

REFERENCES

- Ali, S. and Vijayan, V. S. (1983) *Hydrobiological (ecological) research at Keoladeo National Park, Bharatpur. First interim report*. Mumbai: Bombay Natural History Society.
- Ali, S. and Ripley, S. D. (1987) *Compact handbook of the birds of India and Pakistan*. Delhi: Oxford University Press.
- BirdLife International (2001) *Threatened birds of Asia: the BirdLife International Red Data Book*. Cambridge, U.K.: BirdLife International.
- Burger, J. (1981) A model for the evolution of mixed-species colonies of ciconiiformes. *Q. Rev. Biol.* 56: 143–167.
- Coulter, M. C. and Bryan Jr, L. (1995) Factors affecting the reproductive success of Wood Stork (*Mycteria americana*) in east-central Georgia. *Auk* 112: 237–242.
- Desai, J. H., Menon, G. H. and Shah, R. V. (1977) Studies on the reproductive pattern of the Painted Stork, *Ibis leucocephalus*, Pennant. *Pavo* 15: 1–32.
- Fujioka, M. (1986) Two cases of bigyny in the Cattle Egret *Bubulcus ibis*. *Ibis* 128: 419–422.
- Gaston, A. J. (1994) Some comments on the ‘revival’ of Sultanpur lake. *Oriental Bird Club Bull.* 20: 49–50.
- Gupta, R. K. and Nangia, S. (2005) Population explosion and land use changes in Gurgaon city region—a satellite of Delhi metropolis. Unpublished paper downloaded on 18 August 2006 from: <http://iussp2005.princeton.edu/download.aspx?submissionId=50502#search=%22iussp2005.princeton.edu%2Fdownload.aspx%3FsubmissionId%3D50502%22>.
- Harvey, B. (2003) Checklist of the birds of Sultanpur. Downloaded on 18 August 2006 from: <http://www.delhibird.net/content/view/73/89>.
- Islam, M. Z. and Rahmani, A. R. (2004) *Important Bird Areas in India: priority sites for conservation*. Mumbai and Cambridge, U.K.: Bombay Natural History Society and BirdLife International.
- Kalpavriksh (1994) *Small and beautiful Sultanpur National Park*. New Delhi: Kalpavriksh.
- Kharitonov, S. P. and Siegel-Causey, D. (1988) Colony formation in seabirds. *Curr. Ornithol.* 5: 223–272.
- MacDonald, M. (1962) *Birds in the sun: some beautiful birds of India*. London: D.B. Taraporevala.
- McNeil, R. and Leger, C. (1987) Nest-site quality and reproductive success of early and late-nesting Double-crested Cormorants. *Wilson Bull.* 99: 262–267.
- Naoroji, R. (1990) Predation by *Aquila* eagles on nestling storks and herons in Keoladeo National Park, Bharatpur. *J. Bombay Nat. Hist. Soc.* 87: 37–46.
- Poole, C. (1994) Sultanpur lake revived. *Oriental Bird Club Bull.* 19: 15.
- Saxena, P. (2004) HUDA shuts off water flow to bird sanctuary, *Times News Network*, 29/10/04. Downloaded on 18 August 2006 from: <http://timesofindia.indiatimes.com/articleshow/903181.cms>.
- Shah, R. V. and Desai, J. H. (1975) Growth and development of Painted Stork *Ibis leucocephalus* Pennant. II. Post hatching growth pattern and motor development. *Pavo* 13: 88–101.
- Skutch, A. F. (1976) *Parent birds and their young*. Austin, Texas: Texas University Press.
- Sundar, K. S. G. (2005) Predation of fledgling Painted Stork *Mycteria leucocephala* by a Spotted Eagle *Aquila spp.* in Sultanpur National Park, Haryana. *Indian Birds* 1: 144–145.
- Urfi, A. J. (1993) Heronries in the Delhi region of India. *Oriental Bird Club Bull.* 17: 19–21.
- Urfi, A. J. (1997) The significance of Delhi Zoo for wild waterbirds, with special reference to the Painted Stork *Mycteria leucocephala*. *Forktail* 12: 87–97.
- Urfi, A. J. (1998) A monsoon delivers storks. *Natural History* 107: 32–39.
- Urfi, A. J., Meganathan, T., Kalam, A. and Mahendiran, M. (2005a) Nesting of Asian Openbill and other heronry birds at Sultanpur National Park (IBA). *Mistnet* 6: 10–11.
- Urfi, A. J., Sen, M., Kalam, A. and Meganathan, T. (2005b) Counting birds in India: methodologies and trends. *Curr. Sci.* 89: 1997–2003.
- Westneat, D. F., Sherman, P. W. and Morton, M. L. (1990) The ecology and evolution of extra-pair copulation in birds. *Curr. Ornithol.* 7: 331–369.

Abdul Jamil Urfi, Thangarasu Meganathan and Abdul Kalam, Department of Environmental Biology, University of Delhi, Delhi 110 007, India. Email: ajurfi@rediffmail.com

White-winged Duck *Cairina* (= *Asarcornis*) *scutulata* and Blue-tailed Bee-eater *Merops philippinus*: two new country records for Bhutan

ANWARUDDIN CHOUDHURY

In this note I report the recent addition of two new species to the list of Bhutan’s avifauna.

WHITE-WINGED DUCK *Cairina* (= *Asarcornis*) *scutulata*
This is an Endangered species (BirdLife International 2004), occurring from north-eastern India to Indonesia (Green 1992, Choudhury 1996, 2000, BirdLife International 2001). In north-eastern India, it is mainly known from the rainforests of eastern Assam (Ali and

Ripley 1987, Choudhury 2002). In Assam, the bird has not been recorded from areas close to the India-Bhutan international boundary. The nearest record was from near Barpeta (c.26°25'N 91°02'E, c.50 km south of the nearest point on India-Bhutan international boundary) in 1886 by Stuart Baker (Green 1992). It is resident in its range across South-East Asia with some local movement depending on water conditions (Choudhury 2000, BirdLife International 2001).

On 3 August 2006, I observed and video-recorded the first instance of a White-winged Duck in the Mathanguri (Matharguri) area (26°47'N 90°58'E) of Manas National Park, Assam, India (Choudhury 2006). The duck was resting by the side of a pool at 17h15, about 30 m away from me. The light was good, and with a 10× telescope, I could see its blackish-brown upperparts with metallic green hue. The underparts from breast to flanks were chestnut-brown. The head and neck were white with black speckles. The bill was orange-yellow with black spots, and the legs were also orange-yellow, but paler than the bill. When the bird took flight after about a minute, a large white patch on its wing shoulders (upper wing-coverts) became prominent. The bluish-grey secondaries, which I had not noticed earlier, were also visible in flight, as seen in the video recording. Its small size and slightly dull coloration suggested that the bird was not an adult male. The iris colour differs between the sexes (orange-yellow in the male; brown in the female), but the eyes were closed when the bird was resting and the iris could not be observed. Later that day I saw one (possibly the same individual) and heard two more ducks of this species at 18h00 and 18h10, respectively. The calls were recorded on the audio track of the video camera. On the morning of 4 August at 04h50, one White-winged Duck was seen on the water and two others in a tall *Bombax ceiba* tree. At 05h15, one duck perched low in a *B. ceiba* tree, in semi-silhouette, was video-recorded with a Sony camcorder (20× optical zoom). On 9 August at 17h50, a call was heard in the same area.

On the night of 3 August 2006, i.e., the day of the first sighting, at around 19h30 I heard the honking call of White-winged Ducks near the forest bungalow at Mathanguri on the international border. One duck was seen and it is possible that I missed another one because of poor visibility. The bird(s) flew from south to north and then turned towards the south-east. In the process it (they) flew between the Boundary Pillars numbered 200 and 200/2 between India and Bhutan, just below the bungalow (26°47'N 90°57'E), thus entering Bhutan. Subsequently, the forest staff who camp on the border at Mathanguri for patrol duty also heard honks at night, when the ducks flew from south-east to north-west, i.e., towards Royal Manas National Park, Bhutan. There was no possibility of confusion with other species by the forest staff, as the wintering geese *Anser* spp., and the Ruddy Shelduck *Tadorna ferruginea*, whose honks might be confusing for those unfamiliar with the calls of *C. scutulata*, were absent at that time of year. The White-winged Duck has a distinct honking call, which is uttered while on the water (rarely), while roosting, and also during flight (Choudhury 1996). All the feeding and roosting sites of the White-winged Duck observed by me in Manas were between 500 m and 1 km from the India-Bhutan international boundary.

BLUE-TAILED BEE-EATER *Merops philippinus*

The Blue-tailed Bee-eater is a common species in the plains of India. It occurs as a summer visitor in the Gangetic and Brahmaputra plains while in peninsular India it is mainly a winter visitor (Ali and Ripley 1987). In Assam, it is mainly a common summer visitor. However, because some birds remain until November and others arrive early in April, it has been treated as a resident undergoing some local migration (Choudhury

2000). In Assam, the bird has been recorded in many areas close to the India-Bhutan international border, notably in Manas National Park (26°44'N 91°12'E), in the Ultapani area (26°43'N 90°18'E) of Chirang Reserved Forest (Kokrajhar district) and also in Kumarikata (26°45'N 91°33'E) and Guabari (26°47'N 91°40'E) areas (Baksa district).

At about 11h15 on 22 June 2006, I observed 10 Blue-tailed Bee-eaters perched on electric wires near the first check gate on the way to Nganglam town in Samdrup Jongkar district of Bhutan (26°49'N 91°13'E). The site was about 1.5 km from the Indian border (Manas National Park, Assam) and was a clearing at an elevation of about 200 m. The birds were perched on two wires and were conspicuous because of their number. Earlier in the morning, while driving from Nalbari to Koklabari en route to Nganglam, I saw a few perched on electric lines between Jalah and Kamardoisa (Lakhi Bazar) (26°42'N 91°12'E), in Baksa district, Assam (India).

The birds were about 15 m away and were easily identifiable even with the naked eye. They were conspicuously larger than the commoner Green Bee-eater *Merops orientalis*. Still, I used a 10× scope and located one bird to make a detailed description. It was, like other bee-eaters, a slender, richly coloured bird, predominantly green with a narrow blue patch on its face. A black eye-stripe was conspicuous. The throat was yellow and brown while the beak was black. Its rump and tail were blue with two elongated central tail-feathers or 'tail-pins'. One of the 'tail-pins' was shorter than the other. Later on, I scanned the rest of the group and confirmed that all were of the same species. Subsequently, I saw at least seven birds flying (singly and not as a group) and catching insects in the air in the Choki area covering both Bhutan (Samdrup Jongkar district) and India (Subankhata Reserved Forest, Baksa district) (26°48'N 91°25'E) on 5 September 2006.

The other bee-eaters found in Bhutan and Assam are Green Bee-eater (much smaller and without the blue tail), Chestnut-headed Bee-eater *M. leschenaulti* (conspicuous chestnut head and almost square-ended tail with a partial notch) and Blue-bearded Bee-eater *Nyctornis athertoni* (much larger, different coloration and square-ended tail), all of which are distinct from the Blue-tailed Bee-eater. It could have been confused with the rather similar-looking Blue-cheeked Bee-eater *M. persicus* but this species is known from drier north-western India (Ali and Ripley 1987) and sighting of such numbers on both India and Bhutan side seemed impossible. Moreover, on closer observation, the blue tail and rump distinguishes Blue-tailed from Blue-cheeked Bee-eater, which has green tail and rump. The Blue-tailed Bee-eater has not been reported from Bhutan earlier (Inskipp *et al.* 2004, Spierenburg 2006).

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REFERENCES

- Ali, S. and Ripley, S.D. (1987) *Compact handbook of the birds of India and Pakistan*. Second edition. Bombay, India: Oxford University Press.
- BirdLife International (2001) *Threatened birds of Asia*. Cambridge, U.K.: BirdLife International.
- BirdLife International (2004) *Threatened birds of the world*. CD-ROM, Cambridge, U.K.: BirdLife International.
- Choudhury, A. U. (1996) *Survey of the White-winged wood duck and the Bengal florican in Tinsukia district and adjacent areas of Assam and Arunachal Pradesh*. Guwahati, India: The Rhino Foundation for Nature in North-east India.
- Choudhury, A. U. (2000) *The birds of Assam*. Guwahati, India: Gibbon Books and WWF-India.
- Choudhury, A. U. (2002) Conservation of the White-winged Wood Duck *Cairina scutulata* in India. Pp. 52–64 in A. R. Rahmani and G. Ugra, eds. *Birds of wetlands and grasslands: proceedings of the Salim Ali Centenary Seminar on conservation of avifauna of wetlands and grasslands*. Mumbai, India: Bombay Natural History Society.
- Choudhury, A. U. (2006). White-winged Wood Duck *Cairina scutulata* in Manas. *Mistnet* 7(3): 13–14.
- Green, A. J. (1992). The status and conservation of the White-winged Wood Duck *Cairina scutulata*. Special Publication No17. Slimbridge, UK: International Waterfowl and Wetlands Research Bureau (Special publication No. 17).
- Inskipp, C., Inskipp, T. and Grimmett, R. (2004) *Birds of Bhutan*. New Delhi, India: Timeless Books.
- Spierenburg, P. (2006) *Birds in Bhutan: status and distribution*. Bedford, U.K.: Oriental Bird Club.

Anwaruddin Choudhury, Deputy Commissioner, Baksa. Correspondence: The Rhino Foundation for Nature in North-east India, c/o Assam Co. Ltd, Bamunimaidam, Guwahati 781 021, Assam, India. Email:badru1@sify.com

Further significant bird records from Atauro Island, Timor-Leste (East Timor)

COLIN R. TRAINOR and PEDRO J. LEITÃO

The bird fauna of Atauro island, Timor-Leste (East Timor; 150 km², 23.5 km north of Dili) was summarised in Trainor and Soares (2004), who listed 84 species. Atauro is the largest and highest (995 m) of two islands now administered by Timor-Leste. It is part of the volcanic Inner Banda Arc and has had a different evolutionary history to adjacent Timor island. Despite this, only the *finschi* race of Olive-brown Oriole *Oriolus melanotis* suggested any influence on the avifauna by Wetar island (18 km north-west), and no bird species characteristic of the Flores–Alor island chain was recorded (Trainor and Soares 2004). The presence of 14 restricted-range birds including the Endangered Timor Green Pigeon *Treron psittaceus* highlighted the conservation importance of the island (Trainor and Soares 2004). One site on Atauro, Mount Manucoco, has been recognised as a ‘protected wild area’ by the Timor-Leste government (UNTAET 2000) but there is limited management on the ground.

The number of resident birds known on each island in Wallacea depends on many factors including: island size, habitat diversity, elevation range, extent of disturbance and degree of isolation from source populations as well as survey effort (Trainor 2002, 2005a). Understanding patterns of species richness on islands can therefore highlight survey priorities.

METHODS

Here we provide updated information on the birds of Atauro island collected by three ornithologists. Jan Keast (JK) visited the east coast on 1 December 2003; CRT

visited during 19–24 April 2005, mainly within 2 km of Makadade village at 500–700 m on the central plateau of the island; and PJJ visited during 21–24 December 2005, making observations mostly around Tua Koin and between Tua Koin, Mt Manucoco, Anartutu and open waters between Dili and Atauro.

To explore survey adequacy we examined the relationship between number of resident bird species and island area for Atauro and 14 other ‘Timor-group’ islands. Lists of resident birds were generated from White and Bruce (1986), Coates and Bishop (1997), Trainor (2005a) and CRT (unpublished data).

RESULTS

We recorded 13 species new to the island, and made notable observations of nine other species.

RAINBOW LORIKEET *Trichoglossus haematodus*

Three birds were seen on 22 December 2005 flying through open *Eucalyptus alba* savanna woodland, supporting the anecdotal report in Trainor and Soares (2004). The subspecific identity of this taxon is unknown, and more observations are needed to determine this.

WHITE-THROATED NEEDLETAIL *Hirundapus caudacutus*
New island record. Two birds were observed on 22 December 2005 flying a few kilometres north-east of Anartutu (c.400 m altitude). Most records of this migrant in the Nusa Tenggara region occur during the period of southward migration during September–January (Coates and Bishop 1997).