



Project #1953Z

Predator control and monitoring activities 2019-2020 to reverse the decline of the endangered Black-capped Petrel in Sierra de Bahoruco, Dominican Republic

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Activities:

The following field trips were made during the 2019/20 BCPE nesting season:

The Dominican team with 5 members to...

Loma de Toro and Loma Quemada:

November 9 to 14, 2019

January 26 to February 1, 2020

May 18 to 25, 2020

August 3 to 9, 2020

and Valle Nuevo:

November 1 to November 5, 2019

February 26 to March 1, 2020

July 7 to July 10, 2020 (trip had to be abandoned because of a suspected infection of one team member by covid19).

The Haitian team with 5 members to...

Morne Vincent

May 18 to 24, 2020

June 15 to 21, 2020

July 13 to 19, 2020

Due to restrictions of movement within the Dominican Republic because of covid19, no trips could be made either to Valle Nuevo nor to Loma del Toro/Loma Quemada during the crucial times when adults were active incubating the eggs (February to March 2020) or during the time of hatching of the chicks (April).

Camera traps were installed at a total of 28 nests: 17 at Loma del Toro, 3 at Loma Quemada and 8 at Valle Nuevo. Song meters were not deployed this year.

Objectives:

Objective 1. Systematic predator control at key periods in Black-capped phenology

i. Trap for feral cats and Indian mongoose, Loma del Toro & Valle Nuevo.

The team was able to do two trapping sessions, one in Loma del Toro and the second one in Valle Nuevo. Four Tomahawk life traps (30"x10"x12") were placed at each site. Table 1 and 2 show the results. At both sites during four days of trapping only one rat was caught. No cats or mongooses were trapped. Due to covid19 restrictions the trapping was discontinued during the rest of the season.

Table 1: Trapping for cats and mongoose at Loma del Toro

trampa = trap; ubicación = location; nada = empty; carnada = bait; comida = eaten; disparada = sprung

trampa	ubicación	altitud snm	28.01.20	29.01.20	30.01.20	31.01.20
1	19Q0214762E, 2023218N	2244 m	nada	nada	nada	nada
2	19Q0214755E, 2923191N	2207 m	nada	carnada comida	nada	nada
3	19Q0214766E, 2023194N	2216 m	nada	carnada comida, trampa disparada	nada	trampa disparada
4	19Q0214761E, 2023169N	2228 m	excrementos rata, carnada comida	ratón grande	nada	trampa disparada
carnada			salami	salami	salami	salami

Table 2: Trapping for cats and mongoose in Valle Nuevo

trampa = trap; E= latitude; N=longitude; puesta = set; abierto = open, nada = empty; carnada = bait; comida = eaten; arruida = spoiled; parte= part; sin disparar = not triggered; base en suelo = mechanism on the ground; mondongo cocido = cooked innards

trampa	E	N	altura snm (m)	26.02.20	27,02,20	28.02.20	29.02.20	01.03.20
b11	331645	2061661	2014	trampa puesta	abierto	carnada comida sin disparar	carnada comida sin disparar	carnada comida
b3	331645	2061649	2015	trampa puesta	abierto	parte carnada comida sin disparar	carnada comida sin disparar	carnada arruida
b14	331658	2061639	2015	trampa puesta	se disparó sin éxito	base en suelo sin disparar	caranda intacta sin disparar	abierto
b13	331658	2061638	2020	trampa puesta	abierto	base en suelo sin disparar	ratón grande	abierto
carnada				mondongo cocido	mondongo cocido	mondongo cocido	mondongo cocido	mondongo cocido

ii. Trap for rats (*Rattus sp.*); Loma del Toro.

This activity was not executed due to covid19 restrictions.

iii. Record effects of trapping on predators; Loma del Toro, Loma Quemada, Valle Nuevo, La Visite

No effects were evident from the short duration and low success of trapping.

iv. Quantify the effects of predator control on mammalian predators; Loma del Toro, Loma Quemada, Valle Nuevo, La Visite.

Table 3 and 4 show the results of camera trapping regarding predator detection and activities:

- Rats appeared at ~~each~~ every camera-monitored nest at both sites.
- No mongooses were detected at Loma del Toro and Loma Quemada. In Valle Nuevo, no cats were seen on photos.
- The presence of cats at the nests at Loma del Toro and Loma Quemada did not seem to affect fledging success of the nests monitored with cameras (see Table 3). Cats seem to pass only occasionally without directing their interest much to the nests.
- Mongooses in Valle Nuevo were captured by cameras at four nests, which means at half of the nests which had camera surveillance (Table 4). Presence of mongooses seems to concentrate during the months of April to May, which are the months with small chicks present in the nests. The mongoose do enter the nests. None of the nests surveyed (by camera trap or direct observation) had chicks reach the fledging age successfully.
- In addition to possible predators, other non-predator species of mammals were detected. At Loma del Toro and in Valle Nuevo, jutias (*Plagiodontia aedium*) are consistently present at nesting sites. At one nest at the TTRO site at Loma del Toro, one jutia was even entering the petrel nest on several occasions. It seems as if it was trying to use the crevice as a home for itself.
- Solenodons (*Solenodon paradoxus*) is present at Loma del Toro while it seems to be absent in Valle Nuevo.
- At Loma del Toro as well as in Valle Nuevo human presence was also captured by cameras. We assume that at Loma del Toro the men seen on the photos were “monteros” (hunters of wild pigs). In Valle Nuevo we are not sure with what intentions the person seen on the photos passed through this steep area.
- At both sites no damage was done to the cameras by the personas passing, although it seems that they did notice the presence of the cameras. In 2019 two cameras in Valle Nuevo disappeared from their location most likely due to theft.

Table 3: Predators and other species recorded on camera at nests at Loma del Toro and Loma Quemada

Lugar y nido = site and nest number; hurón = mongoose; raton = rate; gato tigre/negro = cat tiger-striped/black; humano = human; otra = other; Arriba = upper, abajo = lower; abandonado = abandoned; volado = fledged; presente = present

lugar y nido		otras especies					
nido	resultado nido	jutia	hurón	raton	gato	humano	otra
LOTO arriba							
TRO 1	abandonado		-	presente			
TRO 2	volado		-	presente			
TRO 3	dudoso		-	presente			Solenodonte 2/1/20 (5:41)
TRO 6	volado		-	presente			
TRO 15	volado		-	presente			
TRO 16	volado		-	presente			
TRO 18	volado		-	presente			
JGPV1	dudoso	1/16/ 20 (0:22) – 4/21/20 (00:21)	-	presente			
JGPV2	volado		-	presente			
LOTO abajo							
TTRO_2	volado		-	presente	Tigre 6/24/20 (6:21) negro 7/30/20 (11:06)	11/24/19 (20:03) 1/04/20 (19:37)	
TTRO_4	volado		-	presente	Negro 7/4/20 (23:21)	5/30/20 (12:10)	
TTRO_5	volado	6/13 (2:35) y 6/29 (2:21)	-	presente			
TTRO_6	abandonado	2/20 – 2/23 entrando madriguera	-	presente			
TTRO_7	volado		-	presente			
TTRO_8	abandonado	presente	-	presente			
EST_1	volado		-	presente	Tigre 08.02.2020 00:52:00		
EST_2	abandonado		-	presente			
Loma Quemada							
PRM1	volado		-	presente	Tigre 5/28/20 (20:03)		

Table 4: Predators and other species recorded on camera at nests in Valle Nuevo

nido = nest number; resultado = result; hurón = mongoose; raton = rate; gato = cat; humano = human; otros = others; falló = failed; no visto = not seen; presente = present

nid	resultado	otras especies					
		jutia	hurón	ratones	gatos	humanos	otros
1	nido falló	Pareja 11/14/19 -07/06/20	12/03/19 – 04/07/20	presentes	no visto	no visto	
2	nido falló	no visto	04/14/20 – 05/07/20	presentes	no visto	no visto	
3	nido falló	no visto	no visto	presentes	no visto	no visto	
4	nido falló	Presente 12/19/19	no visto	presentes	no visto	03/18/20	
5	nido falló	no visto	04/14/20 – 05/07/20	presentes	no visto	no visto	
8	nido falló	Presente 04/10/20	04/07/20 – 06/26/20	presentes	no visto	no visto	
9	nido falló						
10	nido falló	presente	no visto	presentes	no visto	no visto	

Objective 2: Assessment of effects of predator control on Black-capped Petrel nesting

iv. Assess Black-capped Petrel activity; Loma del Toro, Loma Quemada, Valle Nuevo, La Visite.

We were able to capture data on the activity of birds at their nests at Loma del Toro (see Table 5). First arrival of an adult bird at the nest concentrates around mid-November. Adult birds last seen at the nest is centered on mid-June. Chicks appear outside their nest for the first time the last week of June and first week of July. Duration of wing practicing outside the nest lasted an average of 12.9 days with a range from 7 to 17 days. Most of the fledglings left their nests to begin their flight to the sea early at night (between 8 and 9 o'clock) according to the photos when they were last seen in front of the nest.

Table 5: Activities of birds at nests

location		adults at nest		Chick outside nest			
site	nest	first seen	last seen	first seen	last seen	duration (days)	time last seen
LOTO arriba	TRO 2	-	6/15	6/21	7/01	11	04:08
	TRO 6	11/16	6/06	6/14	6/27	14	23:12
	TRO 15	-	6/11	6/13	6/26	14	20:16
	TRO 18	-	6/16	6/25	7/01	7	20:57
	JGPV 2	11/16	6/09	6/10	6/26	17	20:31
LOTO abajo	TTRO 2	11/16	6/14	-	-	-	-
	TTRO 4	11/15	6/21	6/19	7/01	13	21:47
	TTRO 5	-	6/26	6/27	7/06	10	20:53
	TTRO 6	11/19	-	-	-	-	-
	TTRO 7	-	6/18	6/26	7/08	13	20:01
	TTRO 8	11/21	-	-	-	-	-
	EST 1	11/14	5/15	6/15	7/01	17	19:58
	EST 2	11/10	-	-	-	-	-

v. Assess Black-capped Petrel reproductive success; Loma del Toro, Loma Quemada, Valle Nuevo, La Visite.

Due to the covid19 restrictions it was not possible to visually inspect nests during the brooding periods (February and March) at Loma del Toro and Morne Vincent. Therefore, reproductive success based on active nests (ascertained by adult activity) could not be defined for Morne Vincent, Loma de Toro or Loma Quemada.

The Haitian team reported a total of 13 successful nests at Morne Vincent, 10 of which were already known from monitoring the years before, while three additional ones were encountered for the first time in 2020.

Table 6: Fledging activities recorded at Morne Vincent

nido = nest number; revisión nidos = nest surveys; resultado = result; pichón con plumón/plumas = chick with down/feathers; abandonado = abandoned, volado = fledged; no revisado = not surveyed; fuerte/poco olor = strong/weak odor; excremento = feces, destruido por agua = destroyed by water/flooded; cascara = eggshell; huevo = egg; lechuza = owl

Morne Vincent	revisión nidos			
	nido	21/22.5.20	16.06.20	18.07.20
COLH 01	pichón con plumón	pichón con plumas	plumones	volado
COLH 02	pichón con plumón	pichón con plumas	plumones	volado
COLH 03	pichón con plumón	pichón con plumas	plumones	volado
COLH 04	no revisado	pichón con plumas	plumones	volado
COLH 05	nido abandonado	nido abandonado	abandonado	abandonado
COLH 06	no revisado	nido abandonado	abandonado	abandonado
COLH 07	no revisado	fuerte olor	plumones	volado
COLH 08	pichón con plumón	pichón con plumas	plumones	volado
COLH 09	olor, plumas	poco olor	plumones	volado
COLH 10	no presencia pichón	pichón con plumas	plumones	volado
COLH 11	no revisado	nido abandonado	abandonado	abandonado
COLH 12	activo, cascarrón del ano pasado	olor	plumones	volado
COLH 13	pichón con plumón	olor	no plumones, solo una pluma grande	abandonado
COLH 14	olor, plumas excrementos	pichón con plumas	plumones	volado
COLH 15	olor, plumas excrementos	olor	no plumones, hilo araña	abandonado
COLH 16	no revisado	destruido por agua	destruido por agua	abandonado
COLH 17	no revisado	no revisado	no revisado	no revisado
COLH nuevo 1	pichón con plumón	abandonado	no revisado	no revisado
COLH nuevo 2	fuerte olor	no revisado	no revisado	no revisado
SB-01	pichón con plumón	pichón con plumas	plumones	volado
SB-02	pichón con plumón	pichón con plumas	plumones	volado
SB-03	pichón con plumón	olor	plumones	volado
SB-04	cadaver, plumas, huevo	abandonado	abandonado	abandonado
cueva	abandonado (lechuza?)	abandonado	abandonado	abandonado

At Loma del Toro, the Dominican team reported 14 nests where chicks had fledged successfully. Table 7 gives details. At Loma Quemada two nests had clear signs of successful fledging.

Table 7: Fledging success at Loma del Toro and Loma Quemada

nido = nest number; revisión nidos = nest surveys; resultado = result; no presencia pichón = no chick present; abandonado = abandoned; pichón con plumón/plumas = chick with down/feathers; volado = fledged; no visto = not seen; dudoso = unknown; verificado/verificar = verified/to verify; palito = matchstick; olor = odor; water/flooded; cascara = eggshell; huevo afuera = egg outside; cañones = pinfeathers

nido	revisión nidos		
	21/22.5.20	05.08.20	resultado
LOTO arriba			
NV1	no presencia pichón	abandonado	abandonado
NV 2	no presencia pichón	abandonado	abandonado
TRO 1	no presencia pichón, última foto 26.2	abandonado	abandonado
TRO 2	pichón con plumón	plumones	volado
TRO 3	pichón no visto, pero camara actividad 17.5	no visto	dudoso
TRO 4	abandonado	abandonado	abandonado
TRO 5	pichón con plumón	plumones	volado
TRO 6	pichón con plumón	plumones	volado
TRO 7	abandonado	abandonado	abandonado
TRO 8	no presencia pichón	abandonado	abandonado
TRO 9	no presencia pichón	abandonado	abandonado
TRO 10	abandonado	abandonado	abandonado
TRO 11	abandonado	abandonado	abandonado
TRO 12	pichón presente, verificado con palito	plumones	volado
TRO 13	no presencia pichón	abandonado	abandonado
TRO 14	pichón con plumón	muchos plumones	volado
TRO 15	pichón con plumón	plumones	volado
TRO 16	pichón con plumón	plumones	volado
TRO 17	huevo afuera	abandonado	abandonado
TRO 18	pichón con plumón	plumones	volado
JGPV1	ultima foto 15.5, pero no olor	no revisado	dudoso
JGPV2	pichón con plumón y cañones	plumones	volado
LOTO abajo			
TTRO_1	no presencia pichón	abandonado	abandonado
TTRO_2	pichón con plumón y cañones	muchos plumones	volado
TTRO_3	no presencia pichón	abandonado	abandonado
TTRO_4	pichón con plumón y cañones	muchos plumones	volado
TTRO_5	pichón con plumón y cañones	plumones	volado
TTRO_6	pichón no encontrado, ultima foto 16.5	abandonado	abandonado
TTRO_7	pichón con plumón y cañones	muchos plumones	volado
TTRO_8	pichón no visto, fecha erronea de cámara pero	abandonado	abandonado
TTRO_9	no presencia pichón	abandonado	abandonado
EST_1	pichón con plumón	algo de plumón	volado
EST_2	cascara huevo fuera del nido	abandonado	abandonado
GJ_1	no revisado	no revisado	no revisado
Loma Quemada			
PRM1	pichón con plumón y cañones	plumones	volado
PRM2	tela de araña en entrada, no olor	poco plumón adentro	dudoso
PRM3	no se pudo verificar	poco plumón adentro	dudoso
PRM4	no presencia sentida	poco plumón adentro	dudoso
PRM5	tela de araña en entrada, no olor	poco plumón adentro	dudoso
PRM6	pichón con plumón y cañones	muchos plumones	volado
PRM7	no se pudo verificar	no plumones	abandonado

In Valle Nuevo no nest showed clear signs of successful fledging. The camera data did not reveal any surviving chicks.

Table 8: Fledging success in Valle Nuevo

nido = nest number; fecha nido econtrado = year nest discovered; presencia diablotin adulto/pichón = presence of petrel adult/chick; revision nido = nest survey; resultado = result; primera/ultima foto = first and last camera image; no visto = not seen; parece active = appears active; entrada con basura y tela de araña = entrance with debris and spiderweb; nido falló = failed nest; presencia de plumón/ningún plumón = presence of shed down/no down; no revisado = not surveyed; olor = odor; demasiada luz = too much light; cámara puesta en segundo tunel = camera located in second entrance

nid ^o s	fecha nido encontrado	presencia diablotin adulto		Presencia diablotin pichón		revisión nido		resultado
		primera foto	ultima foto	primera foto	última foto	26/02/20	08/07/20	
1	2017	01/02/20 (00:05)	04/09/20 (21:55)	no visto	no visto	parece activa, fotos 108, 20.2.20 foto ave	Entrada con basura y tela de araña	nido falló
2	2019	11/13/19 (20:18)	05/10/20 (21:09)	no visto	no visto	activa, foto ave 14.11.19, 10014 fotos	presencia de plumón?	nido falló
3	2019	12/06/19 (22:37)	02/13/20 (03:20)	no visto	no visto	Activa, 218 fotos con demasiada luz	ningún plumón	nido falló
4	2019	12/18/19 (23:07)	03/13/20 (3:32)	no visto	no visto	Activa, 219 fotos, cámara puesta en segundo tunel	ningún plumón	nido falló
5	2020	no visto	no visto	no visto	no visto	olor	ningún plumón	nido falló
6	2020					olor	ningún plumón	nido falló
7	2020					olor	ningún plumón	nido falló
8	2020	03/10/20 (21:18)	03/26/20 (21:28)	no visto	no visto	olor	ningún plumón	nido falló
9	2020					olor	ningún plumón	nido falló
10	2020	no visto	no visto	no visto	no visto	olor	presencia de plumón?	nido falló
11	2020					olor	no revisado	no revisado
12	2020					en observación	no revisado	no revisado
13	2020					en observación	no revisado	no revisado

end

Photos:



Photo 1: Jutia trying to enter nest of diablota



TROPHY CAM

55°F 12°C ●

02-22-2020

21:18:26

Photo 2: Two petrels fighting in front of nest.



TROPHY CAM

60°F 15°C ●

06-24-2020

00:26:29

Photo 3: Chick practicing wings



 TROPHY CAM 50°F 10°C ● 06-24-2020 06:21:11

Photo 4: Cat at Loma del Toro



 TROPHY CAM 65°F 18°C ◐ 04-12-2020 14:51:23

Photo 5: Mongoose in Valle Nuevo