

3. FURTHER NOTE ON DEVELOPMENT OF A HYBRID BETWEEN A FEMALE ORIENTAL WHITE IBIS *THRESKIORNIS MELANOCEPHALUS* AND A MALE EURASIAN SPOONBILL *PLATALEA LEUCORODIA*¹

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Two Oriental White Ibis *Threskiornis melanocephalus* were born in May 1986 in captivity at the Sayaji Baug Zoo, Vadodara, Gujarat. One of these showed some unusual characters; it was believed to be a hybrid between a female Oriental White Ibis and a male Eurasian Spoonbill *Platalea leucorodia*, as reported by Jadeja and Vyas (1988).

The hybrid bird showed characters of both the species: large snow-white marsh bird with long black legs, a long feathery neck with black down, curved curlew-like bill, bill tip slightly spatulate, face and throat black, and tail feathers white. The hybrid bird stayed with the Oriental White Ibis most of the time.

In 1989, the hybrid bird was first observed to pair with a female Oriental White Ibis and build a nest along in the cage. The female Oriental White Ibis laid two eggs and both the hybrid male and the female Oriental White Ibis incubated them, but with no result, the birds later deserted the nest. Both the eggs, when checked, were infertile. On the basis of



Fig. 1: A hybrid between a female White Ibis and a male Spoonbill

this behaviour, it was concluded that the hybrid bird was a sterile male. This is common in higher vertebrates (Hoffman *et al.* 1978; Weir *et al.* 2000) and has been reported in many species of mammals (Iles 1960).

The hybrid Oriental White Ibis has grown well, and after fifteen years, there is no difference in appearance except that the head and anterior part of the neck are bare (Fig. 1). A light pink coloured patch developed on its flanks and under wings. The body measurements are given in Table 1.

Table 1: Comparison of some of the body measurements of the White Ibis and the Spoonbill with that of the hybrid bird

Body parts	Hybrid bird	White Ibis*	Spoonbill*
Wing length	380	343-370	350-395
Bill length	215	139-170	180-228
Tarsus length	130	99-115	130-165
Tail length	140	133-145	108-122

*Source Ali & Ripley (1983); Measurements in mm

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4. COMMUNAL HARRIER ROOST-SITES IN MUMBAI AND AKOLA DISTRICTS, MAHARASHTRA¹

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Six species of harriers, namely Pallid Harrier *Circus macrourus*, Hen Harrier *C. cyaneus*, Montagu's Harrier *C. pygargus*, Pied Harrier *C. melanoleucos*, Western Marsh-

Harrier *C. aeruginosus* and Eastern Marsh-Harrier *C. spilonotus* migrate to India every winter. Eastern Marsh-Harriers and Pied Harriers are restricted to east India. However,

Pied Harriers have scattered sightings from all over India (Prakash 1988; Rahmani 1988; Vyas 1992; Grimmett *et al.* 1999). A harrier ringed at Bharatpur was recovered in Kazakh; SSR (Ali and Ripley 1983), which probably indicates that part of the harrier population comes to India from Asian breeding grounds. In India, harriers generally arrive by end July, and depart for their breeding grounds generally by March. Juvenile Western Marsh Harriers, however, have been recorded wintering as late as June (Verma 2002a), and they probably go back the following year.

Harriers are interesting birds of prey as they are the only diurnal raptors that breed and roost on the ground. Among other raptors that occasionally nest on the ground, probably due to absence of nest-sites and mammalian predators, are the Common Buzzard (*Buteo buteo*), the Common Kestrel (*Falco tinnunculus*), and the Osprey (*Pandion haliaetus*) (Newton 1979; Kenyon 1947). Another interesting character of the harriers is their being communal in wintering grounds while solitary or semi-colonial in breeding grounds (Cramp and Simmons 1980; Newton 1979). They generally roost on the ground in tall grasses and reeds, but have also been recorded roosting in wetlands with floating vegetation (such as the Water-hyacinth *Eichhornia crassipes*) and bare grounds, during adverse conditions (Verma 2002a). A scarcity of safe places may force birds into a communal life, sometimes even with other species, on the few good sites that are available (Peterson 1963). The reason behind communal roosting may differ from species to species depending upon the local situation. Conservation of communal roost sites is critically important for harrier survival in winter quarters. They have been reported travelling a distance of about 40 km to join a roost (Verma 2002a).

During 2002-2003, during my visits to Mumbai and Akola, I located two harrier roost-sites. In Mumbai, an exclusive roost of marsh-harriers was identified, whereas a mixed roost of three harrier species was identified in Akola. Harrier roosts are reported from Velavadar National Park, Gujarat (Clarke *et al.* 1998), Rollapadu Wildlife Sanctuary, Andhra Pradesh (Rahmani and Manakadan 1986; Clarke and Prakash 1997/98), Alwal wetland in Secunderabad, Andhra Pradesh (Satheesan and Rao 1990; Ganesh and Kanniah 2000), Banni grasslands of Kutch (now Kachchh), Gujarat (Samant *et al.* 1995) and Keoladeo National Park, Rajasthan (Verma 2002b).

A mixed harrier roost of nearly 200 individuals was located in the grassland in Akola city (20° 43' N, 77° 04' E, 308 m above msl). The roost, comprising three species of harriers, namely Montagu's Harriers, Pallid Harriers and Hen Harriers, was identified in February 2003. The Montagu's Harriers dominated the roosting population. Of the 25 birds identified to the species level, 76% were Montagu's Harriers, 16% Pallid

Harriers and 8% Hen Harriers. Reports of marsh-harriers (around 10 individuals) roosting here was also confirmed in November 2003 (pers. comm.). Here, the grassland was spread over less than a square kilometre (average height two metres). The roost site was surrounded by crop fields, especially cotton *Gossypium* sp., on three sides, and wild vegetation (different grass and herb species) on the remaining side. The actual roost site was a treeless patch; trees found in the adjacent areas were *Buteo monosperma*, *Acacia catechu*, *Acacia nilotica*, *Prosopis chilensis*, *P. spicigera* and *Zizyphus mauritiana*.

Another roost-site was located in December 2002 in Mumbai, which was situated near the Mahul creek (19° 01' N, 72° 53' E) on the east coast of Mumbai, along the Arabian Sea, in the suburb of Chembur. Mangrove trees like *Avicennia marina* and *Excoecaria agallocha* provided pre-roost perches which they used for resting on, before settling down on the ground, their final roost. The roost site extended over a square kilometre. It was grassland dominated by perennial aquatic grass species like *Paspalum* and *Paspalum*, with an average height of 1 m. Small temporary reservoirs dotted the site teeming with water birds like waders, ducks and teals.

A stable population of Eurasian Marsh Harrier roosted here. The roost was observed in December 2002, when about 50 harriers were counted roosting here, and the population stabilized till February 2003. Birds of all age and sex classes were present. The count made in February showed 48 birds at the roost, of which 50% were juveniles, 25% females, 15% males and 10% unidentified.

Threats

Although the Akola roost is located on government land, there is risk of heavy disturbance with the coming up of an irrigation canal in this area, which is presently under construction. The use of pesticides will increase for intensive farming, which, in turn, will drastically affect the number of harriers and their prey, especially grasshoppers. Grass cutting and burning is another threat for roosting harriers. The cutting of grass by villagers for fodder and thatch during winter in and around the roost site disturbs roosting harriers evidenced by several of them shifting from one patch of grassland to another. The local Parthi community burns the grasslands during December-February, when the harrier population stabilizes, to scan a larger area for hunting for mammals like hares, the Blackbuck *Antelope cervicapra*, the Blue Bull *Boselaphus tragocamelus* and birds, especially partridges and quails.

The roost at Mumbai is situated on the Rashtriya Chemical Fertilizers (RCF) Limited land. On the one hand grass cutting from the roost-site by locals disturbs the roosting harriers, while on the other, reclamation by the RCF itself poses a serious

danger of complete loss of roosting habitat for harriers.

An initiative by the public towards conservation of roost-sites of migrant harriers is the need of the hour. The RCF, by declaring the roost patch as a protected area, should set an example for the private sector.

Long-term monitoring of roosting populations of harriers can prove to be the best indicator of the changes in our environment.

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5. KHASI HILLS SWIFT *APUS ACUTICAUDA*: FIRST RECORD FROM NAGALAND AND MANIPUR, NORTH-EAST INDIA¹

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The Khasi Hills Swift *Apus acuticauda* (Jerdon 1864) is a poorly known vulnerable species from Meghalaya and Mizoram in north-east India, as well as from Bhutan and Thailand (Inskipp *et al.* 1999; Brooke 1969; Kazmierczak pers. comm.). The known distribution of the species is shown in Fig. 1.

Very little information is available on the distribution, ecology and behaviour of this enigmatic species. Baker (1927) collected and observed this species in Cherrapunjee, Meghalaya (erstwhile Assam), and described its taxonomy and breeding in detail. Brooke (1969) dealt with the taxonomy and distribution of this species. There have been recent

observations on its distribution (Inskipp *et al.* 1999; BirdLife International 2001, Ahmed *et al.* 2001, 2002; Kazmierczak pers. comm.).

The Khonoma Nature Conservation and Tragopan Sanctuary (KNCTS) (25° 39' 32" N, 94° 02' 01" E, 1900-2750 m above msl), a 25 sq. km primary and secondary, temperate broadleaf and subtropical evergreen forest, is located 16 km south of Kohima city, bordering Manipur to the south. The average annual rainfall is above 2000 mm. While the maximum temperature reaches 30° C in summer (May-July) it drops below zero in winter (December- January), particularly at 2,500 m above msl.



Verma, Ashok. 2007. "Communal Harrier Roost Sites in Mumbai and Akola Districts, Maharashtra." *The journal of the Bombay Natural History Society* 104, 85–87.

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