

Conservation status of flora and fauna in Hirakud Reservoir and Mahanadi River (Source: IMP Hirakud)

Biodiversity	Group	No. of Species	Source	Status						
				CR	EN	VU	NT	LC	DD	NE
Flora	Phytoplankton	39	Dash et al., 1993							39
	Periphyton	36	Pathak et al., 2007							36
	Macrophytes	34	Pathak et al., 2007					22		12
Fauna	Zooplankton	45	Pathak et al., 2007							45
	Molluscs	35	Pathak et al., 2007							35
	Insects	25	Pathak et al., 2007							25
	Pisces	54	CIFT (ca 1995) and Sugunan, 1995		1		6		39	8
	Amphibians	10	Dash and Mahanta, 1993					10		
	Reptiles	7	Rufford Foundation for Nature Conservation, 2005	1	1	2		3		
	Aves	130	AWC Records and Nair et al., 2014		2	8	10	109		1

CR-Critically Endangered; EN-Endangered; VU-Vulnerable; NT-Near Threatened; DD-Data Deficient; LC- Least Concern; NE-NotEvaluated

Bird species recorded at Hirakud Reservoir

(Source: AWC Records and Nair et al., 2014)

Sl. No.	Species	Common Name	Family	IUCN Status	Population Trend
1	<i>Milvus migrans</i> (Boddaert, 1783)	Black Kite	Accipitridae	LC	Unknown
2	<i>Haliastur indus</i> (Boddaert, 1783)	Brahminy Kite	Accipitridae	LC	Decreasing
3	<i>Circus melanoleucos</i> (Pennant, 1769)	Pied Harrier	Accipitridae	LC	Decreasing
4	<i>Circus aeruginosus</i> (Linnaeus, 1758)	Western Marsh-Harrier	Accipitridae	LC	Increasing
5	<i>Haliaeetus leucogaster</i> (Gmelin, 1788)	White-bellied Sea-eagle	Accipitridae	LC	Decreasing
6	<i>Clanga clanga</i> (Pallas, 1811)	Greater Spotted Eagle	Accipitridae	VU	Decreasing
7	<i>Clanga hastata</i> (Lesson, 1831)	Indian Spotted Eagle	Accipitridae	VU	Decreasing
8	<i>Haliaeetus leucoryphus</i> (Pallas, 1771)	Pallas's Fish-Eagle	Accipitridae	VU	Decreasing
9	<i>Circus macrourus</i> (Gmelin, 1770)	Pallid Harrier	Accipitridae	NT	Decreasing
10	<i>Alcedo atthis</i> (Linnaeus, 1758)	Common Kingfisher	Alcedinidae	LC	Unknown
11	<i>Ceryle rudis</i> (Linnaeus, 1758)	Pied Kingfisher	Alcedinidae	LC	Unknown
12	<i>Halcyon smyrnensis</i> (Linnaeus, 1758)	White-throated Kingfisher	Alcedinidae	LC	Increasing
13	<i>Pelargopsis capensis</i> (Linnaeus, 1766)	Stork-billed Kingfisher	Alcedinidae	LC	Decreasing
14	<i>Anser indicus</i> (Latham, 1790)	Bar-headed Goose	Anatidae	LC	Decreasing
15	<i>Sarkidiornis melanotos</i> (Pennant, 1769)	Comb Duck	Anatidae	LC	Decreasing
16	<i>Aythya ferina</i> (Linnaeus, 1758)	Common Pochard	Anatidae	LC	Decreasing
17	<i>Tadorna tadorna</i> (Linnaeus, 1758)	Common Shelduck	Anatidae	LC	Increasing
18	<i>Anas crecca</i> Linnaeus, 1758	Common Teal	Anatidae	LC	Unknown
19	<i>Nettapus coromandelianus</i> (Gmelin, 1789)	Cotton Pygmy-goose	Anatidae	LC	Stable
20	<i>Mareca penelope</i> (Linnaeus, 1758)	Eurasian Wigeon	Anatidae	LC	Decreasing
21	<i>Aythya nyroca</i> (Güldenstädt, 1770)	Ferruginous Duck	Anatidae	NT	Decreasing
22	<i>Dendrocygna bicolor</i> (Vieillot, 1816)	Fulvous Whistling-duck	Anatidae	LC	Decreasing
23	<i>Mareca strepera</i> (Linnaeus, 1758)	Gadwall	Anatidae	LC	Unknown
24	<i>Spatula querquedula</i> (Linnaeus, 1758)	Garganey	Anatidae	LC	Decreasing

25	<i>Anser anser</i> (Linnaeus, 1758)	Greylag Goose	Anatidae	LC	Increasing
26	<i>Dendrocygna javanica</i> (Horsfield, 1821)	Lesser Whistling-duck	Anatidae	LC	Decreasing
27	<i>Anas platyrhynchos</i> Linnaeus, 1758	Mallard	Anatidae	LC	Decreasing
28	<i>Marmaronetta angustirostris</i> (Ménétriés, 1832)	Marbled Teal	Anatidae	VU	Decreasing
29	<i>Anas acuta</i> Linnaeus, 1758	Northern Pintail	Anatidae	LC	Decreasing
30	<i>Spatula clypeata</i> (Linnaeus, 1758)	Northern Shoveler	Anatidae	LC	Decreasing
31	<i>Netta rufina</i> (Pallas, 1773)	Red-crested Pochard	Anatidae	LC	Unknown

Sl. No.	Species	Common Name	Family	IUCN Status	Population Trend
32	<i>Tadorna ferruginea</i> (Pallas, 1764)	Ruddy Shelduck	Anatidae	LC	Unknown
33	<i>Aythya fuligula</i> (Linnaeus, 1758)	Tufted Duck	Anatidae	LC	Stable
34	<i>Anas poecilorhyncha</i> Forster, 1781	Indian Spot-billed Duck	Anatidae	LC	Decreasing
35	<i>Asarcornis scutulata</i> (S. Müller, 1842)	White-winged Duck	Anatidae	EN	Decreasing
36	<i>Anhinga melanogaster</i> Pennant, 1769	Oriental Darter	Anhingiidae	NT	Decreasing
37	<i>Ixobrychus flavicollis</i> (Latham, 1790)	Black Bittern	Ardeidae	LC	Decreasing
38	<i>Nycticorax nycticorax</i> (Linnaeus, 1758)	Black-crowned Night-Heron	Ardeidae	LC	Decreasing
39	<i>Bubulcus ibis</i> (Linnaeus, 1758)	Cattle Egret	Ardeidae	LC	Increasing
40	<i>Casmerodius albus</i> (Linnaeus, 1758)	Great Egret	Ardeidae	LC	Unknown
41	<i>Ardea cinerea</i> Linnaeus, 1758	Grey Heron	Ardeidae	LC	Unknown
42	<i>Ardeola grayii</i> (Sykes, 1832)	Indian Pond-heron	Ardeidae	LC	Unknown
43	<i>Ardea intermedia</i> Wagler, 1829	Intermediate Egret	Ardeidae	LC	Decreasing
44	<i>Egretta garzetta</i> (Linnaeus, 1766)	Little Egret	Ardeidae	LC	Increasing
45	<i>Ardea purpurea</i> Linnaeus, 1766	Purple Heron	Ardeidae	LC	Decreasing
46	<i>Ixobrychus cinnamomeus</i> (Gmelin, 1789)	Cinnamon Bittern	Ardeidae	LC	Stable
47	<i>Botaurus stellaris</i> (Linnaeus, 1758)	Great Bittern	Ardeidae	LC	Decreasing
48	<i>Ixobrychus sinensis</i> (Gmelin, 1789)	Yellow Bittern	Ardeidae	LC	Unknown
49	<i>Charadrius alexandrinus</i> Linnaeus, 1758	Kentish Plover	Charadriidae	LC	Decreasing
50	<i>Vanellus indicus</i> (Boddaert, 1783)	Red-wattled Lapwing	Charadriidae	LC	Unknown
51	<i>Vanellus malarbaricus</i> (Boddaert, 1783)	Yellow-wattled Lapwing	Charadriidae	LC	Stable
52	<i>Pluvialis squatarola</i> (Linnaeus, 1758)	Grey Plover	Charadriidae	LC	Decreasing
53	<i>Charadrius dubius</i> Scopoli, 1786	Little Ringed Plover	Charadriidae	LC	Stable
54	<i>Pluvialis fulva</i> (Gmelin, 1789)	Pacific Golden Plover	Charadriidae	LC	Decreasing
55	<i>Vanellus duvaucelii</i> (Lesson, 1826)	River Lapwing	Charadriidae	NT	Unknown
56	<i>Anastomus oscitans</i> (Boddaert, 1783)	Asian Openbill	Ciconiidae	LC	Unknown
57	<i>Ciconia ciconia</i> (Linnaeus, 1758)	White Stork	Ciconiidae	LC	Increasing
58	<i>Ciconia episcopus</i> (Boddaert, 1783)	Woolly-necked Stork	Ciconiidae	VU	Decreasing
59	<i>Leptoptilos javanicus</i> (Horsfield, 1821)	Lesser Adjutant	Ciconiidae	VU	Decreasing
60	<i>Mycteria leucocephala</i> (Pennant, 1769)	Painted Stork	Ciconiidae	NT	Decreasing
61	<i>Cisticola juncidis</i> (Rafinesque, 1810)	Zitting Cisticola	Cisticolidae	LC	Increasing
62	<i>Columba livia</i> Gmelin, 1789	Rock Pigeon	Columbidae	LC	Decreasing
63	<i>Corvus levaillantii</i> Lesson, 1831	Jungle Crow	Corvidae	LC	Stable
64	<i>Centropus sinensis</i> (Stephens, 1815)	Greater Coucal	Cuculidae	LC	Stable
65	<i>Falco ruficollis</i> Swainson, 1837	Red-necked Falcon	Falconidae	LC	Decreasing
66	<i>Falco peregrinus</i> Tunstall, 1771	Peregrine falcon	Falconidae	LC	Stable
67	<i>Glareola maldivarum</i> Forster, 1795	Oriental Pratincole	Glareolidae	LC	Decreasing

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68	<i>Glareola lactea</i> Temminck, 1820	Small Pratincole	Glareolidae	LC	Unknown
69	<i>Grus nigricollis</i> Przevalski, 1876	Black-necked Crane	Gruidae	VU	Decreasing
70	<i>Grus grus</i> (Linnaeus, 1758)	Common Crane	Gruidae	LC	Unknown
71	<i>Hirundo rustica</i> Linnaeus, 1758	Barn Swallow	Hirundinidae	LC	Decreasing
72	<i>Riparia chinensis</i> (J. E. Gray, 1830)	Grey-throated Sand Martin	Hirundinidae	NE	
73	<i>Hirundo daurica</i> Linnaeus, 1771	Red-rumped Swallow	Hirundinidae	LC	Stable
74	<i>Hirundo fluvicola</i> Blyth, 1855	Streak-throated Swallow	Hirundinidae	LC	Increasing
75	<i>Hirundo smithii</i> Leach, 1818	Wire-tailed Swallow	Hirundinidae	LC	Increasing
76	<i>Metopidius indicus</i> (Latham, 1790)	Bronze-winged Jacana	Jacanidae	LC	Unknown
77	<i>Hydrophasianus chirurgus</i> (Scopoli, 1786)	Pheasant-tailed Jacana	Jacanidae	LC	Decreasing
78	<i>Larus ridibundus</i> Linnaeus, 1766	Black-headed Gull	Laridae	LC	Decreasing
79	<i>Larus brunnicephalus</i> Jerdon, 1840	Brown-headed Gull	Laridae	LC	Stable
80	<i>Larus cachinnans</i> Pallas, 1811	Caspian/Heuglin's Gull	Laridae	LC	Stable
81	<i>Larus marinus</i> Linnaeus, 1758	Greater Black-backed Gull	Laridae	LC	Increasing
82	<i>Gelochelidon nilotica</i> (Gmelin, 1789)	Gull-billed Tern	Laridae	LC	Decreasing
83	<i>Larus fuscus</i> Linnaeus, 1758	Lesser Black-backed Gull	Laridae	LC	Increasing
84	<i>Hydrocoloeus minutus</i> Pallas, 1776	Little Gull	Laridae	LC	Increasing
85	<i>Sternula albifrons</i> (Pallas, 1764)	Little Tern	Laridae	LC	Decreasing
86	<i>Larus ichthyaetus</i> Pallas, 1773	Pallas's Gull	Laridae	LC	Decreasing
87	<i>Sterna aurantia</i> Gray, 1831	River Tern	Laridae	NT	Decreasing
88	<i>Chlidonias hybrida</i> (Pallas, 1811)	Whiskered Tern	Laridae	LC	Stable
89	<i>Sterna acuticauda</i> Gray, 1832	Black-bellied Tern	Laridae	EN	Decreasing
90	<i>Rynchops albicollis</i> Swainson, 1838	Indian Skimmer	Laridae	VU	Decreasing
91	<i>Merops orientalis</i> Latham, 1802	Little Green Bee-eater	Meropidae	LC	Increasing
92	<i>Motacilla citreola</i> Pallas, 1776	Citrine Wagtail	Motacillidae	LC	Stable
93	<i>Motacilla cinerea</i> Tunstall, 1771	Grey Wagtail	Motacillidae	LC	Stable
94	<i>Anthus rufulus</i> Vieillot, 1818	Paddyfield Pipit	Motacillidae	LC	Stable
95	<i>Motacilla alba</i> Linnaeus, 1758	White Wagtail	Motacillidae	LC	Stable
96	<i>Motacilla madaraspatensis</i> Gmelin, 1789	White-browed Wagtail	Motacillidae	LC	Stable
97	<i>Motacilla flava</i> Linnaeus, 1758	Yellow Wagtail	Motacillidae	LC	Decreasing
98	<i>Pandion haliaetus</i> (Linnaeus, 1758)	Osprey	Pandionidae	LC	Increasing
99	<i>Pelecanus philippensis</i> Gmelin, 1789	Spot-billed Pelican	Pelecanidae	NT	Decreasing
100	<i>Phalacrocorax carbo</i> (Linnaeus, 1758)	Great Cormorant	Phalacrocoracidae	LC	Increasing
101	<i>Phalacrocorax fuscicollis</i> Stephens, 1826	Indian Cormorant	Phalacrocoracidae	LC	Unknown
102	<i>Microcarbo niger</i> (Vieillot, 1817)	Little Cormorant	Phalacrocoracidae	LC	Unknown
103	<i>Podiceps cristatus</i> (Linnaeus, 1758)	Great Crested Grebe	Podicipedidae	LC	Unknown

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104	<i>Tachybaptus ruficollis</i> (Pallas, 1764)	Little Grebe	Podicipedidae	LC	Decreasing
105	<i>Podiceps nigricollis</i> Brehm, 1831	Black-necked Grebe	Podicipedidae	LC	Unknown
106	<i>Fulica atra</i> Linnaeus, 1758	Common Coot	Rallidae	LC	Decreasing
107	<i>Gallinula chloropus</i> (Linnaeus, 1758)	Common Moorhen	Rallidae	LC	Stable
108	<i>Porphyrio porphyrio</i> (Linnaeus, 1758)	Purple Swampphen	Rallidae	LC	Unknown
109	<i>Amaurornis phoenicurus</i> (Pennant, 1769)	White-breasted Waterhen	Rallidae	LC	Unknown
110	<i>Zapornia pusilla</i> (Pallas, 1776)	Baillon's Crake	Rallidae	LC	Unknown
111	<i>Zapornia fusca</i> (Linnaeus, 1766)	Ruddy-breasted Crake	Rallidae	LC	Decreasing
112	<i>Gallinula cinerea</i> (Gmelin, 1789)	Watercock	Rallidae	LC	Decreasing
113	<i>Himantopus himantopus</i> (Linnaeus, 1758)	Black-winged Stilt	Recurvirostridae	LC	Increasing
114	<i>Rostratula benghalensis</i> (Linnaeus, 1758)	Greater Painted-snipe	Rostratulidae	LC	Decreasing
115	<i>Tringa nebularia</i> (Gunnerus, 1767)	Common Greenshank	Scolopacidae	LC	Stable
116	<i>Actitis hypoleucos</i> Linnaeus, 1758	Common Sandpiper	Scolopacidae	LC	Decreasing
117	<i>Calidris minuta</i> (Leisler, 1812)	Little Stint	Scolopacidae	LC	Decreasing
118	<i>Tringa stagnatilis</i> (Bechstein, 1803)	Marsh Sandpiper	Scolopacidae	LC	Decreasing
119	<i>Tringa glareola</i> Linnaeus, 1758	Wood Sandpiper	Scolopacidae	LC	Stable
120	<i>Limosa limosa</i> (Linnaeus, 1758)	Black-tailed Godwit	Scolopacidae	NT	Decreasing
121	<i>Tringa totanus</i> (Linnaeus, 1758)	Common Redshank	Scolopacidae	LC	Unknown
122	<i>Gallinago gallinago</i> (Linnaeus, 1758)	Common Snipe	Scolopacidae	LC	Decreasing
123	<i>Calidris ferruginea</i> (Pontoppidan, 1763)	Curlew Sandpiper	Scolopacidae	LC	Increasing
124	<i>Numenius arquata</i> (Linnaeus, 1758)	Eurasian Curlew	Scolopacidae	NT	Decreasing
125	<i>Tringa ochropus</i> Linnaeus, 1758	Green Sandpiper	Scolopacidae	LC	Stable
126	<i>Calidris temminckii</i> (Leisler, 1812)	Temminck's Stint	Scolopacidae	LC	Unknown
127	<i>Ketupa zeylonensis</i> (Gmelin, 1788)	Brown Fish-Owl	Strigidae	LC	Decreasing
128	<i>Threskiornis melanocephalus</i> (Latham, 1790)	Black-headed Ibis	Threskiornithidae	NT	Decreasing
129	<i>Pseudibis papillosa</i> (Temminck, 1824)	Red-naped Ibis	Threskiornithidae	LC	Decreasing
130	<i>Plegadis falcinellus</i> (Linnaeus, 1766)	Glossy Ibis	Threskiornithidae	LC	Decreasing

Fish species recorded in Hirakud Reservoir
(Source: CIFT (ca 1995) and Sugunan 1995)

Ambassidae

- 1 *Chanda nama* Hamilton, 1822

Bagridae

- 2 *Sperata seenghala* (Sykes, 1839)
- 3 *Sperata aor* (Hamilton, 1822)
- 4 *Mystus gulio* (Hamilton, 1822)
- 5 *Rita chrysea* Day, 1877
- 6 *Mystus tengra* (Hamilton, 1822)
- 7 *Mystus cavasius* (Hamilton, 1822)

Belontiidae

- 8 *Xenentodon cancila* (Hamilton, 1822)

Channidae

- 9 *Channa striata* (Bloch, 1793)
- 10 *Channa marulius* (Hamilton, 1822)
- 11 *Channa punctata* (Bloch, 1793)
- 12 *Channa gachua* (Hamilton 1822)

Cichlidae

- 13 *Oreochromis niloticus* (Linnaeus, 1758)

Clariidae

- 14 *Clarias batrachus* (Linnaeus, 1758)

Clupeidae

- 15 *Gudusia chapra* (Hamilton, 1822)

Cyprinidae

- 16 *Catla catla* (Hamilton, 1822)
- 17 *Labeo fimbriatus* (Bloch, 1795)
- 18 *Labeo calbasu* (Hamilton, 1822)
- 19 *Labeo rohita* (Hamilton, 1822)
- 20 *Labeo gonius* (Hamilton, 1822)
- 21 *Labeo bata* (Hamilton, 1822)
- 22 *Cirrhinus mrigala* (Hamilton, 1822)
- 23 *Cirrhina reba* (Hamilton, 1822)
- 24 *Tor tor* (Hamilton, 1822)
- 25 *Systemus sarana* (Hamilton, 1822)
- 26 *Osteobrama cotio cunma* (Day, 1888)
- 27 *Salmophasia bacaila* (Hamilton, 1822)
- 28 *Puntius sophore* (Hamilton, 1822)
- 29 *Puntius ticto* (Hamilton, 1822)

- 30 *Puntius chola* (Hamilton, 1822)
- 31 *Puntius dorsalis* (Jerdon, 1849)
- 32 *Esomus danrica* (Hamilton, 1822)
- 33 *Rasbora daniconius* (Hamilton, 1822)
- 34 *Amblypharyngodon mola* (Hamilton, 1822)
- 35 *Tor mosal mahanadicus* (non David, 1953)

Gobiidae

- 36 *Glossogobius giuris* (Hamilton, 1822)

Heteropneustidae

- 37 *Heteropneustes fossilis* (Bloch, 1794)

Mastacembelidae

- 38 *Mastacembelus armatus* (Lacepède, 1800)
- 39 *Mastacembelus pancalus* (Hamilton, 1822)

Mugilidae

- 40 *Rhinomugil corsula* (Hamilton, 1822)

Nandidae

- 41 *Nandus nandus* (Hamilton, 1822)

Notopteridae

- 42 *Notopterus notopterus* (Pallas, 1769)
- 43 *Notopterus chitala* (Hamilton 1822)

Palaemonidae

- 44 *Macrobrachium malcolmsonii* Johnson, 1973

Pangasiidae

- 45 *Pangasius pangasius* (Hamilton, 1822)
- 46 *Pangasius sutchi* Fowler, 1937

Schilbeidae

- 47 *Silonia silondia* (Hamilton, 1822)
- 48 *Eutropiichthys vacha* (Hamilton, 1822)
- 49 *Ailia coila* (Hamilton, 1822)

Sciaenidae

- 50 *Otolithoides pama* (Hamilton, 1822)

Siluridae

- 51 *Wallago attu* (Bloch & Schneider, 1801)
- 52 *Ompok bimaculatus* (Bloch, 1794)
- 53 *Ompok pabda* (Hamilton, 1822)

Sisoridae

- 54 *Bagarius bagarius* (Hamilton, 1822)

Phytoplankton recorded in Hirakud Reservoir
(Source: Dash et al., 1993)

Bacillariophyceae

Amphipleuraceae

1 *Frustulia* sp.

Bacillariaceae

2 *Nitzschia* sp.

Catenulaceae

3 *Amphora* sp.

Cymbellaceae

4 *Cymbella* sp.

Naviculaceae

5 *Navicula* sp.

6 *Gyrosigma* sp.

Fragilariaceae

7 *Fragilaria* sp.

Hydrodictyaceae

8 *Pediastrum* sp.

Melosiraceae

9 *Melosira* sp.

10 *Melosira ambigua*

Stephanodiscaceae

11 *Cyclotella* sp.

Surirellaceae

12 *Surirella* sp.

Tabellariaceae

13 *Diatoma elongata*

Ulnariaceae

14 *Synendra ulna*

Chlorophyceae

Chlamydomonadaceae

15 *Chlamydomonas globosa*

Chlorellaceae

16 *Chlorella vulgaris*

17 *Actinastrum* sp.

Coccomyxaceae

18 *Dispora cuneiformis*

Scenedesmaceae

19 *Scenedesmus* sp.

Selenastraceae

20 *Ankistrodesmus falcatus*

21 *Kirchneriella* sp.

Trebouxiophyceae

22 *Crucigenia* sp.

Volvocaceae

23 *Pandorina* sp.

24 *Eudorina* sp.

Zygnemataceae

25 *Spirogyra* sp.

Cyanophyceae

Chroococcaceae

26 *Microcystis* sp.

27 *Merismopedia glauca* (Ehr.) Naegeli

28 *Synechococcus* sp.

Nostocaceae

29 *Anaebaena orientalis*

30 *Anaebaena* sp.

31 *Nostoc* sp.

Oscillatoriaceae

32 *Oscillatoria amoena* Gomont

33 *Oscillatoria orientalis*

34 *Oscillatoria simplicissima*

35 *Phormidium* sp.

36 *Arthrospira* sp.

37 *Spirulina* sp.

Euglenophyceae

Euglenaceae

38 *Euglena* sp.

Phacaceae

39 *Phacus* sp.