

Hudsonian Godwit (*Limosa haemastica*) at Orielton Lagoon, Tasmania, 09/03/2018

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Introduction:

This submission pertains to the observation and identification of a single Hudsonian Godwit (*Limosa haemastica*) at Orielton Lagoon, Tasmania, on the afternoon of the 9th of March 2018. The bird was observed in the company of 50 Bar-tailed Godwits (*Limosa lapponica*) and a single Black-tailed Godwit (*Limosa limosa*), and both comparative and diagnostic features were used to differentiate it from these species. Owing to the recognised difficulties in differentiating similar species of wading birds, this submission makes a detailed analysis of the features used to identify the godwit in question. If accepted, this sighting would represent the eighth confirmed record of this species in Australia, and the second record of this species in Tasmania.

Sighting and Circumstances:

The godwit in question was observed on the western side of Orielton Lagoon in Tasmania, at approximately 543440 E 5262330 N, GDA 94, 55G. This location is comprised of open tidal mudflats abutted by *Sarcicornia sp.* saltmarsh, and is a well-documented roosting and feeding site for Bar-tailed Godwits and several other species of wading bird. This has included, for the past three migration seasons, a single Black-tailed Godwit (extralimital at this location) associating with the Bar-tailed Godwit flock. The Hudsonian Godwit was observed for approximately 37 minutes, between approximately 16:12 and 16:49, although the mixed flock of Bar-tailed Godwits and Black-tailed Godwits was observed for 55 minutes prior to this time. The weather during observation was clear skies (1/8 cloud cover), with a light north-easterly breeze and relatively warm temperatures (wind speed nor exact temperature recorded). Throughout the observation period, the flock of godwits fed whilst moving closer to the observers with a rising tide, until coming to rest in order to roost, and finally being flushed by Masked Lapwings (*Vanellus miles*) and a Kelp Gull (*Larus dominicanus*) squabbling in close proximity.

Consequently, the Hudsonian Godwit was observed in clear and direct sunlight, at an ever-decreasing distance until the point the flock ceased feeding to roost at approximately 30 metres distance from the observers. Observations throughout were made using a Swarovski spotting scope (ATS 80 – 20-60x) and a digital camera rig (Nikon D7200 camera and Sigma 150-600mm 1:5-6.3 DG 105 lens), through which many photographs of the bird, included in this submission for reference, were obtained (Figures 1 – 13, Appendix 1).

Field Observations:

Both field observations and *in situ* photographic review have led to our identification of the godwit in question as a Hudsonian Godwit. The visit to Orielton Lagoon that led to the sighting was undertaken to locate the Black-tailed Godwit previously reported at the site, and so observations were conducted whilst attempting to discriminate between Bar-tailed and Black-tailed Godwit. Hence, upon arrival at the site the Black-tailed Godwit was relatively rapidly identified amongst the Bar-tailed Godwits, and with each change of position by the observers, this identification was again made easily as the lone Black-tailed Godwit was relocated within the flock.

However, with the last change of observer location at approximately 16:12, and subsequent scan of the flock to relocate the Black-tailed Godwit, a second bird was noticed in front of the Bar-tailed Godwits that bore superficial resemblance to a Black-tailed Godwit, roosting with its head tucked under its wing (Figure 1, see the figures section for this and all subsequent figures).

This bird was noted to have a relatively uniform and smooth greyish-brown tone across the back, mantle, neck, and nape, becoming slightly darker on the crown, and also featuring minimal flecking on the flanks and clean, white underparts, except around the vent (Figure 1). Further, it was noted that the visible parts of the head were uniformly brown-grey, darkening slightly on the crown, and that the supercilium, visible on the left hand side of the head, terminated at the eye, and was broad over the lores becoming less distinct before reaching the bill, though the base of the bill was obscured underneath the wing (Figure 1). The tail of the bird appeared to exhibit clear black colouration, with white at the very tips of the retrices, and the primaries also appeared quite dark brown, contributing to an overall impression of a dark tail in the field (Figure 1). The size of the bird was also notably small in comparison to the surrounding Bar-tailed Godwits (Figure 1).

These observations lead to the belief that there was potentially a second Black-tailed Godwit present. However, as the flock started to move up the flats towards the observers' location, the bird raised its head. At this point, it was noted that the bill appeared somewhat long, and was distinctly upturned (Figure 2). The supercilium on the right hand side of the bird was also noted to be broad over the lores before tapering to meet the bill, and while it terminated posteriorly at the eye, there was a clear patch behind the eye that looked not discontinuous in shape and colouration with the supercilium anterior of the eye (Figure 2). Throughout this time, the flanks and posterior end of the godwit in question were obscured by the movement of the surrounding birds, and so observations of this area were difficult. The anterior region of the bird, however, including the breast and front of the belly, was clearly visible, and demonstrated a clear demarcation between the greyish-brown colouration on the neck, and clean white on the underparts (Figure 3). This demarcation appeared quite abrupt, especially around the centreline of the bird, although there was some greyish-brown plumage trailing into the underparts towards the wings as they fell over the flanks (Figure 3).

The combination of the features described above, especially the upturned bill on what otherwise bore resemblance to a Black-tailed Godwit, led to the belief that the bird might be a Hudsonian Godwit. Hence, further observations were undertaken

considering this possibility. This was supported further when the flock was flushed. At this point, colouration of the upperwing, underwing and tail could be fully considered. When the bird flushed, it was immediately noted to have the appearance of very dark brown-black underwing coverts in the axillaries and subhumeral. These contrasted with lighter grey-brown primaries and secondaries, which were also marked with white along their conjunction with coverts on the upperwing, thus appearing somewhat translucent through the wing (Figure 4), and as a clear, white wing bar on the upperwing. This was broad on the primaries abutting the primary coverts, but narrowed adjacent to the greater secondary coverts, though it did still reach the back at a fine, tapered point (not photographed in initial observations, see Figure 8, Figure 11, and Appendix 1 for photographs from subsequent observations of the upperwing). As the bird flew nearly directly away whilst flushing, the tail displayed clear black retrices, contrasting strongly with a white rump and uppertail coverts. The retrices were also noted to have very narrow, yet still clearly evident, white tips, in contrast with the blackness of the rest of the tail (Figure 5, Figure 6).

Owing to both observers' limited experience with Hudsonian Godwit, and the small period of observation allowing direct viewing of the underwing, we did not eliminate the possibility that the darkness observed was a figment of motion or lighting rather than true plumage colouration. However, immediate *in situ* review of the images obtained on the back of the camera revealed that this colouration was not the result of shading or angle of observation, but was actually a feature of the plumage itself (Figure 4, Figure 5, Figure 6).

After the initial sighting of the godwit in question, Peter Vaughan returned to the site at 17:48, and observed the bird in amongst the godwit flock for two hours and four minutes, in the company of a number of reputable local birdwatchers and ornithologists (including Paul Brooks, Els Wakefield, Mona Loofs-Samorzewski, Karen Dick, and Ruth Brozek). These observations were undertaken at a greater distance than the original sighting, and in diminishing light levels, but the godwit flock flew and circled occasionally between resting and foraging, with all observers agreeing that evaluation of the features of the bird supported the identification of Hudsonian Godwit.

Identification:

The features described above strongly support, in the eyes of the authors, the identification of this bird as a Hudsonian Godwit.

In particular, the presence of dark brown-black underwing coverts is documented to be diagnostic for Hudsonian Godwit, and is not consistent with any other godwit species. Additionally, some features being reminiscent of a Bar-tailed Godwit, and some reminiscent of a Black-tailed Godwit in basic plumage, and yet with differences in these features from both these species, is indicative of the correct identification of this bird being a Hudsonian Godwit. Hence, we can further support our identification by using direct comparison to other species in order to eliminate them as candidates for the identification, firstly Bar-tailed Godwit and subsequently Black-tailed Godwit.

The Hudsonian Godwit was noticeably smaller and slighter than the proximal Bar-tailed Godwits, and this was evident as the bird was roosting, mobile on the ground,

and in flight (Figure 1, Figure 3, Figure 8). Further, while the bird featured a relatively long and upturned bill, this was not greatly similar to a Bar-tailed Godwit as it was still relatively shorter in length (Figure 7). The plumage colouration and pattern also differed substantially from the surrounding Bar-tailed Godwits, even when considering that the Bar-tailed Godwits were in many stages of transition into breeding plumage (Figure 9). The Hudsonian Godwit was much more uniform in colouration generally, with the overall pattern and tone described above differing from the streaky back, upperwings, mantle, head, and flanks of a Bar-tailed Godwit. The supercilium also differentiated the bird, as it resembled a clear, pale supercilium anterior to the eye standing prominently from a greyish-brown head, whereas in the Bar-tailed Godwits this overlaid a more streaky appearing head pattern with a prominent supercilium both anterior and posterior to the eye (Figure 7).

Further, the brown-black colouration of the underwing coverts, axillaries, and subhumeral of the bird was entirely inconsistent with a Bar-tailed Godwit, which demonstrate brown and white barring across the entirety of the underwings (Figure 5, Figure 6, Figure 9, Figure 10). The upperwing pattern of the Hudsonian Godwit was also distinctive with the presence of the white wing bar, which was not present in the Bar-tailed Godwits (Figure 8, Figure 11). The colouration of the tail and rump further differed from a Bar-tailed Godwit, as this species features a barred brown and white tail, while the bird in question possessed a fully black tail with white feather tips, and a fully white rump and uppertail coverts (Figure 5, Figure 6, Figure 8, Figure 11).

In subsequent sightings the foot projection of the godwit in question was also clearly observed, and was seen to be greater than in a Bar-tailed Godwit (Figure 8, Figure 11). Equally, the comparative leg length of the bird to a Bar-tailed Godwit was not clearly observed at any point. Hudsonian Godwit should have relatively longer legs than a Bar-tailed Godwit, especially in the tibia, and while this was not obvious to the observers in the field, the legs of the godwit flock were nearly totally obscured by water, and the legs of the bird in question were often further obscured behind other birds. Hence, lack of observation of this feature does not suggest that it did not simply go unobserved, and so should not necessarily detract from identifying the godwit in question as a Hudsonian Godwit.

Secondly, the Hudsonian Godwit can also be differentiated from a Black-tailed Godwit. Structurally, the bird was larger than the Black-tailed Godwit, and appeared bulkier, especially on the ground (Figure 2, Figure 3, Figure 7). Further, the bill of the bird was relatively longer than a Black-tailed Godwit, and was clearly upturned, a feature inconsistent with Black-tailed Godwits (Figure 7). While the overall colouration of the bird was superficially similar to a Black-tailed Godwit, the Black-tailed Godwit present in the field was entering pre-breeding moult (Figure 12). This made separation of the two individuals in the field easier, however it makes direct general comparison of the species' plumage more difficult by restricting the number of features that can be compared in photographs (Figure 12, Figure 13). Nonetheless, the supercilium of the Hudsonian Godwit was broader through the lores than in a Black-tailed Godwit, and was also more defined against the head colouration (Figure 7, Figure 12, Figure 13). This plumage definition was also observed in the transition from the greyish-brown breast to the white underparts of the Hudsonian Godwit, which while incomparable to the Black-tailed Godwit directly owing to the pre-breeding moult, was more distinct than would be expected of a Black-tailed Godwit in

basic plumage (Figure 3, Figure 10). The upperwing of the Hudsonian Godwit also demonstrated clear differences from a Black-tailed Godwit, as while there was a wing bar present, it was only broad through the primaries, whereas in a Black-tailed Godwit it should be much broader along its whole extent, up to terminating at the back (Figure 8, Figure 11). The key difference in wing colouration between the godwit in question and a Black-tailed Godwit lies, however, in the underwing. This is because the brown-black underwing coverts, subhumeral, and axillaries of the bird contrasted strongly with the underwing of a Black-tailed Godwit, which should be entirely white besides a greyish-brown trailing edge, and darker brown-grey leading edge at least to the carpal joint, but usually along the entire length of the wing. This was observed in the field, and was the key feature in making our identification of Hudsonian Godwit for the bird in question rather than Black-tailed Godwit (Figure 4, Figure 5, Figure 6, Figure 9, Figure 10). While the tail colouration and foot projection were largely equivalent between the bird in question and a Black-tailed Godwit, if perhaps a slightly shorter foot projection in the bird in question (Figure 8, Figure 11), this is expected from the documented appearance of these species, and so does not confound our identification.

Furthermore, for completeness, extralimital Marbled Godwit (*Limosa fedoa*) was eliminated from this identification owing to a number of features of the godwit in question discussed above. The dark underwing coverts of the bird in question are inconsistent with the underwing pattern of a Marbled Godwit, as is the upperwing pattern, as Marbled Godwit does not have a white wing bar. Further, Marbled Godwit have a barred uppertail and rump merging relatively smoothly with a clearly patterned back and mantle, as opposed to the Hudsonian Godwit, which had a black tail sharply contrasting with white uppertail coverts and rump, which then also contrasted relatively sharply with a greyish-brown back. The size of the bird in question is also incorrect for a Marbled Godwit, as this species is relatively larger than Bar-tailed Godwit, which were in evidence for comparison. Finally, Marbled Godwit has yet to be recorded in Australia, and so would be a highly unusual observation in its own right at this location, indeed more so than the species forwarded here.

There are, however, a number of features of this bird noted that do not match perfectly with written descriptions of Hudsonian Godwit. While we acknowledge that minor inconsistencies in features often occur on any one bird in real life, for completeness they merit discussion here.

Namely, Hudsonian Godwit is not widely reported to feature an irregularly patterned supercilium, especially anterior to the eye. A broken supercilium towards the bill is not, however, consistent with any other species of godwit, and the lighting conditions make it possible that the clear patch behind the eye on the right hand side of the bird is a product of plumage wear or variation. This suggests that the supercilium of the bird was perhaps uniform, predominantly terminating at the eye on both sides, and was much less distinct behind the eye (a feature also not known in Hudsonian Godwit, but if consistent on this individual might be the product of plumage variation). This feature was documented in subsequent observations of the bird, as noted in the Appendix 1.

Furthermore, Hudsonian Godwit is not documented as demonstrating white tips to the retrices. This feature, furthermore, appeared clear in the field, and appears obvious

in photographs obtained of the bird (Figure 5, Figure 6). However, this is also not consistent with any other godwit species, yet many Bar-tailed Godwits and the Black-tailed Godwit also in these images demonstrate similar colouration (Figure 5, Figure 6). It is not easy to ascertain whether this therefore represents plumage wear in these birds, perhaps combined with bright light, or is indeed true colouration, but given its appearance in many of the birds regardless of species, we do not see this as detracting from this bird being a Hudsonian Godwit.

The level of bleed at the lateral parts of the demarcation of colours on the breast is also not widely reported in Hudsonian Godwits, and Black-tailed Godwits are described as having a more diffuse boundary in colouration in this area. However, this is not similar to the bleed observed in the godwit in question either, being a more uniform change across the demarcation, and so it seems likely that the bleed observed was the result of either individual colour variation, or perhaps simply manifest from lighting conditions and angle of observation.

Previous Records:

For context and reference, there are seven previously accepted records of Hudsonian Godwit in Australia, listed below.

1. One bird at Dry Creek Saltfields, South Australia, 20/09/1986 (BARC case 123).
2. One bird at Lauderdale, Tasmania, 21/07/1991 (BARC case 127). This bird remained until May 1992, during which time it relocated to Orielton Lagoon.
3. One bird at Kooragang Island, New South Wales, 26/12/1982 (BARC case 148).
4. One bird at Werribee, Victoria, 13/01/2000 (BARC case 512).
5. One bird at Port Philip Bay, Victoria, 22/02/2009 (BARC case 592).
6. One bird at Lake Joondalup, Western Australia, 11/02/2012 (BARC case 732)
7. One bird at Lake Wollumbula, New South Wales, 23/12/2015 (BARC case 896).

In addition to these accepted records, there are six further records not yet officially recognised listed below.

1. One bird at Dry Creek Saltfields, South Australia, 15/04/1988 (eBird).
2. One Bird at Dry Creek Saltfields, South Australia, 18/02/2002 (eBird, Birdata).
3. One bird at Dry Creek Saltfields, South Australia, 19/02/2005 (eBird).

4. One bird at the mouth of Laverton Creek, Victoria, 18/05/2009 (Birdata, Birdline Victoria, eBird).
5. One bird at Dry Creek Saltfields, South Australia, 12/04/2012 (eBird).
6. One bird at Reef Island, Victoria, 18/11/2017 (Birdata, Birdline Victoria, eBird).
7. There are several further unsubstantiated records, especially as noted by Higgins & Davis (1996) at Kooragang Island in New South Wales, but no further information could be obtained on these sightings.

Concluding Comments:

In summary, there appears to be no doubt that the godwit addressed in this submission is a Hudsonian Godwit. In particular, the clear conditions of the sighting, the number of individual and experienced observers present, the ready comparison *in situ* with both confusion species in Australia, and the observation of several key features, especially the diagnostic dark brown-black underwing coverts, lead us to a high level of confidence in this identification.

There has been conjecture as to whether this bird might be the same as the Hudsonian Godwit seen at Reef Island three months before this sighting. Given the rarity of Hudsonian Godwit in Australia, this conjecture has credence through the coincidence of the observations alone. It is beyond our expertise to make any judgements as to the likelihood of this through such analyses as moult and plumage wear comparisons. However, we hope that the photographs included for reference in this submission might render this analysis more feasible. Of note in this regard is that the terminal primary (p10) of the bird appeared to be growing in on the right wing (Figure 4). Our observations and images do not clearly indicate whether this growth is symmetrical, (though see Figure 10 especially for reference to this possibility) but if so, estimates both for the age of the bird as an adult beyond its first year, and its identity relative to the Reef Island bird, might be made. These estimations might be enhanced by photographs obtained after the initial sighting, which, while evidencing progressed p10 growth on the right wing, could allow for comparative inference of historical growth stage on the left wing concurrently (Appendix 1). Furthermore, two images obtained subsequently to the initial sighting (Appendix 1) show the degree of wear on the visible feathers of the bird. These might also render possible some discussion on age and stage of the bird, and the likelihood of it being the same bird as that seen at Reef Island.

It is also worth noting that while the provenance of past records can be difficult to ascertain, given the timing of sightings there is a possibility that the Hudsonian Godwit observed at the mouth of Laverton Creek, as described above, is the same bird accepted by the committee for Port Philip Bay (BARC case 592) some three months prior. Further, there are several records that appear related to the 2005 report from Dry Creek Saltfields, which might imply a lone and long-staying bird. Owing to our modes used to investigate these sightings we make only this minimal comment upon them, but they may indicate something of the duration and timing of long-staying

Hudsonian Godwits in Australia, which might add to discussion of this record relative to the Reef Island bird.

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Figures:



Figure 1. Hudsonian Godwit roosting (3rd left, with Bar-tailed Godwits for comparison), Orielton Lagoon, 09/03/2018.



Figure 2. Hudsonian Godwit with head elevated (4th left, with Bar-tailed Godwits and Black-tailed Godwit (2nd right) for comparison), Orielton Lagoon, 09/03/2018.



Figure 3. Hudsonian Godwit with head elevated (4th left, with Bar-tailed Godwits and Black-tailed Godwit (2nd right) for comparison), Orielson Lagoon, 09/03/2018.



Figure 4. Hudsonian Godwit with wings raised (3rd left, with Bar-tailed Godwits and Black-tailed Godwit (4th left) for comparison), Orielson Lagoon, 09/03/2018.



Figure 5. Hudsonian Godwit in flight (6th left, with Bar-tailed Godwits and Black-tailed Godwit (5th left) for comparison), Orielton Lagoon, 09/03/2018.



Figure 6. Hudsonian Godwit in flight (6th left, with Bar-tailed Godwits and Black-tailed Godwit (4th left) for comparison), Orielton Lagoon, 09/03/2018.



Figure 7. Hudsonian Godwit with head elevated (2nd left, with Bar-tailed Godwits and Black-tailed Godwit (at right) for comparison), Orielson Lagoon, 09/03/2018.



Figure 8. Hudsonian Godwit in flight (2nd right, with Bar-tailed Godwits and Black-tailed Godwit (2nd left) for comparison), Orielson Lagoon, 10/03/2018.



Figure 9. Hudsonian Godwit in flight (2nd right, with Bar-tailed Godwits and Black-tailed Godwit (2nd left) for comparison), Orielson Lagoon, 09/03/2018.



Figure 10. Hudsonian Godwit in flight (2nd left, with Bar-tailed Godwits for comparison), Orielson Lagoon, 09/03/2018.



Figure 11. Hudsonian Godwit in flight (3rd left, with Bar-tailed Godwits and Black-tailed Godwit (2nd right) for comparison), Orielton Lagoon, 09/03/2018.



Figure 12. Black-tailed Godwit lateral view (2nd left, with Bar-tailed Godwits for comparison), Orielton Lagoon, 09/03/2018.



Figure 13. Hudsonian Godwit with head elevated (4th left, with Bar-tailed Godwits for comparison), Orielton Lagoon, 09/03/2018.

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