

Neotropical Migrant Birds of Rava Avis and SelvaTica Reserves Heredia, Costa Rica

The Birds Team has been one of the longest teams in the rainforest project, this is its 20th year. The purpose of this year's bird team is to keep track of the population of the birds in Costa Rica and the migratory tracks they take. These birds are commonly known as Neotropical Migrants. A Neotropical migratory bird, is a bird that breeds in Canada and the United States. The same birds that we catch in Costa Rica are on the red list, or list of concern. More than 3,000 species of birds make their home in the Neotropical Zone. This represents about one-third of the bird species in the world. It has more bird species than in any other region.

The Neotropical migratory bird they migrate from Rara Avis or El Plastico to Canada and United States. The Birds Team has been one of the longest teams in the rainforest project, this is its 20th year. The purpose of this year's bird team is to keep track of the population of the birds in Costa Rica and the migratory tracks they take. Some expectations I had before going to Costa Rica were not catching birds that are already been banded by previous teams, not catching any of the birds that are on the IUCN red list and rain wouldn't interfere with catching the birds.

This is a list of what I did before our research trip:

What species are on the IUCN Red list - computer

- *Birds of Costa Rica Field guide - researched the birds and marked who I am looking for*
- *Learned what birds were caught last year and compared them to the IUCN red list*
- Sean Graesser from National Audubon taught us how to put up nets, poles

I how to write in a scientific journal , Learned about data sheet and how to fill out , Learned how to take birds out of net , Learned how to identify the age of a bird , Learned how to identify the sex of the bird. Learned how to identify the fatness of a bird , Learned the international laws of how to protect the species , Learned how to band , Learned how to read the bands if we caught any birds. Learned how to record the bands of the birds we caught , Learned how to check nets carefully . Learned time management.

Can you imagine catching the same bird, in the same tree , within the same couple of days, year after years? This is new science , that they come back to the same location year after year.

El Plastico, used to be a prison for criminals that were accused for committing crimes of passions. The prisoners would be given machetes and tarps and then head their way to the forest and live there but come back to the "reserve" during dining times. After a few years leaving away from civilization, guards and prisoners became really close and build a friendship relationship among each other. One day the guards and the prisoners became friends and told each other "let's get out of here". And so they all walked together, forming the paths that are now used for research hikes, and eventually began building what it's now the Town of Horquetas.

You will need: habitat, vegetation, rainfall we had a total of 7in or 17.78cm of rain, location, elevation,

Rara Avis lodge and reserve, located deep into the jungle, 3 miles from El Plástico. Rara Avis has more biodiversity and a better location for data collection.

Using data and research collected from years past, I knew where to do my first observation. I used the GPS coordinates N 10 degrees 16'54.7, W 84 degrees 02'42.0. I did observations of the birds from the ground. I noticed that the birds will fly from one tree to another. That is where I setup my first set of nets. It was a quadruple set. I would open the nets at 5:45 in the morning. I would then check on the nets every 35 minutes. When I checked the nets, I had a bird bag and radio if I needed help. When checking the nets, I go close to the nets to look. If a bird is there, I would need to see which pocket the bird fell in. I would carefully take it out, trying not to hurt the bird. If I needed help because a bird was stuck, I would get help from the base camp. If I noticed that the bird was too exhausted, I would just release the bird back into the wild, without doing any measurements, etc. I put bird in bag and bring back to base camp. Once at the camp I would identify the birds using the books brought with us. The birds of Costa Rica, A Field Guide; (Richard Garrigues and Robert Dean). I would start filling in my data sheet. I was writing down alpha code, age, how aged, sex, how sexed, fat, wing length, mass, date, time, location, what net it came from and most importantly what band number. If it was a hummingbird or another little bird, I made sure to give him water. I would take a picture of the bird and then let it go from the base camp. If there is no bird in the net I would go and check the other nets. If there was more than one bird in a net, I would call base camp and they would come and help me take the birds out of the net. If it is raining out, I would still need to go outside to close the nets if they were open and also check to see if any birds were caught in the net. Throughout my time in Rava Avis, I was able to set up a total of 6 nets in a day.

In the 9 days of capturing birds I caught a total of 99 birds.

Discussion:

The most species caught is the White-collared Manakin. One of the least species caught was the Great Kiskadee. Many variables may have affected our catches this expedition like weather, location and time of day. The Chested-sided Warbler is an example of a banded species caught in the same tree and same time as last year. This is exceptional data and unexpected data. This kind of data reinforces the need for conservation of certain spacial area within the forest. Many Species were CITES and Red listed like the Tyrant flycatchers. This is important as teams like ours monitor their numbers. In table #1 you will see the banded birds we processed this year.

Monitoring birds whether banded, on the IUCN Red List or CITES is important for watching the health of the RainForest and gauging it's inevitable change by global warming and species movement.

Results

Species name	Alph a Code	A G E	H o w a g e d	S E x	H o w s e x e d	C L P	B P	F a t	B o d y M L T	F F M O L T	Wing Measurements	M a s s	D a t e	Ti m e	St at i o n	N E T	Ban d Numb er
Great Kiskadee	Pit Sul	6	P	U	P			1			113mm	55g	2/3/17	6:45am	ELP	3	
White Collared Manakin	ManC an	6	P	M	P								2/3/17	6:50am	ELP	2	
Rufous-tailed Hummingbird	Am a Tz ac	1	P	M	P								2/3/17	10am	ELP	2	
Stripe-tailed	Ph aSt i												2/3/17	12:25	ELP	1	

Ochr e- belli ed Flyca tche r	Mi oO le	5	P	U	1	70m m	1 5 g	2 / 3 /1 7	5: 05 p m	E L P L	2	
Oven bird	Sei Au r	5	P	U	2	75m m	2 0 g	2 / 3 /1 7	5:4 5 p m	E P L P	1	229 163 991
Whit e- colla red Man akin	Ma nC an	6	P	M P	1	55m m	2 0 g	3 / 3 /1 7	6:5 3 a m	E L P L	2	
Ochr e- belli ed Flyca tche r	Mi oO le	5	P	U	1	65m m	1 5 g	3 / 3 /1 7	7:5 6 a m	E L P L	2	
Strip e- thro ated	Ph a	1	P	U	1	39m m		3 / 3	8: 22	E L P L	1	

Hermit	Str								/1 7	a m		
White-collared Manakin	ManC an	6	P	M	P	1	55m m	2 0 g	3 / 3 /1 7	8:3 o a m	E L P L	2
White-necked Jacobin	Flo Me l	6	P	M	P	1	71m m		3 / 3 /1 7	8:3 5 a m	E L P L	3
Red-legged Honeycreeper	Cy aC ya	1	P	M	P	1	60m m	1 2 g	3 / 3 /1 7	9: 40 a m	E L P L	3
Variable Seed-eater	Sp oC or	1	P	M	P	1	55m m	1 3 g	3 / 3 /1 7	9: 49 a m	E L P L	2

White-collared Manakin	Ma nCa n	6	P	F	P	1	50m	1 8 g	3 / 3 /1 7	10: 14 a m	E L P L	2
Long-billed Hermit	Ph aLa on	1	P	U		1	60m		3 / 3 /1 7	10: 20 a m	E L P L	3
Long-billed Hermit	Ph aLa on	1	P	U		1	60m		3 / 3 /1 7	11: 00 a m	E L P L	6
Rufous-tailed Hummingbird	A ma Tz a		P	M	P	2	45m		3 / 3 /1 7	1:1 o p m	E L P L	1
Striped-throated Hermit	Ph a Str					1	21m		3 / 3 /1 7	1:3 o p m	E L P L	2

Ches- ted- side d War- bler	Set Pe n	6	P	M	P	3	53m	9 . 5 g	3 / 3 /1 7	4:1 0 p m	E L P L	2	250 058 695 (fro m last yea r)
Red- Legg ed Hon eycr eepe r	Cy aC ya	6	P	M	P	2	50m	1 4 g	3 / 3 /1 7	5: 01 p m	E L P L	2	
Whit e- ruffe d Man akin	Co rAl t	5	P	F	P	3	47m	1 3 g	3 / 3 /1 7	5:2 9 p m	E L P L	2	
Soot y Thru sh	Tu rNi g	6	P	U		1	75m	3 6 g	3 / 3 /1 7	5:4 6 p m	E L P L	1	

Buff-throated Foliage-gleaner	Autochthon	1	P	U				3 / 3 / 1 / 7	6:03 pm	E L P L	6		
Blue-chested Hummingbird	Amazona	6	P	M	P	1	40m	3 / 3 / 1 / 7	6:22 pm	E L P L	3		
Summer Tanager	Pirrubia	6	P	M	P	1	2	75m	2 / 7 / 1 / 7	7:49 am	E L P L	3	229 163 92
Chestnut-sided Warbler	Setophaga	6	P	U		1	60m	1 / 1 / 1 / 7	9:30 am	E L P L	8	250 058 632	
Black-faced	Myiarchus	6	P						3 / 4	10:02 am	E L P L	1	

White-bellied Manakin	Ma nCa n	6	P	M	P	1	55m	2 1 g	4 / 3 /1 7	3:4 4 p m	E L P L	8	
Ochre-bellied Flycatcher	Mi oO le	1	P	U		1	61m	1 3 g	4 / 3 /1 7	4: 07 p m	E L P L	1	
Black-crowned Antshrike	Th aA tr	1	P	F	P	1	62m	2 3 g	4 / 3 /1 7	4:2 2 p m	E L P L	2	
Golden-winged Warbler	Ve rC hr	6	P	M	P	3	63m	9 g	4 / 3 /1 7	4:2 3 p m	E L P L	3	250 058 698
Whiteruffed	Co rAl t	5	P	M	P	1	60m	9 g	4 / 3	4:3 7	E L P L	8	

Manakin									4:1	pm		
Chesnut-sided Warbler	Set Pen	6	P	U	1	60m	11g	4/3/17	4:40pm	ELPL	3	250058632
Green Kingfisher	Chl Ame	6	P	F	P	85m	40g	4/3/17	5:00pm	ELPL	6	
Violet-crowned Woodnymph	Tha Col	1	P	M	P	55m		4/3/17	5:23pm	ELPL	3	
Blue-chested Hummingbird	Ama Ama	6	P	F	P	56m		4/3/17	5:53pm	ELPL	3	

Crowned Woodnymph	Tha Cobl	6	P	F	P	1	48m	5 / 3 /1 7	6: 05 p m	R A V A	1
Long-tailed Woodcreeper	Dec Lohn	1	P	U		1	100m	4 7 g / 3 /1 7	2:4 7 p m	R A V A	4
Tawny-faced Gnatwren	MicCin	1	P	U		3	55m	1 2 g / 3 /1 7	4:3 o p m	R A V A	6
Scale-crested Pygmy-tyrant	Lo Pil	6	P	U		2	50m	9 g / 3 /1 7	4:3 o p m	R A V A	6
Louisiana Water	Par	5	P	U		2	80m	6 / 3	5:5 o A	R A	6 229 163 993

rthr ush	Mo t							/1 7	p m	V A			
Ches tnut - back ed Antb ird	My r Ex s	1	P	M	P	1	65m	2 8 g	/1 3 /1 7	5:5 5 p m	R A V A	3	
Ches tnut - side d War bler	Set Pe n	5	P	F	P	1	62m	1 0 g	6 / 3 /1 7	6: 00 p m	R A V A	1 x	250 058 633
Whit e- colla red Man akin	Ma nC an	1	P	F	P	1	60m	1 4 g	7 / 3 /1 7	8: 40 a m	R A V A	5	
Olive - strip ed Flyca tche r	Mi oO li	1	P	U		1	70m	1 5 g	7 / 3 /1 7	8: 40 a m	R A V A	6	

Olive - strip ed Flyca tche r	Mi o Oli	1	P	U	1	60m m	1 4 g	7 / 3 /1 7	9:3 o a m	R A V A	4
Whit e- colla red Man akin	Ma nC an	6	P	M P	1	54m m	2 0 g	7 / 3 /1 7	10: 40 a m	R A V A	3
Cro wne d Woo dny mph	Th a Co l	6	P	M P	1	58m m		7 / 3 /1 7	10: 45 a m	R A V A	5
Cro wne d Woo dny mph	Th a Co l	6	P	M P					2:5 o p m	R A V A	1 x
Coco a Woo dcre eper	Xi p	1	P	U	1	85m m	3 8 g	7 / 3 /1 7	4: 07	R A V A	6

Black-face Solitaire	Mya	6	P	U	1	95m	28g	7/3/17	5:11pm	RAVA	4
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Black-and-yellow Tanager	Chlor	6	P	M	P	3	67m	9g	7/3/17	5:11pm	RAVA	2
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Wood Thrush	Hylocich	6	P	U	2	110m		7/3/17	5:30pm	RAVA	6
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Dusky Antbird	Ceryle	1	P	F	P	3	53m	10g	7/3/17	5:31pm	RAVA	6
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Dusky Antbird	Ceryle	1	P	M	P	3	55m	10g	7/3/17	5:33pm	RAVA	6
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Ty												p	
r												m	
Cro wne d Woo dny mph Hum ming s	Th a Co l	5	P	M	P	2	55m m			7 / 3 /1 7	6: 00 p m	R A V A	3
Whit e- ruffe d Man akin	Ma nC an	5	P	M	P	3	60m m	1 3 g		8 / 3 /1 7	7:1 0 a m	R A V A	1 x
Wed ge- bille d Woo dcre eper	Gl y Spi	1	P	U		2	74m m			8 / 3 /1 7	7:4 0 a m	R A V A	4
Whit e- crow ned	Ma n	6	P	F	P	3	63m m	1 5 g		8 / 3	7:4 0 R A	4	

Manakin	Ca n								/1 7	a m	V A	
White-ruffed Manakin	Ma n Ca n	5	P	M	P	2	55m	1 3 g	8 / 3 / 1 7	7:4 o a m	R A V A	4
Chestnut-backed Antbird	My r Ex s	6	P	M	P	1	68m	2 8 g	8 / 3 / 1 7	9: 00 a m	R A V A	3
Emerald Tanager	Ta nF lo	1	P	U		4	64m	1 9 g	8 / 3 / 1 7	9:2 o a m	R A V A	1 x
Spotted Barbtail	Pr e Br u	1	P	U		3	60m	9 g	8 / 3 / 1 7	10: 41 a m	R A V A	6

Streak-headed Woodcreeper	Leopoldo Souza	1	P	U	1	80m	37g	83/17	10:47am	RAVA	6
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White-crowned Manakin	Manoel	6	P	F	P	1	70m	15g	83/17	1:48pm	RAVA	5
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Black-faced Solitaire	Myra Mel	6	P	U	1	95m	36g	83/17	4:45pm	RAVA	4
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White-crowned Manakin	Manoel	6	P	F	P	3	65m	14g	93/17	7:25am	RAVA	3
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White-ruffed	Manoel	6	P	F	P	3	60m	14g	93/17	9:30am	RAVA	3
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Manakin	Call												Resident
Bright-rumped Attila	Att Sp	6	P	U	1	93m	45g	93 / 17	12:27pm	RAVA		4	
Russet Antshrike	Tha Ana	1	P	U	1	63m	28g	93 / 17	1:30pm	RAVA		3	
Buff-throated Foliage-gleaner	Aut Och	1	P	U	1	90m		93 / 17	1:31pm	RAVA		3	
Buff-throated Foliage-gleaner	Aut Och	1	P	U	1	85m	40g	93 / 17	1:32pm	RAVA		3	

Green Hon eycr eepe r	Ch l Spi	6	P	M	P	2	71m m	1 8 g	9 / 3 /1 7	1:3 3 p m	R A V A	1
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Whit e- ruffe d Man akin	Ma n Ca n	6	P	F	P	2	60m m	1 3 g	9 / 3 /1 7	3:3 7 p m	R A V A	6
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Whit e- ruffe d Man akin	Ma n Ca n	6	P	F	P	2	63m m	1 4 g	9 / 3 /1 7	3:3 8 p m	R A V A	1 x
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Taw ny- capp ed Euph onia	Eu pA nn	6	P	F	P	2	59m m	1 8 g	9 / 3 /1 7	3:4 2 p m	R A V A	1 x
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Taw ny- capp ed	Eu p	6	P	M	P	1	69m m	1 6 g	9 / 3	3:5 3 A	R A V A	1 x
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Euphonia	An						/1	p												
	n						7	m												
Chesnut	Set						9	4:1												250
-							1	/	4	R										058
side	Pe	5	P	U		4	60m	4	3	A	1									634
d	n						m	g	/1	p	V	x								
Warbler								7		m	A									

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Literature Cited:

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