



“What’s happening with Diablotin Conservation?” - January 2013 Update

A strikingly collaborative effort to conserve the Black-capped Petrel, aka Diablotin, is yielding impressive results. In 2012, a Haitian-Dominican team completed the second full field season dedicated to studying this species. They located and tracked the fate of 30 nesting burrows, observing 23 chicks successfully fledging. This is simply amazing given that the very first photo-documentation of a chick was captured just the season before.

The 2013 field season is underway and will add essential insights on the natural history of this mysterious bird. Additionally, cooperators in the field are continuing to test emerging technologies such as radar and ARUs to aid in finding and assessing populations, as well as documenting natural and anthropogenic threats. The importance of locating additional breeding sites stimulated in 2012 the first ever at-sea expedition to capture and fit satellite-tracking devices on adults. With funding, additional at-sea expeditions will occur in 2013.

Complementing the ecological work on Hispaniola are activities to engage and ascertain the knowledge and needs of local communities and local managers, who are ultimately the ones upon which the survival of this species depends. For this reason, educational materials on the Diablotin are now being developed, including an activity book for children. Moreover, petrel-specific work is being coordinated within the context of larger landscape conservation projects that are underway, including regional biodiversity monitoring and socioeconomic approaches such as Payment of Ecosystem Services to support national parks.

The above projects involve practitioners and funders from Grupo Jaragua, Societe Audubon Haiti, EPIC, ABR, Cornell, Birdlife, American Bird Conservancy, U.S. Fish and Wildlife Service, DR Ministerio de Medio Ambiente y Recursos Naturales, USGS/Clemson, Jensen Foundation, VCE, Fondation Seguin, Disney, and more... Meanwhile others on the International Black-capped Petrel Conservation Group are poised to offer advice and assistance, in the form of related genetic research, seabird restoration techniques, capacity-building and training opportunities, and funding.

For more information, see the following notes or visit www.fws.gov/birds/waterbirds/petrel/



NOTES FROM THE WEBINAR

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18 December 2012

WORK ON HISPANIOLA

Information from Ernst Rupp, Grupo Jaragua:

Recap of the 2012 season:

- The Haitian-Dominican field team monitored nesting Morne Vincent, Haiti and Loma del Toro, Dominican Republic (both on a ridge that extends along the northern reaches of the Sierra de Bahoruco mountain range on the Island of Hispaniola).
- A total of 30 active nests were found, 15 in Haiti and 15 in DR.
- Monitoring revealed that 76.67% of nests successfully fledged chicks.

Read more at:

http://www.fws.gov/birds/waterbirds/petrel/pdfs/Report%20Diablotin_1%20Sept%202012_final.pdf

Plans/goals for the 2013 breeding season:

- Revisit known nesting sites (field team already mobilized in late 2012).
- Collaborate with Environmental Protection in the Caribbean (EPIC) to use radar to track and quantify petrels in flight and to locate new nesting sites in January-February 2013.
- Locate, map and monitor nests and nesting success on Loma del Toro and Morne Vincent, using infrared camera, direct observation, and burrow probes and camera traps.
- Continue banding birds.
- Collaborate with Cornell University (Jim Goetz) to deploy and check two Autonomous Recording Units (ARUs) for remote monitoring of petrel calls in Loma del Toro. Results could serve as a pilot for wider effort.
- Pursue technical exchange with Haitian biologists of Société Audubon Haiti (SAH) during field expeditions to search for and monitor nests (e.g., radar surveys at Boukan Chat, Haiti).
- Work with local land-owners and community leaders in Boukan Chat to assess current land use with respect to petrel nesting colonies and plan for the long-term conservation of these sensitive areas.
 - Conduct community outreach, including targeted meetings with identified hunters and community leaders
 - Follow-up with one-on-one site visits with interested land-holders.
 - Investigate the possibility of working with reforestation projects.
- In coordination with the Park Administration, investigate means of reducing or preventing fires in petrel nesting areas.
- Develop mitigation recommendations for breeding sites based on findings.
- Assess causes of mortality (such as collisions with communications towers) by monitoring birds flying to and from the nest sites using thermal cameras.
 - Negotiate with telecommunications companies to remove smaller antennae with guys wires and to shield lights.

- Acknowledge a large number of funders and cooperators (specific to the petrel, and part of larger programs of work, e.g., Birdlife/Jensen Foundation grant for Sierra Bahoruco landscape conservation).

See visuals for this information:

<http://www.fws.gov/birds/waterbirds/petrel/pdfs/GJ%20Activities%20for%202013.pdf>

Information from Adam Brown, EPIC:

Collaboration on radar work:

- Involves use of portable radar equipment coupled with other technologies
 - Equipment similar to what is used on sailboats, airports – mounted on vehicle for project
 - Develop a distinctive “signature” for Diablotin using radar along with audio/visual surveys with binoculars, night-vision equipment, thermal imagery
 - Will also deploy ARUs at each survey site for simultaneous surveys
- The field work with Grupo Jaragua, Societe Audubon Haiti, and Jim Goetz planned for 22 January to 14 February. Agenda is:
 - Valle Nuevo where there is a history of detections
 - Bahoruco
 - Pedernales flight corridor
 - Loma del Toro
 - east end new areas?
 - Boukan Chat: Flight corridor and nest area
 - La Selle
 - Survey known areas for activity index
 - Survey lower elevation flight corridors
 - Survey new potential activity areas

EPICs Outreach Initiative:

- Diablotin-focused Activity Book for children (12 and less), for use in existing community outreach efforts by national NGOs.
 - Serve as a basic introduction to Diablotin and its conservation,
 - Integrate the artwork of Haitian artists
 - Trilingual (Spanish, French, Creole) though heavily pictorial.
 - Creation and the distribution of a modest supply already funded by Disney.
- Short film documentary to garner awareness and concern.
 - Tell the compelling story of the Diablotin and its conservation visually, packaged into a short biographical documentary film.
 - Reach out to multiple audiences, ranging from international funders to local communities, to raise awareness and concern.
 - Build on existing relationship with professional film-maker; budget for a high-quality, 10-minute documentary is ~\$10K.

See also: <http://www.epicislands.org/programs/conservation-of-key-marine-and-bird-habitats/11-black-capped-petrel-conservation>

Information from Jim Goetz, Cornell University, on La Visite Project with VCE

- Review of the habitats where the Diablotin has been found
 - Steep, denuded slopes of La Visite escarpment contrasted with Macaya Park's mixed broadleaf & pine forest
 - La Visite's largest remnant broadleaf forest is just 230 hectares along a ridge. It provides critical nesting habitat, based on observations of birds in the air.
- Despite deforestation, Haiti still hosts incredible biodiversity. Conservation of this biodiversity dependent on patterns of resource use by locals
- Vermont Center for Ecostudies (VCE) is working with local Haitian NGO partner, Fondation Seguin, to undertake a pilot project exploring direct, conditional incentives as part of a payment for ecosystem services (PES) framework.
 - Landholder parcels targeted for PES for forest conservation & restoration have been identified in Bèrak Valley
 - Petrels are not known to occur in Bèrak Valley but ideally lessons learned from this project will have broader-scale effects that enhance both local livelihoods and Black-capped Petrel conservation.

See visuals for this information:

<http://www.fws.gov/birds/waterbirds/petrel/pdfs/BCPE12-2012-Webinar-Goetz-captions.pdf>

AT-SEA WORK

Information from Holly Freifeld, ABC and Pat Jodice, USGS/Clemson

- A key conservation goal for the petrel is locating as-yet unknown breeding sites on Hispaniola or other Caribbean Islands.
 - As adults only visit their nest sites at night under cover of darkness and they nest on high, steep mountain slopes, detecting their nest sites is extremely difficult.
 - New technologies – radar, ARUs – offer promise for identifying new sites, but travel into remote locations is expensive and time-consuming.
- Birds captured at sea and fitted with satellite transmitters could lead conservationists directly to new nesting areas. The first ever attempt at at-sea capture of breeding adults was conducted in August 2012 in the Gulf Stream off of North Carolina, the key foraging site for petrels.
 - A variety of techniques were attempted to lure birds close to the boat and various equipment for their capture was prepared, including a floating net apparatus. (In discussion, the use of decoys was suggested by David Lee.)



- Expedition was unsuccessful in capturing birds; however:
 - Much was learned by the trial and seeing the birds in action.
 - Expedition took place under a very specific set of conditions – moon-lit and still. Birds are likely to behave differently under different conditions.
 - Fundraising is ongoing for additional expeditions.

Read the details of the at-sea expedition at

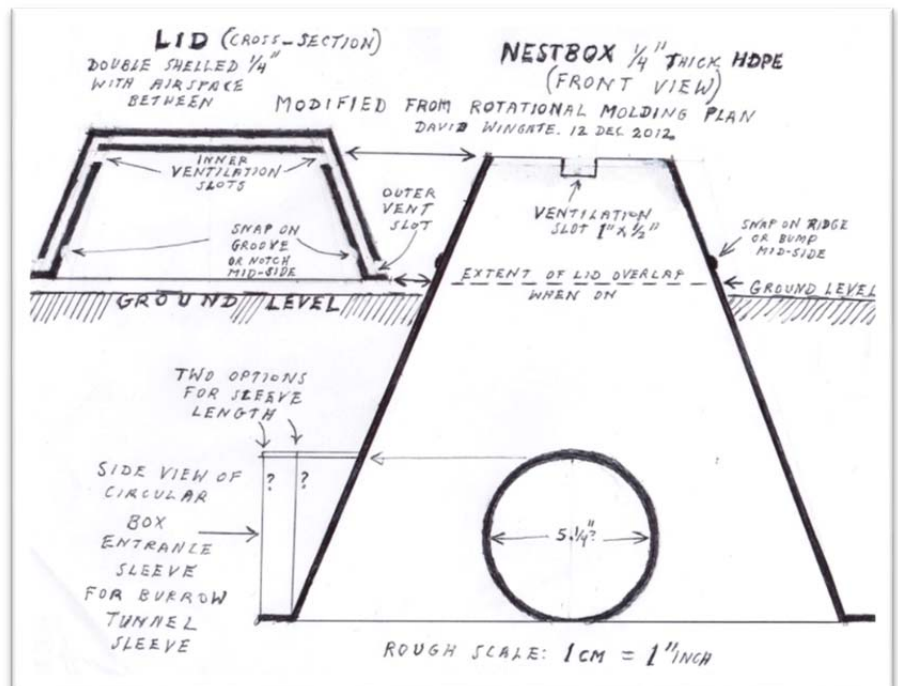
[http://www.fws.gov/birds/waterbirds/petrel/pdfs/BCPE ATSEA REPORT Wallace Sept 2012.pdf](http://www.fws.gov/birds/waterbirds/petrel/pdfs/BCPE%20ATSEA%20REPORT%20Wallace%20Sept%202012.pdf)

RELATED UPDATES

- **Review of fossil remains.** David Lee is collaborating with Dave Steadman (Florida State Museum) to look at fossil remains from caves in Haiti. Collections were made in caves and sink-holes in the Plateau of the Massif de la Selle, at elevations ranging from 1760-2060 m in 1983-84.
- **Black-capped Petrel monograph:** The long awaited work by Ted Simons, David Lee and Chris Haney will be published in the journal Marine Ornithology as a separate issue in early 2013. It is a combination historical information, recent research and conservation issues.
- **Genetic study:** A paper by Manly, B., B.S. Arbogast, D.S. Lee, and M. van Tuinen, *Mitochondrial DNA analysis reveals substantial population structure within the endangered Black-capped Petrel (Pterodroma hasitata)*, is in prep. The study looked for genetic differences between plumage variants of Black-capped Petrels collected off North Carolina in the 1970's and 1980's and concluded that, combined with significant differences in body size and periods of maximum occurrence off North Carolina, there is likely seasonal or geographic breeding isolation of the two color morphs.

- **Artificial Burrows:**

Work is underway on creating more artificial burrows/nestboxes for the Cahow (Bermuda petrel), as part of a continuing program of providing suitable nesting structures in low-risk (from sea level rise, predation, etc.) locations. A current design by David Wingate for plastic, ready-to-install structures is



available upon request. A removable lid allows viewing, weighing and measuring and banding chicks. With entrance modification, these structures could likely be used for other burrowing seabirds, including Audubon's Shearwaters, tropicbirds, and Black-capped Petrel.

WORKING GROUP CONSIDERATIONS

Listserv: Group members can stay in touch with one another using the Diablotin@yahoogroups.com list.

Next Working Group meeting: A Black-capped Petrel gathering will be held at the upcoming Society for the Conservation and Study of Caribbean Birds (SCSCB) Regional Meeting in Grenada, late July, 2013. Information will be shared on <https://sites.google.com/site/scscbmeeting2013/home>

Idea for future meeting: David Lee suggested a gathering to further connect cooperators throughout the Black-capped Petrel's range (specifically from the breeding areas in Hispaniola and foraging areas off of Southeast U.S.). His suggestion is to host a meeting in North Carolina, which would feature an offshore trip to see the petrels and other Caribbean seabirds. Meeting objectives would be promotion of Black-capped Petrel conservation, professional development as well as relationship-building between cooperators. Please contact Jennifer if you are interested in developing this meeting.

Attendees for all or part of the December 18 webinar:

Thank you!

Adam Brown, EPIC
Anderson Jean, SAH
Boris Fabres, IC
Chris Rimmer, VCE
Cindy Fury, USFWS
David Lee, NC
Dean Demarest, USFWS
Ernst Rupp, GJI
Greg Butcher, USFS
Holly Freifeld, ABC

Jim Goetz, VCE/Cornell
Juan Carlos Martinez-Sanchez, VCE
Pat Jodice, USGS/Clemson
Scott Hall, NFWF
Scott Johnston, USFWS
Steve Kress, NAS
Jennifer Wheeler, USFWS
Troy Wilson, USFWS
Yolanda Leon, Grupo Jaragua

Notes prepared by Jennifer Wheeler (Jennifer_A_Wheeler@fws.gov), 29 January 2013, with assistance of webinar presenters.