

The handbooks on which Chinese painters draw for their subjects are full of Barn Swallows *Hirundo rustica*, and the bird in this illustration is too deliberately different to be intended as a Barn Swallow. The objection that the picture might be based on the illustration (by Dr. Boonsong Lekagul) that accompanied the original description can be discounted because (a) the description had very limited circulation, (b) the proprietor of the Sun Fung Art House felt that the picture had been painted no later than 1970, (c) the bird depicted is simply too unlike Dr. Boonsong's illustration.

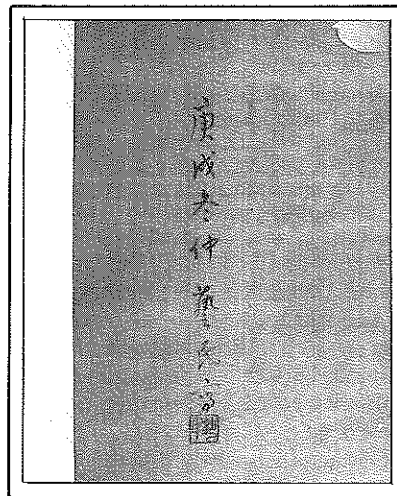
The plate shows the Chinese inscription that accompanied the picture, with the artist's signature beneath it. If a student of such paintings could assist in tracking down the artist and the date of the picture, we might possibly get a clue as to where to look in China for the nesting grounds of the White-eyed River-Martin. Until then it seems destined to remain one of the most elusive species in the world.

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Edward C. Dickinson, *Chemin du Chano 8, 1802 Corseaux, Switzerland.*

Plate. Incription and artist's signature on painting of a possible White-eyed River-Martin.
Photo: Didi Brandt.



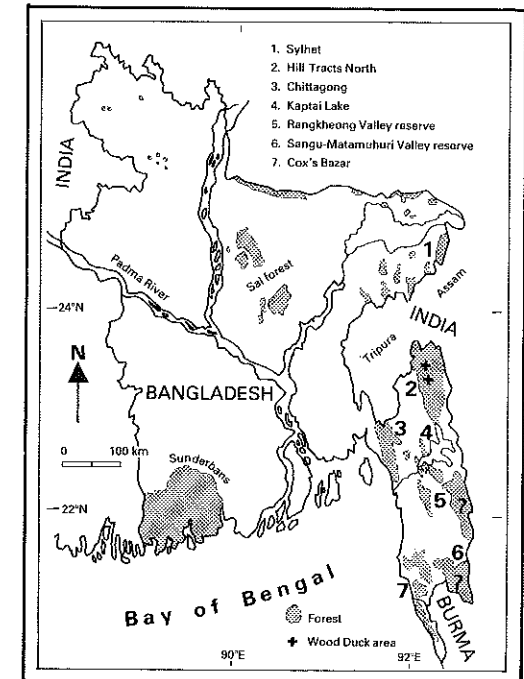
The threatened White-winged Wood Duck *Cairina scutulata* in Bangladesh

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Of some 30 species of resident and migratory ducks and geese in Bangladesh, the White-winged Wood Duck *Cairina scutulata*, locally called *bhadi hansh* or *shetapakha balaka*, is possibly the most endangered (Khan 1981, 1982, 1983; also King 1978-1979). Reports of the species are few. Mitra (1957), based on his forestry operations of the 1940s and 1950s, and Rashid (1967) reported it to be present in the Chittagong revenue division. Ali and Ripley (1983) cited H. G. Alexander as having seen two parties of 30 ducks in the open Padma river in 1948; however, neither my own fieldwork from 1969 nor that of others, including century-old District Gazetteer reports, suggest that this duck ever occurred outside the evergreen and semi-evergreen forests of the Chittagong revenue division of eastern Bangladesh, and there exists no forest belt within a distance of 100 km all along the course of the Padma river (see Figure).

In the 1970s and 1980s all records of the White-winged Wood Duck in

Figure. Bangladesh showing White-winged Wood Duck habitat.



Bangladesh have referred to a small population in and around the Pablakhali Wildlife Sanctuary in the Hill Tracts North Forest Division. This sanctuary, usually stated to be 440 km² in extent, lies entirely within the Kassalong Valley Reserve, itself holding some 1,700 km² of forest and situated at approximately 23°10'N 92°05'E. The species was first investigated there by Husain (1975, 1977). I paid over a dozen visits to the forested areas of Chittagong revenue division (which includes Sylhet, Chittagong, Hill Tracts North and South, Jhoom Control and Cox's Bazar Forest Divisions) between 1978 and 1984, but never found the species in any other forest. I first visited the sanctuary in early 1978. This was followed by three successive field trips there up to 1981, before the entire Hill Tracts District was made a prohibited zone for members of the public because of 'political unrest'. As far as I know no-one has yet returned to the sanctuary since that time for purposes of scientific study.

From the present-day occurrence of the Wood Duck in the Hill Tracts North forests it may be conjectured that the species once existed in similar forests throughout the Chittagong revenue division, and indeed there are two isolated forest belts in the Greater Hill Tracts District where it may yet be found. These are the Rangkheong Reserve Forest, covering 760 km² at around 22°10'N 92°20'E, and the Sangu-Matamuhuri Valley Reserve Forest, covering 740 km² at around 21°20'N 92°20'E. The destruction of forest, due to human settlement and forestry operations, is apparently less in these two areas than in other areas of Greater Hill Tracts. Moreover, these two forests are rather inaccessible by road and waterways. These reserves have not been surveyed ornithologically excepting one short collecting trip in 1965, restricted to a small strip around Ruma Bazar in the Rangkheong Reserve Forest, when the Wood Duck was not encountered (Husain 1968).

The White-winged Wood Duck usually occurs in pairs or small family parties, and Husain and Haque (1982) considered that about 20 pairs were present over an area of about 240 km² in and around the Pablakhali Sanctuary. This should not be taken to mean that one pair occupied every 12 km², as in reality these pairs live in four or five isolated pockets within the area, and several pairs may live permanently within a small area of 5–10 km². At least two pairs lived close to the Pablakhali resthouse at Amtali and I encountered them on all my visits. However, forest villagers and local tribesmen considered that, while the species was not an uncommon bird in the Pablakhali area about two decades ago, its population had certainly declined in recent years.

Habitat

Most of the reserved forests of Chittagong revenue division have been categorised as tropical evergreen, semi-evergreen and deciduous in type (Champion and Seth 1968). All forests here have three distinct strata with an additional undergrowth.

The moist deciduous upper stratum, reaching 30–50 m, does not form a closed canopy. The tallest trees are civit *Swintonia floribunda*, chundul

Tetrameles nudiflora, uriam *Mangifera longipes*, chapalish *Artocarpus chaplasha*, barta or lakooch *A. lakoocha*, garjan *Dipterocarpus* spp., surujbed or toon *Toona ciliata*, buddha narikel *Pterygota alata* and shimul *Bombax ceiba*. The second stratum forms a closed canopy at 20–30 m and consists of high evergreens, including jam *Syzygium* spp., batna *Quercus* spp., telshur *Hopea odorata*, pitraj *Aphanamixis polystachya*, and nageshwar *Mesua ferrea*. The third stratum reaches 7–15 m and comprises the saplings of the upper two strata intermixed with, e.g., *Vitex glabrata*, *Saraca indica*, *Mallotus philippensis*, *Macranga* sp., *Castanopsis indica*, *Garcinia* spp. and *Elaeocarpus* spp. In the undergrowth bamboo, cane or palm may occur in pure stands or mixed in with ferns, ground orchids, vines and lianas.

There is no forest patch utilised by the Wood Duck in the Pablakhali Sanctuary which may be termed virgin or untouched by forestry operations and human activities. The forest has been worked on a selective and/or clear-felling basis, or at least bamboo has been removed.

Probable causes of decline

The most obvious cause of decline of the White-winged Wood Duck in the Hill Tracts District seems to be the systematic clear-felling of primary forest of all categories and its replacement with commercially viable timber species (teak, rubber, dipterocarps and *Syzygium*) under the existing forestry practice in Bangladesh (Anon. 1981). Moreover, selective logging of old softwood trees like civit, uriam, chapalish and lakooch for making tea-chests, plywood, packing-boxes, match-boxes and match-sticks may be responsible for destroying the Wood Duck's nesting trees. Around 1961–1962 the deforestation of the region was compounded by the implementation of the Kaptai hydroelectric project, which inundated about 906 km² of the Kassalong Valley Reserve including a major portion of the Pablakhali Sanctuary.

Although the creation of the impoundments has provided new breeding and wintering grounds for migratory birds of prey, waterfowl and waders as well as resident ducks, rails and herons, as emphasised by Husain (1985), I have never seen Wood Duck venturing into the clear-water, fast-flowing or deeper portions of the Kaptai Lake. Rather it prefers small pools, puddles and ox-bow lakes spread all over the Kassalong forest. Neither Husain (1975, 1977, 1985) nor myself has any report on definite status of the Wood Duck in the Hill Tracts prior to the creation of Kaptai Lake, and it therefore seems hard to justify the claim (reported by Karpowicz 1985) that the population of Wood Duck has risen since the completion of the Kaptai hydroelectric project.

Another factor that has directly affected the ducks is the hunting of adults and capture of young by local people. Even in the early 1980s senior forest and other officials used to shoot Wood Duck in the Pablakhali Sanctuary. At least up to 1981 the locals went hunting the ducklings with their dogs. At the approach of danger, the mother deserts the ducklings; the dogs sniff them out and the locals collect and rear them for some time before eating or selling

them. This practice may still be continuing.

A further problem is the use by locals and settlers in the Hill Tracts of nylon gill-nets for fishing. These are roughly a metre in height and 10–15 m in length, and are stretched with poles under the surface of a small lake or pool. The adult ducks swimming under water occasionally get entangled, and are either eaten directly or sent to market.

In the mid-1980s the government started leasing out the forest lands, of both Pablakhali Sanctuary and neighbouring areas, to the plains-dwellers for settlement there at the rate of 2.5 ha per family. By now (1986) an estimated 10,000 families have been settled in the Greater Hill Tracts District. This has posed a serious threat to the survival of the Wood Duck and other wildlife of Pablakhali and its neighbourhood, because the settlers are clearing the forest land given to them, encroaching on the reserved forest, fishing the lakes and pools, and disturbing the habitat and activity patterns of the Wood Duck. This detrimental trend of human settlement must be stopped not only to save the Wood Duck but also for the greater benefits of the forest and other wildlife. Instead of settling the plains-dwellers as a counter-measure to tribal insurgency, the government should solve the latter problem politically.

Conclusion

As nothing is known about the status of the species since 1981, an immediate survey in the Pablakhali Wildlife Sanctuary and its environs is needed to determine whether any population still survives there. If the result is positive, steps must be taken to save it. All remaining isolated softwood trees should be saved from selective logging, to ensure nesting sites. Use of gill-nets in the sanctuary and other areas holding Wood Duck should be banned. All forestry operations in the Pablakhali Sanctuary, for that matter in all other sanctuaries, should be stopped and human settlement discouraged. A small scientific unit might be established at Amtali within the Pablakhali Sanctuary for continuous monitoring of the Wood Duck situation in the area.

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Black-tailed Crake *Porzana bicolor*: a new species for Thailand

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Late in the afternoon of 25 January 1985, in the Doi Inthanon National Park, Thailand (18°34'N 98°51'E), 1,300 m above sea level, two of us (O.P. and J.S.) and C. Howlett observed a crane which they identified as a Black-tailed Crake *Porzana bicolor*. The next day the bird was seen by R.S. and Ph.J.D.

It was feeding on a marshy field, staying close to a bushy area along a stream. It was scared by every movement in the surroundings and often disappeared under the bushes. This habit was also noted by Delacour and Jabouille (1931). The size of the bird was roughly that of a Pintail Snipe *Gallinago stenura*, with which it was seen. The wings and back were reddish-brown, uppertail-coverts blackish, tail black. The throat was whitish, but the rest of the head, neck, flanks and belly were dark ash-gray, darker on breast, vent blackish, undertail-coverts black. The bill was yellowish-green with a red spot (only visible at close range) at the base. The legs were red (not reddish-brown); eyes red.

Notified by us, Ph. Goffart and D. Lafontaine saw the Black-tailed Crake on 29 January 1985. P. D. Round and B. F. King saw it on 31 January and heard three further birds calling (of which one was seen) at an additional site, less than 1 km distant. It seems possible that the species nests here (P. D.