

# BCPE Conservation and Monitoring in the Dominican Republic 2020-2021

## Project #1715L – End of Period Report Report from Grupo Jaragua to American Bird Conservancy

**Project period of performance:** September 1, 2020 to September 1, 2021

**Reporting period:** October 1, 2020 to August 15, 2021

**Date Submitted:** December 17, 2021

Please **report comprehensively**. Include all results completed to date - not only the results for discrete period of time of the current report

**1. Checklist (did you attach the necessary deliverables and other documents that may complement the report?)**

<b>Deliverable/Other documents</b>	<b>Attached</b>
Financial Report in Excel	Sent previously
5-10 HIGH DEFINITION images of project activities	Sent separately
Report Part 2: Camera trapping analysis: species interactions (Yvan Satge)	Appended

## 2. Summary (please give a brief summary of the progress of this grant and the major accomplishments)

During the 2020/2021 breeding season the Dominican BCPE team continued to collect data on reproduction and nest fate at three BCPE colonies: Loma del Toro, Loma Quemada, and Valle Nuevo. 35 nests were monitored throughout the season. Overall reproductive success was 21.74%. Invasive predators were a major problem during the season. The colony at Loma del Toro was found by stray dogs that depredated at least 22 nests, and killed a minimum of 7 adult petrels. In Valle Nuevo mongooses depredated a minimum of eight BCPE chicks. The team is working on the protection of the sites against these predators. In April, a forest fire of unknown origin burned through parts of the Loma del Toro colony. Six new nests were found in Valle Nuevo, which makes the location an important BCPE site. In addition, Valle Nuevo seems to have a major light form population which starts breeding 1.5 months earlier than the dark form (also present at Valle Nuevo). Progress has been made with the Ministry of the Environment: a Ministry biologist visited Loma del Toro in October 2021 and presented the issue of tower collisions to head of the Biodiversity department.

## 3. Activity Summary Table

Activities (as listed in the SGA)	% completed	Outputs (For example: 3,000 tree plants)
1. Evaluate threats at nesting sites and collect key data on reproductive success and nest fate to assist in adaptive management at each colony.	100,00%	A total of 7 nests at Loma Quemada, 18 nests at Loma del Toro, as well as 10 nests in Valle Nuevo were monitored. Threats of agricultural encroachment were evaluated at Valle Nuevo National Park. Cash-crop fields have been ploughed within 300m of known nests. No known nests were lost. The Ministry of the Environment has been informed and has taken action to prevent further encroachment.
2. Search for new nests at Loma del Toro, Zapoten, Loma Quemada and Valle Nuevo.	100,00%	6 new nests were encountered in Valle Nuevo. No new nests were encountered at Zapoten and Loma Quemada.
3. Daily predator monitoring with camera traps and evaluate possible impact.	100,00%	<i>Rattus spp.</i> is present at all locations. The species does not appear to have major negative effects on breeding petrels. Nine dogs were documented at Loma del Toro and 22 nests were negatively affected. Camera traps confirm that a minimum of 7 adults were killed. Strong mongoose predation of chicks was detected in Valle Nuevo with at least 7 birds being killed (3 confirmed by camera trap).
4. Address collisions of birds at Loma del Toro.	80,00%	Rosanna Guzman, biologist at the Ministry of Environment, visited the Loma del Toro colony (the site most impacted by the issue) and has been informed of the collision problem. She is advancing the subject in the Ministry.

#### 4. Description of activities completed during report period

**Activity 1.** Evaluate threats at nesting sites and collect key data on reproductive success and nest fate to assist in adaptive management at each colony.

1.a. Monitor with automatic cameras a minimum of 5 nests at Loma Quemada, 16 nests at Loma del Toro, and 8 nests in Valle Nuevo.

Automatic cameras were installed at 7 nests at Loma Quemada and at 18 nests at Loma del Toro during the second week of November 2020. Ten nests in Valle Nuevo were equipped with camera surveillance during the first week of November.

There were some problems with overexposure of cameras, especially concerning the Bushnell type. Two of the cheaper no-name cameras did have problems of malfunctioning (dark stripes on photos, continuous shooting). In a general sense, photos were sufficient to support the assessment of reproductive success and determine activity of birds and predators.

1.b. Determine nest fate and reproductive success via site visits

Nests in Valle Nuevo were visited in March, April and July of 2021, revising camera traps and inspecting nests visually or with a borescope. Overall reproductive success was 21.74% (10 nest with fledged chicks out of 46 active nests at the beginning of the season)

Results for Valle Nuevo:

A total of 16 nests were monitored. Four of them were never occupied although they had been active during former seasons. One nest showed activity at the start of the season, but later was abandoned. The reason is not clear. In three nests camera surveillance showed mongooses killing the chick. For another four nests mongoose activity was verified by the cameras or by finding rests of devoured chicks, but no direct killing was documented. It can be assumed though, that they were also eliminated by mongooses. Mongoose depredation occurred between early March and late May. Four nests showed a strong indication that the chicks had fledged, either by camera photos (2 nests) and/or leftover down feathers (which chicks shed while practicing wings outside the burrow and walking around before leaving the site).

Reproductive success was 33.33% (4 nest with fledged chicks out of 12 active nests at the beginning of the season)

It is most interesting to mention the departure date of the chicks. The dates the chicks were last seen were between April 24<sup>th</sup> and May 24<sup>th</sup>. Compared to dates from Loma del Toro, this is at least a month to two months earlier. At Loma del Toro chicks tend to leave the nest at the end of June or early July. We suspect that these early chicks were of the light form.

Nests at Loma del Toro and Loma Quemada were monitored in March, May, and July.

Results for Loma del Toro:

A total of 35 nests were monitored. 7 of them were never occupied during the season although they had been active during former seasons. 24 nests were affected by dog attacks. A more detailed analysis is given on dogs in Activity 3. Two additional nests succumbed to a fire which raged in April (actually a total of 9 nests were reached by the fire; whereby 7 had already been affected by dogs before the fire broke out). Only two nests were not touched by dogs and/or fire and the chicks fledged successfully.

Reproductive success was 7.14% (2 nest with fledged chicks out of 28 active nests at the beginning of the season).

Results for Loma Quemada :

Seven nests were monitored. One nest, although active during former season, never was occupied and remained inactive. For three nest photos taken by the cameras showed successful fledging. For the additional three nests the results are not so clear. The chicks may have fledged as well, but due to camera failure, their practicing and preparation for the flight could not be documented. In one case a fair amount of down feathers in the entrance of the nest gives strong indication the chick had fledged. The other two remaining nest did not show clear down remains, which leaves the fate of the chicks open.

Reproductive success was 66.67% (4 nest with fledged chicks out of 6 active nests at the beginning of the season).

**Activity 2** Search for new nests at Loma del Toro, Zapoten, Loma Quemada and Valle Nuevo.

During the monitoring visits to the sites a minimum of two days of additional ground search was undertaken to look for nests.

Results:

Nest searches were conducted in Valle Nuevo between 3 – 5 March and 23 – 25 April 2021. Six new nests were located. These nests were integrated into the existing monitoring scheme (see Activity 1). The fate of one of the nests is not clear. When it was encountered it had all the signs of being actively used (strong typical Diablotin smell, white feathers inside the nest). But later in the season no more signs of bird activity were noticed. For a second nest the installed camera showed predation of the chick by a mongoose. A third nest was encountered with feathers and bones inside. Another nest had a dead chick on the side. At one nest a fully grown chick was encountered April 24<sup>th</sup>. When the team installed a camera the following day, the chick already had left the site.

The newly found nests are situated close to a strawberry plantation at a distance of about 300 meters. Production of strawberries halted about three years ago, when the Dominican government tried to prohibit agriculture within the Valle Nuevo National Park. In March of this year the fields were prepared again, with the plantation presently being run at full capacity. The use of pesticides as well as the presence of migrant workers, who may explore the surroundings of the plantation during their free time, may affect the Diablotin nests. The present Minister of the Environment has made a promise to halt all agriculture within the park, but the latest news received indicates that a grace period of another year was recently given to the farmers.

Nest searches were conducted at Zapoten on 10 and 11 May 2021 and at Loma Quemada on 17 March. No new nests were encountered. Due to the problematic situation at Loma del Toro no additional nest search was undertaken there.

**Activity 3.** Daily predator monitoring with camera traps and evaluate possible impact

See appended report by Yvan Satge.

**Activity 4.** Address collisions of birds at Loma del Toro.

4.a. Work with Park Guards to collect data on numbers of downed birds, including what data to collect, how to record the data and where to send the data after it is collected.

Since the change of government in August 2020 the Ministry of Environment has been struggling to staff and pay park guards at most of the park stations. Due to not receiving pay as well as due to the fact that no new staff has been employed or paid, the majority of stations has been in a state of abandonment ever since. This also includes the station at Loma del Toro, where no park guards have been present during the entire 2020-2021 Diablotin breeding season. Luckily 2 persons responsible for guarding the communication towers of the two private telephone companies Claro and Altice are doing service at the site. We are in direct contact with them regarding any BCPE strikes. During the last seasons no strikes were reported by them.

4.b. Assess potential for deploying Bird Diverters on communication tower guy wires by engaging government officials and tower managers. Goal is to secure permission to be able to deploy diverters later in 2021.  
and

4.c. Evaluate options for reducing lights at communication towers, including deploying light shields, and turning some lights off.

We were able to interest Rosanna Guzman in visiting the site. Ms. Guzman is a biologist at the department of Biodiversity of the Ministry of Environment. In October we finally could coordinate a visit to Loma del Toro to evaluate the communication tower issue. The results are the following:

Rosanna Guzman has introduced the subject to the head of the Biodiversity department of the Ministry of Environment, José Mateo.

Ernst Rupp is invited by the Ministry to give a presentation in January 2022 on all aspects of the communication towers regarding BCPE, including guy wires, lighting, noise. Possible solutions and actions to the problems will be discussed and put on the road with the consent of the Ministry.

4.d. Coordinate activities related to communication tower collisions with the Black-capped Petrel working group (either Adam Brown, Brad Keitt or Yvan Satge), including data collection, bird diverter deployment and addressing lighting

Activities have been coordinated during the BCPE working group meetings

**5. Additional Comments. Please provide any additional comments, ideas for future steps, future funding needs and unexpected outcomes, etc.**

For the 21/22 season we will make nests at Loma del Toro dog-safe. A strategy to control mongooses in Valle Nuevo will be developed.

## APPENDIX

### #1715L Grupo Jaragua - BCPE Conservation and monitoring 2020-2021

#### Camera trapping analysis: species interactions

Report prepared by Yvan Satgé for Grupo Jaragua.

Submitted on 15 December 2021.

Predator activity at nest sites was monitored by camera traps throughout the 2020-2021 breeding season. Predator species included rats, cats, mongoose, dogs and feral pigs. Predation events were recorded for mongooses and dogs only, at Valle Nuevo and Loma del Toro colonies, respectively. Despite their continuous presence, rats were not observed in activities that could suggest predation upon Black-capped Petrel.

#### 1) Methods:

We deployed camera traps at monitored nests at all three colonies (Valle Nuevo  $n = 10$ , Loma Quemada  $n = 7$ , Loma del Toro  $n = 18$ ). Cameras were positioned to face the entrance or suspected entrance of monitored and newly discovered petrel nests. Whenever possible, cameras were positioned at a distance of ca. 1 m from the entrance. Cameras were set up to record any movement detected by the infrared sensors, with 3 pictures taken per shot. Batteries and memory cards were replaced during monitoring visits. Following the invasion of the Loma del Toro colony by dogs and the subsequent fire, some cameras were removed or destroyed earlier in the season (mid-march) than is customary for this colony (mid-July).

Images were retrieved on a computer and stored in parallel by Ernst Rupp and Yvan Satgé. Yvan Satgé used the open-source software Camelot to analyze and annotate the images. Prior to annotation, images were processed by the cloud-based, machine-learning model MegaDetector, within the Camelot interface. MegaDetector suggests that each image belongs to one of three classes: empty images, images with humans, and images with animals. To avoid any false negative in the detection of animals (which can be caused by obscuring terrain, fog, rain, etc.), we used a confidence threshold of 0.5.

Following classification, Yvan Satgé visually identified all images classified as containing animals, and identified them to the species level whenever possible. Because it can be very difficult to judge size within the depth of a picture, and because an important proportion of pictures of rats were of low quality due to lighting or weather conditions, we did not identify Rats to the species. For Black-capped Petrels, life-stage (adult or juvenile) was added as an additional identification criterion. We used these identification data to calculate effort (number of elapsed nights), species presence (number of individual nights: nights when a species was observed at more than one location were counted as one night), and Petrel-predators interactions. All analyses were performed in R.

#### 2) Results:

##### Effort:

Camera trapping occurred between 01 November 2020 and 28 July 2021 (Table 1). At Loma del Toro, most trapping sessions ended around 13 March 2021, following dog predations; one trap was continued until 28 July 2021. Cameras recorded animals during a range of 4 – 153 nights per camera (mean: 60.2 nights per camera). Animals were recorded on 1,227 total nights in Loma del Toro, 389 total nights in Loma Quemada, and 434 total nights in Valle Nuevo.

#### Species presence:

Overall, the animal most often observed (in percentage of nights with animals) was the Rat group (*Rattus sp.*, 25.5% of individual nights), Black-capped Petrels (20.5 %), and La Selle Thrushes (*Turdus swalesi*, 15.3%)(Table 2). Endangered species such as the Hispaniola Hutia (*Plagiodontia aedium*) and the Hispaniolan Solenodon (*Solenodon paradoxus*) were also recorded (Appendix 1). Illustrative pictures of each species can be found in Appendix 1.

Observed predators of Black-capped Petrels included Rats (n = 253 individual nights), Javan Mongoose (*Herpestes javanicus*, n = 30), Domestic Dog (*Canis familiaris*, n = 27), Feral Cat (*Felis catus*, n = 18), and Feral Pig (*Sus scrofa*, n = 1). Rats were observed at all three colony sites, cats only at Loma Quemada and Loma del Toro, dogs only at Loma del Toro, and mongooses and wild pigs only in Valle Nuevo (Table 2). Rats did not show any level of seasonality and were commonly observed across the effort period (Figure 1), and particularly at night (Figure 2). Dogs were present twice, in early December and early March, and were mostly active during the day. Cats were recorded throughout the period and were active during the day. Mongooses were more active during the early chick rearing period, and during the day. One pig was observed, during the day; it did not interact with the petrel burrow facing the camera.

Adult Black-capped Petrels were observed on a total of 180 individual nights and juveniles were observed on 47 individual nights. Petrels were nocturnal, with the majority of observations occurring between 18h00 and 6h00 (Figure 3). Observations during daylight hours were mostly due to errors in the time settings of camera traps. Juveniles in fledging activities (stretching and flapping wings outside burrow, walking around) were observed at 5 nests only (Table 3).

#### Species interactions:

During the 2020-2021 breeding season, petrels were heavily impacted by dogs and mongoose (Figures 1 and 4). A minimum of 9 dogs appeared at the Loma del Toro colony in late November 2020. By early March 2021, they were observed depredating a minimum of 7 adult petrels (Figure 4 and Picture 1) and a minimum of 1 egg. Mongooses were observed depredating 3 juvenile petrels (downy chicks)(Picture 2). Although rats were often observed going in and out of burrows, we did not observe predatory behavior. Cats were also observed throughout the survey period but we did not observe predatory behavior. On one occasion in December 2020, we observed one cat entering an empty burrow.

### 3) Recommendations

Despite the apparent presence of photographed petrels, several pictures were not usable because they were overexposed. In future camera trapping efforts, care should be taken to point cameras at an angle that will prevent overexposure in pictures. Moreover, once cameras are in place, it is preferable to keep them deployed for the entirety of the season: if a major event occurs, such as the dog invasion, camera traps that are left in place can provide valuable information on petrel activity (and the activity of other species) after the event. Finally, the sensitivity of the camera's infrared detector should be set to the best available setting, so that fast moving petrels are recorded but unwanted empty pictures are not taken on bright days.

Table 1. Summary of camera trapping effort during the 2020-2021 breeding season.

Colony	Number of Cameras	Nights Elapsed	Number of Species	Mean start	Earliest start	Latest start	Mean end	Earliest end	Latest end
Loma del Toro	18	4635	14	2020-11-27	2020-11-13	2021-03-15	2021-03-18	2021-01-05	2021-07-28
Loma Quemada	7	1700	9	2021-01-20	2020-11-16	2021-05-11	2021-05-08	2020-12-19	2021-07-28
Valle Nuevo	10	2690	11	2020-12-24	2020-11-01	2021-04-23	2021-03-25	2020-12-17	2021-07-11

Table 2. Summary of animal species observed at camera traps during the 2020-2021 breeding season. Abundance indices by colony sites relate to the number of independent observations of a species made during the total number of elapsed nights for that site. Abundance indices cannot be compared across sites.

Genus	Species	English name	Total number of nights	Frequency	Abundance index*		
					LT	LQ	VN
Rattus	sp.	Rat	253	0.25	21.69	14.82	16.05
Pterodroma	hasitata	Black-capped petrel	204	0.21	17.52	18.94	8.08
Turdus	swalesi	La Selle thrush	152	0.15	0.02	2.94	-
Calyptophilus	tertius	Western chat-tanager	81	0.08	2.04	0.29	0.51
Turdus	plumbeus	Red-legged thrush	47	0.05	13.95	-	-
Catharus	sp.	Catharus thrush	42	0.04	1.40	0.06	-
Zonotrichia	capensis	Rufous-collared sparrow	40	0.04	-	-	1.52
Herpestes	javanicus	Javan mongoose	30	0.03	-	-	1.79
Canis	familiaris	Domestic dog	27	0.03	4.33	-	-
Felis	catus	Feral cat	18	0.02	0.14	0.77	-
Plagiodontia	aedium	Hispaniolan hutia	11	0.01	0.05	-	0.41
Setophaga	pinus	Pine warbler	10	0.01	0.02	0.12	0.03
Geotrygon	leucometopia	White-fronted quail-dove	9	0.01	-	0.59	-
Microligea	palustris	Green-tailed warbler	6	0.01	0.12	-	0.03
-	-	Unid. hummingbird	5	0.01	0.05	0.06	0.07
Loxigilla	violacea	Greater Antillean bullfinch	4	0.00	-	-	0.14
Myadestes	genibarbis	Rufous-throated solitaire	4	0.00	0.12	-	-
Setophaga	caerulescens	Black-throated blue warbler	4	0.00	0.05	0.06	0.24
Melanerpes	striatus	Hispaniolan woodpecker	2	0.00	0.05	-	0.03
Todus	angustirostris	Narrow-billed todody	2	0.00	0.05	-	-
Geotrygon	montana	Ruddy quail-dove	1	0.00	0.02	-	-
Phaenicophilus	palmarum	Black-crowned tanager	1	0.00	-	-	0.03
Solenodon	paradoxus	Hispaniola solenodon	1	0.00	-	0.06	-
Sus	scrofa	Feral pig	1	0.00	-	-	0.03

\* LT = Loma del Toro, LQ = Loma Quemada, VN = Valle Nuevo.



Table 3. Summary of chick activity recorded by camera traps during the 2020-2021 breeding season. Dates of first and last appearance correspond to dates when chicks were first and last photographed by camera traps.

Colony	Nest	Chick observed?	First appearance	Last appearance	Notes
LQ	<b>PMR1</b>	Y	<b>2021-06-28</b>	<b>2021-07-03</b>	
LQ	PMR2	N			
LQ	PMR4	N			
LQ	<b>PMR5</b>	Y	<b>2021-06-09</b>	<b>2021-06-22</b>	
LQ	<b>PMR6</b>	Y	<b>2021-06-05</b>	<b>2021-06-08</b>	Falls down rocky cliff
LQ	PMR7	N			
LT	EST1	N			Dog disturbance
LT	EST2	N			Dog disturbance
LT	JIM1	N			
LT	JPG1	N			Dog disturbance
LT	JPG2	N			Dog disturbance
LT	TRO1	N			Dog disturbance
LT	TRO2	N			
LT	TRO3	N			Dog disturbance
LT	TRO6	N			Dog disturbance
LT	TRO8	N			
LT	TRO15	N			Dog disturbance
LT	TTRO1	N			Dog disturbance
LT	TTRO2	N			Dog disturbance
LT	TTRO4	N			Dog disturbance
LT	TTRO5	N			Dog disturbance
LT	TTRO6	N			
LT	TTRO8	N			Dog disturbance
VN	VN1	N			
VN	VN2	N			
VN	<b>VN4</b>	Y	<b>2021-05-10</b>	<b>2021-05-23</b>	
VN	VN5	N			Depredated by mongoose on 2021-03-08
VN	VN7	N			
VN	VN8	N			
VN	<b>VN9</b>	Y	<b>2021-04-19</b>	<b>2021-04-28</b>	
VN	VN11	N			Depredated by mongoose on 2021-04-22
VN	VN14	N			
VN	VN15	N			Depredated by mongoose on 2021-03-18
VN	VN18	N			

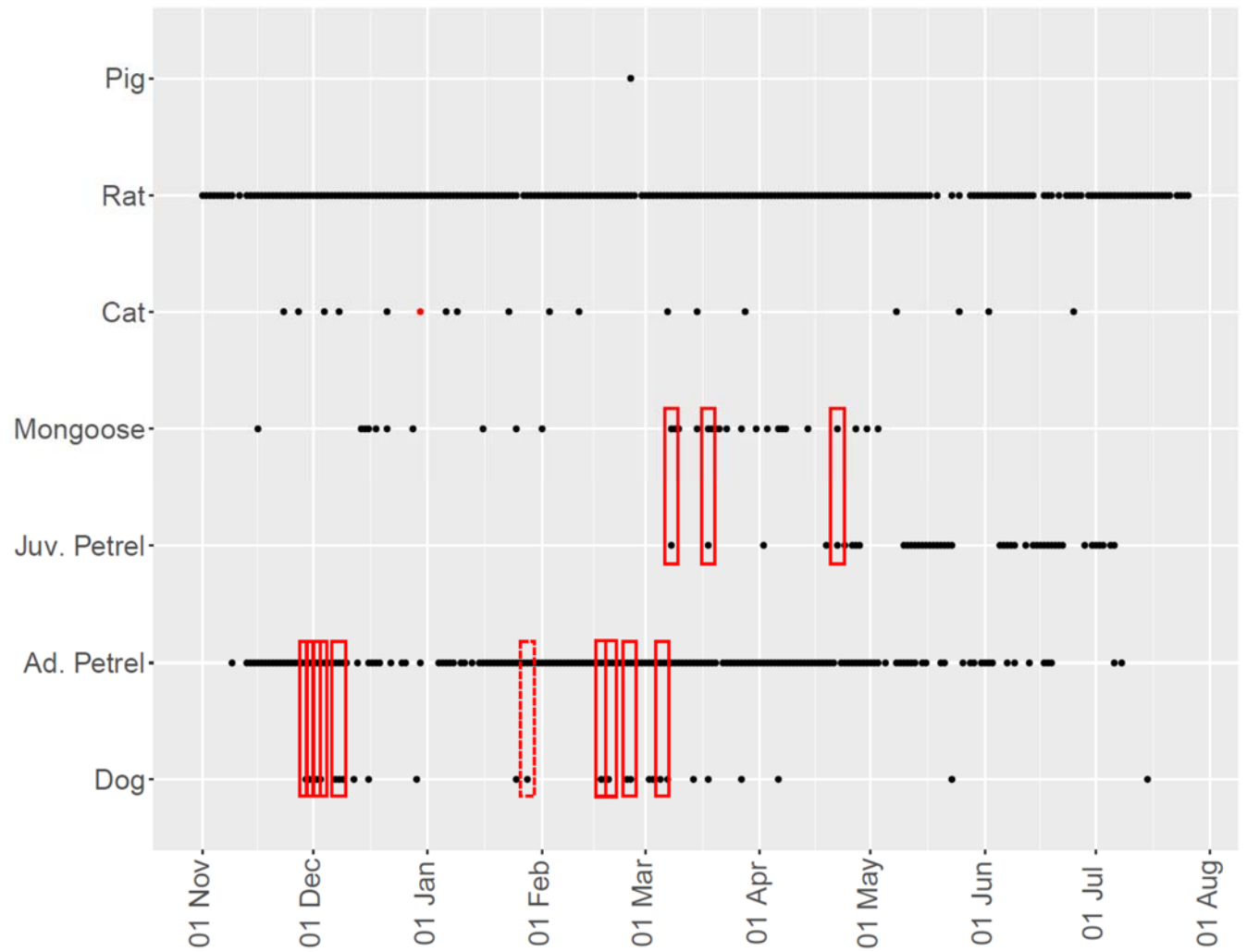


Figure 1. Occurrence of Black-capped Petrels and predator species throughout the 2020-2021 breeding period, all sites combined. Each point represents a day when a species was recorded. Red dots visualize dates when cats or mongooses entered a petrel burrow. Red boxes visualize dates when predators killed individuals of the associated petrel age class. For adult petrels and dogs, the box with a dotted line shows an event when the death of a petrel is suspected but not confirmed.

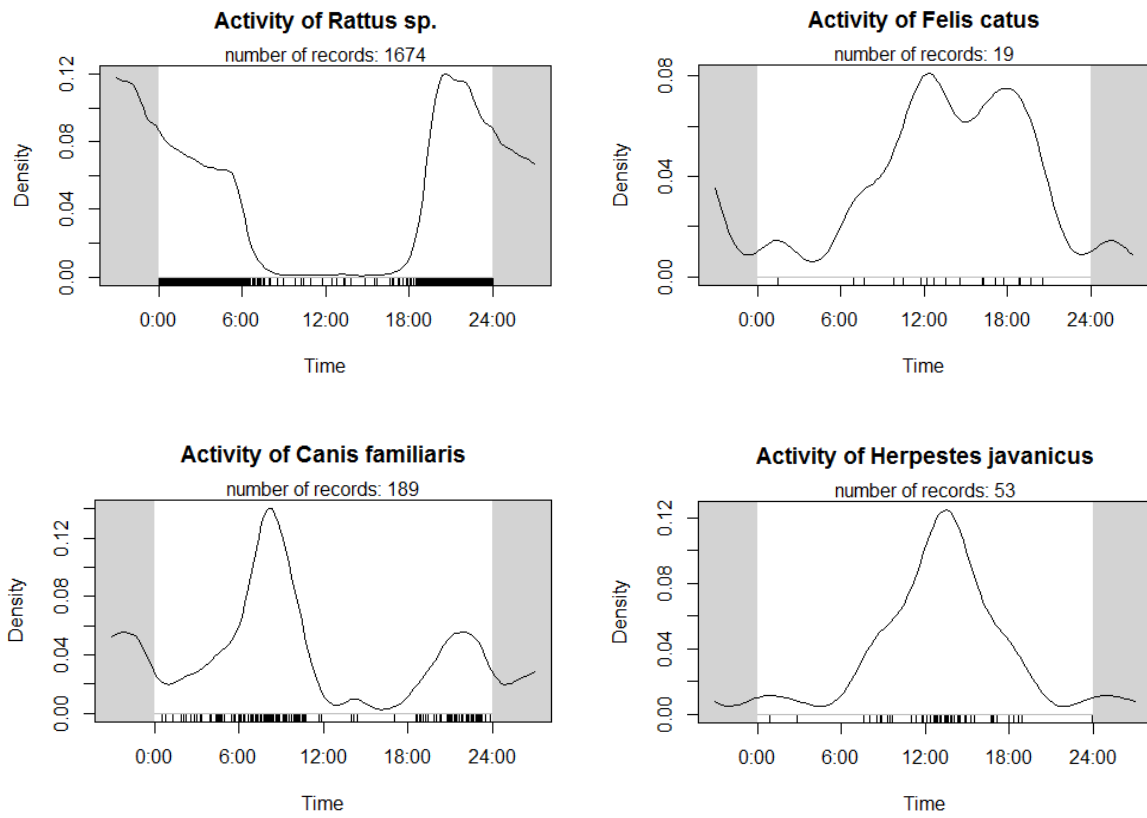


Figure 2. Diel activity of Black-capped Petrel predators observed during the 2020-2021 breeding season, all sites combined. Activity is inferred by the density of records for a species at a given time of the day.

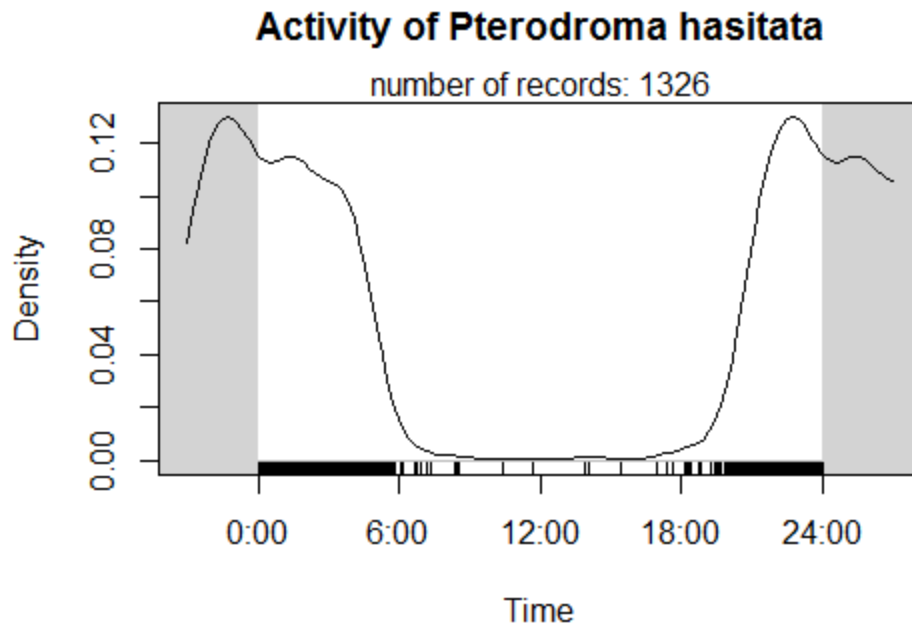


Figure 3. Diel activity of Black-capped Petrels during the 2020-2021 breeding season, all sites combined. Activity is inferred by the density of records at a given time of the day.

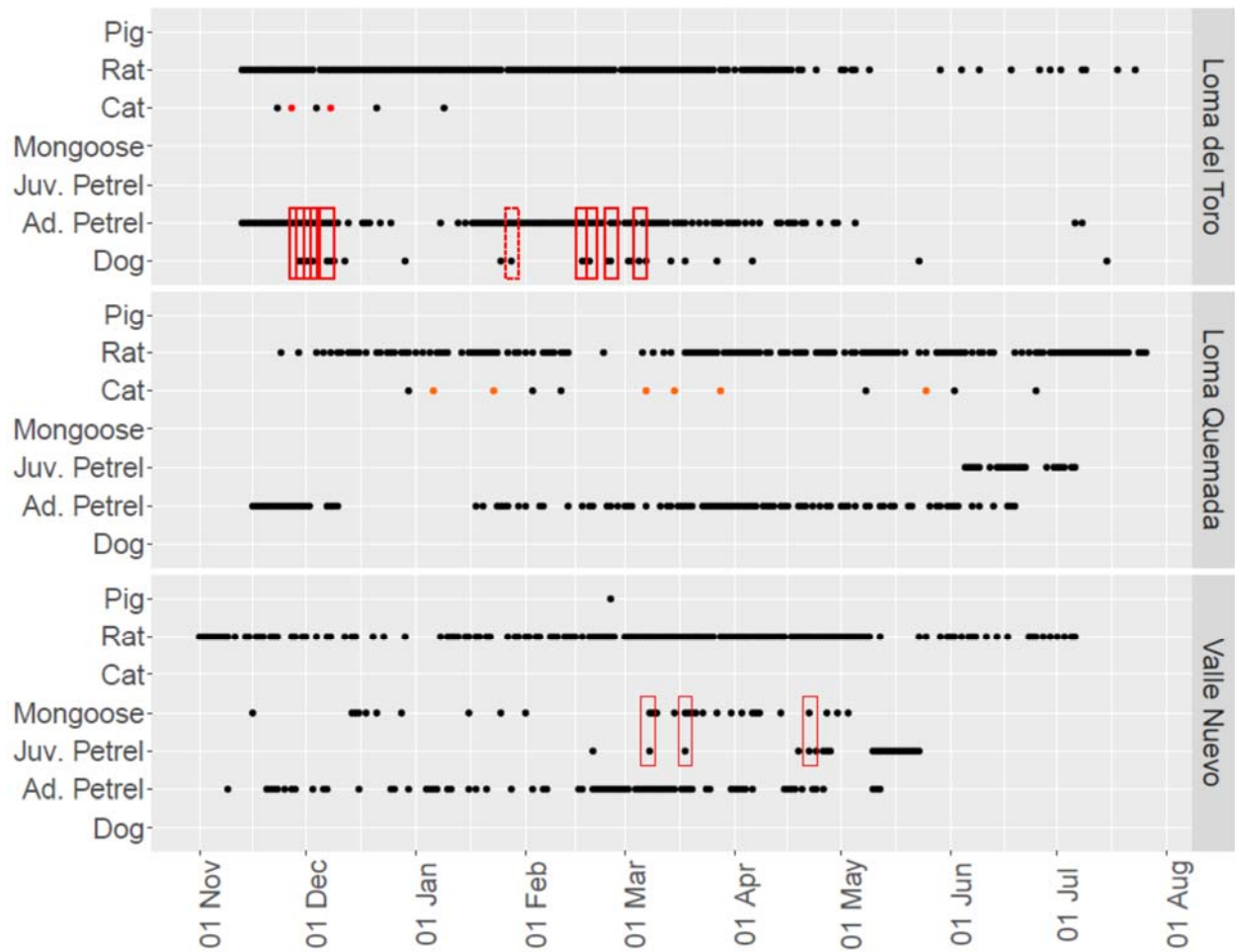


Figure 4. Occurrence of Black-capped Petrels and predator species at colony sites throughout the 2020-2021 breeding period. Each point represents a day when a species was recorded. For cats, at each site, different point colors represent different individuals. Red boxes visualize dates when predators killed individuals of the associated petrel age class. For adult petrels and dogs, the box with a dotted line shows an event when the death of a petrel is suspected but not confirmed.



Picture 1. Domestic Dog with adult Black-capped Petrel in its mouth. Picture taken at the Loma del Toro nest site TTRO2 on 07 December 2020.



Picture 2. Javan Mongoose with juvenile Black-capped Petrel in its mouth. Picture taken at Valle Nuevo nest site VN11 on 22 April 2021.

APPENDIX 1: ANIMAL SPECIES IDENTIFIED DURING THE 2020-2021 BREEDING SEASON

*Catharus sp.*, Catharus thrush – 16 November 2020, Loma del Toro



*Calyptophilus tertius*, Western chat-tanager – 24 March 2021, Loma del Toro





*Canis familiaris*, Domestic dog – 17 February 2021, Loma del Toro

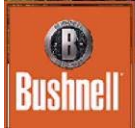


  TROPHY CAM 52°F 11°C  02-17-2021 10:29:52

*Felis catus*, Feral cat – 15 Mach 2021, Loma Quemada



*Geotrygon leucometopia*, White-fronted quail-dove – 8 May 2021, Loma Quemada

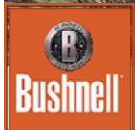


TROPHY CAM

53°F 11°C ●

05-08-2021 18:10:41

*Geotrygon montana*, Ruddy quail-dove – 18 January 2018, Loma del Toro

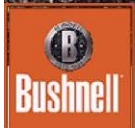


TROPHY CAM

53°F 11°C

01-18-2021 14:56:22

*Herpestes javanicus*, Javan mongoose – 19 March 2021, Valle Nuevo

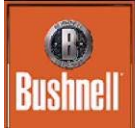


TROPHY CAM

58°F 14°C

03-19-2021 14:22:13

*Loxigilla violacea*, Greater Antillean bullfinch – 20 March 2021, Valle Nuevo



TROPHY CAM

42°F 5°C

03-20-2021 09:06:07

*Melanerpes striatus*, Hispaniolan woodpecker – 30 January 2021, Loma del Toro



*Microligea palustris*, Green-tailed warbler – 29 January 2021, Loma del Toro

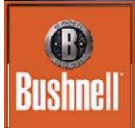




*Myadestes genibarbis*, Rufous-throated solitaire – 2 March 2021, Loma del Toro



*Phaenicophilus palmarum*, Black-crowned tanager – 3 April 2021, Valle Nuevo

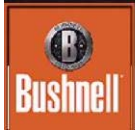


TROPHY CAM

54°F 12°C

04-03-2021 15:33:52

*Plagiodontia aedium*, Hispaniolan hutia – 9 January 2021, Valle Nuevo



TROPHY CAM

49°F 9°C

01-09-2021 23:50:36

*Pterodroma hasitata*, Black-capped petrel – 28 November 2020, Loma del Toro

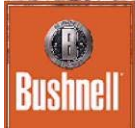


*Rattus sp.*, Rat – 30 November 2020, Loma del Toro

*Setophaga caerulescens*, Black-throated blue warbler – 27 November 2020, Loma Quemada



*Setophaga pinus*, Pine warbler – 22 January 2021, Valle Nuevo



TROPHY CAM

49°F 9°C

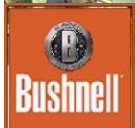
01-22-2021 08:26:44

*Solenodon paradoxus*, Hispaniola solenodon – 8 January 2021, Loma Quemada





*Sus scrofa*, Feral pig – 25 February 2021, Valle Nuevo



TROPHY CAM

49°F 9°C

02-25-2021

10:36:06

*Todus angustirostris*, Narrow-billed todody – 5 December 2020, Loma del Toro



**DUDMON**

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55F 13C



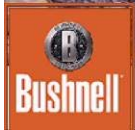
05-12-2020 14:10:16

*Turdus plumbeus*, Red-legged thrush – 17 November 2020, Loma Quemada



  TROPHY CAM    50°F 10°C ●    11-17-2020    10:01:07

*Turdus swalesi*, La Selle Thrush – 11 January 2021, Loma del Toro

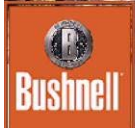


TROPHY CAM

51°F 10°C ●

01-11-2021 14:27:11

*Zonotrichia capensis*, Rufous-collared sparrow – 15 March 2021, Valle Nuevo



TROPHY CAM

35°F 1°C ●

03-15-2021 09:17:33