>	Scarlet Macaw	3,00%
<i>Aratinga canicularis</i>	Orange fronted parakeet	2,00%
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	0,43%
<i>Aythya collaris</i>	Ring-necked Duck	0,21%
<i>Basileuterus rufifrons</i>	Rufous-capped Warbler	0,43%
<i>Brotogeris jugularis</i>	Orange-chinned Parakeet	1,00%
<i>Bubulcus ibis</i>	Cattle Egret	1,00%
<i>Buteo albicaudatus</i>	White-tailed Hawk	0,21%
<i>Buteo albonotatus</i>	Zone-tailed Hawk	0,21%
<i>Buteo brachyurus</i>	Short-tailed Hawk	2,00%
<i>Buteo magnirostris</i>	Roadside Hawk	2,00%
<i>Buteo nitidus</i>	Gray Hawk	1,00%
<i>Buteo platypterus</i>	Broad-winged Hawk	2,00%
<i>Calocitta formosa</i>	White-throated Magpie-jay	4,00%
<i>Caracara cheriway</i>	Crested Caracara	0,21%
<i>Cathartes aura</i>	Turkey Vulture	32,00%
<i>Chlorostilbon canivetii</i>	Canivet's Emerald	0,21%
<i>Circus cyaneus</i>	Northern Harrier	0,21%
<i>Coragyps atratus</i>	Black Vulture	30,00%
<i>Falco peregrinus</i>	Peregrine Falcon	1,00%
<i>Falco ruficularis</i>	Bat Falcon	0,43%
<i>Fregata magnificens</i>	Magnificent Frigatebird	1,00%
<i>Hirundo rustica</i>	Barn Swallow	0,21%
<i>Ictinia mississippiensis</i>	Mississippi Kite	1,00%
<i>Ictinia plumbea</i>	Plumbeous Kite	0,43%
<i>Leptotila verreauxi</i>	White-tipped Dove	0,43%
<i>Megarhynchus pitangua</i>	Boat-billed Flycatcher	0,21%
<i>Melanerpes hoffmanni</i>	Haffmann's Woodpecker	0,21%
<i>Micrastur semitorquatus</i>	Collared Forest-Falcon	0,21%
<i>Mycteria americana</i>	Wood Stork	0,21%

<i>Myiarchus crinitus</i>	Great Crested Flycatcher	0,43%
<i>Myiarchus sp.</i>	Flycatcher	1,00%
<i>Ortalis vetula</i>	Plain Chachalaca	0,21%
<i>Passerina caerulea</i>	Blue Grosbeak	0,43%
<i>Passerina cyanea</i>	Indigo Bunting	0,21%
<i>Pelecanus occidentalis</i>	Brown Pellican	0,21%
<i>Polioptila albiloris</i>	White-lored Gnatcatcher	0,21%
<i>Polioptila plumbea</i>	Tropical Gnatcatcher	0,21%
<i>Progne subis</i>	Purple Martin	0,43%
<i>Sarcoramphus papa</i>	King Vulture	2,00%
<i>Streptoprocne rutila</i>	Chestnut-collared Swift	0,21%
<i>Thryothorus modestus</i>	Plein Wren	0,21%
<i>Thryothorus pleurostictus</i>	Banded Wren	1,00%
<i>Trogon melanocephalus</i>	Black-headed Trogon	1,00%
<i>Tyrannus forficatus</i>	Scissor-tailed Flycatcher	2,00%
<i>Zenaida asiatica</i>	White-winged Dove	1,00%

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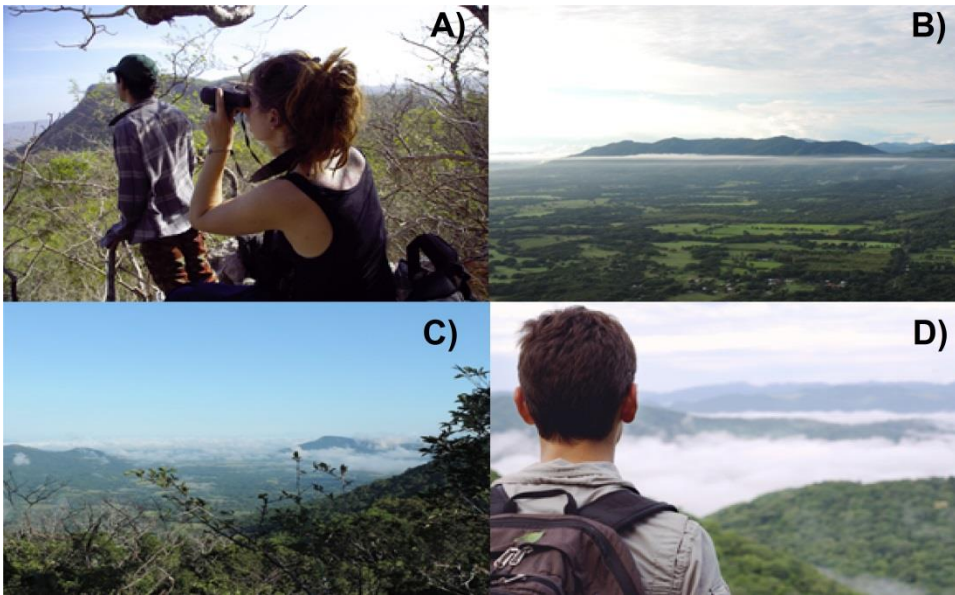
Species data collected by counting points in to the forest.

Scientific name	English name	Abundance
<i>Amazilia cyanura</i>	Blue-tailed Hummingbird	0,32%
<i>Amazilia rutila</i>	Cinnamon Hummingbird	0,84%
<i>Amazilia saucerrottei</i>	Steely-vented Hummingbird	0,74%
<i>Amazilia sp</i>	Hummingbird	0,74%
<i>Amazilia tzacatl</i>	Rufous-tailed Hummingbird	0,63%
<i>Amazona albifrons</i>	White-fronted Parrot	0,53%
<i>Archilochus colubris</i>	Ruby-throated Hummingbird	0,63%
<i>Arremonops rufivirgatus</i>	Olive Sparrow	5,39%
<i>Anthracothorax prevostii</i>	Green-breasted Mango	0,42%
<i>Basileuterus culicivorus</i>	Golden-crowned Warbler	0,11%
<i>Basileuterus rufifrons</i>	Rufous-capped Warbler	12,46%
<i>Buteo magnirostris</i>	Roadside Hawk	1,37%
<i>Buteo nitidus</i>	Gray Hawk	0,11%
<i>Buteo platypterus</i>	Broad-winged Hawk	0,32%
<i>Calocitta Formosa</i>	White-throated Magpie-jay	2,11%
<i>Campephilus guatemalensis</i>	Pale-billed Woodpecker	0,42%
<i>Campostoma imberbe</i>	Nothern Beardless-Tyrannulet	0,11%
<i>Campylorhynchus rufinucha</i>	Rufous-naped Wren	0,53%

<i>Cathartes aura</i>	Turked Vulture	0,21%
<i>Catharus ustulatus</i>	Swainson's Thrush	0,32%
<i>Chiroxiphia linearis</i>	Long-tailed Manakin	12,46%
<i>Chlorostilbon canivetii</i>	Canivet's Emerald	0,63%
<i>Ciccava virgata</i>	Mottled Owl	0,11%
<i>Coccyzus minor</i>	Mangrove Cuckoo	0,42%
<i>Contopus virens</i>	Eastern Wook-Pewee	0,11%
<i>Crypturellus cinnamomeus</i>	Thicket Tinamou	2,32%
<i>Dendrocolaptes sanctithomae</i>	Northern Barred-Woodcreeper	0,74%
<i>Dendroica townsendi</i>	Townsend's Warbler	0,11%
<i>Dryocopus lineatus</i>	Lineated Woodpecker	0,11%
<i>Empidonax alorum</i>	Alder Flycatcher	1,58%
<i>Empidonax flaviventris</i>	Yellow-bellied Flycatcher	0,42%
<i>Empidonax minimus</i>	Least Flycatcher	0,11%
<i>Empidonax sp</i>	Flycatcher	0,63%
<i>Eumomota superciliosa</i>	Turquoise-browed Motmot	2,11%
<i>Euphonia affinis</i>	Scrub Euphonia	0,11%
<i>Heliomaster constantii</i>	Plain-capped Starthroat	0,32%
<i>Helmitheros vermivorum</i>	Worm-eating Warbler	0,11%
<i>Herpetotheres cachinnans</i>	Laughing Falcon	0,11%
<i>Hylocharis eliciae</i>	Blue-throated Goldentail	0,21%
<i>Hylophilus decurtatus</i>	Lesser Greenlet	10,14%
<i>Icterus pustulatus</i>	Streak-backed Oriole	0,21%
<i>Leptotila verreauxi</i>	White-tipped Dove	0,32%
<i>Megarhynchus pitangua</i>	Boat-billed Flycatcher	0,63%
<i>Melanerpes hoffmannii</i>	Hoffmann's Woodpecker	0,21%
<i>Micrastur semitorquatus</i>	Collared Forest-Falcon	0,11%
<i>Mniotilta varia</i>	Black and White Warbler	0,21%
<i>Momotus momota</i>	Blue-crowned Motmot	0,95%
<i>Myiarchus crinitus</i>	Great Crested Flycatcher	0,42%
<i>Myiarchus nuttingi</i>	Nutting's Flycatcher	1,16%
<i>Myiarchus panamensis</i>	Panam Flycatcher	0,11%
<i>Myiarchus sp.</i>	Flycatcher	2,43%
<i>Myiarchus tyrannulus</i>	Brown-crested Flycatcher	1,80%
<i>Myiodynastes maculatus</i>	Steaked Flycatcher	0,42%
<i>Myiodynastes sp</i>	Flycatcher	0,32%
<i>Oporornis formosus</i>	Kentucky Warbler	0,11%
<i>Oporornis philadelphia</i>	Mourning Warbler	0,11%
<i>Ortalis vetula</i>	Plain Chachalaca	0,84%

<i>Pachyramphus aglaiae</i>	Rose-throated Becard	0,11%
<i>Pelecanus occidentalis</i>	Brown Pelican	0,11%
<i>Phaetornis striigularis</i>	Stripe-throated Hermit	1,58%
<i>Piaya cayana</i>	Squirrel Cuckoo	0,21%
<i>Pitangus sulphuratus</i>	Great Kiskadee	0,21%
<i>Poecilotriccus Sylvia</i>	Slate-headed Tody-Flycatcher	0,11%
<i>Polioptila albiloris</i>	White-lored Gnatcatcher	0,63%
<i>Polioptila plúmbea</i>	Tropical Gnatcatcher	0,42%
<i>Polioptila sp.</i>	Gnatcatcher	0,11%
<i>Pteroglossus torquatus</i>	Collared Aracari	0,21%
<i>Ramphocaenus melanurus</i>	Long-billed Gnatwren	1,80%
<i>Seirus aurocapillus</i>	Ovenbird	0,21%
<i>Seirus noveboracensis</i>	Northern Waterthrush	0,11%
<i>Setophaga petechia</i>	American Redstart	0,42%
<i>Thryothorus pleurostictus</i>	Banded Wren	14,36%
<i>Thryothorus rufalbus</i>	Rufous-and-white Wren	0,21%
<i>Tityra semifasciata</i>	Masked Tityra	0,11%
<i>Tolmomyias sulphurescens</i>	Yellow-olive Flycatcher	0,63%
<i>Trogon caliegatus</i>	Black-headed Trogon	1,90%
<i>Trogon elegans</i>	Elegant Trogon	2,11%
<i>Trogon melanocephalus</i>	Black-headed Trogon	0,95%
<i>Turdus grayi</i>	Clay-colored Robin	0,11%
<i>Vermivora peregrina</i>	Tennessee Warbler	0,42%
<i>Vireo flavifrons</i>	Yellow-throated Vireo	0,11%
<i>Vireo flavoviridis</i>	Yellow-green Vireo	0,63%
<i>Vireo olivaceus</i>	Red-eyed Vireo	0,21%
<i>Wilsonia canadensis</i>	Canada Warbler	0,11%
<i>Zenaida asiática</i>	White-winged Dove	0,21%
<i>Zimmerius vilissimus</i>	Platry Tyrannulet	0,11%

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A and B volunteers collecting the data, B and C View points for counts birds that move over canopy.



A) Orange-fronted Parrot, B) Long-tail Manakin, C) Cinnamon hummingbird and D) Broad-winged Hawk.