

## Avifaunal Diversity of Hingol National Park

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### Abstract

Hingol National Park is one of the largest protected areas having a blend of versatile habitats. Biodiversity of the park was studied during 1999 to 2002. Present paper deals with the avifauna of the park. A total of 105 species belonging to 68 genera, 37 families and 14 orders were recorded from the area. Status and habitat preferences of the species were also studied.

Keyword: Hingol National Park, avifauna, *Falco concolor*,

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### Introduction

Owing to its biodiversity and versatile habitat types, Hingol National Park may be considered as one of the most important protected areas of Pakistan. It is the only national park of the country which is represented by most diversified habitats i.e. coastline, river, estuary, riverine forest, scrub, hills and desert. The park, thus have well diversified fauna of marine, freshwater and terrestrial ecosystem. The park is characterized in having some vulnerable and rare species of vertebrates such as Sindh wild goat (*Capra aegagrus*), urial (*Ovis vignei*), Indian gazelle (*Gazella bennettii*), marsh crocodile (*Crocodylus palustris*), mahsheer (*Tor putitora*), flamingo (*Phoenicopterus ruber*), wintering Dalmatian pelican (*Pelicanus sp.*) etc. The park has the potential to be developed as Tourist Spots because of its beautiful coast, sacred shrines and mud volcanoes.

Hingol National Park is situated 250 km to the northwest of Karachi in Balochistan province. It is spread over 6,000 square km (619,049 hectares). It extends over 3 districts viz. Lasbella, Gwadar and Awaran. It was designated as a national park in 1988. The park has long stretch along the coastline on its southern boundary. Most of the areas of the park are hilly with valleys some of which have a few agriculture fields. In the southern parts of the park there is a desert between seacoast and hills. The different habitat types of the National Park include:

**Coastline:** Arabian Sea, including the area bordering national park, is known to be highly productive. A large diversity of invertebrates and vertebrates is found at coastal area. Breeding of green turtle is reported from the coastline. A variety of water birds occurs at the coast line.

**River:** River Hingol traverse from north to south through the park before falling in the Arabian Sea at Poti Bundar. Marsh crocodile, golden mahsheer and a diversity of waterbirds and other fishes are known to be occurring at the river.

**Estuarine area:** Estuarine area of the River Hingol, though very small in size, supports a variety of wintering and resident waterfowl and fish species.

**(Riverine Flood Plain:** There is a large area along the river bank which gets inundated during rains which is followed by flashflood. The riverine floodplains are thickly covered by vegetation such as *Tamarix spp.* and *Acacia spp.* The forest provides shelter to a number of wildlife species specially mammals. The

important among them are Indian gazelles, jackals, fox, hares, porcupines and hedgehogs. A variety of bird species also occur in the floodplains.

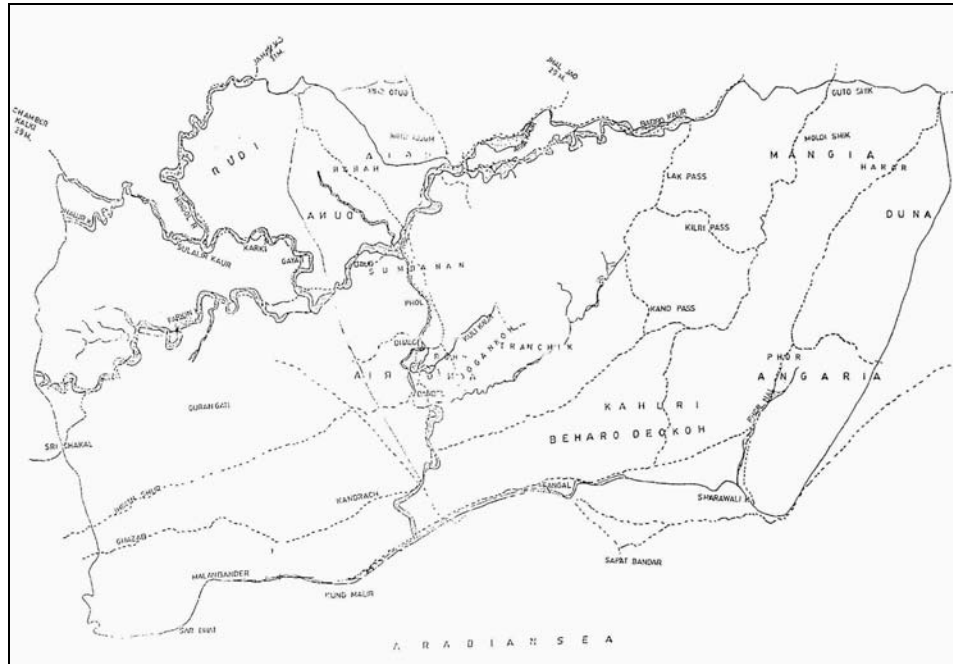


Fig. 1. Hingol National Park

**Hills and Rocky slopes:** A major part of the national park is hilly which support sparse vegetation of *Salvadora oleoides*, *Capparis aphylla*, *Euphorbia* etc. especially on slopes. A large variety of wildlife including mammals, birds and reptiles occur in these hills.

**Valleys:** There are a number of plain valleys between hills in the national park. In some of these valleys there are some agriculture fields whereas most of the area is partially barren. Trees of *Acacia spp.* and *Ziziphus spp.* are common in these valleys. Indian gazelle is known to occur in some of these valleys.

**Desert with Sand Dunes:** Adjacent to coastline there is large desert with prominent sand dunes. These sand dunes may be categorized as stable or fixed sand dunes (connected with the upper margin of the beach there are large fixed sand dunes), unstable mobile sand dunes (adjacent to the fixed sand dunes is a vast area occupied by mobile sand dunes) and salt bushes covered dunes (following mobile sand dunes vast area of land is occupied by salt bush covering small dunes). Salt bushes include *Sueda fruticosa* and *Salsola spp.* and are quite common in the area. The desert area is observed to a well diversified bioata including reptiles, small mammals and birds etc. Indian gazelles are found in the sand dunes. Occurrence of houbara bustard in winter is reported from the dune areas.

A number of workers have contributed in the studies of avifauna of Balochistan province. Meinertzhagen (1914, 1920) have described bird from Quetta. Robert (1990, 1991) in their monumental work on the birds of Pakistan also covered avifauna of the area. Ticehurst (1926, 1927) have studied the bird fauna of Balochistan including some specimens from River Hingol valleys. Ahmed *et al* (1997) conducted studies on the waterfowls of Mekran coast and recorded 70 species from the area. Ghalib and Hasnain (1995) studied avifauna of the mangroves of Balochistan coast and listed 83 species.

Considering importance of the park, a study was conducted to assess its biodiversity and study ecology of the park. The present paper which is part of this study deals with avifauna of the area.

### Material and Methods

During present surveys southern part of the national park was studied. Areas adjacent to Agor, Poti Bundar, Sapat, Hinglaj, Kund Malir, Ras Malan and Buzi Pass were surveyed during the study. The study area was visited in different seasons including summer, winter and spring during 1999 to 2002. Binoculars and spotting scope were used for identification of birds in the field. Identification of the birds were made by using different field guides including Heinzel *et al.* (1972) and King *et al.* (1972). Population of waterfowl was counted by direct observations whereas abundance of terrestrial species was studied by transect method.

### Results and Discussions

During studies 108 species belonging to 68 genera 37 families and 14 orders were recorded from the area (Table-I). The avifauna fauna was observed to be a combination of avian species found in different habitat types including coast, freshwater wetlands, desert and hills.

Waterfowl have higher concentration at estuarine area. Charadriiformes were found with abundance while only 3 species of Anatides were seen in very small numbers. Charadriiformes are also abundant at Ras Malan and adjacent areas. Species of gulls and terns commonly occurring in the area include *Larus ridibundus*, *Larus genei*, *Larus argentatus*, *Larus fuscus*, *Gelochelidan nilotica*, *Sterna caspica*, *Sterna albifrons* and *Chilodoniis hybridus*. Among waders, *Numenius arquata*, *Tringa totanus*, *Tringa nebularia*, *Tringa ochropus* and *Tringa glareola* were observed to be common. Terrestrial species such as *Nectarina asiatica*, *Stroptepelia spp.* and warblers were common in valleys while larks and shrikes are relatively more numerous in desert area.

A number of rare species were found occurring in the area of the park. These include *Esacus recurvirostris*, *Ciconia ciconia*, *Ciconia nigra*, *Pelecanis crispus*, *Pelecanus onocratolus*, *Pluvialis dominica*, *Phoenicpterus rubes*, *Falco concedes* and *Tadorna tadorna*. Occurrence of *Pelecanis crispus*, *Pelecanus onocratolus* and *Phoenicpterus raber* in substantially large number was noticeable in the area. A small population of *Esacus recurvirostris* was found to be resident of the area usually along the margins of the rivers

Occurrence of *Falco conoar* is also notable. According to Roberts (1990) this species occurs as a summer breeder along the Mekran coast probably at Ormara and westwards. The species was neither recorded by Christison (1943) in northern Balochistan nor by Ghalib and Hasnain (1999) from Cape Monze. During present study it was recorded in the park which indicates its possible eastern occurrence range. *Ciconia ciconia* had been recorded from northern Balochistan (Meinertzhagen, 1920), lower Sind (Ticehaurst, 1923) and Punjab (Azam, 1994) but it was not recorded previously from southern Balochistan. During present studies a solitary bird was seen in March, 2000 at Hingol River. *Ciconia nigra* which is also an extremely rare species was also observed at Hingol river in March 2000. Occurrence of *Pluvialis dominica* was also noteworthy as the species has been recorded mainly from Karachi and Thatta districts in past.

According to Roberts (1991) *Nectarinia asiatica* is largely absent from Balochistan. Contrary to this during present studies this was observed to be one of the common species found in the valleys of the park.

TABLE-I. Checklist of birds of Hingol National Park.

	SPECIES	COMMON NAME	RESIDENCE	STATUS
ORDER	PODICIPEDIFORMES			
FAMILY	PODICIPEDIDAE			
	<i>Podiceps nigricollis</i>	Black-necked Grebe	Winter visitor	Rare
ORDER	PELECANIFORMES			
FAMILY	PHALACROCARACIDAE			
	<i>Phalacrocorax carbo</i>	Great Cormorant	Resident	Rare
	<i>P. niger</i>	Little Cormorant	Resident	Common
FAMILY	PELECANIDAE			
	<i>Pelecanus onocrotalus</i>	White or Rosy Pelican	Winter visitor	Common
	<i>Pelecanus crispus</i>	Dalmatian Pelican	Winter visitor	Rare
ORDER	CICONIFORMES			
FAMILY	ARDEIDAE			
	<i>Ardeola grayii</i>	Pond Heron	Resident,	Common
	<i>Bubulcus ibis</i>	Cattle Egret	Resident	Rare
	<i>Egretta gularis</i>	Reef Heron	Resident	Rare
	<i>Egretta garzetta</i>	Little Egret	Resident	Common
	<i>Egretta intermedia</i>	Intermediate Egret	Resident	Common
	<i>Egretta alba</i>	Large Egret	Resident	Common
	<i>Ardea cinerea</i>	Grey Heron	Winter visitor	Common
	<i>Ardea purpurea</i>	Purple Heron	Resident	Common
FAMILY	CICONIIDAE			
	<i>Ciconia nigra</i>	Black Stork	Winter visitor	Straggler
	<i>Ciconia ciconia</i>	White Stork	Winter visitor	Straggler
FAMILY	THRESKIORNITHIDAE			
	<i>Platalea leucoria</i>	Spoonbill	Winter visitor	Common
ORDER	PHOENICOPTERIFORMEA			
FAMILY	PHOENICOPTERIDAE			
	<i>Phoenicopus roseus</i>	Greater Flamingo	Resident	Common

ORDER	ANSERIFORMES			
FAMILY	ANATIDAE			
	<i>Tadorna ferruginea</i>	Shelduck	Winter visitor	Rare
	<i>Anas crecca</i>	Common Teal	Winter visitor	Rare
	<i>Anas clypeata</i>	Shoveller	Winter visitor	Rare
ORDER	ACCIPITERIFORMES			
FAMILY	ACCIPITRIDAE			
	<i>Haliaeetus leucoryphus</i>	Ring-tailed Fish Eagle	Resident	Rare
	<i>Aquila heliaca</i>	Imperial Eagle	Winter visitor	Rare
	<i>Accipiter badius</i>	Sparrow Hawk	Resident	Rare
	<i>Circus aeruginosus</i>	Marsh Harrier	Winter visitor	Rare
	<i>Neophron persnopterus</i>	Egyptian Vulture	Resident	Rare
FAMILY	PANDIONIDAE			
	<i>Pandion haliaetus</i>	Osprey	Winter visitor	Rare
ORDER	FALCONIFORMES			
FAMILY	FALCONIDAE			
	<i>Falco tinnunculus</i>	Eurasian Kestrel	Resident	Rare
	<i>Falco concolor</i>	Sooty Falcon	Resident	Rare
	<i>Falco jugger</i>	Lagger Falcon	Resident	Rare
ORDER	GALLIFORMES			
FAMILY	PHASIANIDAE			
	<i>Francolinus pondicerianus</i>	Grey Partridge	Resident	Common
	<i>Ammoperdix griseogularis</i>	See See Partridge	Resident	Common
ORDER	GRUIFORMES			
FAMILY	RALLIDAE			
	<i>Fulica atra</i>	Coot	Winter, visitor	Common
ORDER	CHARADRIIFORMES			
FAMILY	HAEMATOPODIDAE			
	<i>Haematopus ostralegus</i>	Oystercatcher	Resident	Rare
FAMILY	RECURVIROSTRIDAE			
	<i>Himantopus himantopus</i>	Black winged Stilt	Resident	Common
	<i>Recurvirostra avocetta</i>	Avocet	Winter visitor	Rare
FAMILY	DROMADIDAE			
	<i>Dromas ardeola</i>	Crab Plover	Wintr visitor, rare	Rare
FAMILY	BURHINIDAE			
	<i>Esacus recurvirostris</i>	Stone Plover	Resident, rare	Rare

FAMILY CHARADRIIDAE

<i>Charadrius dubius</i>	Little Ringed Plover	Winter visitor	Common
<i>C. hiaticula</i>	Common Ringed Plover	Winter visitor	Common
<i>C. alexandrinus</i>	Kentish Plover	Winter visitor	Rare
<i>Pluvialis apricaria</i>	Golden Plover	Winter visitor	Occasional
<i>Pluvialis Squaturola</i>	Grey Plover	Winter visitor	Occasional
<i>Hoplopterus malabaricus</i>	Yellow wattled Lapwing	Resident	Rare
<i>H. indicus</i>	Red-wattled Lapwing	Winter visitor	Common
<i>Chettusia gregaria</i>	Sociable Plover		Occasional
<i>Chettusia leucura</i>	White-tailed Lapwing		Common

FAMILY SCOLOPACIDAE

<i>Calidris minuta</i>	Little Stint	Winter visitor	Common
<i>C. temminckii</i>	Temminck's Stint	Winter visitor	Rare
<i>C. alpina</i>	Dunlin	Winter visitor	Common
<i>Limicola falcinellus</i>	Broad billed Sandpiper	Winter visitor	Rare
<i>Gallinago</i>	Common Snipe	Winter visitor	Rare
<i>Limosa lappanica</i>	Bar-tailed Godwit	Winter visitor	Common
<i>Numenius phaeopus</i>	Whimbrel	Winter visitor	Common
<i>N. arquata</i>	Eurasian Curlew	Winter visitor	Rare
<i>Tringa totanus</i>	Redshank	Winter visitor	Rare
<i>Tringa stagnatilis</i>	Marsh Sandpiper	Winter visitor	Common
<i>T. nebularia</i>	Common Green Shank	Winter visitor	Common
<i>T. ochropus</i>	Green Sandpiper		
<i>T. glareola</i>	Yellow Wood Sandpiper	Winter visitor	Rare
<i>Xenus cinereus</i>	Terek Sandpiper		
<i>Actitis hypoleucos</i>	Common Sandpipers	Winter visitor	Common

FAMILY LARIDAE

<i>Larus ricdibundus</i>	Common Black-headed Gull	Winter visitor,	Common
<i>Larus brunnicephalus</i>	Brown headed Gull	Winter visitor	Common
<i>Larus genei</i>	Slender billed Gull	Resident	Common
<i>Larus argentatus</i>	Herring Gull	Winter Visitor	Common
<i>Larus fuscus</i>	Black-backed Gull	Winter Visitor	Common

FAMILY STERNIDAE

<i>Gelochelidon nilotica</i>	Gull-billed Tern	Resident	Common
<i>Sterna caspia</i>	Caspian Tern	Resident	Common
<i>Sterna sandvicensis</i>	Sandwich Tern	Resident	Common
<i>Sterna hirundo</i>	Common Tern	Winter visitor	Common
<i>Sterna albifrons</i>	Little Tern	Resident	Common
<i>Chlidonias hybridus</i>	Whiskered Tern	Resident	Common

ORDER PTEROCLIDIFORMES

FAMILY PTEROCLIDIDAE

<i>Pterocles exustus</i>	Chestnut bellied Sandgrouse	Resident	Rare
<i>Pterocles orientalis</i>	Imperial Sandgrouse	Resident	Rare

ORDER	COLUMBIFORMES			
FAMILY	COLUMBIDAE			
	<i>Streptopelia decaocto</i>	Collared Dove	Resident	Common
	<i>Streptopelia senegalensis</i>	Little Brown Dove	Resident	Common
ORDER	CAPRIMULGIFORMES			
FAMILY	CAPRIMULGIDAE			
	<i>Caprimulgus aegyptius</i>	Egyptian Nightjar	Resident	Common
ORDER	CORACIIFORMES			
FAMILY	ALCEDINIDAE			
	<i>Halcyon smyrnensis</i>	White-throated Kingfisher	Resident	Common
	<i>Alcedo atthis</i>	Small Blue Kingfisher	Resident	Common
FAMILY	MEROPIDAE			
	<i>Merops orientalis</i>	Little Green Bee-eater	Resident	Common
	<i>M. superciliosus</i>	Blue-cheeked Bee-eater	Resident	Common
FAMILY	CORACIIDAE			
	<i>Coracias bengalensis</i>	Indian Roller	Resident	Rare
FAMILY	UPUPIDAE			
	<i>Upupa epops</i>	Hoopoe	Winter visitor	Rare
ORDER	PASSERIFORMES			
FAMILY	ALAUDIDAE			
	<i>Eremopterix grisea</i>	Ashy crowned Finch Lark	Resident	Common
	<i>Galerida cristata</i>	Crested Lark	Resident	Common
	<i>Ammomanes deserti</i>	Desert Lark	Resident	Uncommon
FAMILY	HIRUNDINIDAE			
	<i>Riparia riparia</i>	Collared Sand Martin	Winter visitor	Common
FAMILY	MOTACILLEDAE			
	<i>Motacilla cineria</i>	Grey Wagtail	Winter visitor	Common
	<i>M. alba</i>	White Wagtail	Winter visitor	Common
FAMILY	PYCNONOTIDAE			
	<i>Pycnonotus leucogenys</i>	White-cheeked Bulbul	Resident	Common
	<i>P. cafer</i>	Red vented Bulbul	Resident	Rare

FAMILY TURDIDAE

<i>Saxicola tarquata</i>	Collard Bush Chat	Resident	Rare
<i>Oenanthe isabellina</i>	Isabellin Wheatear	Winter visitor	Rare
<i>Oenanthe deserti</i>	Desert Wheatear	Winter visitor	Rare
<i>Oenanthe monacha</i>	Hooded Wheatear	Resident	Rare
<i>Saxicoloides fulicata</i>	Indian Robin	Resident	Common

FAMILY SYLVIIDAE

<i>Prinia buchanani</i>	Wren Warbler	Resident	Common
<i>Orthotomus sutorius</i>	Common Tailor Burei	Resident	Rare
<i>Sylvia nana</i>	Desert Warbler	Winter visitor	Common
<i>Sylvia curruca</i>	Lesser White throat	Resident	Rare

FAMILY NECTARINIDAE

<i>Nectarinia asiatica</i>	Purple Sunbird	Resident	Common
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FAMILY LANIIDAE

<i>Lanius vittatus</i>	Bay-backed Shrike	Resident	Common
<i>Lanius excubitor</i>	Grey Shrike	Resident	Common

FAMILY STURNIDAE

<i>Acridotheris iristic</i>	Indian Myna	Resident	Common
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FAMILY PASSERIDAE

<i>Passer domesticus</i>	House Sparrow	Resident	Common
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