

Avifauna of Hingol National Park, Balochistan

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Abstract.- Surveys were undertaken in different habitats of Hingol National Park from 2005-2007 to record the bird fauna of the area. Out of the total of 204 species of birds recorded, 7 species are threatened and 2 species are near-threatened. Fourteen species are of special conservation interest on account of being threatened/near-threatened, scarce or key species (being integral part of the Park). The potential threats to the birds of the area are: human population pressure, developmental activities, deforestation, habitat degradation and disturbance. Management plan for the HNP is under preparation for the conservation of the biodiversity of the Park and its future development.

Key words: Balochistan, Biodiversity, Birds, Protected Areas, Hingol National Park.

INTRODUCTION

The Hingol National Park (HNP) is located in Lasbella, Awaran and Gwadar districts of Balochistan. It covers an area of 619,043 hectares with 5,000 households spread in more than 200 scattered villages. Hingol National Park was notified in 1997 (Fig. 1).

The park contains important biodiversity. Chinkara (*Gazella bennettii*), Sindh Wild Goat (*Capra aegagrus*) and Urial (*Ovis orientalis blanfordi*) are the key species of the area. Occasionally, Common Leopard (*Panthera pardus*), Jungle Cat (*Felis chaus*), Desert Cat (*Felis libyca*), Striped Hyaena (*Hyaena hyaena*), Desert Fox (*Vulpes vulpes*), Asiatic Jackal (*Canis aureus*), Wolf (*Canis lupus*) and Pangolin (*Manis crassicaudata*) have been recorded. Significant birds species include Houbara Bustard (*Chlamydotis undulata*), Spotted-billed Pelican (*Pelecanus philippinus*), Dalmatian Pelican (*Pelecanus crispus*), See-see Partridge (*Ammoperdix griseogularis*), Giant Heron (*Ardea goliath*), Black Bittern (*Dupetor flavicollis*), White-backed Vulture (*Gyps fulvus*), Imperial Eagle (*Aquila heliaca*), Peregrine Falcon (*Falco peregrinus*), Crowned Sandgrouse (*Pterocles coronatus*), Lesser Kestrel (*Falco naumani*), Sooty

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Falcon (*Falco concolor*), Close-barred/Lichtenstein Sandgrouse (*Pterocles lichtensteini*), Grey Partridge (*Francolinus pondicerianus*), Stone Curlew/Stone Plover/Eurasian Thick-knee (*Burhinus oedipnemus*), Black Ibis (*Pseudibis papillosa*) and Brown-necked Raven (*Corvus ruficollis*). The site has vital habitats for reptiles. Marsh Crocodile (*Crocodylus palustris*) is distributed in the Hingol river particularly in the estuarine area. Nesting of green turtle takes place near Wadh, Poti Bundar and Kund Malir area. Indian Fringe-toed Gecko, Indian Sand Swimmer, Sindh Sand Gecko (*Stenodactylus orientalis*) are commonly found in Aghor area. Among Amphibians, Skittering Frog (*Rana cyanophlyctis*) and Indus Toad (*Bufo stomaticus*) are quite common in the Hinglaj area. Among fishes, Mahaseer (*Tor putitora*), Botchee (*Scaphiaron irregularis*) are found in Hingol river and a variety of marine fishes is also found in the adjoining coastal area and the Arabian Sea.

The park has high aesthetic venues like beaches, sand dunes, patches of agriculture, mountains, wetlands and the sea. The park has active Chandragup mud volcano in the southeastern part of the park and Khandewari mud volcano in the Haro range in the east. The Hinglaj area has the Nani Mandar, a sacred place for the Hindus. 109 km of the Coastal Highway runs through the National park and provides an opportunity to the visitors to

view the beautiful beach at Ras Malan, Hingol river at Aghor, archaeological sites, natural carvings in

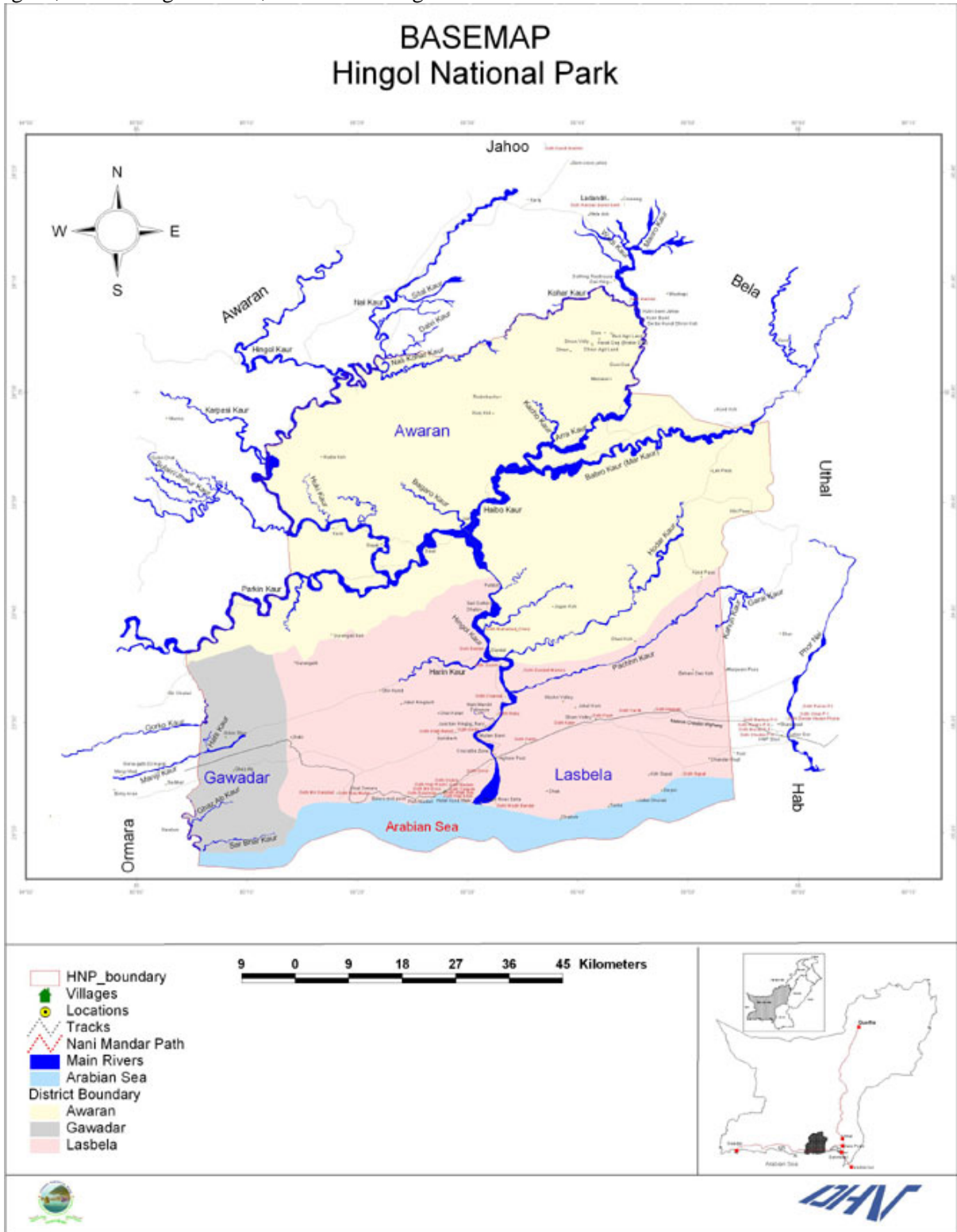


Fig. 1. Base map of Hingol National Park. Source: Balochistan Forest and Wildlife Department.

the highly eroded mountains and the wildlife of the area.

Keeping in view the unique features and significant biodiversity, GEF has selected three National Parks in Pakistan including HNP to provide financial support through the World Bank. The objective of the project is to “Conserve Globally Important Habitat and Biodiversity through Active Participation of Custodian Communities of the Area”. Other two national parks are Chitral Gol National Park, NWFP and Machhiara National Park, Azad Kashmir.

To achieve the objective, the Project has been designed with the following major components: (i) Improving park planning process and building capacity (ii) protecting and effectively managing species, habitats and ecosystems within or near the Protected Areas (iii) strengthening local, regional and national support for park and people through focussed environmental awareness and outreach activities and training and upgrading the capacity of staff and communities.

A draft Management Plan for the HNP has been prepared to specify the objective of the Park, strategies for conservation, development, intended uses and the plans for investment.

MATERIALS AND METHODS

The avifauna of the Hingol National Park consists of resident as well as migratory species. To cover the avifaunal changes in different seasons of the year, surveys were undertaken in autumn, winter, spring and summer seasons.

The first survey was conducted in post-monsoonal season in November 2005. The second survey was conducted during the peak bird migratory season (January to February 2006), particularly with reference to waterbirds from the north and this is the time when the Asian Waterbird census is undertaken during a period of 15 days commencing from the second week of January each year. The waterbird census data were collected, and compiled on prescribed proforma of the Wetlands International Asia Pacific.

Later, surveys were undertaken in July to

December 2006. Waterbird census was undertaken on the important wetland sites in the HNP in January 2007 and the data for the Annual Waterbird Census were collected. Afterwards, bird surveys were undertaken in March and April 2007. Strip census method was generally used to record the birds present in the study area. Each sample area was covered lengthwise. Observations were made on each side of the strip for 300m thus covering 600m with the help of binoculars/spotting scopes. All types of habitats in the study area such as sea, sea coast, river, estuarine area, mudflats, river bank, sand dune area, inter-tidal zone, cultivated area, fallow lands, mangrove area and the hills and mountains were sampled. Thus the data were collected on occurrence, distribution, habits and habitats of the various species of birds.

For field identification of birds, field guides such as Grewal *et al.* (2002), Grimmett *et al.* (1998) and Kazmierczak (2000) were used. Secondary data on the overall status of the birds recorded from HNP were taken from Grimmett *et al.* (1998) and Roberts (1991-1992).

RESULTS AND DISCUSSION

As many as 395 species of birds have been reported from Balochistan (Ghalib *et al.*, 2004). There are subsequent additions to the list making the total of Balochistan birds to 410.

The HNP covers a large area and has many suitable habitats for birds. As a result 204 species of birds have so far been recorded from the Park area. Out of these, 72 are winter visitors, 15 passage migrants, 16 summer breeding visitors, 6 summer visitors, 4 year-round visitor, 78 residents and 3 vagrants (Table I). Migratory birds form a major component of the bird fauna of the area.

Studies to record the fauna of HNP have been undertaken by various agencies from time to time. The main findings with reference to the avifauna are summarized below. 83 species of birds were recorded by the IUCN (1997). Out of which the following are the exclusive records, as these species have not been recorded by any other study, but these have been included in the overall checklist of the

birds of HNP: Northern Hobby, Long-legged European Nightjar, Common Koel, Common Swift, Buzzard, Bonelli's Eagle, Saunder's Tern, Great-crested Tern, White-cheeked Tern, Bridled Tern,

Table I.- Consolidated List of Birds Recorded so far from Hingol National Park

S.No.	Order	Family	Scientific Name	Common Name	Status
1	Podicipediformes	Podicipedidae	<i>Podiceps cristatus</i>	Great Crested Grebe	WV
2			<i>Podiceps nigricollis</i>	Black-necked Grebe	WV
3	Pelecaniformes	Phalacrocoracidae	<i>Phalacrocorax carbo</i>	Large Cormorant	WV
4			<i>Phalacrocorax niger</i>	Little Cormorant	R
5			<i>Phalacrocorax fuscicollis</i>	Indian shag	WV
6		Pelecanidae	<i>Pelecanus crispus</i>	Dalmatian Pelican	WV
7			<i>Pelacanus onocrotalus</i>	White or Rosy Pelican	WV
8			<i>Pelecanus philippins</i>	Spotted-billed Pelican	WV
9	Ciconiiformes	Ardeidae	<i>Ardeola grayii</i>	Indian Pond Heron	R
10			<i>Dupetor flavicollis</i>	Yellow-throated black bittern	R
11			<i>Bubulcus ibis</i>	Cattle Egret	R
12			<i>Egretta alba</i>	Large Egret or Great Egret	R
13			<i>Egretta garzetta</i>	Little Egret	YRV
14			<i>Egretta gularis</i>	Indian Reef Heron	R
15			<i>Egretta intermedia</i>	Smaller or Median Egret	R
16			<i>Ardea cinerea</i>	Grey Heron	WV/PM
17			<i>Ardea goliath</i>	Giant Heron	V
18			<i>Ardea purpurea</i>	Purple Heron	YRV
19		Ciconidae	<i>Ibis leucocephalus</i>	Painted stork	R
20			<i>Ciconia ciconia</i>	White Stork	WV
21			<i>Ciconia nigra</i>	Black Stork	WV
22		Threskiornithidae	<i>Psuedibis papillosa</i>	Black Ibis	PM
23			<i>Platalea leucirodia</i>	Spoonbill	WV/PM
24		Phoenicopteridae	<i>Phoenicopterus roseus</i>	Flamingo	YRV
25	Anseriformes	Anatidae	<i>Tadorna ferruginea</i>	Ruddy Shelduck	PM
26			<i>Anas acuta</i>	Pintail	WV
27			<i>Anas crecca</i>	Common Teal	WV
28			<i>Anas clypeata</i>	Shoveller	WV
29			<i>Anas penelope</i>	Wigeon	WV
30			<i>Anas strepera</i>	Gadwall	WV
31	Falconiformes	Accipitridae	<i>Milvus migrans</i>	Black Kite	R
32			<i>Haliastur indus</i>	Brahminy Kite	R
33			<i>Haliaeetus leocoryphus</i>	Pallas's Fishing Eagle	R
34			<i>Gypaetus barbatus</i>	Bearded Vulture	R
35			<i>Neophron percnopterus</i>	Egyptian Vulture	R
36			<i>Gyps bengalesis</i>	Indian Whitebacke Vulture	R
37			<i>Gyps fulvus</i>	Indian Griffon Vulture	R
38			<i>Circus aeroginosus</i>	Marsh Harrier	WV
39			<i>Accipiter badius</i>	Central Asian Shikra	WV
40			<i>Accipiter nisus</i>	Eurasian Sparrow Hawk	SBV
41			<i>Buteo rufinus</i>	Longlegged Buzzard	WV
42			<i>Aquila heliaca</i>	Imperial Eagle	WV
43			<i>Aquila rapax</i>	Tawny Eagle	R
44			<i>Hieraatus fasciatus</i>	Slender Hawk-eagle	R
45		Pandionidae	<i>Pandion haliaeetus</i>	Osprey	WV
46		Falconidae	<i>Falco columbarius</i>	Pallid Merlin	WV
47			<i>Falco concolor</i>	Sooty Falcon	R
48			<i>Falco jugger</i>	Lagger Falcon	R
49			<i>Falco naumanni</i>	Lesser Kestrel	V
50			<i>Falco peregrinus</i>	Peregrine Falcon	R
51			<i>Falco subbuteo</i>	Northern Hobby	WV

S.No.	Order	Family	Scientific Name	Common Name	Status
52			<i>Falco tinnunculus</i>	Kestrel	R/WV
<i>Continued</i>					
53	Galliformes	Phasianidae	<i>Ammoperdix griseogularis</i>	See-see Partridge	R
54			<i>Francolinus pondicerianus</i>	Grey Partridge	R
55			<i>Conturnix coturnis*</i>	Common Quail	PM/WV
56	Gruiformes	Rallidae	<i>Gallinula chloropus</i>	Moorhen	R
57			<i>Fulica atra</i>	Coot	WV
58		Otididae	<i>Tetrax tetrax</i>	Little Bustard	WV
59			<i>Chlamydotis undulata</i>	Houbara Bustard	WV
60	Charadriiformes	Haematopodidae	<i>Haematopus ostralegus</i>	Oyster catcher or Sea-Pie	WV
61		Recurvirostridae	<i>Himantopus himantopus</i>	Black-winged Stilt	R
62			<i>Recurvirostra avosetta</i>	Avocet	WV
63		Dromadidae	<i>Dromas ardeola</i>	Crab Plover	PM/WV
64		Burhinidae	<i>Burhinus oedicnemus</i>	Stone Curlew/Eurasian Thick-Knee	R
65			<i>Esacus recurvirostris</i>	Great Stone Plover/Thick-Knee	R
66		Charadriidae	<i>Charadrius alexandrinus</i>	Kentish Plover	SBV
67			<i>Charadrius dubius</i>	Little Ringed Plover	WV/R
68			<i>Charadrius hiaticula</i>	Ringed Plover	WV
69			<i>Charadrius leschenaultii</i>	Large Sand Plover	WV
70			<i>Charadrius mongolus</i>	Lesser Sand Plover	WV
71			<i>Pulvialis apricaria</i>	Golden Plover	V
72			<i>Pulvialis squatarola</i>	Grey Plover	WV
73			<i>Vanellus gregarius</i>	Sociable Lapwing	WV
74			<i>Vanellus indicus</i>	Red Wattled Lapwing	R
75			<i>Vanellus leucurus</i>	White-tailed Lapwing	R
76			<i>Vanellus malabricus</i>	Yellow Wattled Lapwing	SBV
77		Scolopaciidae	<i>Calidris albus</i>	Sanderling	WV
78			<i>Calidris alpinus</i>	Dunlin	WV
79			<i>Calidris minutus</i>	Little Stint	WV
80			<i>Calidris temminckii</i>	Temminck's Stint	WV
81			<i>Calidris testaceus/ferruginea</i>	Curlew-Sandpiper	WV
82			<i>Limicola falcinellus</i>	Broadbilled Sandpiper	WV
83			<i>Philomachus pugnax</i>	Ruff	WV
84			<i>Capella gallinago</i>	Common or Fantail Snipe	PM
85			<i>Limosa lapponica</i>	Bartailed Godwit	WV
86			<i>Limosa limosa</i>	Blacktailed Godwit	WV
87			<i>Numenius arquata</i>	Curlew	WV/PM
88			<i>Numenius phaeopus</i>	Whimbrel	WV
89			<i>Tringa glareola</i>	Wood or Spotted Sandpiper	PM
90			<i>Tringa hypoleucos</i>	Common Sandpiper	WV
91			<i>Tringa nebularia</i>	Greenshank	WV
92			<i>Tringa ochropus</i>	Green Sandpiper	PM
93			<i>Tringa stagnatilis</i>	Marsh Sandpiper	PM
94			<i>Tringa terek</i>	Terek Sandpiper	WV
95			<i>Tringa totanus</i>	Redshank	WV/PM
96		Laridae	<i>Larus argentatus</i>	Herring Gull	WV
97			<i>Larus brunnicephalus</i>	Brown-headed Gull	WV
98			<i>Larus cachinans</i>	Yellow-legged Gull	WV
99			<i>Larus fuscus</i>	Black-backed Gull	WV
100			<i>Larus genei</i>	Slenderbilled Gull	R
101			<i>Larus hemprichii</i>	Sooty Gull	SV/R
102			<i>Larus ichthyaetus</i>	Great Black headed Gull or Pallas's Gull	WV
103			<i>Larus ridibundus</i>	Black-headed Gull	WV

S.No.	Order	Family	Scientific Name	Common Name	Status
104		Sternidae	<i>Gelochelidon nilotica</i>	Gullbilled Tern	WV
<i>Continued</i>					
105			<i>Hydroprogne caspia</i>	Caspian Tern	YRV
106			<i>Sterna albifrons</i>	Little Tern	R
107			<i>Sterna anaethetus</i>	Bridled Tern	WV
108			<i>Strena bengalensis</i>	Lesser Crested Tern	YRV
109			<i>Sterna bergii</i>	Red Sea Large Crested Tern or Swift Tern	M
110			<i>Sterna hirundo</i>	Common Tern	SV
111			<i>Sterna repressa</i>	White-cheeked Tern	SV
112			<i>Sterna sandvicensis</i>	Sandwich Tern	YRV
113			<i>Sterna saundersi</i>	Black-shafted Ternlet	YRV
114			<i>Chlidonias hybrida</i>	Whiskered Tern	YRV
115	Columbiformes	Pteroclididae	<i>Pterocles coronatus</i>	Caronnetted Sandgrouse	R
116			<i>Pterocles exustus</i>	Chestnut-bellied or Common or Indian Sandgrouse	R
117			<i>Pterocles indicus</i>	Painted Sandgrouse	R
118			<i>Pterocles lichtensteinii</i>	Close-barred Sandgrouse	R
119			<i>Pterocles orientalis</i>	Imperial or Black-bellied Sandgrouse	WV
120		Columbidae	<i>Columba livia</i>	Blue Rock Pigeon	R
121			<i>Streptopelia decaocto</i>	Ring Dove	R
122			<i>Streptopelia senegalensis</i>	Little Brown or Senegal Dove	R
123			<i>Streptopelia tranquebarica</i>	Red Turtle Dove	V
124	Psittaciformes	Psittacidae	<i>Psittacula krameri</i>	Rose Ringed Parakeet	R
125	Cuculiformes	Cuculidae	<i>Eudynamys scolopacea</i>	Common Koel	R
126	Strigiformes	Strigidae	<i>Otus brucei</i>	Striated or Pallid Scops Owl	SBV
127			<i>Bubo bubo</i>	Indian Great Horned / Eagle Owl	R
128	Caprimulgiformes	Caprimulgidae	<i>Caprimulgus aegyptius</i>	Egyptian Nightjar	SBV
129			<i>Caprimulgus europaeus</i>	Hume's European Nightjar	SBV
130			<i>Caprimulgus mahrattensis</i>	Syke's or Sind Nightjar	R
131			<i>Athene brama</i>	Spotted Owlet	
132	Apodiformes	Apodidae	<i>Apus affinis</i>	House Swift	R
133			<i>Apus apus</i>	Common Swift	SV
134			<i>Apus pallidus</i>	Pale Brown or Pallid Swift	WV
135	Coraciiformes	Alcedinidae	<i>Alcedo atthis</i>	Common Small Blue Kingfisher	R/WV/SBV
136			<i>Halcyon smyrnensis</i>	Whitebreasted Kingfisher	R
137		Meropidae	<i>Merops orientalis</i>	Small Green Bee-eater	SBV
138			<i>Merops superciliosus</i>	Blue-cheeked Bee-eater	SBV
139		Coraciidae	<i>Coracias bengalensis</i>	Roller or Blue Jay	R
140		Upupidae	<i>Upupa epops</i>	Hoopoe	SBV
141	Piciformes	Picidae	<i>Picoides assimilis</i>	Sind Pied Woodpecker	R
142	Passeriformes	Alaudidae	<i>Eremopterix grisea</i>	Ashycrowned Finch-lark	R
143			<i>Eremopterix nigriceps</i>	Blackcrowned Finch-lark	R
144			<i>Ammomanes deserti</i>	Indian Desert Finch-lark	R
145			<i>Alaemon alaudipes</i>	Hoopoe Lark / Bifasciated Lark	R
146			<i>Calandrella acutirostris</i>	Hume's Short-toed Lark	R
147			<i>Alda gulgula</i>	Oriental Skylark	R
148			<i>Galerida cristata</i>	Crested Lark	R
149		Hirundinidae	<i>Riparia paludicola</i>	Brown-throated Sand Martin	WV
150			<i>Riparia riparia</i>	Collared Sand Martin	WV
151			<i>Delichon urbica</i>	Common House Martin	R
152			<i>Ptyprogne fuligula</i>	Pale Crag Martin	R
153			<i>Hirundo daurica</i>	Redrumped Swallow	SBV
154			<i>Hirundo rupestris</i>	Eurasian Crag Martin	R

S.No.	Order	Family	Scientific Name	Common Name	Status
155			<i>Hirundo rustica</i>	Barn Swallow	WV
<i>Continued</i>					
156			<i>Hirundo smithi</i>	Wire-tailed Swallow	R
157		Motacillidae	<i>Motacilla alba</i>	White or Pied Wagtail	WV
158			<i>Motacilla cinerea</i>	Grey Wagtail	PM
159			<i>Motacilla citreola</i>	Yellow-headed Wagtail	R/PM
160			<i>Motacilla flava</i>	Yellow Wagtail	R
161			<i>Anthus trivialis</i>	Tree Pipit	R
162		Pycononotidae	<i>Pycnonotus cafer</i>	Red-vented Bulbul	R
163			<i>Pycnonotus leucogenys</i>	White-cheeked Bulbul	R
164		Turdidae	<i>Lucinia svecica</i>	Bluethroat	WV
165			<i>Oenanthe alboniger</i>	Hume's Chat or Wheatear	WV
166			<i>Oenanthe deserti</i>	Desert Chat or Desert Wheatear	WV
167			<i>Oenanthe isabellina</i>	Isabelline Wheatear	WV/SBV
168			<i>Oenanthe monacha</i>	Hooded Chat or Wheatear	WV
169			<i>Oenanthe xanthopyrma</i>	Rufoustailed Whaetear	
170			<i>Phoenicurus ochruros</i>	Black Redstart	R
171			<i>Saxicola ferea</i>	Gray Bushchat	R
172			<i>Saxicola torquata</i>	Collared Indian Bush Chat or Stone Chat	PM/SBV
173			<i>Saxicoloidea fulicata</i>	Indian Chat or Indian Robin	R
174		Sylviidae	<i>Acrocephalus dumetorum</i>	Blyth's Reed Warbler	WV
175			<i>Acrocephalus stantoreus</i>	Clamorous Warbler	WV
176			<i>Orthotomus sutorius</i>	Tailor bird	R
177			<i>Phylloscopus collibita</i>	Chiffchaff	WV
178			<i>Phylloscopus neglectus</i>	Plain Leaf Warbler	SBV
179			<i>Phylloscopus trichiloides</i>	Greenish Warbler	WV
180			<i>Prinia buchanani</i>	Rufousfronted Wren Warbler	R
181			<i>Sylvia curruca</i>	Lesser Whitethroat	WV
182			<i>Sylvia nana</i>	Desert Warbler	WV
183		Muscicapidae	<i>Ficedula parva</i>	Redthroated Flycatcher	WV
184			<i>Rhipidura aureola</i>	Whitebrowed Flycatcher	WV
185		Timaliidae	<i>Turdoides caudatus</i>	Common Babbler	R
186		Nectarinidae	<i>Nectarinia asiatica</i>	Purple Sunbird	R
187		Laniidae	<i>Lanius excubitor</i>	Grey Shrike	R/SBV
188			<i>Lanius isabellinus</i>	Rufous-tailed or Isabelline Shrike	WV/SBV
189			<i>Lanius schach</i>	Rufous-backed Shrike	R
190			<i>Lanius vittatus</i>	Baybacked Shrike	R
191		Dicruridae	<i>Dicrurus adsimilis</i>	Black Drongo or King Crow	R/PM
192		Corvidae	<i>Corvus corax</i>	Common Raven	R
193			<i>Corvus ruficollis</i>	Dasert Raven	WV
194			<i>Corvus splendens</i>	Indian House Crow	R
195		Sturnidae	<i>Acridotheres tristis</i>	Indian Myna	R
196		Passeridae	<i>Passer domesticus</i>	House Sparrow	R/SBV
197			<i>Passer hispaniolensis</i>	Spanish Sparrow	WV
198			<i>Passer pyrrhonotus</i>	Sind Jungle Sparrow	R
199			<i>Passer xanthocollis</i>	Sind Yellowthroated Sparrow	SBV
200		Estrildidae	<i>Lonchura malabarica</i>	Common Silverbill or Whitethroated Munia	R
201		Fringillidae	<i>Carpodacus erythrinus</i>	Common Rosefinch	R
202			<i>Emberiza cia</i>	Rock Bunting	R
203			<i>Emberiza melanocephala</i>	Blackheaded Bunting	PM
204			<i>Emberiza striolata</i>	Striped or House Bunting	R

*PM, Passage migrant; R, Resident; SBV, Summer breeding visitor; SV, Summer visitor; V, Vagrant; WV, Winter visitor; YRV, Year-round visitor

Table II.- Birds protected under the Balochistan Wildlife Protection Act 1974 3rd schedule-protected animals i.e. animals which shall not be hunted, killed or captured.

All members of family	Ardeidae	Hérons, night herons, paddy birds, egrets or bitterns.
	Pelicanidae	Pelicans
	Ciconiidae	Storks
	Threskiornithidae	Ibises and spoonbill
	Phoenicopteridae	Flamingoes
	Accipitridae	Hawks, vultures, kites, buzzards, hawk-eagle, eagles, harriers and ospreys
	Falconidae	Falcons, kestrels and hobbies
	Phasianidae	Pheasants, partridges and quails (other than specified in 1 st schedule)*
	Gruidae	Cranes
	Otididae	Bustards
All members of the genera <i>Anser</i> and <i>Branta</i> (all geese including the grey lag and the barheaded goose)	<i>Cygnus</i>	all swans
	<i>Ducula</i>	Imperial pigeons
The following species of ducks	<i>Anas angustirostris</i>	Marbled teal
	<i>Anas poecilorhynchus</i>	Spot bill duck
	<i>Nettapus coromondelica</i>	Cotton teal
	<i>Oxyura leucocephala</i>	White headed stifftailed duck
	<i>Cairina scutulata</i>	White winged wood duck
	<i>Rhodonessa caryophyllacea</i>	Pink headed duck
<i>Pterocles alchata</i> (Large pintailed sandgrouse)		

*Phasianidae included in schedule 1 (See partridge, black partridge, chakur, common quail and grey partridge)

Pale Crag Martin, Booted Warbler, Clamorous Warbler and Common Rosefinch.

WWF-P (1999) recorded 54 species of birds from HNP. The following are the exclusive records: Red Turtle Dove, Roseringed Parakeet, and House Swift. Azam recorded 105 species of birds (1999-2002). The following 15 are exclusive records. Black-necked Grebe, Cattle Egret, Black Stork, White Stork, Ruddy Shelduck, Sparrow Hawk, Laggar Falcon, Crab Plover, Golden Plover, Yellow-wattled Lapwing, Wood Sandpiper, Chestnut-bellied Sandgrouse, Imperial Sandgrouse, Collared Sandgrouse, Rufousfronted Wren-warbler / Prinia. Khan *et al.* (2004) recorded 81 species of birds, the notable species which are rarely seen in the area are: Ruff and Black-tailed Godwit with the implementation of the Protected Area Management Project with Hingol National Park (Balochistan) Component, studies on the biodiversity of the Park

have been undertaken since 2005. Wind and Khan (2005) recorded 39 species of birds. The exclusive records are: Barn Swallow, Red-rumped Swallow and Pallid Swift. Wind (2005) recorded 33 species of birds, out of which, the following are exclusive records: Indian White-backed Vulture, Black Kite, Wire-tailed Swallow, Plain Leaf Warbler, Black Drongo and Rufous-tailed Shrike. A Caravan Survey was made in selected localities in HNP *w.e.f.* 27-11-2005 to 04-12-2005. During the Caravan survey, the areas visited were: Gako, Kotori, Shakaan, Babro Kaur, Raa-inn, Dozakh/Durgee, Gathay, HajiPeer, Madoi, Traunch, Pachrhi, Kaari Kandaj, Kundi, Nalli, Jhakki, Buzikoh, Karpaas, Ganjigari, Chirhisak and Damak. Forty two species of birds were recorded in the Caravan Survey (Shah and Wind 2005). The exclusive sightings, are: Black Bittern, Brahminy Kite, Merlin, Indian Moorhen, Sind Woodpecker and Yellow-legged Gull.

Bird Surveys were undertaken by the present authors in January-February, 2006.

There were 6 habitat types *viz.* valley floor, riverbank, coastal plain, sand dunes area, coastal fringe and intertidal zone.

Waterbird Census 2006 in HNP

The waterbird census in the estuarine area of HNP was conducted on 20-21/01/2006.

Large flocks of Great White Pelican, Spotbilled Pelican, Little Cormorant, Little Egret, White Spoonbill and Greater Flamingoes were seen. Among ducks, large flocks of Common Teal, Shoveller, Eurasian Wigeon and Gadwall were recorded. The last two are exclusive records. Among shorebirds, Lesser Sand Plover, Greater Sand Plover, Stone Curlew, White-tailed Plover, Ringed Plover, Little Ringed Plover, Kentish Plover, Bar-tailed Godwit, Whimbrel, Curlew, Redshank, Greenshank, Green Sandpiper, Terek Sandpiper, Common Sandpiper, Marsh Sandpiper, Little Stint, Temminck's Stint, Dunlin, Broad-billed Sandpiper and Common Snipe were recorded. Stone Curlew is the exclusive record. Among Larids, Herring Gull, Lesser Black-backed Gull, Great Black-headed Gull, Brown-headed Gull, Black-headed Gull, Slender-billed Gull, Whiskered Tern, Gull-billed Tern, Caspian Tern, Little Tern, Lesser Crested Tern and Sandwich Tern were recorded. The area provides favorable habitat for the water birds so as many as 10,200 water birds belonging to 52 species were recorded from the area during the January census. The area has been emerging as an important wintering area for migratory water birds. Attempts are being made to improve the habitat by new mangrove plantation of 60,500 seedlings, saplings and propagules of *Avicennia marina* and *Rhizophora mucronata* in 4201 ha.

Later surveys were undertaken in April, and July to October 2006 in the important bird areas of the Park *viz.* Dhrun Plateau, Maneji/Gurangatti, Jhakki, Beharo-Sarhad/Pir Bambar, Machi/Pachhri and Phol Dhat to Nani Mandir to record the bird fauna. There were 4 new records for the area. These new records are: Lesser Kestrel, Black Ibis, Sind Sparrow and Yellow-throated Sparrow.

The last two are the exclusive records

Surveys were undertaken in November 2006 in Aghor Area, Hingol River estuary, Sanguri area,

Gurangatti, Maneji and Central Hingol area (Qasim Goth, Sangal, Dandail, Mazaro, Lowari, Aaryaan, Larheji forest, Bojh, Daloi and Poledaat). The Important findings are: Footprints of Houbara Bustard were found in an agricultural field near Nakhatti/Darwesh Goth (25 23 51.7 N 65 22 22.2 E)

There were also footprints of Red Fox, Jackal and Cape Hare nearby; Indian Roller, Grey Shrike, Bay-backed Shrike and Desert Warbler were observed in the area. Beyond Allah Bux Goth, at Sanguri, the area is plain surrounded on the border with mountains on the sides. There is scanty growth of *Euphorbia* sp. and *Prosopis* sp.

This is a good area for birds as flocks of Little Green Bee-eater, Common Babbler, Redwattled Lapwing, Egyptian Vulture, Pied Chat and White-browed Fantail Flycatcher were observed.

Near Nokoo Goth and Allah Bukhsh Goth, there is a small *Tamarix* and *Prosopis* forest (25 32' 82.3' N 65° 33' 38.9' E).

At Aaryaan, (25° 35' 67.9' N 65° 32' 04.0' E) Grey Shrike, White-cheeked Bulbul and European/Kashmir Roller were observed.

More than 7465 waterbirds were recorded at the Hingol River estuary in November 2006. The bird migration was in progress and their number was expected to grow further in the peak season in January. Flocks of Flamingo (500), Grey Pelican (60), Rosy Pelican (400), Grey Heron (80), Pond Heron (50), Reef Heron (60), Little Egret (600), Redshank (40), Bartailed Godwit (100), Curlew (30), Whimbrel (40), Herring Gull (4000), Great Black-headed Gull (15), Slender-billed Gull (90), Black-headed Gull (800), Sandwich Tern (100) and Little Tern (400) were recorded.

There was much disturbance due to fishing boat activities and hence most of the birds were concentrated on the right bank of the river beside the mountain.

There was also some disturbance due to the movement in the Army Firing Range near the estuary.

Iqbal and Khan (2006) surveyed the Dhrun Mountain, Kukeri Bhent and Rodaini Kacho in November 2006 and recorded the wild life of the area along with the following exclusive records for

birds: Eurasian Sparrow-hawk, Peregrine Falcon, Spotted Owllet, Grey Bushchat, Chiffchaff, Greenish Warbler, Tawny Eagle, Bearded Vulture, Eagle Owl, Eurasian Crag Martin, Red-throated Flycatcher, and Willow Warbler (needs confirmation, as this species has not been previously recorded in Pakistan).

Water bird Census 2007 in HNP

Water bird Census was undertaken in January 2007 at Hingol River Estuary (25° 25' 30.5" N 65° 32' 86.1" E), Hingol River from the estuary onwards towards Aghor (25 26 71.5 N 653232.4 E) and Ras Malan area (25 22 71.8 N 65 19 57.4 E) . The results are as follows:

A total of 1680 water birds were recorded at the Hingol River Estuary, as detailed below: Great White Pelican (40), Spot-billed Pelican (04), Great Cormorant (23), Little Cormorant (30), Western Reef Egret (12), Grey Heron (50), White Spoonbill (45), Oystercatcher (10), Great Stone Plover (02), Grey Plover (04), Kentish Plover (40), Whimbrel (10), Eurasian Curlew (43), Redshank (12), Little Stint (30), Herring Gull (280), Lesser Black-backed Gull (35), Black-headed Gull (400), Slender-billed Gull (250), Caspian Tern (10), Little Tern (200), Sandwich Tern (150) and Osprey (70).

At Hingol River, a total of 1004 water birds were counted as detailed below: Great Cormorant (25), Little Cormorant (28), Western Reef Egret (05), Little Egret (44), Grey Heron (16), White Spoonbill (60), Great Stone Plover (06), Red-wattled Lapwing (17), Kentish Plover (10), Eurasian Curlew (12), Redshank (20), Marsh Sandpiper (04), Common Sandpiper (08), Little Stint (27), Herring Gull (200), Great Black-headed Gull (01), Black-headed Gull (200), Slender-billed Gull (200), Caspian Tern (14), Little Tern (95) and Little Ringed Plover (12) along with Raven (26), Little Green Bee-eater (11), Desert Wheatear (09), Sand Martin (55), Common Babbler (30) and Hooded Wheatear (01).

At Ras Malan Coastal area, a total of 789 water birds were recorded as detailed below: White Pelican (02), Great Cormorant (40), Little Cormorant (15), Grey Heron (07), Eurasian Curlew (06), Herring Gull (200), Black-headed Gull (300), Slender-billed Gull (200), Caspian Tern (40), Lesser

Crested Tern (15), Osprey (04) and Short-toed Eagle (01). The coast at Ras Malan is flat sandy beach. The Makran Coastal Highway passes by the side of the beach for some distance. Then the beach ends near the foot of the hills. The vegetation consists mainly of *Tamarix indica*, *Tamarix aphylla*, *Acacia nilotica*, *Prosopis cineraria*, *Ziziphus nummularia* and *Calotropis procera*.

The waterbird population is low in the area, but the area is important for cetaceans, as 24 Humpbacked Dolphins/Plumbeous Dolphin (*Sousa plumbea*) were observed in the area.

At Aghor, near the bridge near Hasan Hotel, the following birds were observed: Red-wattled Lapwing (5), Merlin (2), White Wagtail (3), House Sparrow (120), White-cheeked Bulbul (35), Little Green Bee-eater (15), Common Babbler (25), Blue Rock Pigeon (08), Raven (35) and Sind Sparrow (12).

In the Hinglaj area (25° 30' 88.5" N 65° 31' 17.5" E), White-cheeked Bulbul (150), Little Green Bee-eater (30) and Indian Roller (02) were observed.

The Eastern Sham Valley/Machi Nulla area (25° 27' 68.6" N 65° 32' 53.0" E) is hilly area and is the sole habitat for Sooty Falcon in HNP as 16 birds were recorded there in 2004.

There is a vast plain area by the side of the Coastal Highway near Phor Naddi (25° 30' 37.8" N 65° 51' 003" E) which is the main habitat of Houbara Bustard.

In March, 2007, surveys were undertaken in Aghor, Aaryan, Allah Bux Goth, Sanguri, Kalair and Sapat areas. The following observations were made: Oriental Skylark (5) was observed on the lower hill slopes. Hume's Short-toed Lark (1) was also observed in the lower rocky hills in Sapat area. Indian Roller (15) and Sind Sparrow (15) were observed in Aryaan and in the Sanguri area. Yellow-headed Wagtail (2) was observed near the Base Camp at Aghor. Blue Rock Pigeon (20), Little Brown Dove (15), Black-crowned Finch Lark (3) and Crested Lark (05) were observed in Klair area. Indian Roller (6) and Blue-cheeked Bee-eater (4) were observed in Sangal area. Little Green Bee-eaters were seen flying all over the area. Chestnut-shouldered Petronia (15) along with House Sparrows were seen near Hasan Hotel, Aghor.

Later, Surveys were undertaken in April, 2007 in Aghor, Wadh Bunder, Ras Malaan, and in Dhrun area in Kukri Bhent and Shami area. In the estuarine area at Aghor, the following birds were recorded: Grey Pelican (60), Blackheaded Gull (200), Herring Gull (300), Bartailed Godwit (15), Little Stint (100), Dunlin (150), Little Tern (45), Grey Heron (5), Whiskered Tern (12) and Sandwich Tern (8). A large water pond has been formed at Jhakki Water Point (25 28 68.0 N 65 13 95.8 E) due to heavy rains on 15.03.2007. This area is important for Ibis, Seesee Partridge and Blue Rock Pigeons.

The Park limit starts in Dhrun area from the main Jhao Awaran Road. The following observations were made: 26° 06' 49.1' N 65° 45' 88.1' E Kohar Village. It is stony area having large boulders and heavy growth of *Tamarix dioca* by the side of Ara Kaur. Here, only White-cheeked Bulbul (80) and Coronetted Sandgrouses (20) were observed. 26° 04' 82.6' N 65° 46' 14.0' E Chulko. This is also a stony area having vegetation of *Salsola imbricata*, *Aerua javanica*, *Tamarix sp.*, *Acacia nilotica* and *Nannorhops ritchea*. Here, Little Brown Dove (60), Blyth's Reed Warbler (2) and Pied Woodpecker (1) were observed. 26° 06' 62.0' N 65° 45' 81.3' E Kukri Bhent, 26° 10' 04.6' N 65° 43' 52.6' E Dali Hinge.

In the area, only Common Raven (20) and Spotted Owllet (6) could be observed. The area is important for birds of prey as Peregrine Falcon, Shaheen Falcon, Imperial Eagle, Egyptian Vulture have been reported previously.

Bird habitats

The main habitats for the birds are the coastal/estuarine areas, coastal plains, valleys and steep mountains, thorn forest and riverine/riparine areas. The vegetation of the coastal/estuarine area comprises of *Salsola imbricata*, *Sueda fruticosa*, *Sporobolus arabicus*, *Tamarix indica*, *Sarcocornia fruticosa*, *Prosopis juliflora*, *Heliotropium crispum*, *Cyperus rotundus*, *Zygophyllum eurypterum* and *Haloxylon stocksii*. The vegetation of coastal plains (Sapat, Phor valley and along coastal highway) consists of *Aerua javanica*, *Salsola imbricata*, *Sporobolus arabicus* and *Sueda fruticosa*. The vegetation of valleys with mountain cliffs mainly

comprises of *Prosopis cineraria*, *Acacia senegal*, *Tamarix indica*, *Sueda fruticosa*, *Prosopis juliflora*, *Salsola imbricata*, *Aerua javanica*, *Tamarix aphylla*, *Zygophyllum eurypterum* and *Rhazia stricta*. The riverine/riparian vegetation comprises of *Tamarix indica*, *Tamarix aphylla*, *Prosopis juliflora* and *Acacia nilotica*.

In almost all areas, the birds find a suitable environment, there being no serious threats of hunting and poaching, so the birds are seen commonly in the suitable environment particularly near Hingol bridge, at Aghor near Hasan Hotel, Nani Mandar area, Hingol River Estuary and in the coastal areas near Sapat, Ras Malan and near Kund Malir. The coastal area, the estuarine area, the Hingol river provide suitable habitats for the water birds and the birds of prey, while the Kund Malir area, Aghor area, Nani Mandir area and the areas near human habitations are the favorite haunts of the common birds such as: White-cheeked Bulbul, House Sparrow, Blue Jay, House Crow, Pariah Kite, Black-winged Stilt, Red-wattled Lapwing, Ring Dove, Little Brown Dove, Crested Lark, Desert Lark, Common Babbler, Purple Sunbird and Small Green Bee-eater. The desert provides favourable habitat for partridges, Houbara Bustard, sand grouses, babblers, wheatears, larks, doves, bulbuls, sparrows, shrikes and birds of prey. Areas such as Dhrun, Kukri Bhent and Rodaini Kacho are important for birds of prey, partridges, woodpeckers and sandgrouses.

Important bird sites

Thus the important bird sites in the HNP include: Ras Malan, Hingol River Estuary, Hingol River, Central Hingol, Hinglaj area, Sapat, Sanguri, Dhrun, Kukri Bhent and Rodaini Kacho.

Important species

There are 14 species of birds of special conservation interest on account of being threatened (as per IUCN Red List 2005), very rare/scarce or key species of the Park.

1. Sociable Plover	Critically endangered
2. Saker Falcon	Endangered
3. White-backed Vulture	Vulnerable
4. Spot-billed Pelican	Vulnerable
5. Dalmatian Pelican	Vulnerable

6. Eastern Imperial Eagle	Vulnerable
7. Pallas's Fishing Eagle	Vulnerable
8. Houbara Bustard	Vulnerable
9. Black Ibis	Near-threatened
10. Black-tailed Godwit	Near-threatened
11. Sooty Falcon	Rare, confined to Makran Coast.
12. Giant Heron	Vagrant.
13. Hume's Wood Owl	Confined to Makran coast
14. Brown Fish Owl	Very rare, possibly occurs in HNP.

Sooty Falcon is peculiar to HNP and it is in need of special attention for its conservation. It is a rare summer breeder along the Mekran Coast from Ormara westward. It is adapted to desert, semi desert, coastal areas and islands. It breeds extralimittally from NE Africa to Red Sea and the Persian Gulf area up to Oman south to the Gulf of Aden, migrating to Mozambique and Madagascar, straggling to Mauritius. It feeds on insects, bats and birds (waders, marine birds, bee-eaters, Eurasian Cuckoo, Hoopoe, orioles, white-throats, Wilson's Storm Petrel, Red-tailed Wheatear etc). The breeding season is July-September/October. Sooty Falcons are known to breed in mid-May at the mouth of Hingol River in HNP. This area is considerably east of Ormara.

Two other species of birds *viz.* Hume's Wood Owl and Brown Fish Owl are quite rare species and need to be searched out in future studies. The original type specimen of Hume's Wood Owl, *Strix butleri* was collected from Ormara. It has not been recorded in Pakistan since the original type specimen was recorded. It can be presumed still to be a sparse resident in the extreme SW corner of Makran. Its habitat is rocky gorges in which some water occurs. It may occur in HNP. The Brown Fish Owl, *Ketupa zeylonensis* is confined to the vicinity of streams and rivers which contain fish and preferring those streams which have good tree and bush cover along their banks. It is extremely rare and has been recently recorded from Hub River in 1980. It may occur along the Hingol river in HNP.

Birds protected under the Balochistan Wildlife Protection Act, 1974

Birds of 10 families, 4 genera and 7 species have been protected under the Balochistan Wildlife Protection Act 1974 (Table 2). Ducks such as

Spotbill Duck, Cotton Teal, White-winged Wood Duck and Pink-headed Duck have been included in the list of Protected Species under the 3rd schedule of the said act, but these have not been recorded from Balochistan as yet.

Important bird areas

The Bird Life International has selected some sites on global level as Important Bird Areas.

IBAS are: critical sites for the conservation of birds and biodiversity, places of international importance, practical targets for conservation action, selected according to internationally recognized criteria, used to re-enforce existing protected area network, and used as part of a wider approach to conservation.

The following 5 areas have been selected as IBAs in Balochistan: Astola Island, Hingol National Park, Jiwani Wetland Complex, Siranda Lake, and Zangi Nawar Lake.

Actions need to be taken for IBAs: (i) The IBA network should be formally recognized under multilateral environmental agreements, and national governments, civil society, donor and the corporate sector (ii) Appropriate and effective site-based protection should be put in place at every IBA. (iii) The IBA network should be integrated into broader socio-political agendas by mainstreaming biodiversity into other policy sectors. (iv) A constituency for IBA conservation should be built among a broad spectrum of stakeholders. (v) A cost-effective, stakeholder-based monitoring system should be put in place for the IBA network. (vi) A strong foundation of scientific knowledge should be put in place for the development and protection of the IBA network. (vii) An adequate, diverse and sustainable funding base should be put in place to support the long-term conservation of the IBA network.

Threats

The potential threats to birds and their habitats in HNP are:

Trapping of falcons

Saker Falcon, *Falco cherrug* (Chargh, Saqar) is a species which affects desert and semi-desert biotope. It is scarce in Balochistan. This falcon can be trained to hunt houbara and chinkara and hence

much sought after by the Arab falconers. It has not been reported from HNP as yet. Peregrine Falcon, *Falco peregrinus*, is a winter visitor to Indus Plain and the Balochistan Coast. It affects the neighborhood of rivers, jheels, coastal lagoons and marshes – the favorite haunts of waterbirds. It is very much sought after by the Arab Falconers. Laggar Falcon, *Falco jugger* is a resident species. It is very thinly distributed in southern Balochistan. These falcons are trapped in Balochistan. Although Laggar and Peregrine Falcons have been reported from HNP but now due to very serious efforts on the part of Balochistan Forest and Wildlife Department, no falcon trapping takes place in HNP.

Trapping of quails

Grey quail, *Coturnix coturnix*, is a double passage migrant in Pakistan. The autumn passage starts from late August and the return spring passage starts in late April. Some nesting also occurs in Sindh, Punjab and Balochistan. It affects standing crops, paddy stubbles, and grassland, chiefly in flat and undulating country. It is highly relished as a delicacy throughout its overall range as hundreds of thousands are netted all along the migration route. The birds are kept for fattening and sold in local markets in large numbers. It is also much prized as a fighting bird. They usually pass through Makran coast from 15th August to 15th September and are netted in large numbers at Ormara, Pasni and Gwadar areas. No netting takes place in the HNP, as the wildlife staff is particularly vigilant in this regard.

Hunting

Houbara bustard is a winter visitor to Hingol area. But the visiting population could be quite low, as a few footprints have been noted in upper Hingol River area and near Aghor. Sightings of the birds have been reported from the vast plain area beside coastal highway near Phor Naddi (25° 30' 37.8' N 61° 51' 003' E)

Human population pressure and impact of developmental activities

There are 170 villages located in the park and 5600 people have been living there. The population of these villages is growing at a high rate; there is

much encroachment in the protected area. Similarly, developmental activities are in progress such as construction of roads, hotels, houses, shops etc. The wildlife habitats are, thus, under pressure.

There is also some little disturbance due to movement of traffic on the coastal highway.

Collection of firewood/loss of vegetation

Collection of firewood by the locals for use in their houses and mostly on roadside hotels is a potential threat to the forest cover of the area.

A lot of natural vegetation has also already been lost near Aghor area due to recent floods in Hingol River area in July 2007.

Habitat degradation

There is much degradation in the area mostly near human habitations due to encroachment and lack of solid waste management.

Remedial measures

There is an urgent need for capacity building of the Forest and Wildlife Department for the proper management of the National Park. They are very vigilant and active for the protection of the wildlife of the area but are quite deficient in necessary facilities. There is an urgent need for habitat improvement in the area particularly near human habitations and roadside hotels. These are a potential source of pollution in the area. There is an urgent need for launching public awareness regarding environmental conservation among the residents of the area as well as the picnicker and visitors to the Park area. An information centre may be developed at Aghor for the purpose. There is a need to undertake joint collaborative research programmes with the Academia and the NGOs, so that studies on the key species of HNP may be undertaken and a monitoring programme may be implemented. Ecotourism may be developed in the area. The Nani Munder area, Hingol River, and the Estuarine area may be developed as Bird Watching sites.

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