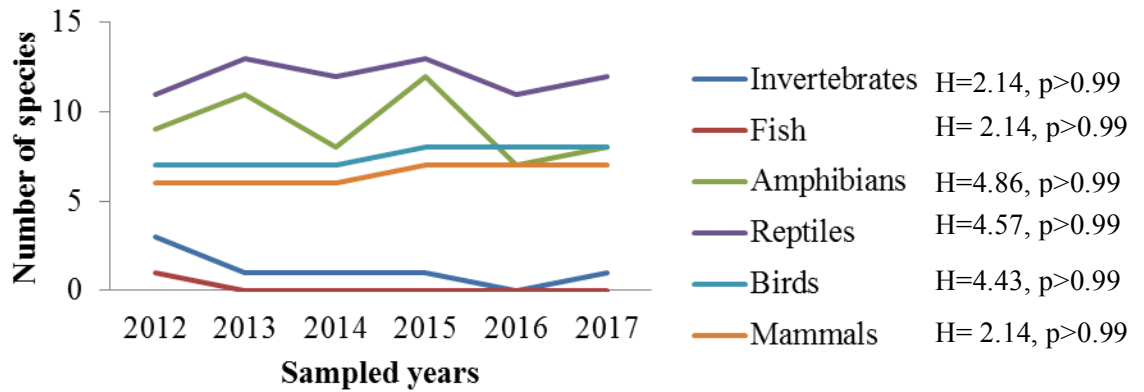


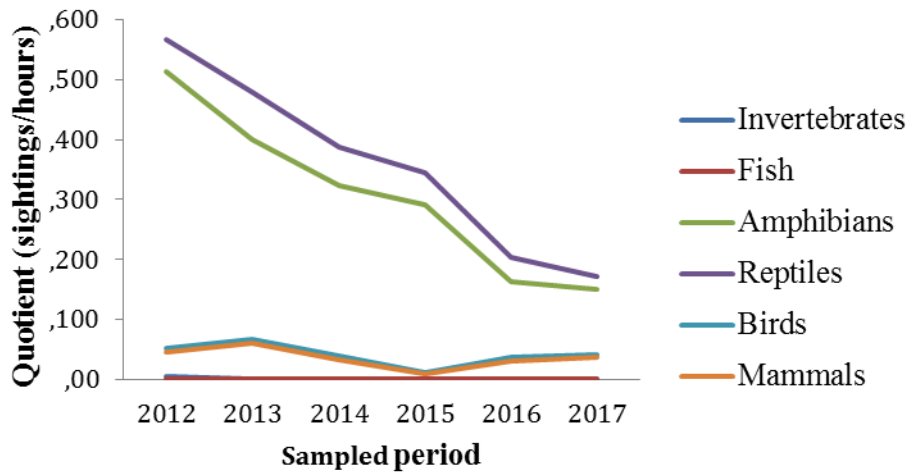
## DIGITAL APPENDIX 1



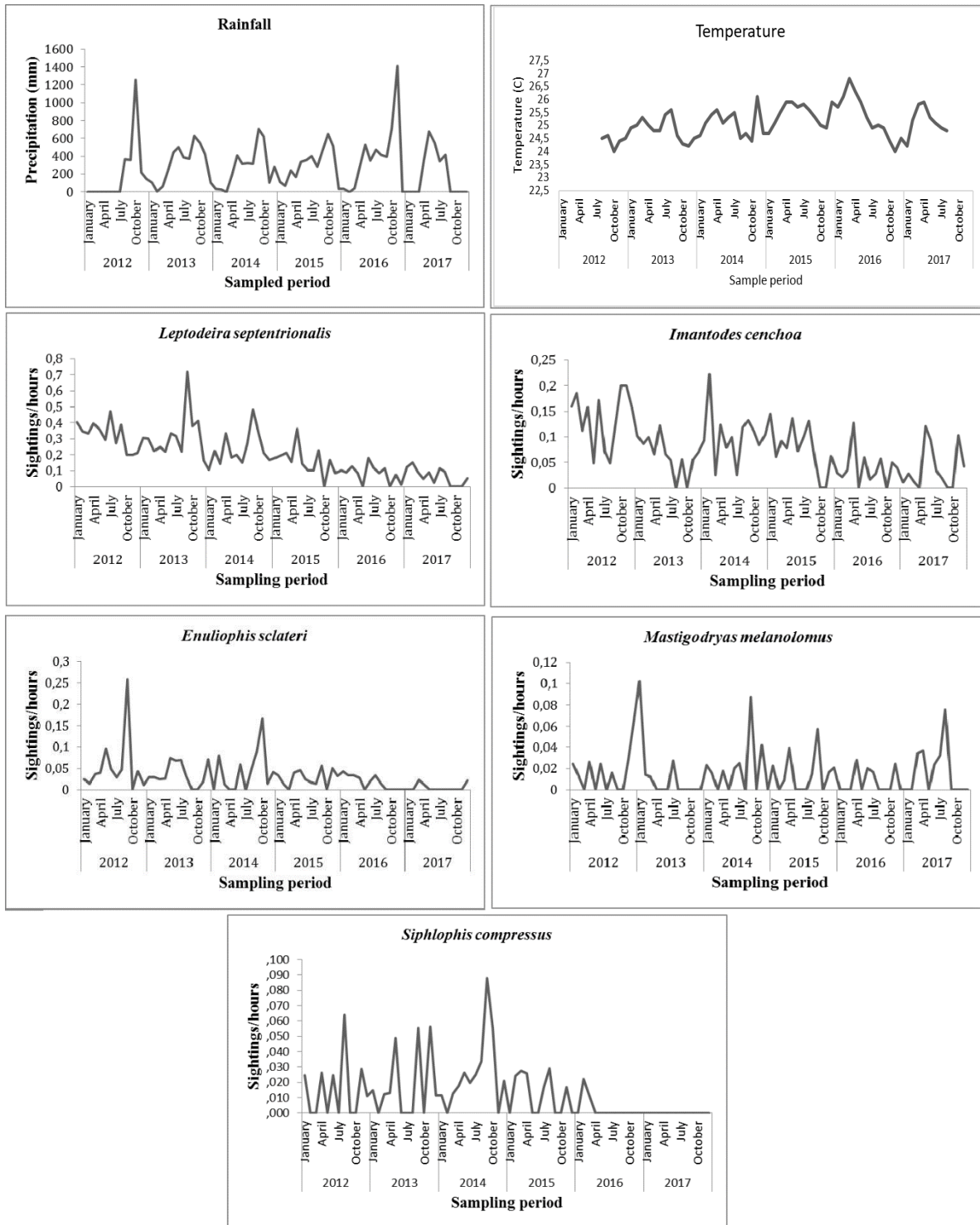
**Fig. 1.** Sampled transect where we counted snakes near the Agujas River, Drake Bay, Costa Rica (lower image: detail of area in upper image)- Aerial photographs from Google Earth; see Methods for coordinates).



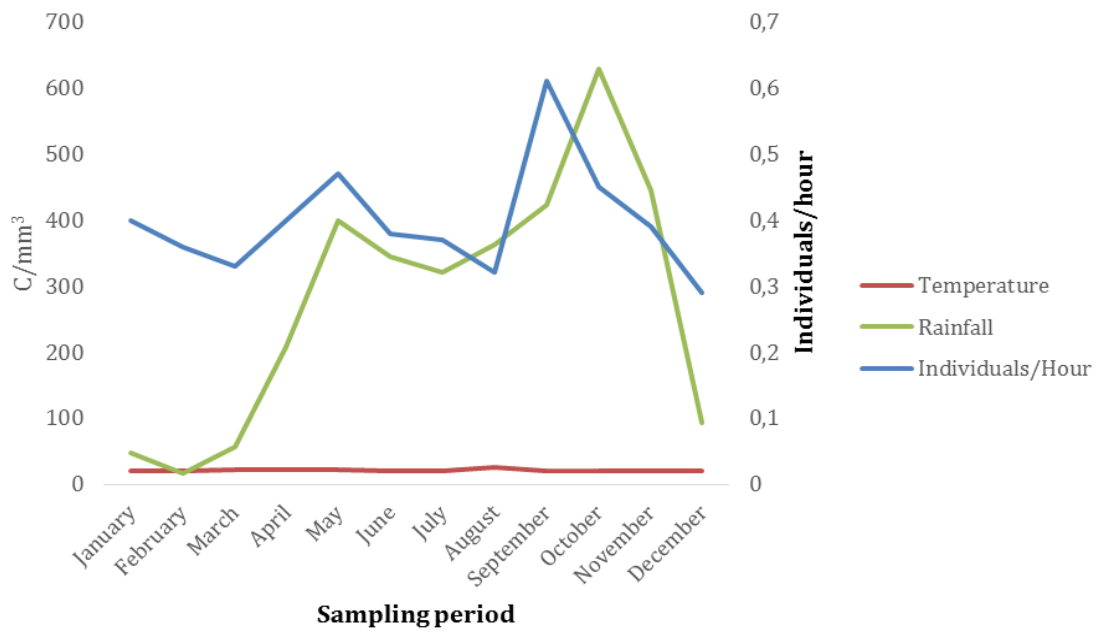
**Fig. 2.** Number of species with each diet type (diets from Savage, 2002; and Solórzano, 2004) seen per year. Species can be included on more than one category.



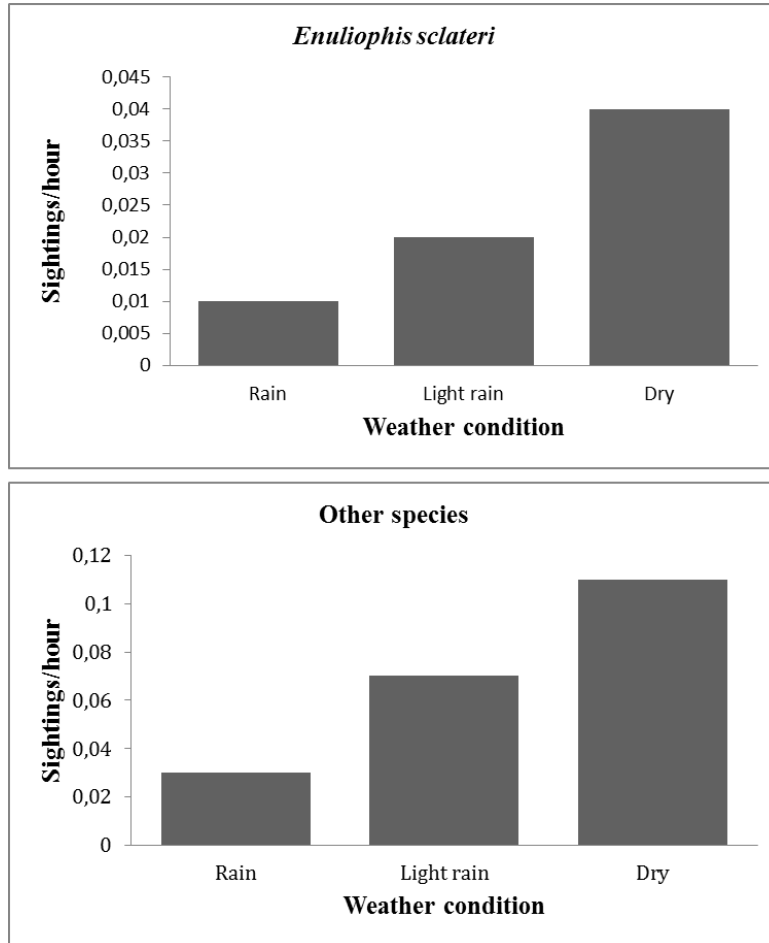
**Fig. 3.** Mean number of individuals seen per/hour for each diet and sampling year



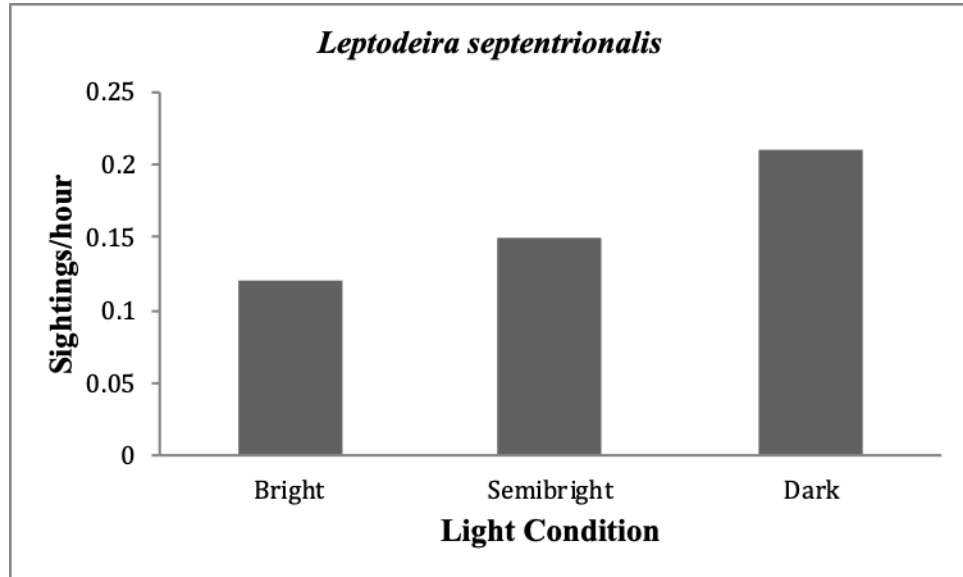
**Fig. 4.** Counts per hour of the five most frequent snakes species during the six-year study period in Drake, Costa Rica (2012-2017) (Rainfall,  $H=70.07$ ,  $P = 0.5$ ; Temperature,  $H = 59.80$ ,  $P = 0.5$ ; *Leptodeira septentrionalis*,  $H = 69.89$ ,  $P = 0.5$ , *Imantodes cenchoa*,  $H = 69.48$ ,  $P = 0.5$ ; *Mastigodryas melanolomus*,  $H = 53.67$ ,  $P = 0.5$ ; *Enuliophis sclateri*,  $H = 63.53$ ,  $P = 0.5$ ; *Siphlophis compressus*,  $H = 66.36$ ,  $P = 0.5$ )



**Fig. 5.** Mean temperature, mean rainfall and individuals seen per hour for Drake snakes (Costa Rica), (Rainfall,  $H = 70.07$ ,  $P = 0.5$ ; Temperature,  $H = 59.80$ ,  $P = 0.5$ , Individuals/hour,  $H = 2.14$ ,  $P > 0.99$ )



**Fig. 6.** Sightings per hour of snakes, according to rain level, in Drake, Costa Rica. See ANOVA details in Table 2.



**Fig. 7.** Sightings per hour of the snake *L. septentrionalis*, according to moon light level, in Drake, Costa Rica. See ANDEVA details in Table 3.

TABLE 1

ANOVA results for *Rain Precipitation* versus *Counts per hour* of the most frequently seen snake species, Drake Bay, Costa Rica

<b><i>Imantodes cenchoa.</i></b>						
<b><i>Leptodeira septentrionalis.</i></b>						
Variance analysis						
Variable	N		R <sup>2</sup>	R <sup>2</sup> Aj		CV
Rate	216		0,03	0,02		131,61
Variance analysis table (SC type III)						
F.V.	SC	gl	CM	F		p-value
Model	0,25	2	0,13	3,08		0,0482
Weather	0,25	2	0,13	3,08		0,0482
Error	8,75	213	0,04			
Total	9,00	215				
Adjusted median, standard error and number of observations						
Error: 0,0411 df: 213						
Weather		Median	n			E.E.
Rainy		0,12	72			0,02
Light Rain		0,14	72			0,02
Dry		0,20	72			0,02
Variance analysis						
Variable	N		R <sup>2</sup>	R <sup>2</sup> Aj		CV
Rate	216		0,02	0,01		165,09
Variance analysis table (SC type III)						
F.V.	SC	gl	CM	F		p-value
Model	0,04	2	0,02	2,11		0,1233
Weather	0,04	2	0,02	2,11		0,1233
Error	1,81	213	0,01			
Total	1,85	215				
Test: Tukey Alfa=0,05 DMS=0,03606						
Error: 0,0085 df: 213						
Weather		Median	n			E.E.
Rainy		0,05	72			0,01 A
Light Rain		0,05	72			0,01 A
Dry		0,07	72			0,01 A
<b><i>Enuliophis sclateri.</i></b>						
Variance analysis						
Variable	N		R <sup>2</sup>	R <sup>2</sup> Aj		CV
Rate	216		0,07	0,06		246,90
Variance analysis table (SC type III)						
F.V.	SC	gl	CM	F		p-value
Model	0,04	2	0,02	8,30		0,0003
Weather	0,04	2	0,02	8,30		0,0003
Error	0,48	213	2, 3E-03			
Total	0,52	215				

Test: Tukey Alfa=0,05 DMS=0,01866

Error: 0,0023 df: 213

Weather	Median	N	E.E.
Rainy	0,01	72	0,01 A
Light Rain	0,02	72	0,01 A
Dry	0,04	72	0,01 B

**Other species (all data from less common species pooled).**

Variance analysis

Variable	N	R <sup>2</sup>	R <sup>2</sup> Aj	CV
Rate	216	0,03	0,02	281,14

Variance analysis table (SC type III)

F.V.	SC	gl	CM	F	p-value
Model	0,23	2	0,11	3,20	0,0429
Weather	0,23	2	0,11	3,20	0,0429
Error	7,63	213	0,04		
Total	7,86	215			

Test: Tukey Alfa=0,05 DMS=0,07404

Error: 0,0358 df: 213

Weather	Median	N	E.E.
Rainy	0,03	72	0,02 A
Light Rain	0,07	72	0,02 A B
Dry	0,11	72	0,02 B

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TABLE 2

ANOVA results for *Moonlight* versus *Counts per hour* for the most frequently seen snakes, Drake Bay, Costa Rica

<b><i>Leptodeira septentrionalis.</i></b>						
Variance analysis						
Variable	N		R <sup>2</sup>	R <sup>2</sup> Aj		CV
Rate	216		0,04	0,03		116,75
Variance analysis table (SC type III)						
F.V.	SC	gl	CM	F		p-value
Model	0,33	2	0,17	4,70		0,0100
Moonlight	0,33	2	0,17	4,70		0,0100
Error	7,57	213	0,04			
Total	7,91	215				
Test: Tukey Alfa=0,05 DMS=0,07376						
Error: 0,0356 gl: 213						
Moonlight		Median	n			E.E.
Bright		0,12	72			0,02 A
Semi-bright		0,15	72			0,02 A B
Dark		0,21	72			0,02 B
<b><i>Imantodes cenchoa.</i></b>						
Variance analysis						
Variable	N		R <sup>2</sup>	R <sup>2</sup> Aj		CV
Rate	216		3,4 E-04	0,00		164,81
Variance analysis table (SC type III)						
F.V.	SC	gl	CM	F		p-value
Model	9,7 E-04	2	4,8E-04	0,04		0,9642
Moonlight	9,7 E-04	2	4,8E-04	0,04		0,9642
Error	2,82	213	0,01			
Total	2,82	215				
Test: Tukey Alfa=0,05 DMS=0,04503						
Error: 0,0132 gl: 213						
Moonlight		Median	n			E.E.
Bright		0,07	72			0,01 A
Dark		0,07	72			0,01 A
Semi-bright		0,07	72			0,01 A
<b><i>Enuliophis sclateri.</i></b>						
Variance analysis						
Variable	N		R <sup>2</sup>	R <sup>2</sup> Aj		CV
Rate	216		0,03	0,02		243,36
Variance analysis table (SC type III)						
F.V.	SC	gl	CM	F		p-value
Model	0,02	2	0,01	3,01		0,0512
Moonlight	0,02	2	0,01	3,01		0,0512
Error	0,74	213	3,5 E-03			

Total 0,76 215

Test: Tukey Alfa=0,05 DMS=0,02302

Error: 0,0035 gl: 213

	Median	N	E.E.
Moonlight			
Semi-bright	0,01	72	0,01 A
Bright	0,03	72	0,01 A
Dark	0,03	72	0,01 A

**Other species (all data from less common species pooled).**

Variance analysis

Variable	N	R <sup>2</sup>	R <sup>2</sup> Aj	CV
Rate	216	4,0 E-03	0,00	259,35

Variance analysis table (SC type III)

F.V.	SC	gl	CM	F	p-value
Model	0,02	2	0,01	0,43	0,6499
Moonlight	0,02	2	0,01	0,43	0,6499
Error	5,65	213	0,03		
Total	5,68	215			

Test: Tukey Alfa=0,05 DMS=0,06373

Error: 0,0265 gl: 213

	Median	N	E.E.
Moonlight			
Semi-bright	0,05	72	0,02 A
Dark	0,06	72	0,02 A
Bright	0,08	72	0,02 A

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