



Monitoring breeding Black-capped Petrels (*Pterodroma hasitata*) at Morne Vincent, Haiti and Loma del Toro, Dominican Republic

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ENVIRONMENTAL PROTECTION IN THE CARIBBEAN



Exploring and Conserving Nature



Black-capped Petrel



- Historically abundant in Greater & Lesser Antilles
- Extirpated from Lesser Antilles in 1800's.
- Nesting known now only on Hispaniola.
- Population estimate: ~ 1,000-2000 breeding pairs.
- **IUCN Redlist status: endangered**
- Urgent need for study of distribution & basic breeding ecology



Project Goals

- Locating, mapping and monitoring nests and nesting success on Lomo del Toro, Dominican Republic and Morne Vincent, Haiti
- Searching for additional nesting sites in the Sierra de Bahoruco
- Conducting on-the-ground surveys in the Cordillera Central in areas indicated by radar as possible nesting sites
- Identification and documentation of possible predators and predation levels
- Evaluation of petrel behavior near cell phone towers at Loma del Toro





Methods

- Nest search and monitoring by direct observation, borrow scopes and infrared cameras.
- Identification and documentation of possible predators by direct observation and camera traps



Characteristics of nesting sites:

All sites on northern ridge of Sierra de Bahoruco within an 8km stretch



Open pine forest (old wide spaced stands) with broadleaf undergrowth, little or no ground vegetation

Nests in small clusters of up to 10 nests (between 1800 and 2300 m asl)

Ground: rocky limestone outcrop with (deep) cracks and covered with thick pine needle layer

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eXploris



Characteristics of Nests

Nests can be more than 2 m deep within crevices of limestone rock

In pine tuff, nests are not very deep (approximately .5 to 1 m)

Nest layered with dry pine needles and fern leaves

Nesting success

year	Active nests	Successful	Nest	Percentage of
	encountered	nests	failure	success
2011	3	1	2	33.33
2012	30	23	7	76.67
2013	43	30*	13	69.77

Nesting failures

year	Nest failure	Percentage of Failure	Possible causes
2011	2	66.67	Flooding of ravine 2
2012	7	23.33	Chicks disappeared 2
			Adult present, no egg
			no chick seen 2
2013	13	30.23	Eggs abandoned 5
			no chick seen 5
			Predation confirmed 1
			Human predation 1
			Chick decomposed 1

Nest Predation

2011: no predation registered

2012: predation of min. 2 nests(chicks dissappeared) and max.4 nests (chicks never seen)calculated with causes unknown

2013: predation of min. 2 nests and max. 7 nests calculated:

- 1 predation with unknown predator
- 1 human predation most likely
- Photos of rats taken at high rate by camera traps, but no direct attack or predation recorded



Trip to Cordillera Central in 2013

Started at location where radar indicated movement of petrels in January:

During our one day of searching, no nests were located. Habitat found was very different thn the Bahoruco sites. Notably, no limestone geology with deep cracks or pine needle layer. Mostly dense fern secondary growth

One bone found in small cave which may be from a petrel





Communication towers at Loma del Toro

Presently four antennas

Two without guy wires and two with a total of 30 guy wires



Known losses at communication towers at Loma del Toro

- A total of four birds found during last two years
- Three birds with flesh wounds; one fledgling with wing injured and one apparently not physically harmed
- Work with thermal camera revealed birds flying by the antennas but no direct hit was recorded



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