

## First Photographic Wintering Records of Chinese Pond Heron *Ardeola bacchus* and Squacco Heron *Ardeola relloides* from Nal Sarovar Bird Sanctuary Gujarat, India

**Rajni Trivedi\***

20/C Mangaldeep Apartment, Jodhpur Village Road, Satellite, Ahmedabad, India

**\*Corresponding Author:** Rajni Trivedi, 20/C Mangaldeep Apartment, Jodhpur Village Road, Satellite, Ahmedabad, India.

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### Abstract

#### Classification of Squacco pond heron and Chinese pond heron

Kingdom: Animalia

Phylum: Chordate

Class: Reptiles

Order: Ciconiformes

Family: Ardeidae

Genus: *Ardeola*

The bird Chinese pond heron *A. bacchus*, Squacco heron *A. relloides* and Javan pond heron *A. speciosa* are very closely related with Indian pond heron *A. grayii*. The Squacco *A. relloides* and Chinese pond heron *A. bacchus* are resembles of Indian pond heron *A. grayii*, so it is very indistinguishable during winter plumage. The bird Squacco heron *A. relloides* accurse in central and South-west Europe, Northwest Africa-Morocco, Aral seel, South-East Iran. During winter Migration Mediterranean and Middle East but main wintering site is in Tropica, sub-Sahara, Africa-Del hoyo [1], North-East Afghanistan, Turkistan-Rasmussen [2]. The bird Chinese pond heron *A. bacchus* is very widely distributed race, East and North-east Chine, South-west Japan, and Myanmar- del hoyo resident in north-east India and local movement elsewhere- Ali [3], rare and scarce in north-east India and Assam- Krys 2000 - 2012 [4]. Resident and winter visitor in north-east India- Grimett, *et al.* 2011 [5], resident and breeding in Assam in passage migrant east-Manipur but rare or scarce, vagrants coastal area of south-east Bangladesh and Sri Lanka- Rasmussen 2012. A. Choudhury gives it status uncommon and resident in Assam 2000. He included new records in his work. On 18<sup>th</sup> May 1993, he sited bird at Tingra district-Tinsukia, Assam, another record from south Assam-chacher district. When he was return back Hailakandi to Guwahati- South Assam 2008-Ib 5/6, two records from Western India. One from Saurashtra region of Gujarat. Bird was sited near Bhavnagar (Saurashtra) in May 1980 by Parasharya (Parasharya 1983; *et al.* 2004), another record from Rajasthan-Tal Chhapar wildlife sanctuary by S. poonia IB Vol 8/6. More records from south India- Tamil Nadu, Chennai by Samyak K. he observed at Kelambekklake-Chennai, on 13<sup>th</sup> March 2013-IB Vol 8/6. In this article I acquaintance about some my observation on Squacco heron *A. relloides* and Chinese pond heron *A. bacchus*, which I sited during birding trip of Sanctuary.

**Keywords:** Chinese Pond Heron; *Ardeola bacchus*; Squacco Heron; *Ardeola relloides*; Nal Sarovar Bird Sanctuary

**Observation area**

Nal Sarovar birds sanctuary is located (22°45' N, 72°00'E) 65 Ahmedabad city, 50 km east from Surendranagar, spreaded over (With Vadla, Kamijala, Kumarkhan- Vekriya wetland) roughly 500 sq km. has more than 350 Island, with spectacular Natural shallow lake and muddy lagoons, also open water body and many other diverse and micro habitat Create attraction for remarkable waterfowl. So, it was declared Bird sanctuary in April1969 and as Ramsar site in 2012.

**Sighting of Chinese pond heron *A. bacchus***

Fig. 1(a)



Fig. 1(b)



**Figure 1:** On 8<sup>th</sup> of September, 2017, I was birding near Kamijala Lake, along Viramgam-Nal Sarovar bird sanctuary road. I sited and photographed bird like pond heron, it was differ in plumage than Indian Pond heron *A. grayii*. Bird was juvenile, has a pinkish brown bill, dark on tip, greenish-yellow base, chestnut-brown head, neck and wing coverts. Less brown on scapular and wing edge, long neck rofous-brown streaked throat and central strip white, greenish-yellow legs and toes with shorter tibia and long tarsus wings are long and pointed, both birds were very much like Chinese pond heron, not a single records are available in North-East, North-West and South-west of India. Thus these records had created a confusion and question about wintering records.

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On 25<sup>th</sup> of October, 2019, I was birding near entrance of Nal Sarovar Bird Sanctuary, I observed pond heron differ in plumage than Indian. Has a long pointed bill with black tip and greenish-yellow base, upper mendable grey, lower base white is yellowish, cutting edge also yellow, large greenish-yellow orbital ring, chestnut-black mentle, rump, long greenish-yellow legs.

Fig. 2(a)



Fig. 2(b)



**Figure 2:** On 25<sup>th</sup> of October, 2019, I was birding near entrance of Nal Sarovar Bird Sanctuary, I observed pond heron differ in plumage than Indian. Has a long pointed bill with black tip and greenish-yellow base, upper mendable grey, lower mendable white on base, yellowish cutting, edge also yellow, large greenish-yellow orbital ring, chestnut-black mentle, rump, long greenish-yellow legs.

### Method

Fig. 1, 2 – Both birds were identified by consulting literature on birds. Birds were Chinese pond heron *A. bacchus*, but not a single wintering record are available from North, North-West, West, Central and South-West India. Thus I extended my observation for long time and included more site surrounding this lake.



**Figure 3:** Bird is probably a juvenile, has a short and pointed bill with greenish-yellow base, large greenish-yellow orbital ring, upper mendable dark brown tip, lower mendable pale, with yellow cutting edge. Dark brown head, mentale, back. Dark brown streaked breast and side of neck, throat and central styrip white, greenish-yellow legs, with shorter tibia and long tarsus.

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Fig. 4(a)



Fig. 4(b)



**Figure 4:** : Long thick bill with black tip and yellow base, greenish-yellow orbital ring, upper mandible greenish-yellow on base, pale in centre, lower mandible white on base, centre pale yellow. Yellowish-brown streaked head, mantle rump and wing coverts maroon, greenish-yellow legs.

Long thick bill with black tip and yellow base, greenish-yellow orbital ring, upper mandible greenish-yellow on base, pale in centre, lower mandible white on base, centre pale yellow. Yellowish-brown streaked head, mantle rump and wing coverts maroon, greenish-yellow legs.



**Figure 5:** Yellowish brown streaked head and neck, throat and central strip white, long bill, yellow on base, tip dark, lower mandible yellow in centre, greenish-yellow large orbital ring, greenish yellow legs.

Yellowish brown streaked head and neck, throat and central strip white, long bill, yellow on base, tip dark, lower mandible yellow in centre, greenish-yellow large orbital ring, greenish yellow legs.

Fig. 6(a)

Fig. 6(b)



**Figure 6:** Maroon streaked head and neck, throat and central strip white, short thick bill, dark brown upper mendable, yellowish lower mendable, white on base, tip dark, greenish-yellow large orbital ring.

Maroon streaked head and neck, throat and central strip white, short and thick bill, dark brown upper mendable, yellowish lower mendable, white on base, tip dark, greenish-yellow large orbital ring.

Fig. 7(a)

Fig. 7(b)



**Figure 7:** Rofous-brown streaked head, white throat, large greenish-yellow orbital ring, long bill with pointed black tip, yellow on base, greyer upper mendable, lower mendable white on base in centre yellow.

Rofous-brown streaked head, white throat, large greenish-yellow orbital ring, long bill with pointed black tip, yellow on base, greyer upper mendable, lower mendable white on base in centre yellow.

Fig. 8(a)

Fig. 8(b)

Fig. 8(c)



**Figure 8:** Rofous brown streaked head with long neck. White on throat and central strip white, long bill with black tip and yellow base, upper mendable grey, lower mendable white on base, centre yellow, yellowish large orbital ring. Blackish-brown rump and mentle, white on wing edge, greenish yellow long legs, pointed large wings white.

Rufous brown streaked head with long neck. White on throat and centre strip, long bill with black tip and yellow base, upper mendable grey, lower mendable white on base, centre yellow, yellowish large orbital ring. Blackish brown rump and mentle, white on wing edge, greenish yellow long legs, pointed large wings white.

Fig. 9(a)



Fig. 9(b)



**Figure 9:** Greenish-yellow orbital ring, upper mendable pale brown, dark on tip, lower mendable yellow, base white, dark brown streaked head and neck, pale brown mentle, buff brown on primary coverts.

Greenish-yellow orbital ring, upper mendable pale brown, dark on tip, lower mendable yellow, base white, dark brown streaked head and neck, pale brown mentle, buff brown on primary coverts.

Fig. 10(a)



Fig. 10(b)



**Figure 10:** Bird has blackish-brown streaked head and neck, large greenish-yellow orbital ring and legs, long bill, upper mendable dark grey with yellow base, lower white on base, central yellow, tip black, white throat and central strip white.

Figure 13 bird has blackish-brown streaked head and neck, large greenish-yellow orbital ring and legs, long bill, upper mendable dark grey with yellow base, lower white on base, central yellow, tip black, white throat and central strip white.

#### **Sighting of squacco pond heron *A. ralloides***



**Figure 11:** Birds were different in plumage and Indian pond heron *A. grayii* has a dark black streaks on head plumes and site of neck, pale brown mentle , dull yellow legs and orbital ring, upper mandible dark brown, lower dull yellow, black dark tip, white on fourwing.

Figure 11 birds were different in plumage and Indian pond heron *A. grayii* has a dark black streaks on head plumes and site of neck, pale brown mentle, dull yellow legs and orbital ring, upper mandible dark brown, lower dull yellow, black dark tip, white on fourwing.



**Figure 12:** Bird has a rofous-brown streaked head plumes, tonny buff mentle, pale four wings, heavily rofous-brown streaked on breast, yellow orbital ring, pinkish-brown upper mindable, lower mindable yellowish- brown with black tip, throat and center of neck, breast, belly, vent and thigh white, pale rofous brown mentle and rump.

Figure 12 bird has a rofous-brown streaked head plumes, tonny buff mentle, pale four wings, heavily rofous-brown streaked on breast, yellow orbital ring, pinkish-brown upper mindable, lower mindable yellowish- brown with black tip, throat and center of neck, breast, belly, vent and thigh white, pale rofous brown mentle and rump.



**Figure 13:** Bird was perched in up-right stance, near reed bed, has a long slender neck, with dark brown streaked head plums and site of neck, throat and central streak white, yellow orbital ring, long pointed bill with upper mandible black, lower dark on base, central yellowish, dark tip, dark brown mentle and rump, silver-white wings edge, dull yellow legs, white on belly, breast and vent.

Figure 13 bird was perched in up-right stance, near reed bed, has a long slender neck, with dark brown streaked head plums and site of neck, throat and central streak white, yellow orbital ring, long pointed bill with upper mandible black, lower dark on base, central yellowish, dark tip, dark brown mentle and rump, silver-white wings edge, dull yellow legs, white on belly, breast and vent.



**Figure 14:** Indian pond heron *A. grayii*.

### Comparison

Indian Pond Heron *A. grayii* has a yellow small orbital ring, black strip before eye not in Squacco heron and Chinese pond heron (Figure 1-13), but has a large greenish-yellow or dull-yellow orbital ring, and lacking of black strip before eyes also they have dull-yellow or greenish-yellow legs, not in Indian pond heron *A. grayii* (Figure 14).



Wintering records of Chinese pond heron *A. bacchus* and Squacco heron *A. relloides* with site, date and latitude-longitude

Figure	District	Latitude-Longitude	Sex	Date
1	Shiyal, T-Bavla, Ahmedabad	22.68 °N, 72.15 °E	Juvenile	8-9-2017
2	Kumarkhan, T- Viramgam, Ahmedabad	26.01 °N, 86.97 °E	Adult	25-10-2019
3	Shahpur, T- Viramgam, Ahmedabad	19.45 °N, 73.32 °E	Juvenile (Fresh)	9-7-2020
4	Malika, T-Lakhtar, Surendranagar	14.79 °N, 17.33 °E	Juvenile (Fresh)	3-9-2021
5	Kayla, T- Viramgam, Ahmedabad	21.76 °N, 70.29 °E	Adult	6-11-2021
6	Kayla, T- Viramgam, Ahmedabad	21.76 °N, 70.29 °E	Adult	23-10-2022
7	Dharji, , T- Viramgam, Ahmedabad	17.46 °N, 78.50 °E	Probably Juvenile (Fresh)	26-10-2022
8	Kamijala, , T- Viramgam, Ahmedabad	22.93°N, 72.01 °E	Adult	26-10-22
9	Nanikatechi, T-Lakhtar, Surendranagar	22.86 °N, 71.79 °E	Adult	6-11-2022
10	Vekaria, T- Viramgam, Ahmedabad	20.71 °N, 70.98 °E	Adult	6-11-2022
11	Malika, T-Lakhtar, Surendranagar	14.79 °N, 17.33 °E	Adult	19-10-2021
12	Vadla, T-Lakhtar, Surendranagar	66.30 °N, 29.14 °E	Adult	11-11-2021
13	Vekaria, T- Viramgam, Ahmedabad	20.71 °N, 70.98 °E	Adult	12-11-2021

Conclusion

1. The bird Squacco pond heron (Figure 11-13), are rare or scarce or winter visitor or vagrant.
2. The bird Chinese pond heron might be winter visitor, but overlooked due to it is a resemble of Indian Pond heron, so it is very indistinguishable during winter plumage.

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