

Petrels of the Caribbean

The Jamaica Petrel Pelagic Expedition

**A pelagic expedition off Jamaica, and off the islands of
Guadeloupe and Dominica**

November–December 2009



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On behalf of the Tubenoses Project and BirdLife's Preventing Extinctions Programme

Background

The following describes the first-ever pelagic search for the 'Possibly Extinct' Jamaica Petrel *Pterodroma caribbaea*. This mythical seabird has not been recorded since around the period that it was described to science (Carte 1866), but was known to the islanders as the 'Blue Mountain Duck' prior to that. *P. caribbaea* was believed to be rather widespread in Jamaica, although all of the available specimens were collected in the Blue Mountains. The summit of the island's easternmost ridge—the John Crow Mountains—was also suspected to be suitable (i.e. sufficiently high and remote) for breeding petrels. But, for almost 120 years there has been no evidence of its continued existence (the last confirmed record of this petrel, from the Blue Mountains, was apparently in 1879). Despite several recent, unsuccessful, land-based searches (e.g. Zonfrillo 1997), we commenced our pelagic expedition with some expectation.

Based on historical reports, Imber (1991) speculated that Jamaican Petrel, or another dark petrel, might have also bred on the islands of Guadeloupe and Dominica. Labat (1724) described little devils (*diablotins*) that bred in burrows on Guadeloupe, i.e. the petrels, which he described as uniformly dark. However, subsequent reports described the petrels

there as being white ventrally. There are similarly confusing reports of dark and light petrels from Dominica, suggesting that these two islands were possibly occupied by two species of petrel, Black-capped Petrel *Pterodroma hasitata* and an all-dark species, perhaps Jamaican Petrel or another similar taxon. But, the only petrel specimens from these islands are of Black-capped Petrel. On both Jamaica and Guadeloupe, breeding petrels appear to have been extirpated due to the arrival of introduced mongoose, in addition to feral pigs, rats and cats, as well as other non-indigenous mammals, in conjunction with forest loss. Pigs, rats and cats appear to be the main threat in Dominica.

On 17 November–1 December 2009, two of us, Hadoram Shirihai and Maria San Román, conducted a 10-day mass-chumming operation, off eastern Jamaica. Subsequently, HS continued to Guadeloupe and Dominica for an additional week of pelagic work (2–10 December 2009).

This project formed part of a larger work on petrels in the Caribbean, planned to include searches for Jamaican Petrel, as well as studying geographical variation, genetics and conservation of Black-capped Petrel. In line with our currently well-advanced study of the *Pterodroma feae* complex (Bretagnolle *et al.* in prep.) in the north-east Atlantic, we intend to establish a similar campaign in the Antilles. We believe that mass-chumming operations (see below) are a powerful method to find rare petrels within a given area close to their known or suspected breeding islands. At least for Jamaican Petrel, we believe that land-based searches should only be reactivated if the species can be found at sea (due to the extreme difficulty in finding breeding petrels in the Blue Mountains). If the species can be found (and documented) at sea, and eventually on land, then it will be possible to establish a recovery plan. The present work and follow-up expeditions represent a joint partnership between the Tubenoses Project (Shirihai & Bretagnolle in prep.), the Centre d'Études Biologiques de Chizé (CNRS-Chizé) and BirdLife International. Our hope is that we can also join forces with other interested organisations and individuals in the region. The Jamaican searches were supported by the British Birdwatching Fair - the major sponsor of BirdLife's Preventing Extinctions Programme.

Jamaica (17 November–1 December 2009)

We aimed to search a specific oceanic area and we selected areas to 'chum' based on underwater topography, i.e. along contour lines and over seamounts. Chumming positions were carefully calculated in an effort to attract petrels in the vicinity or en route to the Blue or John Crow Mountains, which are cloaked in forest with deep 'leading' valleys suitable for breeding petrels. We used the same method for predicting the routes of petrels to the breeding islands in the late afternoon / evening as discovered during work on Zino's Petrel *Pterodroma madeira* and Fiji Petrel *Pseudobulweria macgillivrayi* (Shirihai 2009, Shirihai *et al.* 2009). Such flyways are selected based on the relevant island's topography, and prevailing wind directions.

During the expedition, we spent a total of 98.15 hours at sea (over the 10 days), of which c.50 hours were spent travelling between positions (but with continuous observations), and 43.25 hours of chumming at given positions.



“Chumming” locations used during this expedition. White flags – no petrels; red flags - 1-2 petrels; yellow flags – up to 12 petrels recorded

The chum used was in the form of frozen ‘blocks’, constituted of granular fish offal mixed with water (70% fish and 30% water), and each weighing 15 kg. Freezing the fish with water (-30°C) ensures that the fish offal floats (for c.40 minutes) before the block dissolves, thereby enabling petrels to find the fish before it sinks. A local ground team and fish factory prepared the blocks; in total we used c.1.5 tonnes of chum. *Pterodroma* petrels are more easily attracted to floating material, permitting more prolonged and closer views of the birds. We also used very dense, unrefined fish oil (c.600 litres) shipped from Miami, USA, by air, to Jamaica. The fish oil (in 3–7-litre ‘doses’) was placed on the water with 1–2 chum blocks every c.40 minutes. This formed a dense oily slick, up to one mile long, capable of attracting petrels over long distances. The same methodology was successfully employed in the rediscovery of Beck’s



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Placing frozen blocks of chum to attract *Pterodroma* petrels

Petrel *Pseudobulweria becki*, and the first pelagic records of Zino's and Fiji Petrels (Shirihai 2008, 2009, Shirihai *et al.* 2009).

Usually the boat drifted just off the 'chum slick', permitting birds to move freely along the 'slick' and to feed undisturbed, as well as affording us the best angle for observing birds already attracted to the area and those arriving later.

The boat and equipment

We used the fast, US-owned but Jamaica-based deep-ocean boat: the *One Love* is 16 m long and can accommodate four observers and crew on



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The "One Love"

board, as well as the freezers for the chum. The boat has a flying bridge affording good views in all directions. Mean travel speed to our chumming positions was c.14 knots, but the maximum speed was 20 knots. Our base was the marina in Port Antonio (north-east Jamaica). We used the most advanced camera

equipment, a Nikon DX3 with 500 mm and 300 mm lenses, to document petrel sightings, as well as a mobile GPS (a Garmin Colorado 300 with a marine chart programme) to waymark positions, travel between locations, and log sightings.

Guadeloupe and Dominica (2–10 December 2009)

Despite many logistical challenges concerning the preparation of the chum blocks, HS conducted four mass-chumming sessions, with the help of Anthony Levesque and Renato Rinaldi during his seven-day visit. Again, the main goal was to try to detect petrels during their return to the islands. One chumming session occurred off eastern Guadeloupe (coordinates: 16° 9'51N; 60°41'10W) with three others, off western (coordinates: 15°22'27N; 61°42'48W), south-west (coordinates: 15° 2'14N; 61°42'4W) and south-east (coordinates: 15°14'15N; 60°50'44W) Dominica, respectively.

Results and summary

Off Jamaica, we did not find Jamaican Petrel. Nevertheless, we observed a total of 46 individuals of the Endangered Black-capped Petrel. At this stage, it is impossible to be sure that these are Jamaican breeders, but their behaviour suggests they are and that the principal nesting area lies in the John Crow Mountains. They were observed coming close to the island during the late afternoon / evening, in small numbers, sometimes pairs (in one case a male and female were observed displaying). Furthermore, they nearly always seemed to head toward the island or to 'hang around' at sea below the mountains, as if waiting for darkness before flying inland.



Black-capped Petrels (male left, female right) observed in display behaviour in Jamaican waters

Prior to our observations, Black-capped Petrel had been recorded just once, south of the island, in Jamaican waters, a single bird seen en route to the Morant Cays (Zonfrillo & Douglas 2000). If the Black-capped Petrels we observed are Jamaican breeders, it is surely also possible that, just maybe, Jamaica Petrel clings on too.

Interestingly, all of the Black-capped Petrels seen and photographed during this expedition were of the black-headed type, appearing darker above (often with a greyish neck-collar) and smaller, with a broad-based and / or short bill. They were similar to the extreme dark-faced type

reported by Howell & Patterson (2008) based on their observations off the south-eastern USA. The plumage and size of the Jamaican birds also seems to match specimens in several museums, as well as those photographed by HS in June 2007 off the eastern USA. That all those observed off Jamaica were black-headed and smaller supports the notion that these features are representative of a certain population. Given the very limited knowledge of geographical variation from the breeding islands of this petrel, our observations represent an important building brick in understanding plumage variation in Black-capped Petrel.

The current expedition (including Guadeloupe and Dominica) represents a good starting point for understanding the population and variation of *Pterodroma* petrels in the Caribbean. There is still much to discover about Black-capped Petrels in the region, but further surveys and research, in partnership with local organisations and individuals, should serve to help preserve Black-capped Petrel, and may eventually lead to the rediscovery of Jamaica Petrel too. We plan to search for Jamaican Petrel again in 2011.

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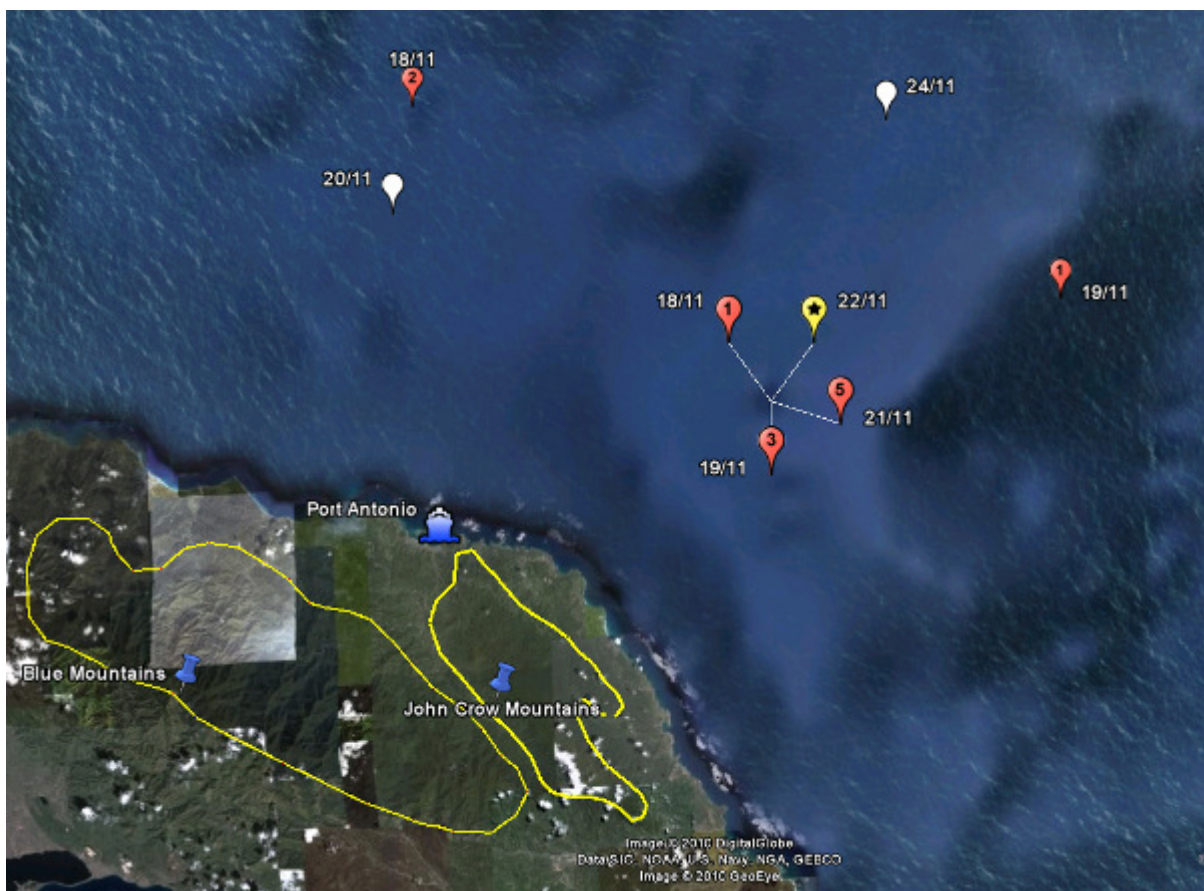
Black-capped Petrel – showing bold underwing pattern with solid back wing-tips, rather extended/solid dark-faced pattern and with short chunky bill, and small overall size (see also main text).

Jamaica: expedition diary

prepared by Hadoram Shirihihi and Maria San Román
(17 November–1 December 2009)

17 November 2009

The lack of wind meant we remained on land—petrels do not move in calm conditions and the smell of the chum does not disperse. We decided it would be better to go the following morning, when we would ‘test the waters’ by operating c.40 miles out of Port Antonio, then move to a position 15–20 miles out from the Blue Mountains, to wait for any returning petrels from late afternoon until dusk. We thus spent the day investigating the boat and chum including the fish oil, as well as having a meeting with several of the ground team working on the boat. It seems that this will be biggest petrel-chumming operation ever! We enjoyed a good meeting with the skipper and his team, who seemed as keen to find the Jamaican Petrel as we are. We agreed on several of the chumming positions for the first week, north, north-east and east of the island, and that if we do not find anything we will then evaluate whether to search south of the island or not.



North-east “chumming” locations and dates. Numbers in the flags represent numbers of Black-capped Petrels recorded on a particular day.

18 November 2009

This first day at sea, we spent 12 hours in the ocean, it only became windy c.40 miles out, with almost zero wind as far as 25 miles from land. Just after sunset (17.35 h) two Black-capped Petrels come to investigate the chum (but did not feed) for two minutes, before continuing straight for the island, towards Rio Grande. The moon is new, exactly the time when petrels prefer to return to the nesting grounds! The strange thing about these two Black-capped Petrels that they were relatively small and very dark above (on the head it appeared very extensive and I could see only very limited white on the neck and uppertail-coverts), but the underwing was normal. At least one of them also appeared smaller than most Black-capped Petrels in my experience. I am familiar with two / three types of Black-capped Petrel (dark-faced / small and pale-faced / large and intermediates), and I have photographed such birds in numbers off the USA, but both these birds appeared smaller and darker. However, the observation was rather brief with no light for photography, so I hope to find more such birds and to gain a more detailed impression of their characters. Despite the low numbers of birds, the team is very organised and I just hope it will work. We need to find a concentration of the trigger species (Black-capped Petrel) and the right winds...

Timetable & chumming positions. We left Port Antonio at 07.30 h, and due to favourable conditions reached our chumming position at 10.30 h. *One Love* proved to be an extremely fast and stable boat, and our speed for much of the time was in excess of 15 knots, despite the huge freezer and the chum on board. The first chumming was at 18°16'14.46"N, 76°10'56.86"W (c.40 miles north of Port Antonio), at 10.30–14.00 h; we then moved closer to land to chum at 18°29'55.89"N, 76°26'48.99"W (c.20 miles north of Port Antonio), at 15.30–18.00 h. We used ten chum blocks and three tanks of oil. We reached Port Antonio at 19.30 h. Sea condition: wind 5–10 knots, generally northerly to north-east most of the day; wholly to partially cloudy most of the day, but clearer in the evening.

Observers: MSR & HS.

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 18°16'14.46"N, 76°10'56.86"W (c.40 miles north of Port Antonio), 10.30–14.00 h: **Black-capped Petrel**– 1 at 11.40 h.

Seabirds observed on the chum at position 18°29'55.89"N, 76°26'48.99"W (c.20 miles north of Port Antonio), 15.30–18.00 h: **Black-capped Petrel** – 2 at 17.35 h (see above).

Totals: **Black-capped Petrel** – 3, Magnificent Frigatebird *Fregata magnificens* – 3 on the chum, and Red-footed Booby *Sula sula* – 1.

19 November 2009

The ocean today was different: the wind was up to 15 knots with larger waves, so we went further north-east, hopefully to 'catch' an even stronger wind. In the morning, we reached 33 miles out (see below) for the first chumming, and in the afternoon until dusk we chummed c.15 miles out, just below the Blue Mountains, to see if there are any petrels close to the island. Again today, just before and after sunset (16.30–17.50 h) three Black-capped Petrels investigated the chum before shortly afterwards heading towards the island. I photographed one of them, which appeared very small.

Timetable & chumming positions. We left Port Antonio at 09.20 h and reached our first chumming position after three hours, at 12.15 h, at 18°20'5.28"N, 75°57'22.58"W (c.33 miles north-east of Port Antonio), and chummed there until 14.30 h. We then moved closer to land to chum at 18°16'14.46"N, 76°10'56.86"W (c.13–16 miles north-east of Port Antonio), at 15.30–18.00 h. We used nine chum blocks and two tanks of oil. Port Antonio was reached at 19.00 h. Sea condition: wind 7–15 knots, generally north to north-east most of the day; partially cloudy to clear blue sky most of the day.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 18°20'5.28"N, 75°57'22.58"W (c.33 miles north-east of Port Antonio), 12.30–14.30 h: **Black-capped Petrel** – 1 at 13.40 h.

Seabirds observed on the chum at position 18°16'14.46"N, 76°10'56.86"W (c.13–16 miles north-east of Port Antonio), 15.30–18.00 h: **Black-capped Petrel** – 1 at 16.30 h, 1 at 17.00 h and 1 at 17.50 h.

Totals: **Black-capped Petrel** – 4, Magnificent Frigatebird – 1 on the chum, Royal Tern *Sterna maxima* – 3 near the marina.

20 November 2009

We decided to operate closer inshore, to check for incoming petrels in the evening, and so chummed c.15 miles out, off the Blue Mountains. Virtually no wind and no birds were seen.

Timetable & chumming positions: We left Port Antonio at 13.15 h and reached the chumming position at 14.30 h, at 18°25'18.78"N, 76°27'57.40"W (c.15 miles north-east of Port Antonio), and chummed there until 18.00 h. We used six chum blocks and one tank of oil. Port Antonio was reached at 19.30 h. Sea condition: wind 5 knots, generally north to north-east most of the day; partially cloudy to clear blue sky.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 18°25'18.78"N, 76°27'57.40"W, 14.30–18.00 h: None.

Totals: No birds seen.



Black-capped Petrel attracted to chum in Jamaican waters

21 November 2009

The wind was starting to build up, to just over 10 knots with larger waves, so we headed north-east to a point opposite the John Crow Mountains, and indeed Black-capped Petrels came to investigate the chum (and were photographed), before continuing in the direction of the island.

Timetable & chumming positions. We left Port Antonio at 10.50 h and reached our first chumming position at c.13.15 h. We operated about 13–16 miles offshore, and c.17 miles from Port Antonio, at 18°16'14.46"N, 76°10'56.86"W. We chummed there until dusk at 18.00 h. We used 11 chum blocks and two tanks of oil. Port Antonio was reached at 19.40 h. Sea condition: wind 10–12 knots, generally north to north-east for much of the day; partially cloudy to clear blue sky.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 18°16'14.46"N, 76°10'56.86"W (c.13–16 miles north-east of Port Antonio), 13.40–18.00 h: **Black-capped Petrel** – singles at 14.40 h, 15.47 h, 15.54 h, 16.05 h

and 16.32 h. **Band-rumped Storm-Petrel *Oceanodroma castro*** – 1 at 16.01 h.

Totals: **Black-capped Petrel** – 5, **Band-rumped Storm-Petrel** – 1, Magnificent Frigatebird – 1 on the chum, and Royal Tern – 3 near the marina.

22 November 2009

Still no evidence of Jamaica Petrel, but again we had a more favourable wind for petrels, up to 18 knots, with larger waves and good cloud cover. Thus, we headed to the 'hotspot' 13–16 offshore, at 18°16'14.46"N, 76°10'56.86"W (c.17 north-east of Port Antonio), and this produced the largest numbers of Black-capped Petrels to date. The current was moving SE–NW and the wind in the opposite direction (north-east), but we drifted north-west with the current, ending at 18°21'28.15"N, 76°14'59.18"W. Black-capped Petrels reached this area during the last two hours (15.53–17.44 h, ten birds of the total of 12): most investigated the chum briefly, before heading towards the island. Most did not attempt to take any food, just checked the chum and then continued. All were 'dark-faced' and smallish to medium-sized. Photographs were obtained of several birds.



Black-capped Petrel – all birds seen were of the small, dark-faced form

We now face something of a dilemma as to how to continue. The 'hotspot' just off the north-east corner of the island has proved productive, especially on those days when the north-east wind has carried the smell of the chum west and south towards the island. Many times, at the end of the day, petrels have been observed arriving to check the chum slick and then returning towards the mountains. These birds only arrive between c.16.00 h to dusk. In my opinion, if Jamaican Petrel is still extant, then it eventually will show up here. I am unsure whether to try

south of the island; it will be a very expensive gamble, as I will have to add c.US\$500 for each day, because of the distance, but I am still considering the possibility.

Timetable & chumming positions. We left Port Antonio at 10.15 h and reached the chumming position at 12.15 h, at 18°16'14.46"N; 76°10'56.86"W (13–16 miles offshore and c.17 miles north-east of Port Antonio), and chummed there until 18.00 h. We used 11 chum blocks and two tanks of oil. Port Antonio was reached at 19.45 h. Sea condition: wind 15–18 knots, generally north to north-east most of the day; full cloud cover to partially cloudy, with short rain showers.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 18°16'14.46"N, 76°10'56.86"W (c.13–16 miles north-east of Port Antonio), 12.15–18.00 h: **Black-capped Petrel** – singles at 15.33 h, 15.40 h and 16.24 h, three at 15.53 h (for 12 minutes), and 2 at 16.39 h, 2 at 17.16 h, and 2 at 17.44 h.

Totals: **Black-capped Petrel** – 12, Magnificent Frigatebird – 1 on the chum, Royal Tern – 2 near the marina.

23 November 2009

A day's rest, with some land-based birding... I had a meeting with the boat's operator as to the possibility of moving south, to check for petrels south or south-east of the island. We also checked with the coastguard; there is no possibility to use the jetty at Port Morant at short notice, and as a result we cannot connect the freezer (for the chum) to an electricity supply or refuel, whilst Kingston is still 50 miles away, and therefore not an option either. In any case, I tend to think that this side of Jamaica is much more developed and the forest less extensive, especially compared to the northern slopes of the Blue and John Crow mountains. I am confident that if Jamaican Petrel is still here, it will eventually appear at the 'hotspot'. Finally, the prevailing wind is from the north-east, and given my experience with Zino's, Beck's and Fiji Petrels, which all seem to approach their breeding islands with the wind, it seems that the 'hotspot' is the 'right' place to look, especially given the numbers of Black-capped Petrels we have already found. In any case, it seems we do not have any other choice and we must leave the south for another expedition. The problem now is the renewed lack of wind; perhaps the stronger winds in December or January will make our work more effective then? Now it is 05.30 h, still dark and the Jamaican Owl is calling in the garden.

24 November 2009

We operated slightly away from the 'hotspot', with the idea to reach closer to 75°W, where the weather maps promised stronger winds. However, even well out of Port Antonio it was too calm (5 knots), and no petrels were seen at all. It is difficult to watch the chum slick for hours with no petrels at all (my team, especially Maria and the skipper 'Skippy' also tried their best).

Timetable & chumming positions. We left Port Antonio at 10.00 h and reached our first chumming position at 13.10 h, at 18°28'16.52"N, 76°04'59.23"W (c.30 miles north-east of Port Antonio), and chummed there until 18.00 h. We used eight chum blocks and 1.5 tanks of oil. Port Antonio was reached at 20.15 h. Sea condition: wind c.5 knots wind much of the day; mostly clear sky.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 18°28'16.52"N; 76°4'59.23"W (c. 30 miles, NE off Port Antonio), 13.10–18.00 h: None.

Totals: None.

25 November 2009

Today we went south, south-east of the island, to 17°45'53.30"N, 75°52'34.59"W, to check for incoming petrels from the south. It was rather good, with seven Black-capped Petrels; the wind reached almost 20 knots and the sea state was obviously rougher. Two of the Black-capped Petrels, probably a male and a female (on size), stayed c.30 minutes on the chum (good photographs), and the apparent male was several times observed in partial display-flight behind the female and was vocalising (also photographed). But, this new position involved eight hours of travel for four hours of chumming. This location is good because on days with easterly or south-easterly winds, the smell of the chum is taken north and west, from which points the birds seem to arrive. The belief that if Black-capped Petrel breeds on Jamaica, and is perhaps not so rare in the northern mountains, is keeping us going because there must be some hope that Jamaica Petrel is still here too. We will continue working south opposite the John Crow Mountains.

Timetable & chumming positions. We left Port Antonio at 10.25 h and reached the chumming position at 14.30 h, at 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point, or c.50 miles from Port Antonio), and chummed there until 18.00 h. We used five chum blocks and one tank of oil. Port Antonio was reached at 21.00 h. Sea condition: wind 15–18 knots, generally north to north-east most of the

day; full cloud cover to partially cloudy most of the day.

Observers: MSR & HS

Seabirds observed en-route to chumming position: Unidentified terns.

Seabirds observed on the chum at position 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point, 14.30–18.00 h: **Black-capped Petrel** – 2 at 15.42 h (feeding at the chum slick for 32 minutes), 1 at 16.09 h (a different bird), 1 at 16.26 h, 1 at 17.22 h, 1 at 17.33 h; **Band-rumped Storm-Petrel** – 1 at 16.23 h; **Arctic Skua (Parasitic Jaeger)** *Stercorarius parasiticus* – 1 immature during much of the chumming session.

Totals: **Black-capped Petrel** – 6, **Band-rumped Storm-Petrel** – 1, Magnificent Frigatebird – 1 male on the chum, Arctic Skua – 1, Royal Tern – 3 near the marina.



South-east "chumming" hotspot and dates. Numbers in the flags represent numbers of Black-capped Petrels recorded on a particular day.

26 November 2009

We returned to yesterday's position, 17°45'53.30"N, 75°52'34.59"W, but the wind was against us and it dropped to 7–10 knots during much of the chumming session. Four Black-capped Petrels were seen, all rather briefly

around sunset. To date, all of the birds have been 'black-headed' and overall appeared darker and smaller, with a broad-based and / or short bill, similar to the extreme 'dark-faced' birds that Howell & Patterson (2008) described. That all the birds are black-headed and smallish supports the idea that these features possess a geographic basis; now we need blood samples from this population (and others), and to find where the pale-faced (dark-crowned) and larger birds breed and to acquire images and blood samples from them as well—perhaps in Guadeloupe?

Timetable & chumming positions. We left Port Antonio at 10.50 h and reached the chumming position (c.25 miles south-east of Morant Point) at 14.30 h, at 17°45'53.30"N, 75°52'34.59"W (almost 50 miles from Port Antonio), and chummed until 18.00 h. We used five chum blocks and one tank of oil. Port Antonio was reached at 21.15 h. Sea condition: wind max. 10 knots, generally north to north-east most of the day; partially cloudy.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point, 14.30–18.00 h: **Black-capped Petrel** – 1 at 17.12 h (ignored the chum), 2 at 17.13 h, 1 at 17.17 h (all arrived from the south-west, remained briefly, then continued toward the island); **Band-rumped Storm-Petrel** – 1 at 17.45 h.

Totals: **Black-capped Petrel** – 4, **Band-rumped Storm-Petrel** – 1, Magnificent Frigatebird – 2 males on the chum, Great Blue Heron *Ardea herodias* – a young bird attracted to the chum circled it several times, eventually landing on the water a few hundred metres away, where it was attacked by a frigatebird while swimming, Royal Tern *Sterna maxima* – 3 near the marina.

27 November 2009

No wind for petrels so we used the day to check the John Crow Mountains along the Rio Grande Valley road (from Port Antonio). However, a broken bridge blocked the road, and we could only reach Milkbank, below Joe Hill Peak (18°03'51.46"N, 76°25'12.67"W). In the Rio Grande Valley, one can appreciate the extent of natural forest habitat on the tops of the John Crows and the north-east slope of the Blue Mountains. We showed a few villagers images of Black-capped and Jamaica Petrels in the field guide, but only one, a pig-hunter (Patrick Smith), said that he had seen birds like 'Black-capped Petrel' in the John Crow Mountains. He pointed out a cliff on the main ridge, which I had spotted as potentially good for breeding petrels (location c.18°02'N, 76°23'W). Some days ago, the housekeeper of our rented villa in San San told us that, some years ago, her brother

found alive, a bird that looked like 'Black-capped Petrel' in the John Crow Mountains. He had given the bird to her and her mother. From the field guide she immediately and confidently identified the bird from its size and plumage in my photographs. Her family were formerly hunters and her brother collected the bird on the ground. Her description was accurate in many ways for Black-capped Petrel, including its 'strange webbed' feet. She also knows many of the local birds' names, so I feel confident that she indeed has seen a Black-capped Petrel from the John Crow Mountains.



North slope of the Blue and John Crow Mountains – possible nesting area for Black-capped Petrels

28 November 2009

We take another day's rest, simply because there is no wind and it is too calm for petrels.

29 November 2009

Today some wind had developed (max c.7 knots north of the island and just over 10 knots south-east of the island), so we decided to return to the south-east, at 17°45'53.30"N, 75°52'34.59"W, to check for incoming petrels from the south. Initially (around 15.00 h) the wind was c.13 knots, but later it dropped to c.7 knots and the numbers of petrels fell away. Wind is an obvious factor, with no wind no birds move. Today, Black-capped Petrels, in particular, visited the chum extremely briefly, with only three of 12 birds seen to take food. After investigating the chum, most seem to continue toward the island.

Timetable & chumming positions. We left Port Antonio at 10.30 h and

reached the chumming position at 13.45 h, at 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point), and chummed until 18.00 h. We used seven chum blocks and 1.5 tanks of oil. Port Antonio was reached at 21.00 h. Sea condition: wind max. 13 knots, generally north to north-east most of the day; partially cloudy most of the day.

Observers: MSR & HS

Seabirds observed en-route to chumming position: No birds but an unidentified pod of dolphins (distantly).

Seabirds observed on the chum at position 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point, 14.00–18.00 h: **Black-capped Petrel** – 1 at 14.29 h, 1 at 14.44 h, 3 at 14.57 h (2 new), 1 at 15.18 h, 2 at 16.15 h, 1 at 16.26 h, 1 at 16.42 h, 1 at 16.53 h, 1 at 17.25 h, 1 at 17.31 h.

Totals: **Black-capped Petrel** – 12, Magnificent Frigatebird – c.10 close to the island, Royal Tern – 6 near the marina. Also, at 16.00 h, close to the chum, a breaching whale was apparently a species of beaked whale, with small round blow, but the observation was too brief to enable a positive identification.



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Black-capped Petrel in Jamaican waters, November 2009

30 November 2009

The last day at sea. The forecast was for a windless day, but we were eager to try again and hoped that the wind would develop. It was a mistake, as there was virtually no wind during much of the chumming session and no Black-capped Petrels were observed. What a disappointing way to end.

Timetable & chumming positions. We left Port Antonio at 11.00 h and reached the chumming position at 14.30, at 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point), and chummed until 18.00 h. We used eight chum blocks and 1.5 tanks of oil. Port Antonio was reached at 21.15 h. Sea condition: wind 5–8 knots, generally south most of the day; partially cloudy most of the day.

Observers: MSR & HS

Seabirds observed en-route to chumming position: None.

Seabirds observed on the chum at position 17°45'53.30"N, 75°52'34.59"W (c.25 miles south-east of Morant Point), 14.30–18.00 h:
Leach's Storm-Petrel *Oceanodroma leucorhoa* – 1 at 17.43 h,
Pomarine Skua *Stercorarius pomarinus* – 2 at 17.07–18.00 h.

Totals: Magnificent Frigatebird – 6 close to the island, Leach's Storm-Petrel – 1, Pomarine Skua – 2, Royal Tern – 4 near the marina.

1 December 2009

Again, no wind today so we decided to do some local birding and to rest before leaving Jamaica the next day: Maria to Zurich and HS to Guadeloupe and Dominica.

Guadeloupe and Dominica (2–10 December 2009)

Despite four long and intense mass-chumming sessions off Guadeloupe and Dominica, we did not observe any Black-capped Petrels, although we did obtain regular sightings of Leach's Storm-Petrel (up to four simultaneously) and observed a strong passage of Pomarine Skuas (up to eight at once). The lack of petrels at sea was highly surprising and disappointing. However, we will return to check the area at another season.

On 9 December I visited the southern mountains of Dominica, and also met Arlington James (of the Forestry Department). He showed me more photographs of the captured Black-capped Petrel from May 2007. It seemed to be a recently fledged juvenile that had perhaps become disoriented due to the lights in Trafalgar village, but I could not be sure of its age without more information.



Black-capped Petrel found at Trafalgar in May 2007

The valley between Morne Anglais and Morne Trois Pitons looks perfect for breeding petrels, and Trafalgar could be a 'trap' for disoriented young petrels. Given this, I suggested to Arlington that he should encourage the villagers to contact him with any future information about petrels there, and I recommended some 'first aid' tips, to increase the possibilities of successfully releasing such birds. The visit to Dominica was useful in confirming that there is much habitat left on the island for breeding petrels (and unlike Guadeloupe there is no introduced mongoose).

Acknowledgments

HS and MSR will like to express their warm thanks and appreciation to the large teams that were involved under the organization of boat owner Vertis McManus (Managing Director, *Purex Business Inc.*). Vertis, together with the company's executive assistants, Jennifer Jones and Emmanuel Dickson, they pulled together an incredible team to operate the boat "*One Love*". We could not ask for better skippers: Reuben Bajjo ('Skippy') and Michael Douglas, as well as Glenford Brooks, Harold Anderson and Osberge Forbes that worked with us on board and in preparing our land-based trips.

Our land base was Villa Olatokunbo (also under the management of Vertis McManus and his family), in the private bird protected area 'San

San' (where nearly all Jamaican endemic land birds can be found), and which was managed by the most welcoming and helpful people that one can dream to work with: Clyve Lee, Madlin Harris, Maureen Thomas, George Green, Anthony Ramnaught, and again Osberge Forbes. Thanks to all of them.

Craig from Captain Harry's, Miami deserves many thanks for helping the expedition acquire the unique fish oil (100 gallons) and for the organization it to be flown from the US to Jamaica – this was surely the largest quantity of chum ever exported by air!

During the work in Guadeloupe and Dominica HS received much help and encouragement from a very professional team, especially Anthony Levesque and Renato Rinaldi (Association Evasion Tropicale, AET, Marine Turtles and Cetaceans conservation programme, Guadeloupe), and also to the boat operator Stéphane from Amical Sea, Guadeloupe.

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