



HARRIERS Indiaⁱⁿ

A Field Guide



भारतीय वन्यजीव संस्थान
Wildlife Institute of India



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Enhancing Our Heritage: Managing and Monitoring for Success in Natural World Heritage Sites

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Citation : Verma, Ashok (2007). Harriers in India : A Field Guide. Wildlife Institute of India, Dehradun, India.

Cover Page Photo : H. Bouwmeester

Back Page Photo : F. Cahez

Printer : Print Vision, 41-C, Rajpur Road, Dehradun Tel. : 01351274170216532172

Acknowledgements

The following organizations are sincerely thanked for the assistance provided during the field studies carried out from 1996 to 2007, based on which this field guide has been produced:

US Fish and Wildlife Service, USA especially David Ferguson; Natural Research Limited, UK especially Drs. Beatriz Arroyo, Mike J MacGrady, Mike Madders; Rufford Foundation, UK especially Josh Cole; Bombay Natural History Society, Mumbai especially Dr. V.P. Mathur; Conservation Society for Wildlife Studies (CWS), Bangalore; Ashoka Trust for Research in Ecology and the Environment (ATREE), Bangalore especially Dr. T. Ganesh; International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Pathancheru especially Dr. G.V. Rangarao Reddy and Society for Research in Ecology and Environment (SREE), Bharatpur, and Forest Departments of Rajasthan, Gujarat, Maharashtra, Andhra Pradesh and Karnataka.

Sincere thanks are due to Sh. P.R. Sinha, Director, Wildlife Institute of India, Dehradun for his constant encouragement and to Dr. V.B. Mathur, Dean, Wildlife Institute of India for his valuable advise and guidance in the preparation of this field guide.

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Preface

The Harriers as 'Birds of Prey' are vital indicators of ecosystem health especially of grassland and wetland ecosystems. India is the largest wintering ground for Harriers in the world. In order to spread awareness about the need to conserve this important diurnal raptor group, this field guide has been produced as part of UNESCO-IUCN Project 'Enhancing Our Heritage (EoH): *Managing and Monitoring for Success in World Natural Heritage Sites*'.

Male Montagu's harrier in flight



Photo: F. Cahez



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|---|-----------------------|------------------------------|
| 1 | Male | Photo : Niranjan Sant |
| 2 | Eastern Marsh Harrier | Photo : Laurence Poh |
| 3 | <i>Circus cyaneus</i> | Photo : F. Cahez |
| 4 | Pallid Harrier | Photo : John Hornbuckle |
| 5 | Pied Harrier | Photo : Chaiya Sirima (Chen) |
| 6 | Mongau's Harrier | Photo : F. Cahez |

Introduction

The Harriers are the only diurnal 'Raptor group or Birds of Prey' nesting and roosting on the ground. They are superbly adapted to a lifestyle in open landscapes inhabiting habitats like wetlands, grasslands, crop fields, reeds and sedges, salt marshes and dry barren lands. Their biological characteristics include nesting and roosting on the ground, aerial food-passing, long distance foraging, acute hearing capabilities and polygamy.

Of the 16 Harrier species in the world, 6 migrate to India every year in winter. These are (i) Eurasian Marsh Harrier *C. Aeruginosus* (ii) Eastern Marsh Harrier *C. Spilonotus* (iii) Hen Harrier *C. Cyaneus* (iv) Pallid Harrier *C. Macrourus* (v) Pied Harrier *C. melanoleucos* (vi) Montagu's Harrier. *Circus pygargus*



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Photo : John Hornbuckle

Pallid Harrier



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Photo : Chaiya Sirima (Chen)

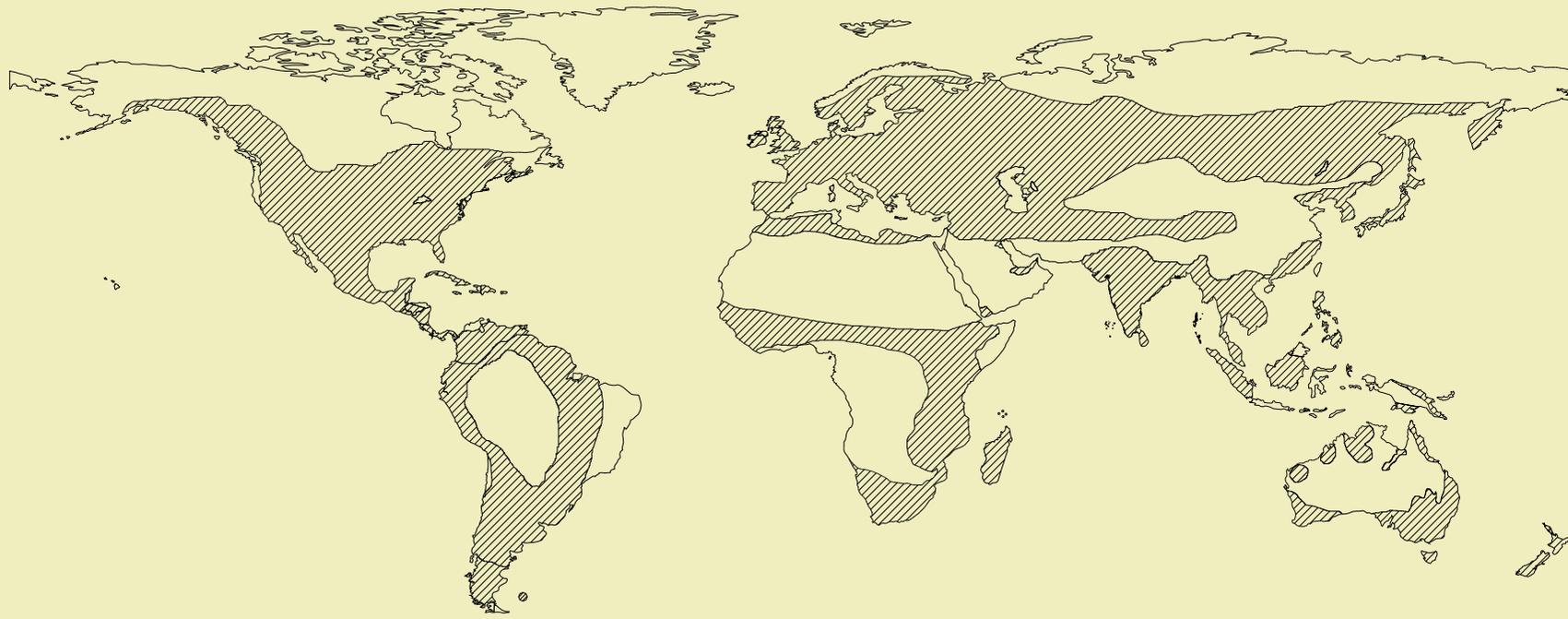
Pied Harrier



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Photo : F. Cahez

Montagu's Harrier



Distribution

Harriers are raptors of both the new and old worlds. They are found nearly everywhere at one season or another except in the most barren Tundras and Polar ice caps, the Islands of the southwest Pacific, and the Galapagos Archipelagos.

Harriers are widespread winter migrants to India. Generally arriving by July end they remain in the country till April. Montagu's, Marsh and Pallid Harriers are widely distributed in India while Pied and Eastern Marsh Harriers are confined to the eastern parts of India. Hen Harriers are commonly seen in Northern India and up to Upper Assam in North Eastern India. Except Pied Harrier there is no confirmed record for any of Harrier species breeding in India. A Harrier ringed at Bharatpur; India (27° N and 77° E) on March 25, 1962 was recovered in Kazakh; SSR (53° N and 66° E) on May 7, 1965 indicates that part of Harrier population to India comes from Asian breeding grounds. Further studies are required to investigate their breeding grounds and the locations from where Harriers migrate to India.

Harriers of the World

| S.No. | Latin Name | Common Name | Alternative Name | Geographic Distribution |
|-------|---------------------------|--------------------------|-----------------------------------|--------------------------------|
| 1 | <i>Circus aeruginosus</i> | European Marsh Harrier | Western or Eurasian Marsh Harrier | Europe, Western Russia |
| | <i>C.a.harterti</i> | European Marsh Harrier | Dark subspecies of above species | North Africa |
| 2 | <i>C. Ranivorus</i> | African Marsh Harrier | | South-central Africa |
| 3 | <i>C. spilonotus</i> | Eastern Marsh Harrier | Spotted Marsh Harrier | Asia |
| 4 | <i>C. Spilothorax*</i> | Papuan Harrier | Spotted backed Harrier | New Guinea |
| 5 | <i>C. approximans</i> | Swamp Harrier | Australasian or Pacific | Australia, New Zealand |
| | | Marsh Harrier | | |
| 6 | <i>C. maillardi</i> | Reunion Harrier | Reunion Marsh Harrier | Reunion Island |
| 7 | <i>C. macrosceles*</i> | Madagascar Marsh Harrier | Madagascar Harrier | Madagascar, Comores |
| 8 | <i>C. buffoni</i> | Longwinged Harrier | | South America, Central America |
| 9 | <i>C. assimilis</i> | Spotted Harrier | Jardine's or Allied Harrier | Australia |
| 10 | <i>C. maurus</i> | Black Harrier | | S. Africa, Namibia |
| 11 | <i>C. cyaneus</i> | | Hen Harrier | North Europe, Russia |
| 12 | <i>C. hudsonius*</i> | Northern Harrier | Marsh Hawk | North America |
| 13 | <i>C. cinereus</i> | Cinereous Harrier | | South America |
| 14 | <i>C. macrourus</i> | Pallid Harrier | Pale Harrier | Russia, Eastern Europe |
| 15 | <i>C. melanoleucos</i> | Pied Harrier | | Mongolia, China, Myanmar |
| 16 | <i>C. pygargus</i> | Montagu's Harrier | | Europe, Western Russia |

* Upgraded as new species
 The Harriers of the World and their presently accepted and alternative English names, after Brown and Amadon (1968), del Hoyo et al. (1994) and M. Wink (1998).
 Source: Robert. E. Simmons 2000.



Important Communal Roosting Sites in India

- 1 Pre-roost Site, ICRISAT, Andhra Pradesh
- 2 Velavadar National Park, Gujarat,
- 3 Roost Site, ICRISAT, Andhra Pradesh
- 4 Rollapadu Wildlife Sanctuary, Andhra Pradesh
- 5 Keoladeo National Park, Rajasthan
- 6 Talchhaper Wildlife Sanctuary, Rajasthan

All Photos : Ashok Verma

Communal Roosting of Harriers

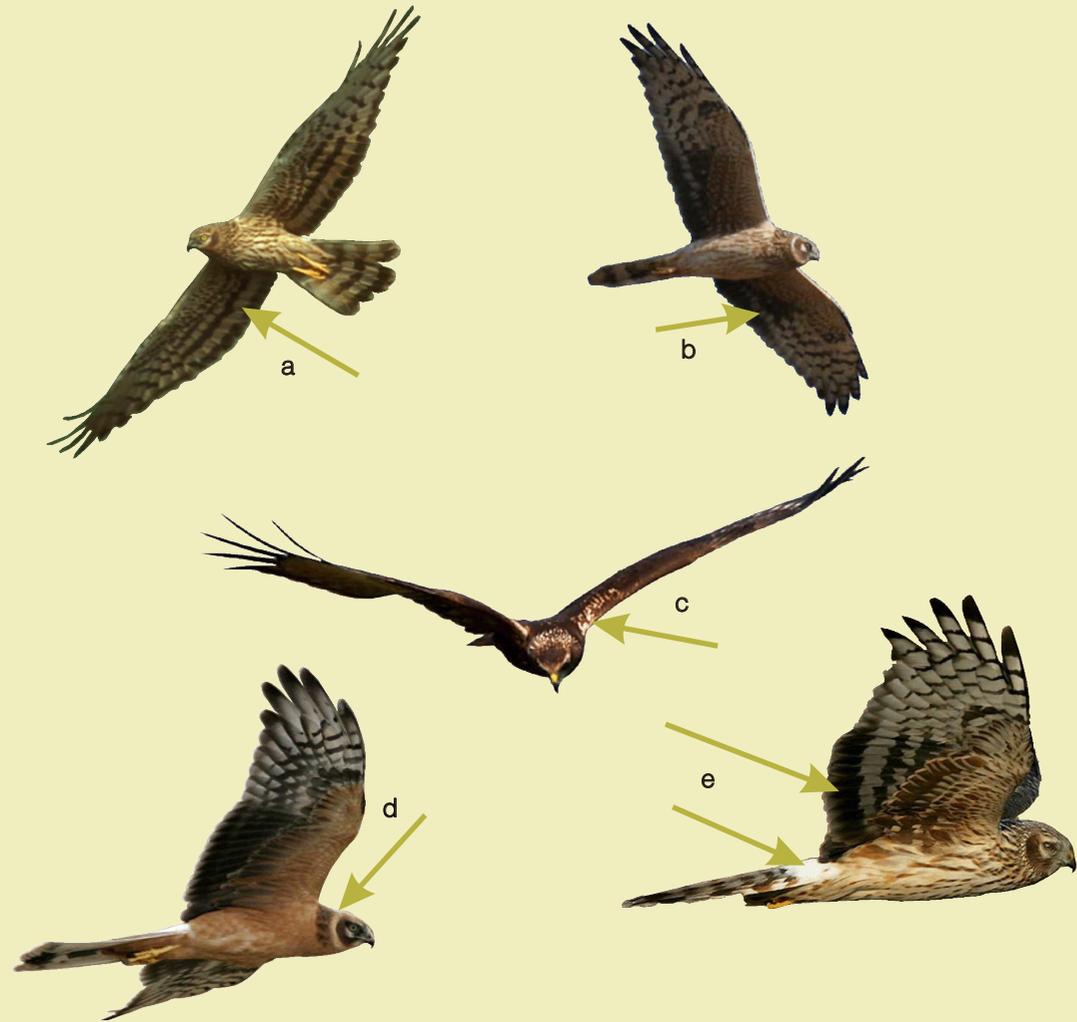
Several Harrier species are migratory in non-breeding season and often roost communally at night, both on passage and in winter quarters. Thus, communal roost sites are critical resources for Harrier survival, as they spend considerable time here.

These communal roosting sites are usually tall grasslands where they get concealment and protection from both predators and cold weather. They have also been observed taking shelter in water-hyacinth floating in a water body. From as far as 20 km distance from their foraging grounds, Harriers generally start congregating at these sites about half an hour or so prior to sunset. They spend time pre-roosting in open ground close to their roost site engaging themselves in resting, preening and vocalizing. This is probably done to attract their conspecifics to increase the flock size. Just after sunset an intensive inspection is carried out of the

grassland – their roost site and within half an hour they settle down for roosting. Early morning around sunrise they leave the roost and head towards their respective foraging grounds.

The major communal roosts sites in India are Velavadar National Park, Gujarat (the world's largest Harrier roost, ca 3000 birds), Rollapadu Wildlife Sanctuary and ICRISAT, Andhra Pradesh (ca 300 –1000 birds), Keoladeo National Park, and Tal Chapper Wildlife Sanctuary in Rajasthan (ca100 – 200 birds), Akola and Mumbai, in Maharashtra (ca 50 – 250 birds) and Bangalore in Karnataka (ca 100 – 150 birds) (See Figure F.1).





- a White broad band in under wing touching body (female Montagu's Harrier)
- b Narrow white band in under wing (female Hen Harrier)
- c Wide pale shoulder patch (female Eastern Marsh Harrier)
- d White facial ring (Juvenile Pallid Harrier)
- e Broad white rump patch (Hen Harrier)

Identification

The Harriers are slender, long bare legged, long winged and long tailed hawks with an owl-like facial ruff. They show distinct sexual dimorphism; females tend to be brown in contrast to the grey and white plumage of the males. Immature males and females usually resemble the adult female. Juveniles are darker.

All Harriers soar and normally glide, keeping their wings in a dihedral or 'V' shape. This and their long wings and tail distinguishes them from other raptors. Some buzzards, snake eagles, and vultures also soar on raised wings but they have short tails and large sizes. Identifying Harrier species requires good observational skills. Though male Harriers are not difficult to identify with reasonable views, the females and juveniles pose a real challenge especially Montagu's, Pallid, Hen (also called ringtails) and Pied Harriers.

A combination of the following characters facilitates identification:

(i) underwing pattern, (ii) facial pattern, (iii) axillary pattern, (iv) body streaks (v) tail features and (vi) general proportions and mode of flight



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| 1 Juvenile | Photo : Aurelien Audevard |
| 2 Male | Photo : Niranjan Sant |
| 3 Female | Photo : Aurelien Audevard |
| 4 Female | Photo : Aurelien Audevard |

1 Eurasian Marsh Harrier *Circus aeruginosus*

A palearctic breeding species, wintering in Africa, India, China and the Philippines.

Wide spread common winter visitor to India. It is predominantly a marsh frequenting raptor and is commonly seen over marshes, reedbeds, lakes, coastal lagoons, flooded paddy fields, grassy plains and hills up to 2000m.

Largest of all Harrier speices (42-53 cm). More heavily built than others of the genus, with broader and less pointed wings. Males are tri-coloured with black wing tips, grey wings and tail and brown wings and body. Females and juveniles are brown with white to yellowish crown/head. Females are the bulkiest and have broad pale shoulder patches. White crescent marks at primary bases in the underwings of juveniles which are visible from a distance help in distinguishing juveniles from females in flight. Occasionally all dark juveniles are also sighted in India.

Conservation status: CITES* II species. Schedule – I species according to Indian Wildlife (Protection) Act (1972). Lower risk / Least concern (IUCN 2006)





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| 1 | Male | Photo : Laurence Poh |
| 2 | Female | Photo : Laurence Poh |
| 3 | Female in Flight | |

2 Eastern Marsh Harrier *Circus spilonotus*

Breeds in eastern Asia from Transbaikalia to the Amur, wintering in eastern India, the Indochinese subregion, southern China, Borneo and the Philippines.

Commonly sighted in east Indian regions (mainly Assam, Manipur, West Bengal) over marshes, wet rice fields and grass fields.

Similar to Eurasian Marsh harrier in size and habits. Male has blackish or streaked head, and black mantle. Throat white and heavily streaked with black breast, belly and under wing are white. Wings and tail grey with black wingtips. Larger than Pied Harrier with broader wings like Eurasian Marsh Harrier. Females have white upper-tail coverts, dark-barred greyish flight feathers and tail, cream head and breast with dark streaks and diffuse streaks on underparts. Heavily streaked with dark brown on nape and lower throat and otherwise similar to female Eurasian Marsh Harrier. Juvenile rather dark with pale-breast band and pale patch at base of underside of primaries. Head usually cream with variable dark streaks.

Conservation status: CITES II species. Schedule – I species according to Indian Wildlife (Protection) Act (1972). Lower risk / Least concern (IUCN 2006)





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| 1 | Female | Photo : H. Bouwmeester |
| 2 | <i>Circus cyaneus</i> | Photo : F. Cahez |
| 3 | Male in Flight | Photo : N. Bouglouan |

3 Hen Harrier *Circus cyaneus*

A palearctic breeding species, wintering south in the Mediterranean, India, and China.

uncommon winter visitor. Generally commonly seen at higher elevations, seen in open undulating plains and cultivated country, in plains and hills up to 2500m in Kashmir, Punjab, Himachal Pradesh and Sikkim Himalayas.

The third largest of Harriers (41-51cm). Wings are broad like Eurasian Marsh Harrier. Broad white rump is quite prominent. Wingtips fall short of tail tips. Males are blue grey in colour with black wing tips. The blue grey extends over head and upto breast to form hood. Underparts white with black band along trailing edge. Females and juveniles brownish with barred tails. Adult females very similar to Montagu's and Pallid Harrier. Faint pale facial collar is present but lacks dark cheek patch of Pallid and Montagu's Harrier. Juveniles similar to adult females but completely light cinnamon to cinnamon-coloured below, and streaked on the breast and belly unlike Pallid and Montagu's Harriers.

Conservation status: CITES II species. Schedule – I species according to Indian Wildlife (Protection) Act (1972). Lower risk / Least concern (IUCN 2006)





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| 1 | Juvenile in Flight | Photo : |
| 2 | Juvenile | Photo : Ajit Deshmukh |
| 3 | Female in Flight | Photo : |
| 4 | Male in Flight | Photo : John Hornbuckle |

Pallid Harrier *Circus macrourus*

Breeds from eastern Europe to west-central Asia, wintering in Africa, India, and Sri Lanka.

Wide spread winter visitor to India but an uncommon Harrier in India, usually seen in undulating country, scrubs, grassy hill sides, cultivation, and semi-desert up to over 3000m. Also occurs in Andaman & Nicobar and Lakshdweep Islands.

Size ranges between 41-49 cm. Males have light grey upper-parts and white grey under-parts except with contrasting black wedge on wing tips and little dark grey hood. Females are brown. The best identification character is the pale collar around the neck of female and juvenile Pallid Harrier which is absent in Montagu's and Hen Harrier. Broad dark brown cheek patch prominent. Upper breast heavily dark brown streaked than

pale lower breast. Dark secondaries and paler primaries. Primaries are irregularly barred. Dark secondaries usually show one or two pale bands, which narrow down towards body. Juveniles very similar to the adult females except in the breast, belly and undercoverts, which are unstreaked.

Conservation status: CITES II species. Schedule – I species according to Indian Wildlife (Protection) Act (1972). Near Threatened (IUCN 2006).



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| 1 | Female | Photo : Laurence Poh |
| 2 | Male | Photo : Chaiya Sirima (Chen) |
| 3 | Male | Photo : John & Jemi Holmes |
| 4 | P | Photo : John & Jemi Holmes |

5 Pied Harrier *Circus melanoleucos*

Breeds in eastern Asia from Transbaikalia to the Amur, wintering in eastern India, the Indochinese subregion, southern China, Borneo and the Philippines.

Commonly sighted in east Indian regions (Manipur, Assam, West Bengal, Bihar, Orissa) over grass fields, rice fields and margins of marshes.

Small wide winged agile bird ranging between 41-46.5 cm. Males are black and white birds while females and juveniles are brown birds. Males glossy black and white bird with head, mantle, throat and breast black and rest of under-parts and rump white and tail grey. Females and juveniles are brown birds with white rump patch and barred tails. Females dark brown with grey cast on upperwings, pale below with white belly, tail dark barred greyish and with blunter and less pointed wings as in Hen Harrier. Both females and juveniles have no white on the head and thus can be distinguished from the Eurasian Marsh Harrier. Juveniles with no grey in wings like females and rufous brown underbody and dark under wing with pale patch of primaries. Female have white on the nape like the Eastern Marsh Harrier.

Conservation status: CITES II species. Schedule – I species according to Indian Wildlife (Protection) Act (1972). Lower risk / Least concern (IUCN 2006)





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|---|-------------------|------------------|
| 1 | A Copulating Pair | Photo : F. Cahez |
| 2 | Female in Flight | Photo : F. Cahez |
| 3 | Male | Photo : F. Cahez |

A palearctic breeding species, wintering in Africa and southern Asia.

Wide spread distribution in India. It is a common Harrier species usually seen in open country, plains and foothills in grasslands and edges of marshes. Also found in Andman & Nicobar and Lakshdweep Island.

Smallest of all Harriers (39-46 cm). Long, narrow and pointed wings unlike other harriers. Slow wing beats like Tern. In a perched Montagu's Harrier wing tips reach tail tip unlike other Harriers. Rump is pale grey not as white as in others. Have much white around eye than other ringtails.

Males are dark ash-grey with black wing tips and black band across wings (secondaries). Possess rusty streaks on white belly and flanks.

The juveniles and Females can be confused with juveniles and females of Hen and Pallid Harriers. Usually the Montagu's Harriers appear more slender in flight. Female and Juveniles brown with barred tails and fainter pale collar around neck but amount of white around eye is distinctive than other Harriers. Except dark crescent on ear-coverts of female Hen Harrier, the Montagu's female closely resembles it. Females are brown above and buffish streaked brown below like *C. cyaneus* but differ in head pattern as they lack distinct pale collar and black cheek patch. Dark secondaries possess two prominent pale bands extending up to the body unlike other ringtail females.

Juveniles resemble females but differ by having unstreaked copper brown underbody and underwings.

Conservation status: CITES II species. Schedule – I species by Indian Wildlife (Protection) Act (1972). Lower risk / Least concern (IUCN 2006).

6 Montagu's Harrier *Circus pygargus*





1 Keoladeo National Park, Bharatpur Photo : Ashok Verma
 2 Wetland with Reeds, Dholpur (Raj.) Photo : Ashok Verma
 3 Scrub Forest, Akola (MH) Photo : Ajit Deshmukh

Natural Habitats

The Harriers are superbly adapted to a lifestyle in open landscapes inhabiting wetlands, grasslands, crop fields, reeds and sedges, salt marshes and dry barren lands. They are found at upto 3,000 metres altitude. The habitat preferences of the different harrier species are given below:

EURASIAN MARSH HARRIER : Marshes, flooded rice fields, lakes and coastal lagoons.

EASTERN MARSH HARRIER : Marshes, wet paddy fields and grasslands.

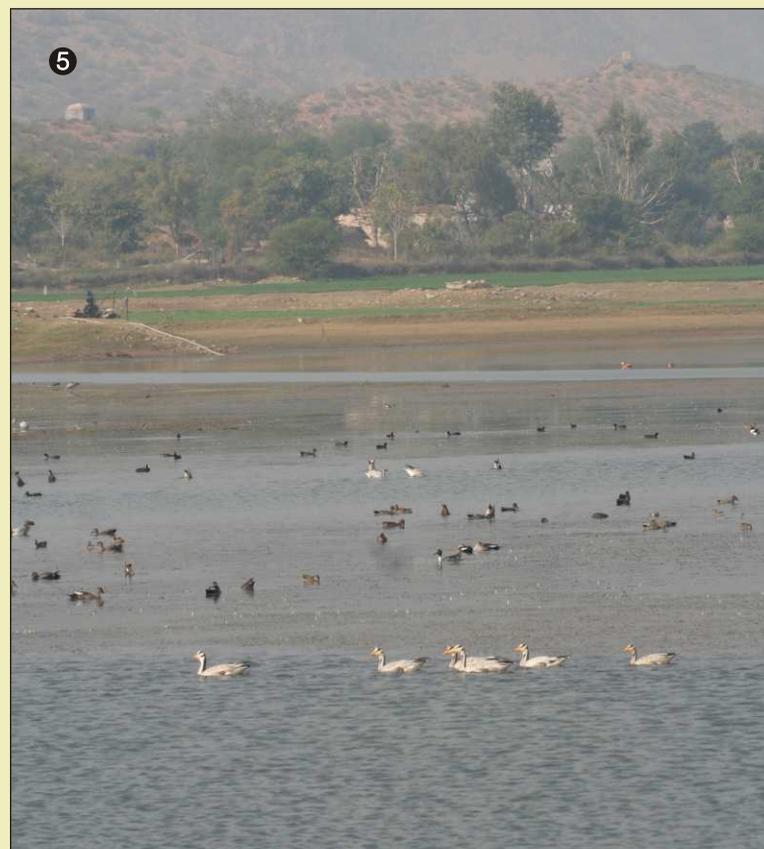
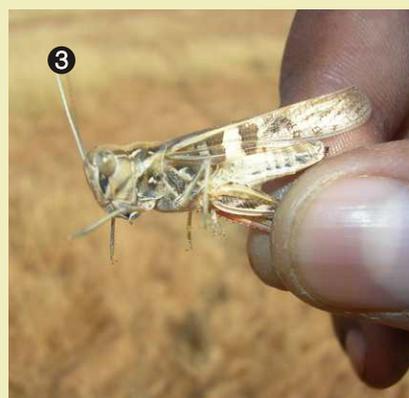
HEN HARRIER : High elevations, marshes and cultivated landscapes.

PALLID HARRIER : Undulating country, grassy hill sides, cultivation and semi-deserts.

PIED HARRIER : Rice fields, marshes and grasslands.

MONTAGU'S HARRIER : Grassy plains, cultivation and swamps.





Prey Species (Food) of Harriers in India

- 1 *Nomadacris succincta*
- 2 Grasshopper
- 3 Grasshopper
- 4 Indian Bush Rat
- 5 Water Fowl
- 6 Harrier Pallels

All Photos : Ashok Verma

Food

Harriers are 'Birds of Prey' (predators). They are a generalist predator. Their diet includes large insects especially locusts, fish, reptiles especially snakes, lizards and skinks, birds (both land and water) and small mammals (rodents). Food and feeding habits of harriers can be easily studied by analyzing their pellets. These are solid mass of undigested prey remains consisting of feathers, hair, bones, exoskeleton of insects. These can be collected easily from their communal roost sites.

Harriers are also known to scavenge. In Keoladeo National Park, Bharatpur (Rajasthan). Eurasian Marsh Harriers have been observed scavenging on the remains of waterfowls such as Coots *Fulica atra*, Common Teal *Anas crecca* and Indian Moorhen *Gallinula chloropus*, fish and large mammals like Spotted Deer *Axis axis*.





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| 1 | Jackal | Photo : Shreedevi |
| 2 | Indian Fox | Photo : S. Chauhan |
| 3 | Jungle Cat | Photo : Meethil Momaya |

Predators of Harriers

Although Harriers themselves are predators however they also have their predators in Indian wintering grounds. Carnivore mammals like Jungle Cat *Felis chaus*, Indian Fox *Vulpes bengalensis*, Jackal *Canis aureus*, Striped Hyena *Hyaena hyaena* and larger raptors such as Bonelli's Eagle *Hieraaetus fasciatus*, Greater Spotted Eagle *Aquila clanga* and Dusky Horned Owl *Bubo coromandus* have been observed attacking Harriers especially during their roosting time in the evening. Mongoose (*Herpestes spp*), and Indian Rock Pythons (*Python molurus*) can also cause harm to roosting Harriers. Harriers drive away their predators communally.





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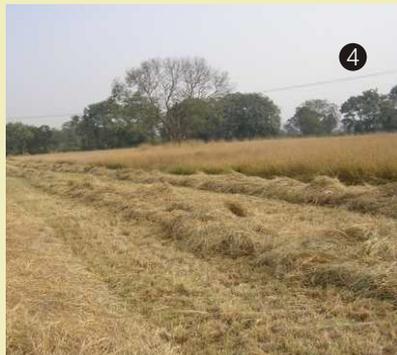
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- 1 Plantation
- 2 Invasion of Alien Species (*Prosopis juliflora*)
- 3 Over Grazing
- 4 Grass harvesting at Roost
- 5 Hieroglyphus banian
- 6 Dead Eurasian Marsh Harrier (Female)

All Photos : Ashok Verma

Role of Harriers and their Conservation

Being top predators, harriers stand at the apex of food chain and are therefore indicators of the health of our plains, downs and lowlands. They are natural controls of rodents, grasshoppers and birds - their major prey base.

Since harriers are almost without exception ground roosting hawks, the open spaces are their major ecological requirements in winter quarters.

The rapid developmental activities and change in land use patterns to meet the demands of burgeoning human population is also responsible for destroying harriers' habitat. Suitable foraging and roosting habitats of harriers have decreased in many parts of their range in India because of large scale monocultures, extensive reclamation of wetlands, conversion of grasslands to crop fields and plantations.

Their habitats are also under threat of been an closed by elian plant spceacies such as prosopis juliflora.

Intensive pesticide use for crop pest control such as grasshoppers and rodents may also contribute towards population decline of Harriers in India.

There is an urgent need to conserve harrier habitats and to arrest the decline in their populations as they are key biological indicators of ecosystem health and human well-being.



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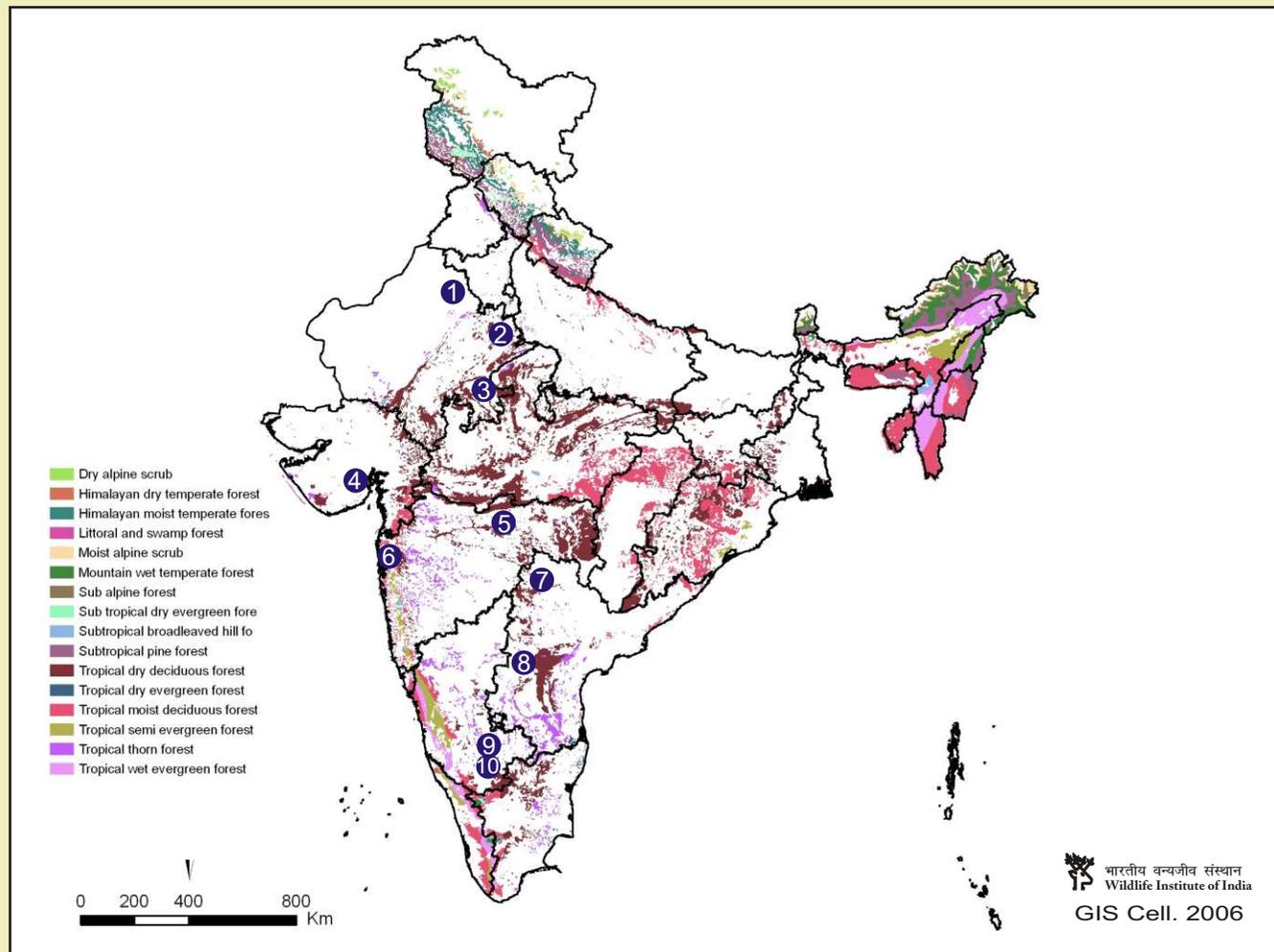


Figure. F.1

Communal Roosting Sites of Harriers in India

- | | |
|----------------------------------|---------------------------------|
| 1. Talchhapar Wildlife Sanctuary | 6. Mumbai |
| 2. Keoladeo National Park | 7. ICRISAT |
| 3. Sorsan | 8. Rollapadu Wildlife Sanctuary |
| 4. Velavadar National Park | 9. Hessarghata |
| 5. Akola | 10. Agratank |

Selected Readings on Harriers

Ali and Ripley (1983): Handbook of the Birds of India and Pakistan. Compact Edition. Oxford University Press, New Delhi.

Clarke, R., V. Prakash, W.S. Clark, N. Ramesh and D. Scott (1998): World record count of roosting harriers (*Circus*) in Blackbuck National Park, Velavadar, Gujarat, North-West India. *Forktail*, 14:70-71.

Grimmet, R., Inskipp, C. and Inskipp, T (1999): Birds of the Indian subcontinent. Oxford University Press.

IUCN 2006. IUCN Red List of Threatened species <www.iucnredlist.org>

Narayan, G & Rosalind, L (1991): New record of the Pied Harrier, *Circus melanoleucos* (Pennant) breeding in Assam Duars, with a brief review of its distribution. *J. Bombay nat. His. Soc.* 88 (1): 30-34.

Simmons R.E. (2000): Harriers of the World: Their behaviour and ecology. Oxford Ornithology Series. Edited by C.M. Perrins. Oxford.

Verma, A. (2002): Wintering Ecology of Marsh Harriers. Ph. D. Thesis. Bombay University, Bombay.

Verma, A. (2006): Communal roosting behaviour of Eurasian Marsh Harriers in India. *International Hawkwatcher*, 11: 3-8.

Verma, A. (2006): Preliminary observations on the ecology of Harriers (*Circus* sp.) roosting at Hessarghata, North Bangalore in Karnataka, South India with special reference to Eurasian Marsh Harriers (*Circus aeruginosus*). *The Indian Forester*, March Issue, (2006): 337-344.



Photo : F. Cahez

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