

The Western Reef-Heron (*Egretta gularis*) at Nantucket Island, Massachusetts

*Four thousand miles from the nearest point in its normal range,
this waif adds a new species to the Western Hemisphere list*

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A "WHITE-THROATED Little Blue Heron" was first noted by Edith and Clinton Andrews on Nantucket Island, Massachusetts, on April 24, 1983 with a "real" Little Blue Heron *Egretta caerulea*. For more than a month it was believed to be only a sub-adult pied Little Blue. But on June 7 the Andrews noticed that the heron had yellow toes. On June 22 and 25, at Edith Andrews' request, Cardillo photographed the bird. A few days later, after hearing Cardillo's verbal description, Ridgely first suggested that the bird might be a Western Reef-Heron. The transparencies were examined at the Academy of Natural Sciences, Philadelphia, and the identification was confirmed on July 11. Forbes-Watson and Michel Kleinbaum (both of whom were familiar with the species in Africa) went to see the bird on July 13-16 and confirmed the identification.

The bird's dark plumage, white throat, and colors of the bare parts are diagnostic, and the more subjective characters of the bill's heaviness and curved appearance served as clinchers (for details see below).

At this writing (September 1, 1983) the bird has been seen on virtually every day since the first sighting. Only infrequently has it been seen beyond the immediate vicinity of the *Spartina* marsh near Quaise where the University of Massachusetts has a field station. It occasionally visits the nearby sandy beach where, to those familiar with it in Africa, it looks much more "in place." It will be interesting to see what its response will be when winter approaches and the Snowy Egrets, with which it consorts, depart. It has even been suggested that it might be trapped and returned to Africa.

IDENTIFICATION

SEVERAL SPECIES of medium-sized herons in the genus *Egretta* have yellow toes contrasting with the darker tarsi. They fall naturally into three groups:

1. The Black Heron, *E. ardesiaca*, of Africa and Madagascar.

2. Three egrets, the Snowy, *E. thula*, of the New World; the Little, *E. garzetta*, of much of the Old World; the Chinese, *E. eulophotes*, of Asia.

3. The Western Reef-Heron, *E. gularis*, of coastal Africa and the Middle East to India; and the Dimorphic Egret, *E. dimorpha*, of Madagascar and Aldabra. These are often considered conspecific but it seems best to treat them as separate species as does Peters (1979). (The Eastern Reef-Heron, *E. sacra*, does

not have contrasting yellow toes.)

In a North American context, hitherto it has only been necessary to consider the three egrets in group 2. The Snowy is well known, but the other species have been recorded as accidentals. They are invariably snowy white in plumage (the Little has a very rare dark morph in Europe). All three reef-herons have dark and white morphs like Reddish Egrets, *E. rufescens* (and intermediate gray, lavender or speckled). In West Africa the dark is by far the commoner: only 2-3 white phase were found in a colony of 900 (Brown *et al.*, 1982). The occurrence of a dark egret-sized heron with yellow toes on Nantucket Island was, therefore, of considerable interest. Hybrids between Snowy Egrets and Little Blue Herons have been recorded (Palmer 1962), so it



Fig. 1. Western Reef Heron, Nantucket, MA, summer 1983. Drawing/Michel Kleinbaum.

was at first thought that this bird might be such a hybrid.

We have not been able to locate an actual description of a Little Blue × Snowy hybrid, but nonetheless are convinced that the Nantucket Island bird is in fact not of hybrid origin. Its bill is considerably heavier than a Little Blue's, not slighter as would have been expected in a hybrid between that species and the slender-billed Snowy. Furthermore, there is no indication of any loss of the yellow colors on the toes: if anything the yellow "slippers" of the Nantucket Island bird are even more conspicuous than on a Snowy, a situation perhaps enhanced by the bird's dark overall plumage. As noted above, all the morphological characters of the bird are consistent with it being *E. gularis*, as is its very active (some would call it "dashing") foraging behavior, quite unlike the relatively sedate Little Blue and more animated even than our graceful Snowy.

DISTRIBUTION

THE WESTERN REEF-HERON, as here recognized, is split into two subspecies: *E. g. gularis*, of coastal West Africa and *E. g. schistacea*, of the coasts of the Red Sea and northwestern Indian Ocean. Although normally sedentary, occasional individuals have been recorded in Spain and the Azores (Cramp *et al.*, 1977). It is pure speculation how the Nantucket Island bird crossed the Atlantic, but it is conceivable that it could have flown unaided, perhaps with a stop-over in the Azores. The distance from the nearest population in Mauritania is c. 4000 miles, with the Azores c. 4200 miles *en route*. It may have been carried by strong winds and, as reef-herons are known to perch on boats (Brown *et al.*, 1982) it may have rested for at least part of the crossing on a ship.

Description of Nantucket Island bird (in perfect frontal lighting, observed with a 3½ inch Questar, a 30× scope and 7 × 50 binoculars from field notes by AF-W and MK, July 14-16, 1983): General color uniform dark slate, in some lights with brown or purplish cast. When preening or windblown showed whitish bases to body feathers and some on rear flanks show most of time. Some lanceolate feathers on base of fore-neck, and some inconspicuous filamentous plumes from about halfway down back. These plumes indicate that the bird is an adult in



Fig. 2. Western Reef Heron, Nantucket, MA, summer 1983. Photo/Robert Cardillo. Note bill, throat, color of legs and feet.

non-breeding plumage (also evidenced by its lacking the two nuchal plumes carried in breeding plumage). Throat pure white with a very narrow dirty-white band across base of upper mandible. In flight, in good light, the primaries showed a narrow pale strip on the wing's trailing edge, sometimes giving a distinct white edge to closed wing. Legs blackish, toes bright yellow. A white band on the bare part of the tibia was sometimes seen; it was undoubtedly dried salt from the seawater. Bill mostly dull horn (greyer in some lights), upper part of culmen blacker, tip whitish. Bare lores and orbit dull pale cream with greenish cast in some lights. Iris pale dull whitish cream.

Bill seems heavier, longer and more "droopy" than nearby Snowies', the droop being due to the more strongly arched culmen and "countershading" of the bill. Some experienced observers even thought the bill was curved upwards! But this illusion occurred when the bill was glistening wet in strong overhead sunlight — then the upper part merged with the background while the lower was in harsh shadow.

The bird showed strong wing-molt in mid-July, but Cardillo's pictures show that at the end of June the hind wing-margin was perfect.

Behavioral notes. Although it roosted with the Snowy Egrets at night it was very aggressive towards them on the marsh and was often seen flying for ≤ 300 yards to join groups of ≤ 10 Snowies. At the time of our observation its daily pattern was as follows: at dawn it flew from the nearby roost to the western edge of the marsh, sometimes tolerating Snowies while preening. When the exceptionally high tides of the time had receded a bit it would fly to the plateau of belly-high *Spartina* in shallow water. Here it would very actively pursue insects (including dragonflies) and small fish c. 1-1½ inches long. It was seen to catch six fish in a minute, including two with one snap — they were held crosswise in the mandibles and then were gulped down. This feeding frenzy would last until the plateau was dry, when the heron would fish the open water of the leads and channels of the marsh. Its feeding pace would then generally be slower, although bursts of frantic activity sometimes occurred. The posture here was horizontal (similar to the position often adopted by the Green Heron, *Butorides striatus*), sometimes with deliberate foot-stirring of the bottom. The wings were sometimes held half-out from the body (in a so-called "canopy," although this



Fig. 3. Western Reef Heron, Nantucket, MA, summer 1983. Photo/Robert Cardillo.

never approached the perfect "umbrella" of a feeding Black Heron). Edith Andrews made the observation that canopy feeding was more often seen when the sun was directly overhead, suggesting it was shading the water surface for better visibility. It occasionally flicked one wing out, presumably for balance. Just before alighting and also when displacing the Snowies it would give a double complaining "aarerr" call. The bird was tamer than the Snowies; this is also true in West Africa where it is often in close association with native fishermen who do not normally molest it.

Issues raised. These main points should be noted:

1. The importance of photographs in verifying extraordinary sightings. These pictures are deposited with VIREO (Visual Resources for Ornithology) and available for future consultation.
2. The importance of following-up such sightings, particularly when they are made by observers known to be reliable.
3. The necessary parochialism of regional guides should not inhibit our searching for possibilities from farther

afield. Another good example: the Variegated Flycatcher, *Empidonomus varius*, in Maine. (Abbot and Finch AB 32:161)

4. A reef-heron in the Bahamas? P. Bergey (*in litt.* to R. Arbib) described a bird she saw on Grand Bahama on November 16, 1965. It was "shiny black all over with a yellow eye and as I recall, yellow legs." Without a more detailed description it seems best to regard this as a very hypothetical sighting.

5. Edith Andrews has promised to publish a complete history of "reefer" events subsequent to July 1983.

ACKNOWLEDGMENTS

The staff of the University of Massachusetts Field Station (Director W.N. Tiffney) are to be thanked especially for allowing a daily intrusion into their privacy by, to date (September 1, 1983) c. 2000 birdwatchers. The birdwatchers must be thanked for respecting the privileges accorded them. Without Edith and Clinton Andrews' original interest in the bird and their persistence in getting it examined, it may never have been correctly identified. To them lies the credit for re-

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BIBLIOGRAPHY

- BENT, A.C. 1963 Life histories of North American Marsh Birds: Dover reprint.
- BROWN, L.H., E.K. URBAN and K. NEWMAN, 1982 The birds of Africa. volume 1: Academic Press
- CRAMP, S. and K.E.L. SIMMONS (eds.) 1977. The birds of the Western Palearctic. Vol. 1: Oxford University Press
- ETCHECOPAR, R.D. and F. HUÉ. 1964 Les Oiseaux de Nord de l'Afrique: N. Boubeu and Co.
- HANCOCK, J. and H. ELLIOTT. 1978. The herons of the world: Harper and Row, New York.
- HEINZEL, H., R. FITTER and J. PARSLLOW. 1972 The birds of Britain and Europe: Collins
- KING, B., M. WOODCOCK and E.C. DICKINSON 1975. A field guide to the birds of South-East Asia: Collins
- MACKEWORTH-PRAED, C.W. and C.H.B. GRANT, 1970. Birds of West Central and Western Africa. Vol. 1: Longmans, London.
- PALMER, R.S. (ed.) 1962. Handbook of North American birds: Yale University Press, New Haven.
- PETERS, J.P. 1979. (E. Mayr and G.W. Cottrell, eds.) Check List of birds of the world Vol. 1 (2nd edition): Museum of Comparative Zoology, Cambridge.
- SERLE, W., G.J. MOREL and W. HARTWIG 1977. A field guide to the birds of West Africa: Collins
- SNOW, D.W. (ed.) 1978 An atlas of speciation: African non-passerine birds: British Museum (Natural History), London.
- TERRES, J.K. 1980. The Audubon Society encyclopedia of North American birds: Knopf, New York.
- and the various North American field guides.

—Visual Resources for Ornithology,
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