

BRISBANE SEABIRD STUDY GROUP
Rare Seabird Forms



(Completed forms to be passed on to BQRAC or BARC, where appropriate).

Name: Jon Norling
Address:

Ph: (H) (W) **E-mail:**

Vessel: 46 ft Badenach monohull MV Grinner II
Crew:

No. of observers present: 15

Contact(s): (full name). Contact details: (include address, phone no(s). E-mail, etc.).

- 1). Brian Russell
- 2). David Harper
- 3). Luke Bennett

4). Rich Everett , , , _____

Date of sighting: 19/10/2019.

Time & duration of sighting: 0923 hrs for about 1 minute.

Species name: **Common:** **Scientific:**
Matsudaira's Storm-Petrel *Oceanodroma matsudairae*

No. of birds observed: 1

Location: 27 47.65S/153 57.98E or approximately 32 nautical miles ENE of Southport, Queensland.
Be precise & include GPS readings when possible.

Habitat (indicate in appropriate box).

Bay/Inlet	Headland	River Mouth	Ocean Beach	Shelf Waters	Slope Waters	Open Ocean	Other
					X		

Optical and/or other aids used: Naked eye (I have very good long range vision and never use binoculars at sea) plus Nikon D500 and 300mm f2.8 lens. Other observers used a combination of binoculars and other cameras.

Prior experience with this species: nil

Confidence in sighting? (e.g. 90%, 100% etc.): 100%.

I am absolutely confident that we sighted a very large all dark Storm Petrel. It has all the features of a *Hydrobatidae*, in particular, an *Oceanodroma*. I am satisfied that we have been able to rule out all but the Matsudaira's Storm Petrel. The only potential issue relates to the white showing on the base of the primaries of the sighted bird was less prominent than descriptions and other photos of the Matsudaira's Storm Petrel. I have been unable to obtain from the literature the extent to which this white showing on the base of the primaries differs across the age, moulting or separate breeding populations of the Matsudaira's Storm Petrel.

Received: **BQRAC Case No:** **BARC Case No:** **Recommendation:**

(Office Use Only).

FORM B

Weather Conditions: (including wind speed & direction).

Light winds from the SW on leaving the Seaway, turning E halfway across the shelf and then NE out wide barely exceeding 10 knots all day. Moderate cloud early, increasing out wide, with an electrical storm and rain encountered at the drift. Visibility moderate, maximum air temp. 24° C, barometer 1018 hPa.

At the time of sighting, wind was 3-5 knots from the ENE, sun was out and visibility was excellent as the bird approached the boat and as it rounded the bow. Once it passed the boat onto the port side, visibility reduced as it eventually flew into the glare of the sun. The sun was effectively squarely at my back as I observed it flying towards the boat.

Sea Conditions: (including water temp. °C, when possible).

Calm seas on a low swell on leaving the Seaway, increasing out wide to a swell of about 1.7 metres with little sea and at times becoming glassy. Sea surface temps. 22.1° C at the Seaway, dropping slightly to a minimum of 20.2° C halfway across the shelf and reaching a maximum of 24.4° C out wide.

At the time of sighting, sea conditions can best be described as calm and visibility was excellent and water temperature was 24° C.

General Observations: (include behaviour of bird(s), view, distance etc).

At the time of sighting the boat was drifting, with the bow pointed in a SE direction. I was positioned at the starboard transom and generally observing the downwind side of the boat (2 o'clock to 5 o'clock positions), from which the majority of birds were entering our field of vision. My views in this direction were unimpeded by other persons or boat structures.

I first noticed the bird approaching from about 2:30 o'clock flying towards the boat. It was flying low to the water. It was flying like a Storm Petrel, head down, leisurely flapping flight, but no dangling legs. It was a very large Storm Petrel and all dark at first glance. I knew immediately that this was a bird that I had never seen before and immediately called out to other observers words to the effect "this is something new, something very different, at 2:30 o'clock" in order to get as many observers as possible to sight this new bird. The distance at which I first observed the bird was probably about 50-60m. It passed the boat within about 5m of the bow. It continued flying away from the boat in the 9 o'clock direction. I lost sight of it as it was about 50m to the port side of the boat and it was not sighted again.

During its flight towards the boat, I focused my eyes on the bird to observe as much of its features as possible. I did not take a photo until it rounded the bow and was on the port side (unfortunately).

The bird maintained a very low position on the water at all times, not more than about 600mm above the surface, but not touching the surface like the *Oceanitidae*.

The bird presented as a very large all dark Storm Petrel, dark brown. Common with many Storm Petrels, it also showed a slightly pale upperwing bar (but not strongly or boldly pale). My first reaction was that it was the dark morph of the Polynesian Storm Petrel (knowing that this was the largest of the Storm Petrels and knowing that it had a rare dark morph). I first checked the bird for any semblance of white or lighter coloured areas on the rump, under the chin, on the belly or under the wings. By naked eye, all of these areas were dark.

My next focus was to observe the shape of the tail, looking for a square or fork. By naked eye, I could not see a fork in the tail. During the total time of my observation, the bird kept its tail in a closed position. At no time did I see it bank and/or fan its tail. This can be explained by the almost complete lack of wind at the time.

I also looked for its legs, being a common feature of *Oceanitidae* birds. I saw no foot projection either beyond the tail or below the body of the bird at any time.

By naked eye, the shape and angle of head (looking down), and what I could see of its bill (nostril sticking up from bill), all bore the hallmarks of a Storm Petrel. Its flight was leisurely, slow and measured, with an up and down motion, which I considered to clearly be consistent with a Storm Petrel. But it was also very large, lanky, rangy, with a longish tail and long pointed wingtips. Whilst clearly a Storm Petrel, it did not look like any *Oceanitidae* birds that I was familiar with.

I also provide the following observation by Luke Bennett, who was assisted by a Leopold Acadia 10x42 binoculars:

"I observed the bird well through binoculars for its transit across the front of the boat, initially at 90 degrees whilst flying into the prevailing breeze. It was certainly large, not even in the same ballpark as the four other Storm Petrel species around the boat on the day - I was content with the prevailing idea onboard of a Petrel species based on size alone. Other striking features were the flight pattern - relaxed, strong but slightly floppy, regular, direct, absence of erratic changes of direction, distinct carpal-forward habitus with long drooping tapered wingtips. Side-on, the bird appeared front-heavy, perhaps an impression due to a longer-tail."

After this sighting the consensus amongst other birders was that the bird was a Bulwer's Petrel, presumably based upon its large size, its pale upperwing bar and long 'rounded' tail. I have seen a single Bulwer's Petrel off the Gold Coast and several in Hawaii. I maintained that the sighted bird was not a *Bulweria*, *Pterodroma* or *Puffinus*, but rather a Storm Petrel.

It is noted that the wingspan of the Bulwer's Petrel is in the range 63-68cm. Whilst the wingspan of the sighted bird was clearly much larger than the 40-45m range of the four other Storm Petrels sighted that day, it would be my estimate that it was in the 55-58cm range and not the size of the Bulwer's Petrel. However, my primary reason for ruling out the Bulwer's Petrel of the day was on flight pattern, not precise estimates of wingspan.

Unfortunately, the only person on board the vessel that had experience with Matsudaira's and Swinhoe's (and other *Hydrobatidae*) Storm Petrels happened to be in the toilet at the time of the bird's sighting and missed it entirely— Paul Walbridge. That night, he stewed over the various descriptions of the sighted bird (particularly my insistence that it flew like a Storm Petrel) and requested copies of photos the next morning, specifically asking as to whether there was any white showing on the bases of the primaries. The ID of Bulwer's Petrel was quickly ruled out and he assisted in the identification of the sighted bird as a Matsudaira's Storm Petrel.

I also wish to acknowledge a number of people that assisted in the identification of this bird over the two days or so following this sighting. These include Paul Walbridge, David Stewart, Rohan Clarke and Jeff Davies (who put together the photo montage comparing the wing shapes of the sighted bird with the Swinhoe's Storm Petrel).

Description of Bird(s): (be as detailed as possible).

The bird presented as a very large all dark Storm Petrel. Photos clearly show the characteristic nostril on the bill and head shape and angle of a Storm Petrel.

Colour was a uniform dark brown, not black, not sooty, not grey-brown. It had a slightly pale upperwing bar, but this bar was not strikingly or boldly pale. It presented white bases to its primaries, limited to a short distance for about the outermost three primaries (it was moulting at least the outer two left primaries, which may have reduced the white showing on their bases). It is acknowledged that when the sunlight provided reflection at the right angle, a more extensive white reflection was provided. Otherwise, there were no white or pale areas showing on the rump, chin, belly or underwing.

The photos clearly show a long-winged bird with pointed wings. Its wings were held with a strong bend at the carpal.

In calm conditions, the bird flew into the light wind with a slow and deliberate flight, interrupted by very short glides. It was a leisurely, unhurried flight. Whilst it seemed to fly in a relatively straight line, it did not seem to do so with any particular intent (as in fast, direct flight). It maintained a trajectory very low over the water, but did not touch the water.

Whilst the bird held its tail closed at all times, one of the observers was able to photograph the bird in a rare banking maneuver, which clearly shows a fork in the tail. A couple of other photos hint at a fork in the tail.

The bird also presented as rangy or lanky in the sense that it is not stocky, like many of the *Oceanitidae*. The head and neck appeared long, as did the tail.

The photos show that the tail was in heavy moult and the outermost left primaries were also in moult. (The right wing was pointed away from us almost the entire time.).

The bird did not show its legs, ie no foot projection beyond the tail or below the body.

I did not know it at the time, but after careful subsequent study, the above description fits a *Hydrobatidae*, not an *Oceanitidae*.

How was it distinguished from other similar species?:

Size of this bird is considered to be a key feature of this particular sighting. I am very familiar with Wilson's Storm Petrel, Black-bellied Storm Petrel, White-faced Storm Petrel and Grey-backed Storm Petrel. I have also seen several 'Coral Sea' Storm Petrels, two White-bellied Storm Petrels and one Polynesian Storm Petrel (pale morph briefly on Kiritimati Island).

The wingspan of the Wilson's and Grey-backed Storm Petrels is approximately 40cm, with the wingspan of the White-faced Storm Petrel being 43cm, the wingspan of the Black-bellied, White-bellied and 'Coral Sea' Storm Petrels being in the 45-46cm range and the wingspan of the Polynesian Storm Petrel being 52-56cm (Onley and Schofield).

This bird was far larger than all but the Polynesian Storm Petrel. My immediate thought was that it was a dark morph of the Polynesian Storm Petrel (two sightings of the pale morph have occurred off Southport).

The dark features of this bird, together with its large size, significantly limits the candidate species of this bird to six: the dark morph of the Polynesian Storm Petrel *Nesofregetta fuliginosa*; Black Storm Petrel *Oceanodroma melania*; Markham's Storm Petrel *Oceanodroma markhami*; Tristram's Storm Petrel *Oceanodroma tristrami*; Matsudaira's Storm Petrel *Oceanodroma matsudairae*; and Swinhoe's Storm Petrel *Oceanodroma monorhis*.

After researching the literature, I have been able to eliminate all but the Matsudaira's Storm Petrel.

The dark morph of the Polynesian Storm Petrel can be eliminated due to the sighted bird's much narrower, longer and pointed wings, its more slender body, its distinctive bent wings at the carpal and the absence of foot projection, either behind the tail or below the body. Polynesian Storm Petrel presents as a very stocky bird with an absence of an obvious neck, its broad wings are mostly held out horizontally from the body and it uses its large feet to push off the water often when flying.

The Black Storm Petrel can be eliminated due to the sighted bird having a pale upperwing band that extends to the front edge of the wing (the pale band on the Black Storm Petrel has a clear break at the leading edge of the carpal), the feet not showing (the Black Storm Petrel has large feet that are often held below the body in flight) and it having a more slender bill. It is also noted that the Black Storm Petrel has a very limited distribution, mostly inshore and shelf distribution along the eastern Pacific Ocean. It is acknowledged that some Black Storm Petrels can show white bases on the primary shafts (Onley and Schofield).

The Markham's Storm Petrel can be eliminated due to the sighted bird having a much less bold pale upperwing bar. Onley and Schofield report that the Markham's Storm Petrel frequently flies up to a metre above the water in calm conditions before gliding downwards. This was not a characteristic of the sighted bird. It is also noted that the Markham Storm Petrel has a very limited distribution, in the eastern Pacific Ocean near Central America. It is acknowledged that some Markham's Storm Petrels can also show white bases on the primary shafts (Onley and Schofield).

The Tristram's Storm Petrel can be eliminated due to the sighted bird's much more slender and rangy body, the lack of a more prominent pale and bold upperwing bar and its substantially brown hue. The Tristram's Storm Petrel is described as having a much more sooty black and/or blue/grey hue than the brown hue exhibited by the sighted bird. The Tristram's Storm Petrel is also described as having a flight pattern that includes many steep banking turns followed by periods of gliding (Onley and Schofield). This was not observed with the sighted bird. The Tristram's Storm Petrel is also recorded as sometimes showing a pale grey rump (Menkhorst). This was not showing on the sighted bird. Menkhorst reports that Tristram's Storm Petrel never shows white bases to the primaries.

The Swinhoe's Storm Petrel can be eliminated due to the sighted bird's much larger size, less compact body, more lanky, rangier body and a slower more deliberate flight pattern. Photos of the sighted bird have been presented alongside a similar photo of a Swinhoe's Storm Petrel, showing the sighted bird to have more pointed wings and a longer narrower bill. Menkhorst reports that Swinhoe's Storm Petrel is smaller and has more rounded wings than the Matsudaira's Storm Petrel. The attached comparison photo of the sighted bird with a Swinhoe's Storm Petrel shows the trailing edge of the primaries in a straight line compared to a more convex shape on the Swinhoe's Storm Petrel. This difference in shape accentuates the more pointed appearance of the wings on the sighted bird, ruling out the more rounded wing profile of the Swinhoe's Storm Petrel.

It is recognised that the photos of the sighted bird mostly show white bases to the primaries. This is a feature common only to the Swinhoe's and Matsudaira's Storm Petrel on a regular basis. The literature indicates that these white bases to the primaries are generally more prominent on the Matsudaira's Storm Petrel than on the sighted bird. Whilst this feature on its own is suggestive of Swinhoe's Storm Petrel, on balance, the weight of evidence favours the Matsudaira's Storm Petrel. I have been unable to determine from available literature the extent to which the white base to the primaries varies with age and moult, which may help explain this variance.

Matsudaira's Storm Petrels breed on several islands to the south of Japan in the January to June period. They then disperse through Indonesia into the warmer parts of the Indian Ocean, where they are typically found in the August to November period. They are regularly sighted off Ashmore Reef in northwest Australia during this period.

Cheshire reports regular sightings of Matsudaira's Storm Petrel in the Bismark Sea, to the northeast of Papua New Guinea. It should be noted that the sighting of a Matsudaira's Storm Petrel off the Gold Coast in the Coral Sea is approximately 1,400 nautical miles south of the Bismark Sea and the timing of the sighting is consistent with the period in which the birds are remote from their breeding grounds.

It is speculated that the sighted bird has left its breeding islands in about June, travelled south and continued south past Papua New Guinea into the Coral Sea instead of travelling west to the Indian Ocean.

Other Comments:

Other species present on the day:

Wilson's Storm-Petrel – 21 (4)
White-faced Storm-Petrel – 1
Black-bellied Storm-Petrel – 5 (2)
Coral Sea/New Caledonian Storm-Petrel – 1
Wedge-tailed Shearwater – 10 (3)
Flesh-footed Shearwater – 2 (1)
Short-tailed Shearwater – 7 (2)
Tahiti Petrel – 7 (2)
Kermadec Petrel – 1
Providence Petrel – 19 (5)
Cooks Petrel – 1

Brown Booby – 1
Pied Cormorant – 1
Long-tailed Jaeger – 2 (1)
Sooty Tern – 4 (2)
Little Tern – 2
Sooty Tern – 4 (2)
Silver Gull – 4

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Form C



Swinhoe's Storm-Petrel – Rohan Clarke.



Sighted Bird 19/10/2019 Southport – David Harper
(showing forked tail and long pointed wings)



Sighted Bird 19/10/2019. Southport – David Harper.



Sighted Bird 19/10/2019. Southport – Brian Russell (showing white base to primaries)



Sighted Bird 19/10/2019. Southport – Brian Russell (showing white base to primaries)



Sighted Bird 19/10/2019. Southport – Jon Norling (showing white base to primaries, slight fork in tail and bent carpals)



Sighted Bird 19/10/2019. Southport – Jon Norling (showing white base to primaries and bent carpals)



Sighted Bird 19/10/2019. Southport – David Harper (showing white base to primaries and slight fork in tail)



Sighted Bird 19/10/2019. Southport – David Harper (showing too much white being reflected off primaries and slight fork in tail)