

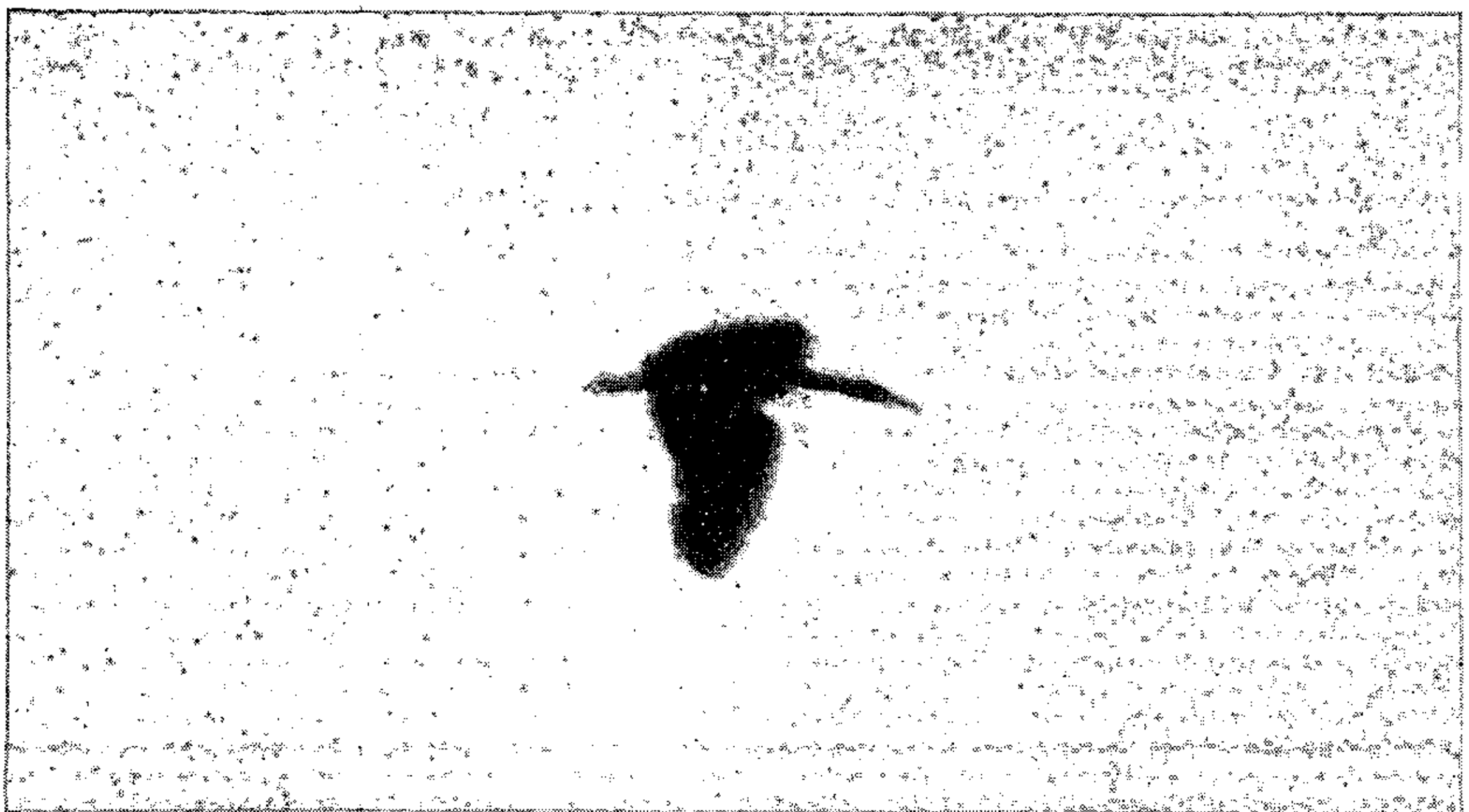
AUSTRALIAN BROLGA (*GRUS RUBICUNDA*) RECORDED IN NEW ZEALAND

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Mid-afternoon in warm and sunny weather on 8 January 1968 I had stopped at Punakaiki, Westland, to see the famed pancake rock formations. On my way back to the car I relaxed on the open plateau above the cliff formation, in order to remove an exposed film from my camera and insert a new one.

Having done so and before moving on, I incidentally or habitually scanned the sky and experienced immediately the bone-tingling thrill of seeing a large and unusual bird in steady and easy flight coming towards me from the sea to the north. The next few minutes were some of my most hectic ever experienced: I first of all was puzzled and surprised, and eliminated in no time all the species it could not be (not a heron as the long neck was stretched, not a Royal Spoonbill which is white) and very quickly arrived at the conclusion that this bird undoubtedly was a Brolga, till recently the only species of crane known in Australia (Lavery and Blackman, 1968, have now found the Eastern Sarus Crane, *Grus antigone sharpii*, breeding beside the Gulf of Carpentaria and near Atherton in northern Queensland since 1967). I was caught between two desires: to rush a few steps down a track to my wife who carried my 10 x 50 binoculars: and to photograph the bird. In seconds I picked up my binoculars, had a good long look at the bird, got my camera ready (Exacta with 135 mm. telephoto lens) and took a photograph of the bird which was by then a fair way off (cf. Fig. 1), and studied the bird again carefully in my binoculars till it disappeared from sight to the south.



[K. E. Westerskov

Plate XXXIX — Brolga in flight, Punakaiki, Westland.

All of this happened so quickly and thinking back I should probably have concentrated on photographing the bird when it flew almost straight over me, I would estimate at a distance of about 150 feet. As mentioned the bird came in from the sea to the north and later examination indicated that it was following the coast-line; it did not increase altitude when flying over the rocky peninsula where I was standing but continued in a straight unbroken line. As the plateau where I was standing was about 100 feet above sea-level (for which information I am grateful to Mr. B. L. Wood of the N.Z. Geological Survey, Dunedin), the overall altitude of flight above the sea and later the swamp to the south of Punakaiki was in the order of 250 feet.

The bird continued towards the south without gaining or losing altitude and finally disappeared from sight. Returned to the car I wrote this brief description in my notebook without any reference to descriptions (I did not have the opportunity to check the literature on this species till several days later after return to Dunedin):

"Large, dark grey, the size of White Stork, thick head with reddish face, long and stretched neck, long and pointed dark bill, long dark legs trailing behind. Flight not laboured like White-faced Heron, easier, more stretched wings. Brolga Crane?"

There were two reasons why I decided this bird was a Brolga: (1) During my work over the last couple of years with the manuscript to my 'Know Your New Zealand Birds,' I had checked most Australian ornithological literature on stragglers and potential avian immigrants and was well familiar with likely possibilities: (2) Last year I saw on two occasions H. J. Pollock's fine colour film 'Brolga' with many flight shots.

After the observation and making notes I proceeded by car southwards in the direction taken by the bird, photographing the swampy marsh habitat stretching for miles behind the coast-line. I spent the next couple of hours watching in my binoculars the sky, lagoons and lakes, open patches; and took the only road leading to the beach and walked to a nearby lake where I flushed four White-faced Herons. I also talked to three farmers in the area, one of them burning tree stumps in the middle of the swamp, but none of them had noticed any 'herons' lately.

As the bird was not to be seen and easily could have settled anywhere in the miles of flax and marsh country, I proceeded to Greymouth. Arrived here I phoned the Internal Affairs local field officer, Mr. T. Hartley-Smith and the Regional Representative of the Ornithological Society, Mr. P. Grant, to tell them about the bird and encourage them to look for it, but unfortunately found neither at home.

I then 'broke off action' and proceeded to Lake Brunner in order to continue my momentarily but so happily interrupted Crested Grebe work.

Looking back and having compared my notes on the spot and subsequent notes with information in Australian ornithological literature, I am convinced that this bird was a Brolga (*Grus rubicunda*).

I should like to discuss the main features in more detail:

(1) Size: The bird was of very large size, much bigger than White-faced Heron, clearly bigger than White Heron, and I immediately

thought of the European White Stork with which I was thoroughly familiar during my boyhood and youth in Denmark. It was also approximately of the size and general outline of the Sandhill Crane with which I became well familiar during my 1961-62 stay in Alberta, Canada, where I observed large flocks during migration.

(2) Plumage coloration: The bird was uniformly grey and appeared dark grey; this was probably because it was seen from underneath (lower surfaces in shadow) and flying, or possibly because it was an immature bird (which "differs from the adult in being darker," Mathews, 1921: 189).

(3) Neck: The most unusual and unexpected feature which immediately attracted my attention was the long, extended, straight and slightly drooped ("sagging") neck which at once ruled out the species of herons which *all*, in sustained flight, fly with head and neck tucked back in S-form on shoulder. The straight neck is easily noticeable in Fig. 1.

(4) Bill: The bill was stork-heron-like, long and pointed, and of dark colour.

(5) Head: I noticed two points about the head: It was "thick," i.e. it appeared heavier, not so slender as in herons, and it was reddish on the face.

(6) Legs: The legs were long, dark and extended, trailing beyond the tail. When the legs do not appear particularly long in Fig. 1, the reason is that this photograph was taken at an oblique angle, with the bird moving away from me, already an appreciable distance away. Also, the legs are not stretched straight out behind the bird but trail below the horizontal.

(7) Wings: The wings were dark, long, broad rounded at the tips, and more stretched as in White Stork and Sandhill Crane, not arched as in herons; compare for a visual impression the two photographs of flying Sandhill Cranes on pp. 87 and 116 in Aymar, 1936, particularly the latter showing the stretched wing-planes, with for example my photograph (Westerskov, 1967: 47) of a flying White Heron, showing the arched or curved wings.

(8) Flight: The flight was unlaboured and rhythmic, easy and graceful, not the characteristic somewhat laboured deep wing-beat of the herons. The wings were moved in a narrow arch.

(9) Habitat: The bird was seen following the coast-line or coming in from the sea to the north of Punakaiki and proceeding at unchanged altitude to and over the extensive miles of swamp and marsh country (with scattered lakes and lagoons) to the south. This habitat appears ideally suited and conforms fully with habitats given in Australia: "Frequenting plains and swampy areas" (Cayley, 1951: 5), "The brolga is a bird of the plains but not restricted to them: it frequents also swampy country and well-grassed flats, the margins of lakes and streams, away from the open plain, and may be met with around lily-lagoons in lightly timbered country up north" (Barrett, 1947: 22).

(10) Identification by elimination. Of all the Australian large-sized heron/stork/ibis types of birds that this bird could have been, identification by elimination was accomplished thus:

It was *not a heron* as all herons fly with neck in S-form resting on shoulders; also this bird was bigger than any herons in this region.

It was *not an ibis* as the three Australian species of ibis (of which two species have been seen in increasing numbers in New Zealand, cf. Andrew, 1963: 315) are much smaller, more of the size of White-faced Heron; ibises fly with stretched neck but have *decurved bill* like a curlew, and their flight is quite different, alternatively flapping and gliding; I had the opportunity to observe and photograph the Sacred Ibis in Kenya in 1965.

It was *not a stork* of which family only the giant Jabiru (Black-necked Stork) occurs in Australia; the Jabiru is black and white in plumage, has heavy black bill and red legs.

It was *not a Royal Spoonbill* which I have observed at Nelson and which is snow-white and has conspicuous, black spatulate bill.

And it was *not a bittern* of which all three Australian species are smaller, brown and mottled, with neck retracted as herons during flight.

DISTRIBUTION OF BROLGA

The Brolga is an endemic to Australia and New Guinea. It occurs according to Peters (1934: 153) in two subspecies, the type from *Grus rubicunda rubicunda* (Perry) in southern and eastern Australia and in the swampy lowlands of southern New Guinea, and *Grus rubicunda argentea* (Mathews) found in north-western Australia and the Northern Territory. The Brolga has not been recorded from Tasmania, but Mathews (1921: 189) mentioned that a Brolga has once been recorded from Central Asia; this record is doubted by Lavery (in litt.) because of the similarity between some individuals of Eastern Sarus Crane and Brolga.

In the 'Checklist of New Zealand Birds' (Fleming, 1953: 38), under the Order Gruiformes this footnote is included: "A large bird seen at Clevedon from March to May, 1947, has been identified as a Brolga (*Grus rubicunda* (Perry), Australia) from a feather found. Further evidence is required before this species can be added to the New Zealand list. See *Auckland Weekly News*, July 18, 1951: 38, and *Notornis*, 1952, 4 (7): 198." McKenzie and Cunningham (1952: 198) stated that "From March to May, 1947, a large bird was seen and heard in the vicinity of Clevedon by more than 80 people. From a study of all reports, and comparison with museum specimens of a feather found, it is concluded that the bird was a Brolga."

VERIFICATION

I had the opportunity to discuss my observation and photograph with several Australian ornithologists attending the A.N.Z.A.A.S. Science Congress held in Christchurch in January 1968. Among them was Mr. I. C. R. Rowley of the Division of Wildlife Research, C.S.I.R.O., Canberra; he advised me to show my material to Mr. H. J. Lavery, Research Entomologist of the Animal Health Station, Townsville, Queensland. Mr. Lavery has studied this species for a number of years and is a recognised Brolga specialist.

Mr. Lavery has very kindly studied and discussed my paper and photograph with his colleague, Mr. J. G. Blackman, with whom he has carried out Brolga studies since 1959. In a letter dated 3 August 1968, Mr. Lavery confirmed: "The description which you give is almost certainly that of a brolga; at 150 feet one is unlikely to mistake the species." And later: "We conclude by accepting the record as presented by you (see enclosed MS of extension paper)."

This last reference is to the paper by Lavery and Blackman (1968) included in my References. In this paper the authors state under Distribution (including my record): "Brolgas occur throughout northern and eastern Australia from Shark Bay, Western Australia, to south-western South Australia, and in New Guinea from Frederick Henry Island to the Fly River basin. Occasional birds have been recorded from other parts of the Australian mainland (e.g. Beacon in Western Australia) and adjacent islands (e.g. Sepik River basin in New Guinea, Willis Island and the South Island of New Zealand)."

My photograph of the flying Brolga is I readily admit photographically very poor and diagnostically of only limited help. The photo presented (Fig. 1) is an appreciable enlargement of a 35 mm. negative. It does show the following criteria: (1) long straight neck; (2) long pointed straight beak, both diagnostic features of the Brolga; (3) the long legs, and (4) the long wings are also diagnostic features and need more explanation. As the bird was at an appreciable distance when photographed, at an oblique angle and photographed partly side-ways, partly from behind (and of course from below), several distortions photographically can take place: the legs appear shorter because parts of their upper parts are hidden by or seen against an arching wing. I have studied big enlargements of my photograph (also as seen on the screen through a projector), but because of the long distance involved when the picture was taken and the fact that only a silhouette was obtained, it has not been possible to differentiate and see whether the right wing is the upper one, arched and with wing-tips bent down forwards and towards neck, or whether the right wing is the extended lower wing seen in photograph. The bird I saw was flying at ease, at unchanged altitude and undoubtedly aided by coastal up-currents of air; its outer primaries appear not separated, but this I have seen to be the case in photographs of other cranes (e.g. in K. Sogaard's fine photograph of a flock of the similar-sized Eurasian Crane, *Megalornis grus*, published in the Norwegian journal 'Jakt-Fiske-Frileuftsliv,' 97: 28, 1968). The wings and their interpretation (as to shape and relative position) also caused speculation by Lavery who, however, concluded: "but we are prepared to accept that this may be artefact."

As the Brolga may be seen again in Westland (or elsewhere in New Zealand), appreciable detail has been given in this paper to enable ornithologists to distinguish it if met in the field and point out how it differs from related species. For reading my manuscript and helpful comments and for the loan of the photographs I am grateful to Mr. H. J. Lavery and his colleague, Mr. J. G. Blackman.

CONCLUSION AND SUMMARY

A Brolga (*Grus rubicunda*) was observed on 8 January 1968 at Punakaiki, Westland, under good conditions. The bird was watched in 10 x 50 binoculars while flying over and a photograph taken; however poor this photograph, taken at appreciable distance of the disappearing bird, it does show the long stretched neck, long bill and legs, and long broad wings characteristic of this species.

Others may see the Brolga, I hope, and more Brolgas and possibly other large wading birds may come to this country from across the Tasman. Considering the frequent appearance of Australian herons, ibises and spoonbills in New Zealand and the nomadic and widely

roaming habits of the Brolga, the occurrence of this species in New Zealand cannot be considered an unexpected phenomenon; rather, it was on the 'waiting list' as it were.

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A NEW ZEALAND RECORD OF THE NORTHERN SHOVELLER

By P. J. HOWARD

A drake Shoveler in fine plumage was shot on the 6th May 1968 by Mr. Tony Cathcart of Onewhero in the Maungatawhiri Swamp, near Pokeno, Lower Waikato. I noted at once that it differed from the New Zealand Shoveler (*Anas rhynchos*). Reference to literature led to its tentative identification as a specimen of the Northern Shoveler (*A. clypeata*). H. R. McKenzie came to see it, bringing further literature and we were sure enough of the identity of the bird to refer it to Mr. E. G. Turbott and Mr. R. B. Sibson, by whom its identity was finally confirmed.

A study skin, A.V. 1224. 1 was made and is in the Auckland War Memorial Museum. Measurements are:— Length 487, Wing 241, Tail 94.5, Tarsus 32. Bill 63, Gonads 8 x 3.5 mm.

The head and neck are solidly a glossy dark green. There is no sign of the white crescent on the side of the face as in *rhynchos*. The breast is white, clearly and sharply defined from the green of the neck and the smooth russet brown or plum colour of the lower breast and belly. In both the white and the brown is a scattered pattern of very small patches of vermiculations. This is described by Witherby. The back is patterned as in *rhynchos*, but the colours are brighter. The under-tail has a broad white band across, whereas the New Zealand bird has only large side patches of white. No significant difference in the bill can be discerned. The legs are bright orange.

It is worth mentioning that when this bird was shot it was flying with a female of unknown species.

[*Anas clypeata* tends to travel further south on its migrations than other northern ducks and is not deterred by the 'heat barrier' of the tropics. As a stray it has reached South Africa and Australia. Its occurrence in New Zealand is therefore not as surprising as at first it may appear. — Ed.]