

IUCN Conservation Status and Global Population Trends of Avifauna in Pong Dam Lake Wildlife Sanctuary, Himachal Pradesh

Anuradha Sharma*

Abstract

The expansive wetland at Pong Dam Lake, which is located within the picturesque Kangra district of Himachal Pradesh, stands out prominently as one of the largest artificially created wetlands in the entire region. This wetland is renowned for its biodiversity, particularly its avian population. In a comprehensive survey, an impressive total of 225 bird species residing within the Pong Dam Lake Wildlife Sanctuary were documented. These species are spread across 150 avian genera, 54 families, and 17 orders. The study has brought to light that 17 of these avian species are categorized under various threatened statuses. Specifically, 2 species fall into the Critically Endangered category, 3 species are listed as Endangered, another 3 species are considered Vulnerable, and 9 species are classified as Near Threatened. The species Indian White-backed Vulture and Red-headed Vulture were Critically endangered; Egyptian Vulture, Steppe Eagle and Black-bellied Tern were Endangered; Common Pochard, Sarus Crane and River Tern were Vulnerable; and Oriental Darter, White-necked Stork, Ferruginous Pochard, Himalayan Griffon, Northern Lapwing, River Lapwing, Eurasian Curlew, Great Stone-Plover and Alexandrine Parakeet were Near threatened. The global population trends of reported bird species indicated that 40 species (17.8%) showed an increasing global population trend, 61 species (27.1%) had a decreasing trend, 92 species (40.9%) had a stable trend, while the global population trend of 32 species (14.2%) was classified as unknown. Further, all the 17 threatened avian species were recorded to show decreasing global population trends. Present study revealed that Pong dam lake wetland is home for various globally threatened bird species along with being one of the important wintering grounds for several migratory waterbirds. Therefore, stakeholder interventions are urgently needed to ensure conservation of an enormous range of biological diversity, particularly the avifauna, of the region.

Keywords: Birds, conservation status, population trends, threatened species, Pong Dam Lake Wildlife Sanctuary

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INTRODUCTION

Birds, as remarkably versatile and widespread creatures, inhabit diverse environments and exhibit preferences for various habitats. They hold significant ecological importance worldwide, being sensitive species that require conservation efforts. Birds establish enduring connections with their ecological niches and serve as trustworthy biomarkers for assessing general health conditions of an ecosystem, demonstrating increased vulnerability to any environmental contaminant or habitat degradation [1]. Alterations in avifauna abundance serve as indicators of habitat

degradation, climate change effects, and the necessity for immediate action [2]. The loss of habitat significantly and negatively impacts avian abundance, influencing their behavioural tendencies and breeding prowess. In an ecosystem, the presence and distribution of bird species signify its ecological wealth, biotic integrity, food availability, and its overall wellbeing [3]. Assessment of interrelationships between habitats and the geographic range of birds constitutes a key aspect of avian ecological analysis [4].

India, with its vast landmass, sustains various man-made and natural wetland habitats that offer shelter for a diverse flora and fauna. India houses 7,57,060 wetlands, encompassing a region of around 15.26 mha, encompassing 1,88,470 inland wetlands, 13,033 coastal wetlands and 5,55,557 small-scale wetlands (less than 2.25 hectares) (National Wetland Atlas, 2011) [5]. As per Ministry of Environment and Forests, India houses 75 “Ramsar sites”, i.e., wetlands of international importance, covering an approximate area of 13,26,677 ha. Himachal Pradesh boasts a diverse landscape, with wetlands comprising around 1.7% of the state’s total geographical area. The predominant wetland classes are river/streams and reservoir/barrages, collectively constituting 98.5% of the overall wetland area. The state’s total wetland area spans 94,011 hectares, with natural wetlands covering 53.7% (50,468 ha) and man-made wetlands accounting for 46.3% (43,543 ha) of this expanse [6].

Pong wetland, situated in the Kangra district of Himachal Pradesh, not only functions as feeding, roosting, nesting and breeding sites of residential avian species, but it provides a resting and feeding site for many birds migrating from the Trans Himalayan region during the winter season, while the wetlands in North and Central Asia and Europe get frozen due to harsh winter conditions. Each year, during the months of October to March, flocks of waterfowl take up migration to Pong Dam Lake for spending winters in more affable climatic conditions. The evaluation of a region plays a vital role in understanding the integrity of the wetland ecosystem, its biodiversity, and the formulation of effective conservation strategies for avian species [7]. The avifaunal diversity of Pong wetland and its adjacent regions has been explored by researchers such as [8–14] and others. However, an exhaustive information about avian status within this area is still wanting. Therefore, a comprehensive study on birdlife of the Pong Dam Lake Wildlife Sanctuary, was undertaken with standardised methods, covering all habitat types, spread over all the seasons of the years from July 2021 to June 2023.

STUDY AREA

The current study was carried out in the “Pong Dam Lake Wildlife Sanctuary” located in District Kangra, Himachal Pradesh, positioned between latitude 31°49'50" to 32°14'36" N and longitude 75°53'31" to 76°17'53" E. The Pong Lake or Pong reservoir, also referred as Maharana Pratap Sagar Lake, was created through the establishment of an Earthen Management Dam, spanning the Beas River, in the years 1975–1976. The Himachal Pradesh Government officially designated Pong wetland as a Wildlife (Bird) Sanctuary in the year 1983. Furthermore, the Government of India’s Ministry of Environment and Forests, recognized this sanctuary as a wetland of National Importance in 1994. This wetland achieved global recognition by attaining the status of a “Ramsar Site” in the year 2002, marking it as a selected site of global significance [15, 16]. Encompassing an overall geographical expanse of 207.59 sq. km., the lake is primarily situated at 1410 feet AMSL, spanning across Dehra and Nurpur Forest divisions. This expansive reservoir has a maximum depth of 97.84 meters and a mean depth of 35.7 meters. The wetland is almost entirely encircled by agricultural fields and sections of northern dry mixed deciduous forests, featuring acacia and pine trees. The terrain is characterized by undulating hills and irregular ridges, intersected by seasonal and perennial streams. Additionally, there are marshes, farmlands, and wasteland areas surrounding the lake.

METHODOLOGY

During the present study, stratified random sampling technique was employed, previously utilized by Mehta et al. and Thakur et al. in Shahnahar reservoir and by Singh et al. in Prashar Lake, to record

the birds in the area [17–19]. This method is based on the principle of examining a representative portion of the entire population. These avifaunal studies were conducted over the period from July 2021 to June 2023. No birds were captured or harmed during the observations. The monitoring of birds in the field was done using field binoculars (10 × 42 Nikon), a Field Scope (Fujinon Super 60 S) and Nikon D5100 digital camera was used to take their pictures. Standardized field guides and handbooks were utilized to identify the characteristics of avifauna. The nomenclature proposed by Manakadan and Pittie [20] was followed. Furthermore, the IUCN conservation status and global population trends, as available from the report [21], have been collected and compared for each species observed during this study.

RESULTS AND DISCUSSION

The present study unveiled the existence of a comprehensive assemblage of 225 bird species, encompassing 150 genera, 54 families, and spanning across 17 orders in the study area. Within the documented 17 orders, order Passeriformes emerged as the most diversified, featuring maximum number of species, i.e., 91 species, constituting 40.44% of all recorded avian species. Among the 54 documented families, the avifauna in the Pong Dam area was predominantly dominated by the Muscicapidae family, comprising 39 species and Relative Diversity Index (RDi) of 17.33 (Table 1). The elevated density of avifauna of an area signifies the robust ecological setup of the habitat [22]. Pong wetland offers a diverse array of habitat niches, contributing to the rich diversity of avifauna in the area.

- The IUCN conservation status of the documented avian species was assessed based on the Red List Categories established by IUCN. The findings showed the presence of 17 bird species in Pong Dam area which fall under various threat categories of IUCN and rest 208 species were Least Concerned. The threatened species include 2 vulture species (*Gyps bengalensis* and *Sarcogyps calvus*) recognized as Critically Endangered (CR), 3 avian species (*Neophron percnopterus*, *Aquila nipalensis* and *Sterna acuticauda*) included under Endangered category (EN), 3 bird species (*Aythya ferina*, *Grus antigone* and *Sterna aurantia*) categorized as Vulnerable (VU) and 9 bird species (*Anhinga melanogaster*, *Ciconia episcopus*, *Aythya nyroca*, *Gyps himalayensis*, *Vanellus vanellus*, *Vanellus duvaucelii*, *Numenius arquata*, *Esacus recurvirostris* and *Psittacula eupatria*) identified as Near Threatened (NT) (Table 1). In similar studies on the diversity and status of threatened avian species in Himachal Pradesh, Kumar compiled the avifauna of Himachal Pradesh and listed 618 avian species in the state. His documentation revealed that among the 618 species studied, 42 species (6.8%) were classified under threatened categories by the IUCN [23].
- Upon analysis of global population trends of the avian species, it was documented that 40 species (17.8%) had Increasing global population trend, 92 species (40.9%) had Stable trend whereas global population trend of 32 species (14.2%) were Unknown. Furthermore, an additional substantial portion of species viz. 61 avian species (27.1%), were documented to show Decreasing global population trend (Table 1). Bird species documented in the current study and exhibiting Decreasing population trend globally, comprise *Tachybaptus ruficollis*, *Ardea purpurea*, *Anser indicus*, *Anas poecilorhyncha*, *Anas acuta*, *Gallus gallus*, *Vanellus vanellus*, *Actitis hypoleucos*, *Philomachus pugnax*, *Streptopelia tranquebarica*, *Psittacula cyanocephala*, *Cuculus canorus*, *Upupa epops*, *Galerida cristata*, *Motacilla flava*, *Turdoides earlei*, *Certhia himalayana*, *Carpodacus erythrinus*, *Passer domesticus*, *Sturnus vulgaris*, *Dicrurus hottentottus*, and others. Further, all the 17 threatened species were recorded to show decreasing global population trends as per a report [24], stating that worldwide, 49% of the bird species have declining populations. Present study signifies the role of Pong wetland as crucial refuge and sustenance provider for many avifaunal species facing a global decreasing population trend. This emphasizes the crucial need to preserve and uphold the integrity of the habitat, creating a conducive environment for the well-being and conservation of these avian populations.

Table 1. Systematic list of avian fauna recorded in “Pong Dam Lake Wildlife Sanctuary”, from July 2021 to June 2023.

Sr. No.	Taxon and Common Name	IUCN Status	Global Population Trends
Order: Podicipediformes			
Family: Podicipedidae			
1.	<i>Tachybaptus ruficollis</i> : Little Grebe	LC	↓
2.	<i>Podiceps cristatus</i> : Great Crested Grebe	LC	?
3.	<i>Podiceps nigricollis</i> : Black-necked Grebe	LC	?
Order: Pelecaniformes			
Family: Phalacrocoracidae			
4.	<i>Phalacrocorax niger</i> : Little Cormorant	LC	?
5.	<i>Phalacrocorax carbo</i> : Great Cormorant	LC	↑
Family: Anhingidae			
6.	<i>Anhinga melanogaster</i> : Oriental Darter	NT	↓
Order: Ciconiiformes			
Family: Ardidae			
7.	<i>Egretta garzetta</i> : Little Egret	LC	↑
8.	<i>Ardea cinerea</i> : Grey Heron	LC	?
9.	<i>Ardea purpurea</i> : Purple Heron	LC	↓
10.	<i>Casmerodius albus</i> : Large Egret	LC	?
11.	<i>Mesophoyx intermedia</i> : Median Egret	LC	↓
12.	<i>Bubulcus ibis</i> : Cattle Egret	LC	↑
13.	<i>Ardeola grayii</i> : Indian Pond-Heron	LC	?
14.	<i>Nycticorax nycticorax</i> : Black-crowned Night-Heron	LC	↓
Family: Ciconiidae			
15.	<i>Mycteria leucocephala</i> : Painted Stork	LC	↑
16.	<i>Ciconia episcopus</i> : White-necked Stork	NT	↓
Family: Threskiornithidae			
17.	<i>Platalea leucorodia</i> : Eurasian Spoonbill	LC	?
Order: Anseriformes			
Family: Anatidae			
18.	<i>Anser anser</i> : Greylag Goose	LC	↑
19.	<i>Anser indicus</i> : Bar-headed Goose	LC	↓
20.	<i>Tadorna ferruginea</i> : Brahminy/Ruddy Shelduck	LC	?
21.	<i>Tadorna tadorna</i> : Common Shelduck	LC	↑
22.	<i>Anas strepera</i> : Gadwall	LC	↑
23.	<i>Anas Penelope</i> : Eurasian Wigeon	LC	↓
24.	<i>Anas platyrhynchos</i> : Mallard	LC	↑
25.	<i>Anas poecilorhyncha</i> : Spot-billed Duck	LC	↓
26.	<i>Anas clypeata</i> : Northern Shoveller	LC	↓
27.	<i>Anas acuta</i> : Northern Pintail	LC	↓
28.	<i>Anas querquedula</i> : Garganey	LC	↓
29.	<i>Anas crecca</i> : Common Teal	LC	?
30.	<i>Rhodonessa rufina</i> : Red-crested Pochard	LC	?
31.	<i>Aythya ferina</i> : Common Pochard	VU	↓
32.	<i>Aythya nyroca</i> : Ferruginous Pochard	NT	↓
33.	<i>Aythya fuligula</i> : Tufted Pochard	LC	→

34.	<i>Mergus merganser</i> : Common Merganser	LC	?
Order: Falconiformes			
Family: Accipitridae			
35.	<i>Elanus caeruleus</i> : Black-shouldered Kite	LC	→
36.	<i>Milvus migrans</i> : Black Kite	LC	→
37.	<i>Haliaeetus albicilla</i> : White-tailed Sea-Eagle	LC	↑
38.	<i>Neophron percnopterus</i> : Egyptian Vulture	EN	↓
39.	<i>Gyps bengalensis</i> : Indian White-backed Vulture	CR	↓
40.	<i>Gyps himalayensis</i> : Himalayan Griffon	NT	↓
41.	<i>Sarcogyps calvus</i> : Red-headed Vulture	CR	↓
42.	<i>Spilornis cheela</i> : Crested Serpent-Eagle	LC	→
43.	<i>Circus aeruginosus</i> : Western Marsh-Harrier	LC	→
44.	<i>Accipiter badius</i> : Shikra	LC	→
45.	<i>Butastur teesa</i> : White-eyed Buzzard	LC	→
46.	<i>Buteo rufinus</i> : Long-legged Buzzard	LC	→
47.	<i>Aquila nipalensis</i> : Steppe Eagle	EN	↓
Family: Pandionide			
48.	<i>Pandion haliaetus</i> : Osprey	LC	↑
Family: Falconidae			
49.	<i>Falco tinnunculus</i> : Common Kestrel	LC	↓
50.	<i>Falco peregrinus</i> : Peregrine Falcon	LC	↑
Order: Galliformes			
Family: Phasianidae			
51.	<i>Francolinus francolinus</i> : Black Francolin	LC	→
52.	<i>Francolinus pondicerianus</i> : Grey Francolin	LC	→
53.	<i>Perdica asiatica</i> : Jungle Bush-Quail	LC	→
54.	<i>Gallus gallus</i> : Red Junglefowl	LC	↓
55.	<i>Pavo cristatus</i> : Indian Peafowl	LC	→
Order: Gruiformes			
Family: Gruidae			
56.	<i>Grus Antigone</i> : Sarus Crane	VU	↓
Family: Rallidae			
57.	<i>Amaurornis akool</i> : Brown Crake	LC	?
58.	<i>Amaurornis phoenicurus</i> : White-breasted Waterhen	LC	?
59.	<i>Porphyrio porphyrio</i> : Purple Moorhen	LC	?
60.	<i>Gallinula chloropus</i> : Common Moorhen	LC	→
61.	<i>Fulica atra</i> : Common Coot	LC	↑
Order: Charadriiformes			
Family: Jacanidae			
62.	<i>Hydrophasianus chirurgus</i> : Pheasant-tailed Jacana	LC	↓
Family: Charadriidae			
63.	<i>Charadrius dubius</i> : Little Ringed Plover	LC	→
64.	<i>Charadrius alexandrinus</i> : Kentish Plover	LC	↓
65.	<i>Vanellus vanellus</i> : Northern Lapwing	NT	↓
66.	<i>Vanellus malabaricus</i> : Yellow-wattled Lapwing	LC	→
67.	<i>Vanellus duvaucelii</i> : River Lapwing	NT	↓
68.	<i>Vanellus indicus</i> : Red-wattled Lapwing	LC	?

	Family: Scolopacidae		
69.	<i>Gallinago gallinago</i> : Common Snipe	LC	↓
70.	<i>Numenius Arquata</i> : Eurasian Curlew	NT	↓
71.	<i>Tringa erythropus</i> : Spotted Redshank	LC	→
72.	<i>Tringa tetanus</i> : Common Redshank	LC	?
73.	<i>Tringa stagnatilis</i> : Marsh Sandpiper	LC	↓
74.	<i>Tringa nebularia</i> : Common Greenshank	LC	→
75.	<i>Tringa ochropus</i> : Green Sandpiper	LC	↑
76.	<i>Tringa glareola</i> : Wood Sandpiper	LC	→
77.	<i>Actitis hypoleucos</i> : Common Sandpiper	LC	↓
78.	<i>Calidris minuta</i> : Little Stint	LC	↑
79.	<i>Calidris temminckii</i> : Temminck's Stint	LC	?
80.	<i>Calidris alpina</i> : Dunlin	LC	↓
81.	<i>Philomachus pugnax</i> : Ruff	LC	↓
	Family: Recurvirostridae		
82.	<i>Himantopus Himantopus</i> : Black-winged Stilt	LC	↑
83.	<i>Recurvirostra avosetta</i> : Pied Avocet	LC	?
	Family: Burhinidae		
84.	<i>Burhinus oedicephalus</i> : Stone-Curlew	LC	↓
85.	<i>Esacus recurvirostris</i> : Great Stone-Plover	NT	↓
	Family: Glareolidae		
86.	<i>Glareola lactea</i> : Small Pratincole	LC	?
	Family: Laridae		
87.	<i>Larus cachinnans</i> : Yellow-legged Gull	LC	↑
88.	<i>Larus ichthyaetus</i> : Pallas's Gull	LC	↑
89.	<i>Larus brunnicephalus</i> : Brown-headed Gull	LC	→
90.	<i>Larus ridibundus</i> : Black-headed Gull	LC	?
91.	<i>Sterna aurantia</i> : River Tern	VU	↓
92.	<i>Sterna acuticauda</i> : Black-bellied Tern	EN	↓
93.	<i>Chlidonias hybridus</i> : Whiskered Tern	LC	→
	Order: Columbiformes		
	Family: Columbidae		
94.	<i>Columba livia</i> : Blue Rock Pigeon	LC	↓
95.	<i>Streptopelia orientalis</i> : Oriental Turtle-Dove	LC	→
96.	<i>Streptopelia senegalensis</i> : Little Brown Dove	LC	→
97.	<i>Streptopelia chinensis</i> : Spotted Dove	LC	↑
98.	<i>Streptopelia tranquebarica</i> : Red Collared-Dove	LC	↓
99.	<i>Streptopelia decaocto</i> : Eurasian Collared-Dove	LC	↑
100.	<i>Treron phoenicoptera</i> : Yellow-legged Green-Pigeon	LC	↑
	Order: Psittaciformes		
	Family: Psittacidae		
101.	<i>Psittacula eupatria</i> : Alexandrine Parakeet	NT	↓
102.	<i>Psittacula kramera</i> : Rose-ringed Parakeet	LC	↑
103.	<i>Psittacula himalayana</i> : Slaty-headed Parakeet	LC	→
104.	<i>Psittacula cyanocephala</i> : Plum-headed Parakeet	LC	↓
	Order: Cuculiformes		
	Family: Cuculidae		

105.	<i>Clamator jacobinus</i> : Pied Crested Cuckoo	LC	→
106.	<i>Hierococcyx varius</i> : Brainfever Bird	LC	→
107.	<i>Cuculus Micropterus</i> : Indian Cuckoo	LC	↓
108.	<i>Cuculus canorus</i> : Common Cuckoo	LC	↓
109.	<i>Eudynamys scolopacea</i> : Asian Koel	LC	→
110.	<i>Centropus sinensis</i> : Greater Coucal	LC	→
Order: Strigiformes			
Family: Strigidae			
111.	<i>Glaucidium cuculoides</i> : Asian Barred Owlet	LC	↑
112.	<i>Glaucidium radiatum</i> : Jungle Owlet	LC	→
113.	<i>Athene brama</i> : Spotted Owlet	LC	→
Order: Caprimulgiformes			
Family: Caprimulgidae			
114.	<i>Caprimulgus macrurus</i> : Large-tailed Nightjar	LC	→
Order: Apodiformes			
Family: Apodidae			
115.	<i>Collocalia brevirostris</i> : Himalayan Swiftlet	LC	→
116.	<i>Apus affinis</i> : House Swift	LC	↑
Order: Coraciiformes			
Family: Alcedinidae			
117.	<i>Alcedo atthis</i> : Small Blue Kingfisher	LC	?
118.	<i>Halcyon smyrnensis</i> : White-breasted Kingfisher	LC	↑
119.	<i>Ceryle rudis</i> : Lesser Pied Kingfisher	LC	?
Family: Meropidae			
120.	<i>Merops orientalis</i> : Small Bee-eater	LC	↑
121.	<i>Merops philippinus</i> : Blue-tailed Bee-eater	LC	→
Family: Coraciidae			
122.	<i>Coracias benghalensis</i> : Indian Roller	LC	↑
Family: Upupidae			
123.	<i>Upupa epops</i> : Common Hoopoe	LC	↓
Family: Bucerotidae			
124.	<i>Ocyrceros birostris</i> : Indian Grey Hornbill	LC	→
Order: Piciformes			
Family: Capitonidae			
125.	<i>Megalaima virens</i> : Great Barbet	LC	↓
126.	<i>Megalaima zeylanica</i> : Brown-headed Barbet	LC	→
127.	<i>Megalaima asiatica</i> : Blue-throated Barbet	LC	→
128.	<i>Megalaima haemacephala</i> : Coppermouth Barbet	LC	↑
Family: Picidae			
129.	<i>Jynx torquilla</i> : Eurasian Wryneck	LC	↓
130.	<i>Picumnus innominatus</i> : Speckled Piculet	LC	↓
131.	<i>Dendrocopos macei</i> : Fulvous-breasted Pied Woodpecker	LC	→
132.	<i>Dendrocopos mahrattensis</i> : Yellow-fronted Pied Woodpecker	LC	?
133.	<i>Picus xanthopygaeus</i> : Little Scaly-bellied Green Woodpecker	LC	?
134.	<i>Dinopium benghalense</i> : Lesser Golden-backed Woodpecker	LC	→
Order: Passeriformes			
Family: Alaudidae			

135.	<i>Calandrella raytal</i> : Indian Short-toed Lark	LC	→
136.	<i>Galerida cristata</i> : Common Crested Lark	LC	↓
137.	<i>Alauda gulgula</i> : Eastern Skylark	LC	↓
Family: Hirundinidae			
138.	<i>Riparia paludicola</i> : Plain Martin	LC	↓
139.	<i>Hirundo rupestris</i> : Eurasian Crag-Martin	LC	→
140.	<i>Hirundo rustica</i> : Common Swallow	LC	↓
141.	<i>Hirundo smithii</i> : Wire-tailed Swallow	LC	↑
142.	<i>Hirundo daurica</i> : Red-rumped Swallow	LC	→
143.	<i>Hirundo fluvicola</i> : Streak-throated Swallow	LC	↑
144.	<i>Delichon dasypus</i> : Asian House-Martin	LC	↑
Family: Motacillidae			
145.	<i>Motacilla alba</i> : White Wagtail	LC	→
146.	<i>Motacilla maderaspatensis</i> : Large Pied Wagtail	LC	→
147.	<i>Motacilla flava</i> : Yellow Wagtail	LC	↓
148.	<i>Motacilla cinerea</i> : Grey Wagtail	LC	→
149.	<i>Anthus rufulus</i> : Paddyfield Pipit	LC	→
Family: Campephagidae			
150.	<i>Pericrocotus cinnamomeus</i> : Small Minivet	LC	→
Family: Pycnonotidae			
151.	<i>Pycnonotus leucogenys</i> : Himalayan Bulbul	LC	↑
152.	<i>Pycnonotus cafer</i> : Red-vented Bulbul	LC	↑
153.	<i>Hypsipetes leucocephalus</i> : Black Bulbul	LC	→
Family: Irenidae			
154.	<i>Aegithina tiphia</i> : Common Iora	LC	?
Family: Laniidae			
155.	<i>Lanius vittatus</i> : Bay-backed Shrike	LC	→
156.	<i>Lanius Schach</i> : Rufous-backed Shrike	LC	?
Family: Muscicapidae			
Subfamily: Turdinae			
157.	<i>Monticola solitarius</i> : Blue Rock-Thrush	LC	→
158.	<i>Myiophonus caeruleus</i> : Blue Whistling-Thrush	LC	?
159.	<i>Turdus unicolor</i> : Tickell's Thrush	LC	?
160.	<i>Turdus ruficollis</i> : Dark-throated Thrush	LC	?
161.	<i>Luscinia pectoralis</i> : Himalayan Rubythroat	LC	→
162.	<i>Luscinia svecica</i> : Bluethroat	LC	→
163.	<i>Copsychus saularis</i> : Oriental Magpie-Robin	LC	→
164.	<i>Saxicoloides fulicata</i> : Indian Robin	LC	→
165.	<i>Phoenicurus ochruros</i> : Black Redstart	LC	↑
166.	<i>Chaimarrornis leucocephalus</i> : White-capped Redstart	LC	→
167.	<i>Rhyacornis fuliginosus</i> : Plumbeous Redstart	LC	→
168.	<i>Saxicola torquata</i> : Common Stonechat	LC	→
169.	<i>Saxicola caprata</i> : Pied Bushchat	LC	→
170.	<i>Saxicola ferrea</i> : Grey Bushchat	LC	→
171.	<i>Cercomela fusca</i> : Indian Chat	LC	→
Subfamily: Timaliinae			
172.	<i>Pellorneum ruficeps</i> : Spotted Babbler	LC	→

173.	<i>Pomatorhinus erythrogenys</i> : Rusty-cheeked Scimitar-Babbler	LC	→
174.	<i>Pomatorhinus schisticeps</i> : Hodgson's Scimitar-Babbler	LC	↓
175.	<i>Stachyris pyrrhops</i> : Black-chinned Babbler	LC	→
176.	<i>Chrysomma sinense</i> : Yellow-eyed Babbler	LC	→
177.	<i>Turdoides caudatus</i> : Common Babbler	LC	→
178.	<i>Turdoides earlei</i> : Striated Babbler	LC	↓
179.	<i>Turdoides striatus</i> : Jungle Babbler	LC	→
Subfamily: Sylviinae			
180.	<i>Prinia socialis</i> : Ashy Prinia	LC	→
181.	<i>Prinia inornata</i> : Plain Prinia	LC	→
182.	<i>Orthotomus sutorius</i> : Common Tailorbird	LC	→
183.	<i>Phylloscopus collybita</i> : Common Chiffchaff	LC	↑
184.	<i>Phylloscopus chloronotus</i> : Lemon-rumped Warbler	LC	→
185.	<i>Phylloscopus trochiloides</i> : Greenish Leaf-Warbler	LC	↑
186.	<i>Seicercus xanthoschistos</i> : Grey-headed Flycatcher-Warbler	LC	→
187.	<i>Megalurus palustris</i> : Striated Marsh-Warbler	LC	?
188.	<i>Sylvia curruca</i> : Common Lesser Whitethroat	LC	→
Subfamily: Muscicapinae			
189.	<i>Ficedula tricolor</i> : Slaty-blue Flycatcher	LC	→
190.	<i>Eumyias thalassina</i> : Verditer Flycatcher	LC	→
191.	<i>Culicicapa ceylonensis</i> : Grey-headed Flycatcher	LC	→
Subfamily: Monarchinae			
192.	<i>Terpsiphone paradisi</i> : Asian Paradise-Flycatcher	LC	→
Subfamily: Rhipidurinae			
193.	<i>Rhipidura hypoxantha</i> : Yellow-bellied Fantail-Flycatcher	LC	→
194.	<i>Rhipidura albicollis</i> : White-throated Fantail-Flycatcher	LC	→
195.	<i>Rhipidura aureola</i> : White-browed Fantail-Flycatcher	LC	→
Family: Paridae			
196.	<i>Parus major</i> : Great Tit	LC	↑
Family: Sittidae			
197.	<i>Tichodroma muraria</i> : Wallcreeper	LC	→
Family: Certhiidae			
198.	<i>Certhia himalayana</i> : Bar-tailed Treecreeper	LC	↓
Family: Nectariniidae			
199.	<i>Nectarinia asiatica</i> : Purple Sunbird	LC	→
200.	<i>Aethopyga siparaja</i> : Crimson Sunbird	LC	→
Family: Zosteropidae			
201.	<i>Zosterops palpebrosus</i> : Oriental White-eye	LC	↓
Family: Emberizidae			
Subfamily: Emberizinae			
202.	<i>Melophus lathami</i> : Crested Bunting	LC	→
203.	<i>Emberiza cia</i> : Rock Bunting	LC	↑
Family: Fringillidae			
204.	<i>Serinus pusillus</i> : Fire-fronted Serin	LC	→
205.	<i>Carduelis spinoides</i> : Yellow-breasted Greenfinch	LC	→
206.	<i>Carpodacus erythrinus</i> : Common Rosefinch	LC	↓
Family: Estrildidae			

207.	<i>Amandava amandava</i> : Red Munia	LC	→
208.	<i>Lonchura punctulata</i> : Spotted Munia	LC	→
Family: Passeridae			
Subfamily: Passerinae			
209.	<i>Passer domesticus</i> : House Sparrow	LC	↓
210.	<i>Passer rutilans</i> : Cinnamon Tree Sparrow	LC	→
211.	<i>Petronia xanthocollis</i> : Yellow-throated Sparrow	LC	→
Subfamily: Ploceinae			
212.	<i>Ploceus philippinus</i> : Baya Weaver	LC	→
Family: Sturnidae			
213.	<i>Sturnus pagodarum</i> : Brahminy Starling	LC	?
214.	<i>Sturnus vulgaris</i> : Common Starling	LC	↓
215.	<i>Sturnus contra</i> : Asian Pied Starling	LC	↑
216.	<i>Acridotheres tristis</i> : Common Myna	LC	↑
217.	<i>Acridotheres ginginianus</i> : Bank Myna	LC	↑
218.	<i>Acridotheres fuscus</i> : Jungle Myna	LC	↓
Family: Oriolidae			
219.	<i>Oriolus oriolus</i> : Eurasian Golden Oriole	LC	→
Family: Dicruridae			
220.	<i>Dicrurus macrocercus</i> : Black Drongo	LC	?
221.	<i>Dicrurus hottentottus</i> : Spangled Drongo	LC	↓
Family: Corvidae			
222.	<i>Urocissa erythrorhyncha</i> : Red-billed Blue Magpie	LC	→
223.	<i>Dendrocitta vagabunda</i> : Indian Treepie	LC	↓
224.	<i>Corvus splendens</i> : House Crow	LC	→
225.	<i>Corvus macrorhynchos</i> : Jungle Crow	LC	→

Note: Conservation status: LC – Least Concern; NT, near threatened; VU – Vulnerable; EN – Endangered. Population trends: ↑ – Increasing; ↓ – Decreasing; → – Stable; ? – Unknown.

CONCLUSION

A comprehensive and meticulous investigation into the avifaunal diversity of the Pong Dam Lake Wildlife Sanctuary indicated the existence of 225 bird species distributed across 150 avian genera, 54 avian families, and 17 avian orders. The present study has identified 17 threatened species in the Pong wetland area, encompassing 2 vulture species (*Gyps bengalensis* and *Sarcogyps calvus*), both classified as Critically Endangered. The study revealed that 27% of the recorded species, totalling 61 avian species, are experiencing a decline in global population trends. This underscores the critical importance of conserving diverse habitat types within Pong Dam Lake wetland. The most urgent concerns are the degradation of the wetland ecosystem and human-wildlife conflicts, posing a significant threat to biodiversity that demands immediate attention. The combined effect of various stress factors, poses a substantial risk to the ecological equilibrium and overall well-being of the studied wetland, consequently impacting the avifauna in the area. There is the necessity for conscientious and responsible engagement from all stakeholders to ensure the conservation of precious bird diversity in Pong Dam Lake Wildlife Sanctuary.

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