Grupo internacional para la conservación del Diablotín

Comité international pour la conservation du Pétrel diablotin

International Black-capped Petrel Conservation Group

ANNUAL UPDATE ON ACTIVITIES
June 2021

It is usually a gratifying experience to assemble the annual update and reflect on a year's worth of activities involving the Black-capped Petrel. However, the most recent 12 months, while productive, was most notable for its challenges and unfortunate events!

Of course, Covid19 caused disruptions in travel and work activities, not to mention illness, anxiety and economic hardship in the Caribbean and around the world. Significant social unrest in Haiti, initially prompted by a fuel crisis in 2018, continued throughout 2020 and 2021, involving protests, lockdowns, school closures, and gang violence. Diablotin field teams were able to operate in both Haiti and the Dominican Republic in the last year, but the number of visits and the range of activities were curtailed. Additionally, field technicians had to operate without program managers along in many instances.

Spring 2021 brought a line-up of bad news about petrel losses to predators. The Dominican field team returning to Loma del Toro in mid-March 2021 had a nasty surprise, discovering that dogs had decimated much of the colony. Most nests were invaded and several petrels killed, as described in a BirdsCaribbean blog post. The same team discovered in April that mongoose predation of chicks in Valle Nuevo was again very high; mongooses caused a total colony failure in 2020. Then, early this month, the Haitian field team reported that a dog killed at least four adult petrels at the La Visite colony, based on a review of camera trap data.

Spring 2021 was also notable for high intensity fires near the border colonies. We received a scare about fires near the Morne Vincent and Loma del Toro colonies; in fact, the tower array and guard house just adjacent to the Loma del Toro colony was destroyed in the flames.

Though socioeconomic stress, introduced predators, and fire are each recognized as indirect and direct threats to petrel conservation, it is distressing to be confronted by that evidence all at once! It highlights the vulnerability of the species, the urgency and necessity of conservation work, and the need for long-term investment.

A dog carries off one of the adult petrels killed at its burrow in the La Visite colony in Haiti. The depredation at LaVisite was just one event in a string of distressing happenings in the last year. *Credit: EPIC*

CONSERVATION PLAN UPDATED

The Covid19 pandemic did allow for some 'quiet time' to plan and to revisit the conservation action plan for the species. The previous plan was released in 2012, and a decade of field work has provided opportunities to study threats and to implement various forms of management. A core planning team of seven people signed an MOU on data-sharing and met online every week for eight months in 2020. The team used the Open Standards for the Practice of Conservation as a framework; steps involved assessing the relative importance of various threats to species viability, articulating the factors driving threats, and sharing assumptions about conservation actions meant to counteract them. This newer plan is much longer and more detailed than the previous version and it is now available for external review. The drafts of main text of the plan and appendices are posted as PDFs online on the working group website.

Depiction of the steps in the Open Standards for the Practice of Conservation. *Credit: CMP*

The planning team is always open to feedback; please contact Jennifer Wheeler (Jennifer.Wheeler@birdscaribbean.org) or Yvan Satgé (yvan.satge@gmail.com). We are commencing the process of further formatting the document for appearance, so we would appreciate hearing from you soon.

FINDING THE PETREL

HISPANIOLA

No new breeding sites were confirmed in the last year. Staff reductions, travel restrictions, and concern for the health of the staff prevented significant investment of time searching any of the probable or suspected colony sites. However, some additional nests were located at the confirmed breeding sites on Hispaniola.

GUADELOUPE

The May 2020 newsletter described the first radar surveys for Diablotin on Guadeloupe, which were conducted in January 2020. The detailed report Radar Surveys for Black-capped Petrel on Guadeloupe: Results from an Expedition during January 2020 is available online. Adam Brown, with Environmental Protection in the Caribbean (EPIC), assisted by project champion Antoine Chabrolle, conducted surveys on nine nights in eight locations. At two locations, they detected 13 Black-capped Petrel-like targets with radar: Soufriere (n=9) and at Nez Casse (n=4). Though no Black-capped Petrels were confirmed with either binoculars or night-vision scope, Antoine did observe a flying target with a wingspan that was approximately 0.5m, flying away from Soufriere towards the Caribbean Sea.

Antoine has since acquired funding from Parc National de la Guadeloupe to host a biologist from France to conduct surveys with military-grade thermal camera equipment. This expertise and equipment have been used effectively on Réunion, an Indian Ocean island that hosts two endemic petrels, the Barau's Petrel and the Mascarene Petrel. Our hope is that the Diablotin can be confirmed on Guadeloupe in November 2021.

DOMINICA

Radar surveys were first conducted in Dominica in 2015, and they were repeated after a 5-year interval, in January and February 2020. The final report, Radar Surveys for Black-capped Petrels on Dominica: Results from an expedition during January and February 2020, is now posted on the Diablotin working group page. As was reported in last May's newsletter, Adam Brown spent two weeks there working with Stephen Durand, Machel Sulton, and other members of the Dominica Division of Forestry, and they demonstrated with radar and visual observation that Black-capped Petrel activity persists on Dominica. However, there were notably fewer targets on radar at the survey sites revisited in 2020, suggesting there has been decline in overall petrel numbers on Dominica. The report states that "areas where Black-capped Petrels historically nested on Dominica were substantially altered during the passing of Hurricane Maria (in September 2017). Large areas of forest were knocked down by high winds and landslides including areas on Morne Micotrin, Morne Trois Piton, and Morne Diablotin. In addition, immense areas of mountain hillsides slid, removing large areas of vegetation and rock outcropping. Perhaps this massive alteration of Black-capped Petrel habitat on Dominica led to the reduced observations of petrel-like targets during 2020."

Biologist prepare for night-time surveys in the mountains of Dominica, February 2020. *Credit: EPIC*

The report recommends the deployment of a full research team to Dominica for the entire breeding season, in order to locate, study and conserve petrels. With the estimated cost for this being prohibitive, more modest funding is being sought to pursue use of thermal camera equipment as well as continued use of song meters on the island.

UNDERSTANDING THE PETREL AND ITS THREATS

LA VISITE, HAITI

Despite the challenges of Covid19 and social unrest, a third year of nest monitoring was conducted during the 2019-2020 breeding season in La Visite National Park. The full report is on the working group website: Black-capped Petrel Nest Monitoring in La Visite National Park, Haiti: 2020 Breeding Season. Six visits were made between February and July 2020; experienced, local field technicians carried out the work under the remote supervision of project manager Anderson Jean with Jeunes en Action pour la Sauvegarde de l'Ecologie en Haiti (JACSEH) during the periods when travel was restricted in Haiti. There were 57 Black-capped Petrel nest cavities located/re-located in the three sub-colony areas adjacent to Tèt Opak. Of these 57 nest cavities, 43 nests were considered "active" (i.e., an egg and/or a chick were observed). Of the 43 active nests; 38 chicks fledged successfully, 1 nesting effort failed due to predation, and four nests were abandoned due to agricultural expansion. Due concerns for health, border closures, and shipping restrictions, several of the intended activities in La Visite National Park were impossible. There was no deployment or retrieval of camera traps at nests; no predator trapping before or during the nesting season, and only limited inspection of petrel breeding areas along the eastern half of the La Visite escarpment.

Field activities for the 2020-2021 breeding season re-started this April, though social unrest continues to flare in Haiti. The team will do its best to monitor nests and assess risks. As noted above, camera traps documented a dog

predating four adult petrels. The dog, believed to be feral, was seen on video sniffing at a number of other nests and attempting to reach birds inside. Also, a songmeter has been deployed at the tower array at Tet Kay Jak in order to learn more about collision risk.

MORNE VINCENT, HAITI

A field team was able to visit the Morne Vincent colony, located near the town of Boucan Chat, four times during the 2019-2020 breeding season. Nests were visited monthly April through July, though camera traps were not deployed. Of the 15 active nests located; chicks fledged successfully from 13. One of the nest failures was due to erosion; the other was of an unknown cause. An interesting natural history note is that one nesting pair of Black-capped Petrels on the slopes of Morne Vincent shared a large nesting cavity with both a pair of nesting Barn Owls as well as a pair of nesting American Kestrels. All three species successfully fledged young. The full report is online: Results of Black-capped Petrel Nest Monitoring on Morne Vincent, Haiti: 2020 Breeding Season

Masked because of Covid19, a field team undertakes nest monitoring on Morne Vincent. *Credit: EPIC*

Beginning with the discovery of the first active nest in 2011, Grupo Jaragua led nest monitoring at the Morne Vincent colony through 2019. The global COVID-19 pandemic limited Grupo Jaragua's ability to travel over the border, and in 2020, responsibility for the monitoring transitioned to JACSEH, supported by EPIC. Continuity of effort is not a problem as Anderson Jean with JACSEH, and continuing team members Rene Jeune and Tinio Louis have years of experience on Morne Vincent.

LOMA DE TORO AND LOMA QUEMADA, DOMINICAN REPUBLIC

Covid19 also required that project manager Ernst Rupp remotely supervise the Grupo Jaragua field team from Germany for much of the 2019-2020 breeding season. Ultimately, technicians were able to visit the Loma del Toro and Loma Quemada colonies in the Sierra de Bahoruco National Park four times. Two visits were made prior to the appearance of Covid19 in the Caribbean (early November 2019, late January 2020), and two more made after a several month hiatus (mid-May and early August 2020). The field season report is online: Predator control and monitoring activities 2019-2020 to reverse the decline of the endangered Black-capped Petrel in Sierra de Bahoruco, Dominican Republic. Camera traps were installed at 17 Loma del Toro nests and at 3 Loma Quemada nests. At Loma del Toro, the Dominican team reported 14 nests (out of 34 checked) where chicks had fledged successfully. At Loma Quemada, two nests (out of 7 checked) had clear signs of successful fledging.

A mongoose carries off a chick from a burrow in Valle Nuevo. *Credit: Grupo Jaragua*

VALLE NUEVO, DOMINICAN REPUBLIC

The Grupo Jaragua team was able to make three visits to the Valle Nuevo colony during the 2019-2020 breeding season; the third visit was truncated because of suspected Covid19 infection in a team member. Unfortunately, during the July 2020 visit it was determined that all 13 known nests failed, most likely due to mongoose predation.

AT SEA

Marine Range/Gulf of Mexico Use

The article **Expanding the marine range of the endangered black-capped petrel (Pterodroma hasitata): Occurrence in the northern Gulf of Mexico and conservation implications**. *P.G.R. Jodice, P.E. Michael, J.S. Gleason, J.C. Haney, and Y. Satgé. bioRxiv 2021.01.19.427288* is available as a preprint and is expected out in the journal Endangered Species Research.

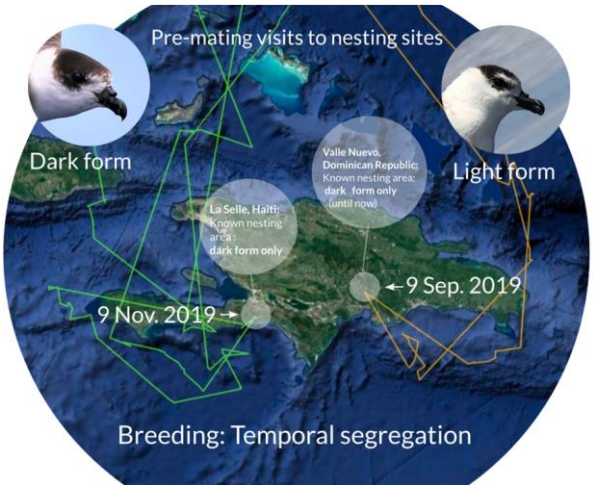
Abstract: The Black-capped Petrel (*Pterodroma hasitata*) is an endangered seabird endemic to the western north Atlantic. Although estimated at ~ 1,000 breeding pairs, only ~ 100 nests have been located at two sites in Haiti and three sites in the Dominican Republic. At sea, the species primarily occupies waters of the western Gulf Stream in the Atlantic and the Caribbean Sea. Due to limited data, there is currently not a consensus on the marine range of the species. There are several maps in use for the marine range of the species and these differ with respect to the north, south, and eastward extent of the range. None of these maps, however, includes the Gulf of Mexico. Here, we report on observations of black-capped petrels during two vessel-based survey efforts throughout the northern Gulf of Mexico from July 2010 - July 2011, and from April 2017 - September 2019. During the 558 days and 54,700 km of surveys from both efforts we tallied 40 black-capped petrels. Most observations occurred in the eastern Gulf, although birds were observed over much of the east-west and north-south footprint of the survey area. Predictive models indicated that habitat suitability for black-capped petrels was highest in areas associated with dynamic waters of the Loop Current, similar to habitat used along the western edge of the Gulf Stream in the western north Atlantic. We suggest that the range for Black-capped Petrels be modified to include the entire northern Gulf of Mexico although distribution may be more clumped in the eastern Gulf and patchier elsewhere. It remains unclear, however, which nesting areas are linked to the Gulf of Mexico.

Satellite Tracking

The May 2020 newsletter reported on the at-sea capture of 10 petrels along the western edge of the Gulf Stream east of Cape Hatteras, North Carolina in May 2019, and subsequent satellite tracking of these individuals.

A manuscript describing the study more fully is still forthcoming, but investigator Yvan Satgé presented results at the Seventh World Seabird Twitter Conference (#WSTW7). The tweets can be viewed at: https://twitter.com/YvanSatge/status/1389513839432044546

Results showed that dark- and light-form Black-capped Petrels share common nesting areas on Hispaniola (particularly in Valle Nuevo) but light forms start nesting 1.5 to 2 months earlier, and molt earlier. Researchers also concluded that "at sea, dark- and light-form Black-capped Petrels have distinct non-breeding distributions in the northwest Atlantic. Thus, although they face the same threats on land, both forms are distinctly exposed to marine threats like fisheries, shipping, and mercury."



Satellite tracks of two petrels, captured at sea in May 2019, *Credit: Yvan Satgé*

Kleptoparasitism Observed

Another interesting Tweet presented as part of the Seventh World Seabird Twitter Conference was one by Peter Stronach. He observed a Black-capped Petrel forcing a Red-billed Tropicbird to regurgitate its prey near the island of Raso in the Cape Verde Archipelago. Peter noted that this was the first record of kleptoparasitism in the species. He also noted that there were five records of Diablotin seen off Cape Verde and even two individuals caught inland on one of the islands…hinting at the possibility of a small breeding colony in the Western Atlantic! Peter's tweet https://twitter.com/macstronach/status/1389928573599813633?s=27

A Diablotin harries a Red-billed Tropicbird near a Raso island in the Cape Verde archipelago. *Credit: Peter Stronach*

SECURING THE PETREL

REDUCING PREDATION PRESSURE

Prior to 2020, direct evidence of predation of Diablotin by introduced mammalian predators was surprisingly lacking. Camera traps had demonstrated that predators including rats, cats, mongoose were common, and studies on petrel species around the world indicates that petrels are vulnerable to these introduced mammals. However, reproductive success at Diablotin colonies was often high and no instances of direct take were recorded. Then, in the last year, camera traps captured images of dogs and mongoose taking eggs, chicks or adults. This underscores the importance and utility of remote monitoring.

The ideal approaches to predator control are those that have lasting effects and require only a low level of effort to maintain. The most effective methods of control (i.e., trapping, poisoning, hunting) will vary among locations and with predator type, its behavior, non-target risk, the conditions at the site, and the experience of the team. Sub-island predator-proof fencing (exclosures) is an option yet been used anywhere in the Caribbean.

Some live traps were deployed at the start of laying periods at Loma del Toro and Valle Nuevo in 2019 and 2020, targeting cats and mongoose, respectively. None were captured; not too unexpected given the limited time available to the team. Other approaches have yet to be piloted. Reducing the predation pressure at Black-capped Petrel colonies will be a significant challenge given the costs and logistics of predator control operations in remote, mountainous locations. However, this strategy is essential to the survival of the species.

CARRYING ON COMMUNITY ENGAGEMENT IN BOUKAN CHAT

Activities to reduce the threat of Black-capped Petrel habitat loss due to agricultural expansion on the slopes of Morne Vincent continued in the past year, but at a reduced level due to Covid 19. These included trainings to improve farming techniques, environmental education lessons and outreach to foster community stewardship of the forest. JACSEH was able to organize the fifth Black-capped Petrel Festival in Boucan Chat in April. Highlights of the festival were the creation of two new murals in the center of town, a well-attended soccer match, and the formation of a local festival planning committee.

Community engagement in Boucan Chat for the last two years was supported by a grant from the BirdsCaribbean Betty Petersen Fund for Conservation. This grant is wrapping up, but fortunately, JACSEH successfully applied to a grant program designed to respond to risks and difficulties induced by the COVID-19 crisis in African, Caribbean and Pacific countries [specifically, the Rapid Response facility managed by International Union for Conservation of Nature, part of the Biodiversity and Protected Areas Management (BIOPAMA) Programme.]

One of the two newly-created murals in Boucan Chat, painted as part of the fifth Black-capped Petrel Festival. *Credit: EPIC*

WORKING GROUP CONSIDERATIONS

BIRDSCARIBBEAN'S INTERNATIONAL CONFERENCES

A meeting of the International Black-capped Petrel Conservation Group is typically held at the BirdsCaribbean International Conference. Due to Covid19, BirdsCaribbean postponed its conference slated for July 2021, and instead, will meet jointly in Puerto Rico with the American Ornithological Society (AOS) in 2022.

BirdsCaribbean is also hosting a symposium at the AOS' Virtual Conference taking place this summer, August 9th-14th, 2021. Be on the lookout for working group announcements.

WORLD SEABIRD UNION AND CONFERENCE

The 3rd World Seabird Conference is also taking place in a virtual environment from October 4 - 8, 2021 (an in-person meeting in Tasmania was judged infeasible). The move to a virtual conference builds on the series of Twitter conferences and other online activities that World Seabird Union (WSU) has hosted in the last few years. Look for presentations and meetings relevant to the Black-capped Petrels to be shared.

WORKING GROUP TOOLS

Listserv: Visit BirdsCaribbean.groups.io/g/Diablotin to subscribe to our discussion group for the people interested in *Pterodroma hasitata* conservation.

The Yahoo Groups platform used to manage emails to the Diablotin group shut down in December 2020. Going forward, the group will use the Groups.IO platform provided by BirdsCaribbean, to take advantage of the regional organization's reach, influence and administrative support.

Website: The website for the working group is hosted by BirdsCaribbean and includes a library of unpublished documents related to the Black-capped Petrel project. The website library now includes drafts of the new conservation action plan, the unpublished reports noted in this newsletter as well as links to open access educational materials.

Please visit www.BirdsCaribbean.org, and search under "Petrel" or go directly to https://www.birdscaribbean.org/our-work/black-capped-petrel-working-group/

Newsletter prepared by Jennifer Wheeler (Jennifer.Wheeler@BirdsCaribbean.org), with contributions from Yvan Satgé, Adam Brown and Ernst Rup.