

Interim Report on Black-capped Petrel Activities

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1. Locate, map and monitor nests and nesting success on Loma del Toro, using infrared camera, direct observation, and a burrow probe.

We have continued monitoring nests and nesting success on Loma de Toro with direct observation, the burrow probes and camera traps. The two new burrow probes are of very good quality. Actually the boys are very happy with the new gadgets, since they produce sharp, crisp images, while the old burrow scope only gave a somewhat blurred impression of the objects seen.

2 Reconyx and 2 Bushnell cameras (for video) are presently installed. The Reconyx continue to produce good material, the Bushnell to date have not produced any usable films. The flash seems to be too strong at a range below 3 to 4 meters and provokes an overexposure of the pictures. We are working on improving the performance of Bushnell.

As to May 16 the following data regarding nesting has been compiled:

Of the 30 nests monitored in 2012 29 were taken again by adults in 2013. 12 additional active nests were found up to date for a total of 41 active nests this year, 17 in Haiti and 24 in the Dominican Republic. Of the total of active nests 26 had chicks inside in different states of development from ones only with downs while others showed already the development of feathers on the wings.

9 nests did not have any chicks: For three nests we were not able to find a reason for the failure. One chick seems to have been devoured outside the nest by a predator, only rests were left. In another case in Haiti it is probable that human interference made the chick disappear, since the area surrounding the nest had been affected by human activity. In one nest the chick was found dead in a state of decomposition: the actual reason of death unknown. In two nests the eggs had been abandoned and were still present. In one peculiar case the adult was found in the nest but neither chick nor egg was present.

In 6 additional nest the case is still somewhat open if they will be successful. Some of them are so deep that even with the borrow scope it is hard to actually verify the presence of the chick. We hope to get them verified until the end of the season.

Collaborate with Environmental Protection in the Caribbean (EPIC) to use radar to track and quantify Black-capped petrels in flight and to locate new nesting sites in February-March 2013, assist the logistics and permitting of a month-long expedition in Loma del Toro, Cordillera central, and into Haiti, if it is possible to get permits.

Try to track the movements up drainages that lead to Loma del Toro and to Ocoa region of Cordillera Central

Activities and results of the radar tracking were described in the February 15 report

Continue evaluation of petrel behavior near cell phone towers with radar (i.e., from firewatch tower) and/or thermal imaging

The FLIR TS PRO thermal camera was installed and focused on the tallest antenna and its guy wires whenever weather conditions permitted the activity. The camera covered most of the critical area above the forest canopy (see figure 1). Fully charged batteries made a survey of up to three hours per night possible. With this time limit we tried to record videos from 7:30 pm onwards in order to detect flight movements during the major activity period of the Black-capped Petrel.

Presently we are analyzing the videos. On the recorded videos basically two types of objects can be identified:

- Big objects with long wings and very fast straight flight
- Small objects with short flapping wings and erratic, slower flight

The small objects can be clearly identified as bats. For the big objects a clear identification is difficult due to the incredible speed with which they cross the video frames. We assume that they are petrels due to the lack of alternatives. The only possible flying objects of similar size at night would be owls. Due to their hunting habits their flight speed would be much slower and the flight path more erratic; therefore they could be easily distinguished from petrels.



Figure 1: Photo of the high tower with guy wires taken with the thermal camera

2. As indicated by results of radar surveys, conduct on-the-ground surveys in the Cordillera Central to determine habitat suitability and conduct nighttime aural and thermal-imaging surveys to detect presence of birds.

We had problems with the functioning of the truck: the brakes and the differential. The truck was sent to the shop end of May. Still the differential has an unpleasant sound, which the mechanics in the shop have not been able to rectify. The first week of June torrential rains impeded the passage to the upper Ocoa region. We are waiting for the road to dry up to finally begin with the revision of the potential nesting area that was indicated by the radar.

PS: We were finally able to make the trip last week: Lots of rain and very difficult access.

3. Collaborate with Cornell University (Jim Goetz) to deploy and check two ARUs for remote monitoring of petrel calls in Loma del Toro.

End of October 2012 two ARU-s were installed, one and Loma del Toro and the other one in the Hoyo del Diablo. Presently the material recorded is being analyzed by Abram Fleishman and Mathew McKnown.

We had a problem with one of the units, which had an extra box with additional batteries attached. A short-circuit (possibly due to humidity) destroyed the box and affected the ARU.

4. Participate in a technical exchange by inviting Haitian biologists to accompany field expeditions to search for and monitor nests. One way to accomplish this would be for SAH biologist to participate in radar surveys at Boukan Chat if these take place.

See last report. We are continuing the technical exchange with SAH via internet. One of the themes of interest for SAH is the deployment of camera traps. Based on our experience we have been able to give advice on the brand (Reconyx) and the different models we are using. One of the major drawbacks has been the high humidity which has affected the cameras and has produced malfunctioning in several occasions. Bringing the cameras down to the dryer climate in Oviedo has actually brought functionality back to these cameras. We are planning on switching from the simpler model HC500 to the more durable PC 800 (according to announcement by the company) hoping this will resolve the problem.

5. Work with local land-owners and community leaders on Haitian side of border (principally in Boukan Chat) to assess their current land use with respect to petrel nesting colonies and plan for the long-term conservation of these sensitive areas.

The borders problems that has prevented us from crossing have slowly calmed down, but the violent events at the border have led to an evolution of elaborative bureaucracy. Everybody needs a passport. Haitians and Dominicans now need visas for the respective neighboring country, and finally for the vehicle a special pass is required, which has to be acquired in Santo Domingo going through a paper battle with several government agencies. Miguel is fully occupied with the process: Plan Piloto (vehicle check: Miguel had to put in a little bribe to speed up the process), Cancilleria (Exterior ministry: supposedly

the papers are ready); still to be done Aduana (customs) and the Ministry of Armed Forces.

As soon as this process is over I should have a pass that allows me crossing the border with the truck. We are planning on bringing up a small gas stove with a tank to our contact Ti Tet. The family showed great interest in the little gas stove we are using in the field for cooking. According to Ti Tet it is possible to get gas in Thiotte. It would be a small inversion and we will see if it catches on within the better off families in the Boukan Chat community. It definitely would reduce their need for charcoal and wood and could reduce pressure on the nesting site.

PS: Last week border problems broke out again over the extraction of construction material from the Pedernales river by Haitian truckers when the Dominican environmental agency and the border police intervened. There has been another incident in the Loma del Toro area between armed Haitian charcoal producers and Dominican park guards. We are waiting for things to calm down again.

6. In coordination with the Park Administration, investigate means of reducing or preventing fires in petrel nesting areas

Two big fires have hit the Sierra de Bahoruco National Park so far this year. One has practically destroyed all the forest between the border and the road leading up to Loma del Toro. The fire stopped just short before reaching sensible nesting areas. Parts of the affected area have been hit by fires in former years and a fast recovery and restoration of the forest (especially the broadleaf understory) seems unlikely considering the poor soil and seed bank conditions. The place is bound to develop into a limestone dessert. The other fire was reported from Aceitillar area. The extent of this fire is not known to us. It is also not clear if it reached and destroyed nesting areas since we have not yet done intensive nest search there. In January the radar survey indicated petrel flight activity in Aceitillar, but the areas we revisited (see last report) did not produce any positive results.

The Ministry of Environment has stepped up vigilance, increased patrolling and the number of fire brigades for the whole of Bahoruco. This has been a result of the public denouncements of Grupo Jaragua via the press on the critical situation of the humid mountain broadleaf forest, whose few remnant patches are under heavy attack to be destroyed completely. The ministry has also sent out a note advising all illegal occupants within the park to leave before putting into effect of an eviction. The problem with this specific decision is that it does not confront directly the Dominican occupants, that do not live on the occupied terrains (they live either in Pedernales, Santo Domingo or even New York), but will affect the Haitian migrant workers. During two evictions realized in the past, the activities of the Armed Forces have brought along very inhumane practices and after terminating the operations the situation has become worse for the broadleaved forest and also for the people. The violent operation actually provoke retaliation measures by the persons directly affected. The whole process usually ends up with more penetration into untouched areas and the burning and destruction of broadleaved as well as pine forest. Grupo Jaragua is opposed to evictions and favors a non-violent approach of investigating the actual legal situation of the area and entering into negotiations with the Dominican occupants to find a viable solution for all parts involved. It seems that the decision makers in the Ministry think differently.

PS: Tomorrow the Grupo Jaragua team has a meeting again with the vice minister on the subject.

7. Negotiate with telecommunications companies to remove smaller antennae with guys wires and to shield lights.

With the termination of the Claro tower in March there are now a total of four towers at Loma del Toro. The two telecommunication towers (Orange and Claro) have each a height of 25 m. Their structures are self-sustaining and without guy wires. Both are powered by diesel engines. The third antenna is about 20 m high, powered by solar panels and secured with guy wires. It is used by the DNCD (the Dominican Anti-Drug Agency) and the COE (Centre for Emergency Operations). The fourth one has a height of 30 m and the most guy wires attached. It uses a smaller diesel engine as power supply. The operating agency is the Ministry of Environment.

Supposedly there is a regulation by the Ministry of Environment that the different telecommunication companies and the different government agencies use only already existing structures to put up communication facilities, but in reality it looks like everybody wants its own. I think we still don't have sufficient material to make a case against the guy wires. The Orange tower already has its light hooded, although the shield could be improved.

