

Some observations on the vertebrate fauna of Jiwani Wetland Complex

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Abstract

Jiwani wetland complex is located on the extreme southwestern part of Pakistan. Vertebrate fauna of this complex was studied. A total of 5 species of mammals, 3 species of amphibians, 4 species of reptiles, 7 species of birds, and 6 species of fishes were collected from this complex. A well-diversified vertebrate fauna exists in this habitat.

Keywords: Jiwani wetland complex, fishes, birds, mammals, reptiles, amphibians

Introduction

Jiwani is a small town located on the extreme southwest part of Pakistan and is known for a variety of habitats including ocean, backwaters, desert, open scrub forest, mangrove, agriculture fields and human settlements. These habitats are known to have a well-diversified vertebrate fauna. It was declared as a wetland complex. Present study deals with the vertebrate fauna of this complex.

Materials and Methods

A nine-day survey of Jiwani Wetland Complex was conducted during December 28, 2001 to January 5, 2002 and another 10 days survey was conducted in June 5, 2002 to June 15, 2002. Identification of bird species were done with the help of binoculars and spotting scopes. For counting of birds direct count method was applied. For mammals, surveys were conducted at night and identification of cetaceans was made in daylight. The reptiles such small lizards were collected by hand while snake trapper was used to collect snakes. Direct observations with binoculars were also made particularly for green turtles and crocodiles. Fishes were collected from the commercial landings.

For the identification of vertebrates Ali *et al* (1983), Bianchi (1985), Heinzel *et al* (1987), Minton (1966), Munro (1955), Perrins and Attenborough (1987), Roberts (1991, 1992, 1997) were considered.

Results and Discussion

The study revealed that the Jiwani Wetland Complex has a well-diversified vertebrate fauna. A total of 125 species of birds, 11 species of

mammals, 11 species of reptiles, a single species of amphibians and 23 species of fishes were reported during the present study (Table-I).

Table-I. Species of birds, reptiles, mammals, amphibian and fishes from Jiwani Wetland Complex.

SCIENTIFIC AND COMMON NAME	STATUS
Birds	
<i>Tachybaptus ruficollis</i> (Little grebe or dabchick)	Common/winter visitor
<i>Podiceps cristatus</i> (Great crested grebe)	Scarce/winter visitor
<i>Podiceps nigricollis</i> (Black necked or eared grebe)	Scarce/winter visitor
<i>Phalacrocorax carbo sinensis</i> (Eurasian great cormorant)	Common/winter visitor
<i>Pelecanus crispus</i> (Dalmatian or grey pelican)	Rare/winter visitor
<i>Ardeola grayii</i> (Indian pond heron or paddy bird)	Common/resident
<i>Egretta gularis</i> (Indian reef heron)	Common/resident
<i>Egretta garzetta</i> (Little white egret)	Common/resident
<i>Egretta alba</i> (Great white egret)	Common/winter visitor
<i>Ardea cinerea</i> (Grey or common heron)	Common/winter visitor
<i>Plegadis falcinellus</i> (Glossy ibis)	Scarce/irregular year round visitor
<i>Platalea leucorodia</i> (Eurasian white spoonbill)	Frequent/winter visitor

<i>Phoenicopterus ruber</i> (Greater flamingo)	Common/irregular year round visitor
<i>Tadorna tadorna</i> (Common shelduck)	Scarce/winter visitor
<i>Anas pelelope</i> (Eurasian wigeon)	Common/winter visitor
<i>Anas strepera</i> (Gadwall)	Common/winter visitor
<i>Anas crecca</i> (Common teal)	Common/winter visitor
<i>Anas platyrhynchos</i> (Mallard)	Scarce/winter visitor
<i>Anas acuta</i> (Northern pintail)	Common/winter visitor
<i>Anas clypeata</i> (Northern shoveler)	Common/winter visitor
<i>Marmaronetta angustirostris</i> (Marbled teal)	Rare/winter visitor
<i>Netta rufina</i> (Red crested pochard)	Rare/winter visitor
<i>Aythya ferina</i> (Common pochard)	Common/winter visitor
<i>Aythya nyroca</i> (White-eyed pochard)	Rare/winter visitor
<i>Aythya fuligula</i> (Tufted duck)	Frequent/winter visitor
<i>Mergus sermator</i> (Red-breasted merganser)	Rare/winter visitor
<i>Mergus merganser</i> (Common merganser)	Scarce/winter visitor
<i>Haliaeetus leucoryphus</i> (Pallas's Ring-tailed Fish Eagle)	Scarce/winter visitor

<i>Circus aeruginosus</i> (Marsh Harrier)	Frequent/winter visitor
<i>Circus macrourus</i> (Pallid Harrier)	Scarce/winter visitor
<i>Accipiter nisus melasehistos</i> (Eurasian Sparrow Hawk)	Frequent/winter visitor
<i>Buteo buteo japonicus</i> (Common Buzzard)	Frequent/winter visitor
<i>Buteo rufinus</i> (Long- legged Buzzard)	Common/winter visitor
<i>Aquila clanga</i> (Greater Spotted Eagle)	Frequent/winter visitor
<i>Aquila rapax</i> (Tawny Eagle)	Frequent/winter visitor
<i>Aquila nipalensis</i> (Steppe Eagle)	Frequent/winter visitor
<i>Aquila heliaca</i> (Imperial Eagle)	Scarce/winter visitor
<i>Pandion haliaetus</i> (Osprey)	Common/winter visitor
<i>Falco tinnunculus</i> (Common Eurasian Kestrel)	Common/winter visitor
<i>Falco concolor</i> (Sooty Falcon)	Rare/resident
<i>Falco peregrinoides babylonicus</i> (Red-naped Shaheen)	Rare/winter visitor
<i>Ammoperdix griseogularis</i> (See-See Partridge)	Rare/resident
<i>Francolinus pondicerianus</i> (Indian Grey Partridge)	Rare/resident
<i>Gallinula chloropus</i> (Common Moorhen or Waterhen)	Common/winter visitor
<i>Fulica atra</i> (Black or Eurasian Coot)	Common/winter visitor

<i>Haematopus ostralegus</i> (Eurasian Oystercatcher)	Common/winter visitor
<i>Himantopus himantopus</i> (Black-winged Stilt)	Common/winter visitor
<i>Esacus recurvirostris</i> (Greater Stone curlew)	Scarce/resident
<i>Cursorius cursor</i> (Cream coloured courser)	Scarce/winter visitor
<i>Charadrius dubius</i> (Little-ringed Plover)	Common/winter visitor
<i>Charadrius alexandrinus</i> ((Kentish or Snowy plover)	Common/resident
<i>Charadrius mongolus</i> (Lesser or Mongolian Sand plover)	Common/winter visitor
<i>Charadrius leschenaultii</i> (Large or Geoffrey's Sand plover)	Common/winter visitor
<i>Hoplopterus indicus</i> (Red wattled Lapwing)	Common/resident
<i>Chettusia leucura</i> (White-Tailed lapwing Plover)	Common/resident
<i>Calidris alba</i> (Sanderling)	Scarce/winter visitor
<i>Calidris minuta</i> (Little Stint)	Common/winter visitor
<i>Calidris ferruginea</i> (Curlew Sandpiper)	Common/winter visitor
<i>Calidris alpina</i> (Dunlin)	Common/winter visitor
<i>Gallinago gallinago</i> (Common or Fantail Snipe)	Common/winter visitor
<i>Limosa limosa</i> (Black tailed God wit)	Scarce/winter visitor

<i>Limosa lapponia</i> (Bartailed God wit)	Scarce/winter visitor
<i>Numenius phaeopus</i> (Whimbrel)	Frequent/ winter visitor
<i>Numenius arquata</i> (Eurasian curlew)	Common/winter visitor
<i>Tringa totanus</i> (Red snank)	Common/winter visitor
<i>Tringa ochropus</i> (Green sandpiper)	Frequent/winter visitor
<i>Tringa nebularia</i> (Green sandpiper)	Frequent/winter visitor
<i>Xenus cinerus</i> (Terek sandpiper)	Common/winter visitor
<i>Actitis hypoleucos</i> (Common sandpiper)	Common/winter visitor
<i>Lams hemprichii</i> (Sooty gull)	Scarce/Summer breeding
<i>Lams ichthyaetus</i> (Great black-headed gull)	Common/winter visitor
<i>Lams ridibundus</i> (Black-headed gull)	Common/winter visitor
<i>Lams genei</i> (Slender billed gull)	Common/resident
<i>Lams argentatus</i> (Herring gull)	Common/winter visitor
<i>Larusfuscus heuglini</i> (Lesser black headed gull)	Common/winter visitor
<i>Galochelidon nilotica</i> (Gull-billed tern)	Common/winter visitor
<i>Sterna caspia</i> (Caspian tern)	Common/irregular year round visitor

<i>Sterna bergil</i> (Large crested tern)	Common/irregular year round visitor
<i>Sterna sandvicensis</i> (Sandwich tern)	Common/irregular year round visitor
<i>Pterocles orientalis</i> (Imperial or black bellied sand grouse)	Scarce/winter visitor
<i>Columba livia intermedia</i> (Blue rock pigeon or rock dove)	Common/resident
<i>Streptopelia decaocto</i> (Indian collared or ring dove)	Frequent/Summer breeding occasional wintering
<i>Streptopelia senegaensis</i> (Little brown dove)	Frequent/resident
<i>Eudynamys scolopacea</i> (Asian koel)	Frequent/winter visitor
<i>Apus pallidus</i> (Pallied or pale brown swift)	Scarce/winter visitor
<i>Halcyon smyrnensis</i> (White breasted kingfisher)	Frequent/winter visitor
<i>Alcedo atthis</i> (Common or small blue kingfisher)	Frequent/winter visitor
<i>Merops orientalis</i> (Little green bee-eater)	Frequent/winter visitor
<i>Coracias benghalensis</i> (Indian roller or blue jay)	Common/summer breeding
<i>Ammomanes cincturus</i> (Bar or black tailed desert lark)	Common/resident
<i>Ammomanes deserti</i> (Desert finch lark).	Frequent/winter visitor
<i>Alaeomon alaudipes</i> (Hoopoe lark)	Scarce/resident
<i>Calandrella acutirostris</i> (Hume's short toed lark)	Scarce/summer breeding
<i>Galerida cristata</i> (Crested lark)	Common/resident

<i>Alauda gulgula</i> (Small Indian or oriental skylark)	Common/winter visitor
<i>Riparia paludicola</i> (Plain sand martin)	Common/winter visitor
<i>Ptyonoprogne fuligula</i> (Pale crag or African rock martin)	Common/resident (breeding)
<i>Hirundo rustica</i> (Common or barn swallow)	Common/winter visitor
<i>Anthus campestris</i> (Tawny pipit)	Common/winter visitor
<i>Anthus similis</i> (Long bellied or Persian rock pipit)	Common/winter visitor
<i>Motacilla alba</i> (Pied or white wagtail)	Frequent/winter visitor.
<i>Pycnonotus leucogenys</i> (White cheeked bulbul)	Frequent/resident (breeding)
<i>Luscinia svecica</i> (Blue throat)	Frequent/winter visitor.
<i>Phoenicurus ochruros</i> (Black redstart)	Frequent/winter visitor.
<i>Saxicola caprata</i> (Pied bushchat)	Frequent/winter visitor.
<i>Oenanthe deserti</i> (Desert wheatear)	Common/winter visitor
<i>Oenanthe xanthopyrna</i> (Red-tailed wheatear)	Scarce/winter visitor
<i>Oenanthe picata</i> (Eastern pied or variable wheatear)	Common/winter visitor
<i>Oenanthe monacha</i> (Hooded wheatear)	Rare/resident
<i>Cettia cetti</i> (Cetti's warbler or eastern bush warbler)	Scarce/winter visitor (occasional)

<i>Prinia gracilis</i> (Graceful or stripe backed prinia)	Common/winter visitor
<i>Prinia buchanani</i> (Rufous-fronted prinia/wren warbler)	Common/winter visitor
<i>Acrocephalus dumetorum</i> (Blyth's reed warbler)	Frequent/winter visitor
<i>Sylvia nana</i> (Desert warbler)	Frequent/winter visitor
<i>Sylvia curruca</i> (Lesser white throat)	Common/winter visitor
<i>Phylloscopus collybita</i> (Chiffchaff)	Common/winter visitor
<i>Turdoides caudatus</i> (Common babbler)	Common/resident
<i>Nectarinia asiatica</i> (Purple sunbird)	Common/resident
<i>Lanius vittatus</i> (Bay backed shrike)	Common/resident
<i>Lanius excubitor</i> (Great grey shrike)	Common/Summer breeding occasional wintering
<i>Corvus splendens</i> (Indian house crow)	Common/Summer breeding occasional wintering
<i>Corvus ruficollis</i> (Brown necked or desert raven)	Common/resident (breeding)
<i>Acridotheres tristis</i> (Common or Indian myna)	Common/resident (breeding)
<i>Passer domesticus indicus</i> (Indian house sparrow)	Common/resident (breeding)
<i>Bucanetes githagineus</i> (Trumpeter Finch)	Scarce/resident (breeding)
<i>Butastur teesa</i> (White eyed buzzard)	Common/resident
<i>Streptopelia turtur</i> (Turtle dove)	Common/resident

Mammals

<i>Sousa plumbea</i> (Indian humpback dolphin)	Locally common/resident or locally migration
<i>Neophocaena phocaenoides</i> (Black finless porpoise)	Locally common/resident or locally migration
<i>Canis aureus aureus</i> (Asiatic jackal)	Frequent/resident
<i>Vulpes vulpes pusillus</i> (White footed desert fox)	Scarce/resident
<i>Felis chaus prateri</i> (Jungle cat)	Scarce/resident
<i>Felis silvestris ornata</i> (Indian desert or Asiatic steppe wild cat)	Rare/resident
<i>Herpestes javanicus</i> (Small Indian mongoose)	Scarce/resident
<i>Rattus rattus</i> (Roof Rat or House Rat)	Common/resident
<i>Mus musculus</i> (House mouse)	Common/resident
<i>Funambulus pennantii</i> (Five striped palm squirrel)	Common/resident
<i>Pipistrellus kuhlii</i> (Kuhl's pipistrelle bat)	Common/resident

Reptiles

<i>Chelonia mydas</i> (Indian ocean green turtle)	Rare/resident local migration
<i>Eretmochelys imbricata squamata</i> (Pacific hawks-bill turtle)	Rare/occasional visitor
<i>Crocodylus palustris palustris</i> (Marsh or swamp crocodile)	Rare/resident

<i>Agama nuptafusca</i> (Yellow headed agama)	Common/resident
<i>Agama agilis</i> (Brilliant agama)	Frequent/resident
<i>Eremias guttulata watsonana</i> (Long-tailed desert lacerta)	Common/resident
<i>Acanthodactylus cantoris blanfordi</i> (Mekran fringed toed sand lizard)	Rare/resident
<i>Ophisops jerdoni</i> (Punjab snake eyed lacerta)	Rare/resident
<i>Hemidactylus turcicus turcicus</i> (Mediterranean house gecko)	Common/resident
<i>Coluber rhodorachis</i> (Cliff racer snake)	Common/resident
<i>Hydrophis cyanocinctus</i> (Annulated or chittul seasnake)	Common/resident

Amphibians

<i>Rana cyanophlyctis</i> (Skittering frog)	Common
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Fishes

<i>Acanthopagrus bifaciatu</i> s (Two bar seabream)	The fishes were caught with cast net
<i>Acanthopagrus latus</i> (Yellowfin seabream)	“
<i>Liza vaigiensis</i> (Square tail mullet)	“
<i>Leiognathus equulus</i> (Common panyfish)	“

<i>Pseudotricanthus striligrlifer</i> (Longspined tripod fish)	“
<i>Arthron leopardus</i> (Banded leopard blowfish)	“
<i>Sillago sihama</i> (Silver sillago)	The fishes were caught with a small sized gillnet.
<i>Valamugil seheli</i> (Grey mullet)	“
<i>Diodon maculifer</i> (Blotched porcupine Fish)	The fish was found dead from muddy habitat.
<i>Scolidon laticaudus</i> (Spadenose shark)	The fishes were collected by the fishermen 20-25 km. off Jiwani coast.
<i>Galeocerda cuvieri</i> (Tiger shark)	”
<i>Pomadasys argyreus</i> (Blue-cheek silver grunt)	The fish was collected by small sized gillnet from sandy side of Jiwani coast.
<i>Sparidentex hasta</i> (Sobaity sea-bream)	“
<i>Leiognathus splendens</i> (Splendid ponyfish)	“
<i>Pellona ditchela</i> (Indian pelons)	“
<i>Nibea soldado</i> (Soldier croaker)	“
<i>Chemerius rufer</i> (Santer seabream)	“
<i>Genus filamentosus</i> (Whipfin silver-biddy)	Fishermen from off Jiwani coast collected the fishes.
<i>Rhinobatos granulatus</i> (Granulated shovelnose ray)	“
<i>Nibea maculata</i> (Bloched croaker)	“

Dendrophyusa russeli
(Goatee croaker)

Jhonijs belangeri

(Belanger's croaker)

Protonibea diacanthus

(Spotted croaker)

A sizeable population of Dalmatian pelican (*Pelecanus crispus*) was observed during this study. Among ducks, common shelduck (*Tadorna tadorna*), Eurasian wigeon (*Anas penelope*), gadwall (*Anas strepera*), common teal (*Anas crecca*), mallard (*Anas platyrhynchos*), northern pintail (*Anas acuta*), northern shoveler (*Anas clypeata*), marbled teal (*Marmaronetta angustirostris*), red crested pochard (*Netta rufina*), common pochard (*Aythya ferina*), white eyed pochard (*Aythya nyroca*), tufted duck (*Aythya fuligula*), red breasted merganser (*Mergus serrator*) and common merganser (*Mergus merganser*) were observed in Sajji Dam (located about 35 km from Jiwani) which makes this wetland complex of great importance. The rare ducks like marbled teal (*Marmaronetta angustirostris*), red crested pochard (*Netta rufina*), white-eyed pochard (*Aythya nyroca*) and red-breasted merganser (*Mergus merganser*) were also found in Jiwani Wetland Complex.

In Gwater Bay, Jiwani 27 specimens of Indian humpback dolphins (*Sousa plumbed*) with two juveniles were observed. In addition, 3 black finless porpoises (*Neophocaenaphocaenoides*) were observed at the beach of Jiwani. A mature marsh crocodile (*Crocodylus palustris palustris*) was observed at one of the impoundments in the River Dasht, whereas footprints of three others were also observed in the same area.

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