

coverts and tertials, naked orange-yellow (not reddish-orange) neck and head, and lack of large white neck-ruff.

Lesser Adjutant is common in Baksa district, but this was the first time I had seen one near Mathanguri, despite regular visits to Manas National Park since the 1980s (although most were during the drier winter season when the small marsh near Mathanguri dries out). Previously, on 31 July 2004, I saw up to ten Lesser Adjutant soaring above Doomni tea garden, also in Baksa district, Assam, 5 km from the international border. On 26 October 2004, four were seen flying southwards high over the eastern part of Manas National Park within 6 km of the international border. While the species may not be a regular visitor at Mathanguri, it is likely to occur more frequently in the east of Baksa district and in Udalguri district (near Daifam in Bhutan), where paddy fields have replaced forest right up to the international border in places.

Only two species of stork had been previously recorded in Bhutan: Black Stork *Ciconia nigra* and Woolly-necked Stork *C. episcopus* (Grimmett *et al.* 1998,

Inskipp *et al.* 1999). Lesser Adjutant had not previously been recorded, although it is found in good numbers in Assam (Choudhury 2000) and in varying abundance elsewhere in India and South-East Asia to the Greater Sundas. It is listed as Vulnerable because it has a small population which is declining as a result of habitat loss and degradation, hunting and disturbance (BirdLife International 2004).

REFERENCES

- BirdLife International (2004) *Threatened birds of the world 2004*. CD-ROM. Cambridge, U.K.: BirdLife International.
 Choudhury, A. U. (2000) *The birds of Assam*. Guwahati: Gibbon Books and WWF-India.
 Grimmett, R., Inskipp, C. and Inskipp, T. (1998) *Birds of the Indian subcontinent*. London: Christopher Helm.
 Inskipp, C., Inskipp, T. and Grimmett, R. (1999) *Birds of Bhutan*. London and Thimphu: Christopher Helm and WWF-Bhutan.

Anwaruddin Choudhury, Deputy Commissioner (District Magistrate), Baksa district. Correspondence: Rhino Foundation, Guwahati 781021, India. Email: badru1@sify.com

Foraging techniques of the Chinese Pond Heron *Ardeola bacchus*

STEPHANIE J. TYLER

Members of the heron family (Ardeidae) most commonly forage either by 'standing still' and awaiting prey, in an upright or crouched posture, then spearing the prey when it comes within reach, or by 'walking slowly' searching for prey on land or in shallow water (del Hoyo *et al.* 1992). Sometimes birds will move faster or even run after prey. 'Foot-probing' where a foot is probed into the mud, or 'foot-stirring' where a foot is rapidly moved about in mud, water or vegetation are also frequently used techniques by some species. Rarely, aerial fly-catching or diving may be employed; so too the techniques of 'hovering', where a bird flies over water, pausing in mid air to capture prey, or 'hovering-stirring' where the bird strikes the water surface with its legs to confuse prey.

Foraging techniques used by Chinese Pond Herons *Ardeola bacchus* are little known (del Hoyo *et al.* 1992) but birds most commonly appear to use the techniques of 'standing still' or 'walking slowly'. The following brief observations on Chinese Pond Herons were made in Vietnam between September 2003 and February 2004.

In rural areas of Vietnam, birds were frequently seen throughout the day using the 'standing still' technique, hunched by ditches or in rice paddies, awaiting an opportunity to lunge at and spear prey, or 'walking slowly' after prey. However, at a lake, Ho Bay Mau (c.500 × 250 m), in Lenin Park in Hanoi in northern Vietnam, Chinese Pond Herons fed in a very

different way. Numbers varied during the six-month period from less than a dozen to over 80. Pond herons roosted for much of the day in trees on a small island in the lake. Their peaks of foraging activity were, as in Hong Kong (del Hoyo *et al.* 1992), just after dawn and before dusk, but hunting was observed throughout the day, particularly in the morning up to 10h30.

Pond herons typically flew out from tree perches to snatch prey that they had spotted on the surface of the lake. During part of the observation period there were large numbers of dead and dying fish available because of high nutrient levels from storm overflows and sewage drains, and consequent low oxygen levels in the water. A total lack of aquatic or emergent vegetation exacerbated the problem. Another frequent technique was for one or more pond herons to fly out from the island and fly over the surface of the lake. The bird(s) thereby frightened shoals of fish which then swam quickly close to the surface where the bird(s) could catch them. Forays by groups of pond herons, which were reminiscent of the feeding behaviour of marsh terns *Chlidonias* spp., lasted for several minutes with the birds flapping slowly across the lake, sometimes dropping lower or stalling for a closer look. On seeing prey a bird dangled its legs down and beat its wings rapidly to maintain its position, hovering over the spot. It then dropped feet first into the water, quickly snatching the fish in its bill before rising from the water and flying to the island trees to eat the fish. Sometimes the

birds' feet dangled in the water, apparently 'hovering-stirring' or a bird rested or swam, duck-like on the water, for a few seconds (up to 16 s) before flapping up again. Chinese Pond Herons have also been recorded diving from perches up to 10 m high, and belly-flopping from a stone slab 1 m above the water (Hancock and Elliott 1978), whilst 'aerial feeding' has also been recorded in the Indian Pond Heron *A. grayii*. Although prolonged flying bouts were presumably energetically costly, the birds had a relatively high success rate with on average, one in five or six forays ending in the successful capture of a fish (>100 observations). Birds were less successful in late January and

February, perhaps because in colder weather fish were deeper and there were far fewer dead and dying fish than in the autumn. Feeding at the lake edges was not favoured because of the steep-walled banks, lack of vegetation and high levels of disturbance by people.

REFERENCES

- Hancock, J. and Elliott, H. (1978) *The herons of the world*. New York: Harper and Row.
 del Hoyo, J., Elliott, A. and Sargatal, J. eds. (1992) *Handbook of the birds of the world*. Vol. 1. Barcelona, Spain: Lynx Edicions.

Stephanie J. Tyler, Yew Tree Cottage, Lone Lane, Penallt, Monmouthshire, NP25 4A7, U.K.
 Email: steph_tyler2001@hotmail.com

The call of Sykes's Nightjar *Caprimulgus mahrattensis*

TOM ROBERTS and BEN KING

The territorial call (or song) of Sykes's Nightjar *Caprimulgus mahrattensis* is described in Roberts (1991) as comprising bouts of long continuous churring. Compared to the call of the race of European Nightjar breeding in Pakistan *Caprimulgus europaeus unwini*, the calls carry less far (200–300 m vs. 500–600 m) and lack the changes in pitch that characterise the calls of European Nightjar. Here we expand on these differences with reference to sonagrams.

The calls of both species consist of long series of hard, knocking notes rapidly repeated, producing a hard churr (it could also be called a trill or rattle; Fig. 1). The churr may continue for between 1–2 seconds and several minutes. The individual notes of Sykes's Nightjar are all roughly equal in pitch and rate: c.0.65–1.35 kHz and c.34 notes/second. The call of the European Nightjar differs in having regular and readily discernible rate shifts and changes in pitch. The more

slowly delivered notes are given at a rate of c.26 notes/sec at 1.0–2.5 kHz, while the faster notes are repeated at a rate of c.44 notes/sec at 1.0–2.2 kHz. The calls of European Nightjar in Pakistan and Europe appear to be similar (Fig. 1).

Sykes's Nightjar breeds in Afghanistan, Pakistan and north-western India (Peters 1940). The European Nightjar breeds in Afghanistan and Pakistan, but apparently not in India (Ripley 1982). Whilst the breeding ranges of the two species overlap, they are unlikely to be found together in the breeding season. Sykes's Nightjar prefers 'semi-desert open tracts with scattered dry tropical thorn scrub such as occurs in the remnant uncultivated patches of the Indus plains and in the sand dune and clay, flat, extensive deserts of Sibi, Cholistan and the Thar' (Roberts, 1991). The European Nightjar prefers 'hilly country with stony slopes and rocky ridges but usually rather sparse vegetative cover' (Roberts 1991).

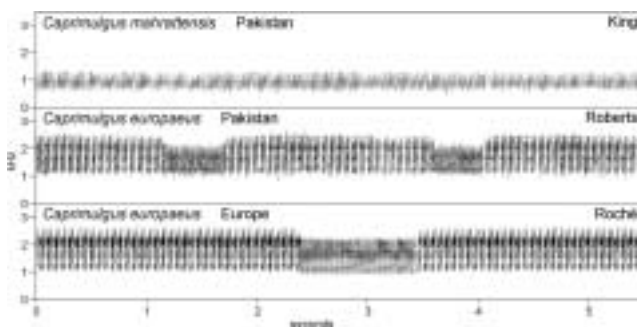


Figure 1. Comparison of the calls of Sykes's Nightjar *Caprimulgus mahrattensis* and European Nightjar *C. europaeus*. Note the regular rate changes (accompanied by a slight pitch shift) shown by European, but not Sykes's Nightjar.

ACKNOWLEDGEMENTS

Jeff Groth prepared the sonagrams. John Fitzpatrick and Greg Budney of the Macaulay Library of Natural Sounds at the Laboratory of Ornithology at Cornell University provided tape recording equipment and other assistance. J. C. Roché graciously allowed use of his European Nightjar recording from Roché (1996).

REFERENCES

- Peters, J. L. (1940) *Check-list of birds of the world*. Cambridge, Mass.: Harvard University Press.